

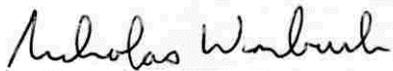
Planning and Environment Act 1987
Advisory Committee Final Report
Major Hazard Facilities

19 July 2016

Planning and Environment Act 1987

Advisory Committee Final Report pursuant to Section 151 of the Act
Major Hazard Facilities

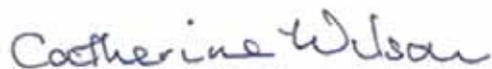
19 July 2016



Nick Wimbush, Chair



Chris Harty, Member



Catherine Wilson, Member

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List of Abbreviations

AEO	Airport Environs Overlay
ALARP	As low as reasonably practicable
APA	APA VTS Australia (Operations) Pty Ltd
APGA	Australian Pipelines and Gas Association
AS2885	Australian Standard AS2885 <i>Pipelines—Gas and liquid petroleum</i> , (2012)
BMO	Bushfire Management Overlay
BPEM	Best Practice Environmental Management Guidelines
CFA	Country Fire Authority
DEDJTR	Department of Economic Development, Jobs, Transport and Resources – Earth Resources Division
DELWP	Department of Environment, Land, Water and Planning
DPO	Development Plan Overlay
EPA	Environment Protection Authority
ESO	Environmental Significance Overlay
ESV	Energy Safe Victoria
HIPAPS	Hazardous Industry Planning Advisory Papers (NSW)
HSE	Health and Safety Executive (UK)
IN1Z	Industrial 1 Zone
IN3Z	Industrial 3 Zone
IPAA/OPAA	Inner/Outer Planning Advisory Area(s)
IRAE Guidelines	<i>Recommended separation distances for industrial residual air emissions Guidelines</i> , EPA 2013
LBSP	Local Buffer Support Program
LDAP	Land Development Around Pipelines Working Group
LPPF	Local Planning Policy Framework
MAEO	Melbourne Airport Environs Overlay
MHF	Major Hazard Facility/Facilities
MPA	Metropolitan Planning Authority
MSS	Municipal Strategic Statement
MWRRG	Metropolitan Waste and Resource Recovery Group

NIRV	Noise from Industry in Regional Victoria guidelines
NRZ	Neighbourhood Residential Zone
OHSR	Occupational Health and Safety Regulations 2007
PADHI	Planning Advice for Developments Near Hazardous Installations (UK)
PPN	Planning Practice Note
SEPP (AQM)	State Environment Protection Policy (Air Quality Management)
SEPP N-1	State Environment Protection Policy (Control of Noise from Industry, Commerce and Trade) N-1
SPPF	State Planning Policy Framework
SUZ	Special Use Zone
UDIA	Urban Development Institute of Australia
VCAT	Victorian Civil and Administrative Tribunal
VPP	Victoria Planning Provisions
VWIA	Victorian Water Industry Association
WAGP	Western Altona Geelong Pipeline
WorkSafe	WorkSafe Victoria, the trading name of the Victorian WorkCover Authority

Executive Summary

(i) Summary

The Major Hazard Facilities Advisory Committee (the Committee) was appointed by the Minister for Planning on 4 October 2015 under Section 151 of the *Planning and Environment Act 1987*.

The Committee's Terms of Reference (attached at Appendix A) state that the Committee has the following purpose with regards to Major Hazard Facilities (MHF):

... to provide advice to the Minister for Planning about improvements to land use planning for areas surrounding major hazard Facilities (MHF), in order to better manage the interface areas between existing and new development and land used for MHF.

The Committee was further tasked with making recommendations on issues to be addressed for each of Victoria's 40 registered MHF, along with principles about how the land use planning system can assist in managing risks and any adverse impacts. The principles for applying land use buffers more broadly to other uses with adverse amenity potential were also to be addressed by the Committee.

Whilst not explicitly referenced in the Terms of Reference, it was brought to the Committee's attention that similar to MHF there are planning issues regarding risk and safety in the vicinity of high pressure pipelines. Because of this the Committee has extended its consideration to how planning can better protect these and the communities in their vicinity.

The Committee undertook a consultation process which included early consultation with nominated parties, the development and release of a Discussion Paper for public comment, the holding of Hearings to hear verbal submissions and a workshop on some key issues. Twenty four submissions were received in response to the Committee's initial invitation and then a further 78 in response to the Discussion Paper.

Submissions were received from government departments; local Councils; industry groups and individual companies; private developers; community groups; and individual submitters. A list of submitters is attached in Appendices B and C.

Issues raised in submissions included:

- The role of planning in identifying buffers around MHF, including the role of government agencies
- Whether there should be definitions of sensitive uses and MHF in planning schemes
- Notification of neighbours near MHF
- Risk to community and safety
- The basis for determining appropriate buffers and separation distances
- Appropriate use of planning tools including zones, overlays and particular provisions
- Amenity issues and clause 52.10
- Buffer requirements around high pressure gas and petroleum pipelines.

(ii) Response to Terms of Reference

The Committee's responses to the key issues in the Terms of Reference are outlined in Table 1. Essentially in relation to MHF, the Committee recommends that in addition to improving State policy, the planning advisory area approach developed by WorkSafe be extended on a priority basis to other MHF, and then implemented in planning schemes through the application of the Environmental Significance Overlay and schedules. The Committee has identified an initial list of 15 MHF that should be considered first.

Table 1 Response to Terms of Reference

Issue	Committee consideration	Chapter
Issues and challenges for Victoria's land use planning framework in protecting the safety and amenity surrounding MHF and ensuring the ongoing viability of MHF.	The Committee considers the challenge is primarily about getting the policy settings right between MHF and the most productive use of surrounding land. The Committee considers that State policy could be clearer in this area and has recommended accordingly.	3
The role of the land use planning system in mitigating adverse impacts of MHF and adverse impacts of urban growth and renewal on MHF.	Land use planning clearly has a role in providing the framework for how our cities and communities work in a spatial sense. In relation to MHF this includes ensuring that there are clear buffers and separation distances between incompatible uses; whilst the regulatory framework through the Environment Protection Authority and WorkSafe Victoria ensure MHF are operating to minimise their impacts.	3
Approaches and measures to address the identified issues and challenges, including the role of State, local government and relevant agencies.	The roles of the major participants in the planning system are considered, including where specialist agencies may need to be referral authorities to contribute particular expertise to the planning process.	3
The information and tools required to support land use planning decisions for areas surrounding MHF and the most effective way to implement these.	The Committee concludes that there are adequate tools in the Victoria Planning Provisions to support land use planning decisions around MHF, but there needs to be more consistent application guided by policy; and improved guidance in the form of Ministerial Directions and Planning Practice Notes.	3
Issues to be addressed for each of Victoria's registered MHF and principles to assist in managing risks and adverse impacts, including the potential role and function of land use buffers.	The Committee considers the land use planning context for each of the 38 registered MHF and suggests a priority list prioritising where the land use planning responses outlined above should be implemented.	3

Issue	Committee consideration	Chapter
Principles for applying land use buffers more broadly to other uses with adverse amenity potential.	The Committee's view is that the principles of applying buffers have not changed and there is still a fundamental need for best practice at-source mitigation and the application of buffers or separation distances for residual emissions. The Committee attempts to articulate some of the key principles.	4

Issues around pipelines are addressed in Chapter 5.

(iii) Recommendations

To address the issues in Table 1, and to advance issues related to planning around pipelines, the Committee makes the following recommendations.

Planning for Major Hazards Facilities

In relation to MHF the Committee recommends:

1. **The Minister for Planning consult with WorkSafe Victoria to facilitate the development of further land use planning guidance for Major Hazard Facilities on a priority basis; including the identification of WorkSafe's Inner and Outer Planning Advisory Areas and the use of a standardised methodology based on the EPA's air emissions assessment framework.**
2. **Amend the State Planning Policy Framework to include in Clause 13 – *Environmental Risks* the draft policy 05.08 – Hazardous Facilities from the Planning Policy Framework (review of the State Planning Policy Framework) included in Appendix F in this report.**
3. **Apply the Environmental Significance Overlay with separate schedules for WorkSafe's Inner and Outer Planning Advisory Areas to provide a more responsive approach to managing development associated with sensitive uses.**
4. **Consider the draft Schedule to the Environmental Significance Overlay provided in Appendix G as a model, together with the specification of application, notification and referral requirements.**
5. **Prepare a Ministerial Direction under Section 7(5) of the *Planning and Environment Act 1987* and an associated Planning Practice Note to guide the development of local policy and the application of the Environmental Significance Overlay and schedules to planning around Major Hazard Facilities.**
6. **Modify the Clause 65 *Decision Guidelines* to include an additional decision guideline to refer to hazards associated with Major Hazard Facilities.**
7. **Subject to further consultation on implementation, include WorkSafe Victoria as a determining referral authority and the Environment Protection Authority as a recommending referral authority in Clause 66 for permits required by an Environmental Significance Overlay applied to Inner Planning Advisory Areas for Major Hazard Facilities.**

8. **Subject to further consultation on implementation, include WorkSafe Victoria and the Environmental Protection Authority as recommending referral authorities in Clause 66 for permits required by an Environmental Significance Overlay applied to Outer Planning Advisory Areas for Major Hazard Facilities.**
9. **Develop and apply the inner and outer planning advisory areas and associated Environmental Significance Overlays in accordance with the priority identified in Appendix H.**

Amenity considerations

In relation to issues around amenity the Committee recommends:

10. **Update the references in the State Planning Policy Framework as relevant to include reference to the revised *Recommended Separation Distances for Industrial Residual Air Emissions (2013)* and *Noise from Industry in Regional Victoria Guidelines (2011)*.**
11. **The Minister for Planning, in consultation with the Environment Protection Authority and stakeholders (industry, technical specialists and the planning and development profession) commission a comprehensive review of Clause 52.10 to:**
 - **Review the head clause to clarify its application to risk (non Major Hazard Facility) and amenity.**
 - **Review the head clause to clarify its application and use, including diagrams to assist with interpretation and expand its use to include ‘reverse amenity’ situations.**
 - **Review the list of *Type of Production, Use or Storage* and the technical basis of threshold distances.**
12. **The Minister for Planning consult with the Environment Protection Authority to further consider the longer term development of a single instrument that combines Clause 52.10 and the IRAE Guidelines.**
13. **Develop a Ministerial Direction, based on Ministerial Direction 14, which requires planning scheme amendments which would allow or intensify sensitive uses to explicitly consider the *Types of Production, Use or Storage* in Clause 52.10.**

Planning around pipelines

In relation to planning around high pressure gas and liquid hydrocarbon pipelines the Committee recommends:

14. **The Minister for Planning consult with the Minister for Energy with a view to formalising the membership and operation of the Land Development Around Pipelines Working Group as a Section 151 Advisory Committee with an independent Chairperson under the *Planning and Environment Act 1987*; and for this group to advise on improving planning around high pressure gas and liquid hydrocarbon pipelines.**
15. **The Land Development Around Pipelines Working Group nominate essential high pressure gas and liquid hydrocarbon pipelines and consider recognising them in the State Planning Policy Framework as being of State significance.**

16. Refer the following issues to the revised Land Development Around Pipelines Working Group for consideration:

- Clause 66.01 Subdivision referrals be amended to replace the gas supply authority as the determining referral authority for proposals to subdivide land crossed by a gas transmission pipeline or a gas transmission easement with Energy Safe Victoria as the determining referral authority.
- For lower risk pipelines consider including a referral to the pipeline licensee in Clause 66.02 for building and works within the pipeline measurement length.

17. Refer the following potential planning responses to the revised Land Development Around Pipelines Working Group for consideration:

- The development of Environmental Significance Overlay schedules for urban residential areas and rural areas to reflect a more responsive approach to manage the balance between development control and 'at pipeline' protection.
- The Environmental Significance Overlay schedules include sensitive uses to be protected including as a minimum the sensitive uses identified in AS2885.
- The Environmental Significance Overlay schedules include application, referral and notice requirements to Energy Safe Victoria and the pipeline operator/owner as relevant.
- The Environmental Significance Overlay schedules be mapped on a priority basis, with the pipeline measurement length being the starting point for the relevant area to be mapped.
- The application of the Environmental Significance Overlay schedules to pipelines that do not meet the High Density T2 rating as defined in AS2885.
- The preparation of a Planning Practice Note to assist in the implementation of an improved planning process.

1 Introduction

1.1 Terms of Reference

The Minister for Planning appointed an Advisory Committee (the Committee) under Section 151 of the *Planning and Environment Act 1987* on 4 October 2015 to consider planning around Major Hazard Facilities (MHF). The appointed members are Nick Wimbush (Chair), Chris Harty and Catherine Wilson.

Terms of Reference (TOR) dated 24 September 2015 (shown in Appendix A) was provided to the Committee that outlined its task including:

... provide advice to the Minister for Planning about improvements to land use planning for areas surrounding major hazard facilities (MHF), in order to better manage the interface areas between existing and new development and land used for MHF.

And to make recommendations on:

Issues to be addressed for each of Victoria's 40 registered MHF and principles about how the land use planning system can assist in managing risks and any adverse impacts and principles for applying land use buffers more broadly to other uses with adverse amenity potential.

Following early approaches from industry and interest groups, the Committee agreed to accept and consider submissions on high pressure hydrocarbon transmission pipelines as it was put to the Committee that some of the planning framework for MHF may also be relevant to these critical pieces of linear infrastructure.

1.2 The Process

The process for the Committee is set out in the TOR. The Committee undertook the following tasks:

- Early consultation with nominated parties in the TOR (shown in Appendix B)
- Preparation and release of a Discussion Paper for public submissions (submitters listed in Appendix C)
- Hearings held on 17, 21-24 March 2016 and a Hearing/'without prejudice' workshop held on 2 May 2016
- Preparation of this final report for the Minister for Planning.

The Discussion Paper was released for public consultation from 22 December 2015 to 9 February 2016. The Discussion Paper focused on a range of issues including the current planning system; safety and environment (including legislation, publications and guidelines); Victorian Civil and Administrative Tribunal (VCAT) decisions and Panel Reports. It included 'thought starters' which addressed issues such as hazards, risk and consequence; adverse amenity; sensitive uses; and the planning issues around MHF and pipelines and navigating the system.

In response to the Discussion Paper, the Committee received a total of 78 submissions including two late submissions from the Victorian Water Industry Association (VWIA) and the Urban Development Institute of Australia (UDIA).

The issues raised in these submissions are considered in the body of this report.

1.3 Other issues

The Committee notes there were other issues that have been considered but not taken further in the detailed consideration of planning for MHF and amenity. These issues are considered below.

(i) Commonwealth facilities

In addition to the State MHF regulatory regime, the Committee was advised that there are four sites in Victoria that are MHF managed by the Commonwealth Government by Comcare, the relevant Commonwealth department. These four facilities are in Mangalore, Lara, Benalla and Footscray.

As the Committee has focused on State planning matters, it has not investigated these sites in detail but notes that MHF risk areas could potentially go beyond Commonwealth land, and that an emergency incident is likely to be attended by State emergency services. The Committee was not informed of the risk profiles of these facilities.

(ii) Former Port Phillip Woollen Mills site

The Committee would like to thank and acknowledge the fulsome submissions and Hearing presentations by Ms Charmian Gaud of Save Williamstown and AV Jennings Waterline Pty Ltd represented in the Hearing by Mr Adrian Finanzio SC.

The various planning decisions and Panel reports around the former Port Phillip Woollen Mills site in Williamstown have a long and convoluted history. However the Committee made it clear from the outset that its considerations did not extend to reconsidering past planning decisions although it was certainly informed by them. The issues raised in the Hearing to illustrate some of the problems and challenges related to the former Port Phillip Woollen Mills site by both parties have greatly assisted the Committee in coming to its conclusions.

2 Definitions

2.1 Definition – sensitive use

(i) Background

The reference to ‘sensitive use’ in the context of MHF and pipelines relates to those sorts of land uses that would be most at risk of harm or significant loss of amenity as a result of an upset event in the operation or function of these facilities and their infrastructure. The Discussion Paper at Chapter 6.3 discussed the various tools and guidelines used in the consideration of ‘sensitive uses’ and MHF or other industrial uses. While sensitive use is an often used term in planning it has no formal definition in the planning scheme and the question was asked whether it should be.

Sensitive uses are referenced, or inferred, in a range of planning tools and guidelines such as:

- Ministerial Direction No. 1 – *Potentially Contaminated Land*.
- Planning Advisory Note 56 for *Planning for Ports and their Environs* (October 2014).
- Clause 52.10 – *Uses with adverse amenity potential*.
- The conditional requirements attached to as of right uses under the Industrial 1 Zone (IN1Z) and Industrial 2 Zone (IN2Z).
- Decision guidelines relating to the use of land (Clauses 33.01-2 and 33.02-2 respectively) which also require consideration of sensitive uses.

This issue was discussed in a number of submissions and at the Hearing.

(ii) Submissions

At the Hearing, Viva Energy¹ stated that uncertainty exists about what inappropriate developments are. Whilst the SPPF generally make reference to the protection of land from ‘sensitive uses’, and is generally seen to relate to schools, residential uses and childcare centres, the term is not defined and is not used in WorkSafe Victoria (WorkSafe) guidelines.

Viva Energy identified the following factors to be considered in determining what might be considered inappropriate developments around MHF:

- *The numbers, occupancy and vulnerability of persons likely to be present at the proposed development;*
- *The ability of those persons present to be organised and to safely respond to an emergency at the nearby MHF; and*
- *Potential societal risk that may arise due to the overall impact on developments and people present on land surrounding the MHF.*

According to Viva Energy, a lack of clarity exists in relation to buffer zones and what constitutes inappropriate developments around MHF. This means that there is no restriction on the types of developments that may be applied around MHF.

¹ Viva Energy submission p20.

Wyndham City Council² supported a formal definition of what constitutes a ‘sensitive use’ within the planning scheme. They stated that different uses may have different levels of sensitivity to different types of facilities, and these sensitivities should be analysed, quantified and considered to determine the best controls that are needed around MHF.

Hobsons Bay City Council³ noted that the term sensitive uses is scattered through the Victoria Planning Provisions (VPP) and the definition varies. Whilst the contaminated land framework defines sensitive uses as open space, childcare centre and dwelling, the WorkSafe *Land use planning near a major hazard facility* guidelines include office and industry if a significant number of people are present on site.

The Environment Protection Authority (EPA)⁴ stated that the term ‘sensitive use’ is used in various contexts with different meanings and that the meanings of sensitive use should be clarified and streamlined. EPA suggested that the reference to sensitive uses could be located in Clause 72 – *General terms* of the VPP where they are most easily locatable by planners and that a unique term could be assigned to them.

The Country Fire Authority (CFA)⁵ considered that residential land should be included as a ‘sensitive use’.

At the reconvened Hearing day, Mr Adrian Finanzio SC on behalf of AV Jennings Waterline Pty Ltd described sensitive uses as a ‘lazy’ phrase and that uses that are sensitive should be nominated with the relevant control. Accordingly, he considered that the phrase ‘sensitive use’ should be eliminated, and that sensitive uses should be simply listed.

Ms Sarah Auld from Spiire on behalf of Energy Safe Victoria noted at the reconvened Hearing day that the uses that need to be captured are broader than those present in planning. In relation to planning and pipelines, Ms Auld tabled a comparison of ‘sensitive uses’ in planning⁶, the Australian Standard AS2885 *Pipelines—Gas and liquid petroleum* (AS2885) and the APA VTS Australia (Operations) Pty Ltd (APA) submission to the Committee. The complete list of terms in the planning system which might trigger a permit in an overlay (‘sensitive uses’ and uses where a large number of people may congregate) included:

- *Dwelling ...*
- *Accommodation ...*
- *Child care centre*
- *Education centre*
- *Industry*
- *Leisure and recreation*
- *Office*
- *Place of assembly*
- *Retail premises*
- *Transport terminal*

² Submission 50.

³ Submission 52.

⁴ Submission 59.

⁵ Submission 26.

⁶ Document 36.

- *Cinema based entertainment facility*
- *Hospital*
- *Emergency services facility*
- *Funeral parlour*
- *Research centre*
- *Saleyard*
- *Service station*
- *Freeway services centre*
- *Warehouse.*

(iii) Discussion and conclusion

The attraction as requested by a number of submitters of including a ‘standard’ definition of sensitive uses in planning is obvious. A single definition, by its nature, would have to be all encompassing, and would mean that whenever sensitive uses are referenced in the planning scheme, then all parties would be clear on what is discussed.

However this suggested simplified approach also has obvious limitations. The list would need to be extensive to cover all the potential sensitive uses, and would result in the unnecessary restriction of some sensitive uses to the detriment of net community benefit in terms of inefficient land use. In addition, some parts of the planning system refer to sensitive uses by way of land use descriptors (e.g. ‘Accommodation’) while other parts refer to what would be a sensitive use by way of zoning (e.g. land in a residential zone).

The Committee is not convinced that a ‘one size fits all’ approach is appropriate and considers the existing ‘fit for purpose’ approach is superior. An extensive range of sensitive uses may be sought to be curtailed in the Inner Planning Advisory Area (IPAA) of a MHF identified by WorkSafe, whilst some ostensibly sensitive uses may be appropriate in the Outer Planning Advisory Area (OPAA). These terms are discussed in more detail in Chapter 3.

Essentially this is what happens in planning now; the sensitive uses are defined differently for different purposes, whether it be contaminated land, Clause 52.10 or elsewhere.⁷ The Committee considers that whilst any new controls arising from the work of this Committee will need to carefully consider the issue, the sensitive uses sought to be curtailed should still be addressed on an ‘as appropriate’ basis for the circumstances.

The Committee concludes that is not necessary to attempt to provide a standard definition of ‘sensitive uses’ in planning schemes.

⁷ Sensitive uses in relation to pipelines are discussed in Chapter 5.

2.2 Definition – Major Hazard Facility

(i) Background

The definition of MHF under the *Occupational Health and Safety Regulations 2007* (OHSR) is as follows:

major hazard facility means —

- *a facility where Schedule 9 materials are present or likely to be present in a quantity exceeding their threshold quantity; or*
- *a facility determined by the Authority to be a major hazard facility under regulation 5.2.29⁸*

There are currently 38 registered MHF in Victoria under the State legislation. WorkSafe maintains a list on its website of the registered facilities. At the time of writing the list was up to date as of January 2016.⁹

The Discussion Paper raised the issue of whether there should be a planning definition of MHF.

(ii) Submissions

There was general support for a definition of MHF to be included in the VPP. For example Hobsons Bay City Council submitted:

The definition of MHF should be included in the VPPs but it should be in 'planning speak' and consider the interplay between uses such as industry and fuel depot. A definition that references schedule 9 of the Occupational Health and Safety Regulations 2007 is inappropriate as schedule 9 will require planners to interpret a legislative framework and determine matters such as thresholds for various materials; a task better suited to a risk expert.

Council also submitted that not all MHF are identical or pose the same risk.

The Plastics and Chemicals Industry Association (PACIA)¹⁰ submitted that the term MHF has arisen out of the OHSR and its use in other context may be inappropriate and confusing.

(iii) Discussion and conclusions

The Committee notes that there was some support for including a definition of MHF in planning schemes, however there was also considerable agreement that the definition should not be picked up 'as is' from the OHSR as it uses language that is not familiar to the planning fraternity.

MHF is defined under the OHSR because of their particular nature and risk profile. The Committee does not think there is a need to somehow translate this definition into planning

⁸ Clause 1.1.5.

⁹ http://www.worksafe.vic.gov.au/__data/assets/pdf_file/0016/47014/39-Website-List-of-MHFs-January-2016.pdf

¹⁰ Submission 55.

as it is not in the language used by planners and it would have the potential to create confusion.

Rather, as discussed in detail in Chapter 3, the Committee considers that it is better to address the list of MHF, as determined by the OHSR, and develop specific planning controls for the facilities on a needs and priority basis.

The Committee notes the view of Hobsons Bay in relation to broader issues around industry and fuel depots (for example). Consideration of the broader industry risk profile is a much larger task than the one before this Committee and if it is not being adequately addressed through the existing planning provisions then it is a task for another day.

The Committee concludes that it is not necessary to attempt to provide a separate definition of 'Major Hazard Facilities' in planning schemes.

3 Planning around Major Hazard Facilities

3.1 Background

The Committee's Discussion Paper, and written and oral submissions to it, has generally established the view that there may be significant risk to neighbouring properties from MHF. WorkSafe submitted to the Committee that although incidents at MHF may be infrequent, they can be serious. This is the low likelihood/high consequence event such as occurred for example in 1991 at Coode Island, in 1998 at the Longford Gas Plant and, in the United Kingdom (UK), the Buncefield Oil Storage Terminal fire and explosions in 2005.

The Committee and submitters have identified that the planning system has some shortcomings and inconsistencies in addressing risk and safety and informing landowners, proponents for new development, operators of MHF, the community and decision makers about the implications for land located within proximity of MHF.

As required under the TOR at clause 5(a), the Committee first reflects on some of the principles that could apply about how the planning system can assist in managing risks and any adverse impacts, including the potential role and function of land use buffers.

(i) Principles

The planning system is about managing land use and development to facilitate sustainable development including preventing environmental harm by avoiding siting incompatible land uses close together, taking full advantage of existing settlement patterns and investment in transport and communication, water and sewerage and social infrastructure. This includes managing land use interfaces with suitable buffers between uses that may pose risk to human safety or where one land use impacts on another by virtue of its relative distance to the other.

As outlined above the risk profile associated with MHF is generally one of low probability but potentially high consequence to human safety. This creates uncertainty over what extent the planning system should respond to such risk. Being too cautious may lead to blight and rendering land around MHF under-utilised. Not enough control could result in the safety of a local community being exposed to high risk. The challenge in establishing an appropriate response relies on reliable information to establish acceptable levels of risk for a community and a MHF.

Principles that the Committee have identified for how the planning system can assist in managing safety risks and any adverse impacts are outlined below.

Principle: Appropriate risk assessment using the best information.

Within a situation of imperfect knowledge, effective risk assessment can determine acceptable levels of risk from an event at a particular MHF upon which reasonable buffer distances can be established to manage land use and development. Effective risk assessment is dependent on the availability of the best information, often provided by the MHF operator.

Principle: Performance based planning decision making.

Effective planning decision making in Victoria requires balancing competing interests and includes exercising discretion over consideration of land use and development. This includes consideration of appropriate buffer zones that may reflect uncertainties over risk to safety for communities surrounding MHF. It also includes the capacity for considering change; including changes to the nature and operation of MHF as well as changes to land use and development priorities over time.

Principle: Net community benefit and sustainable development.

Net community benefit and sustainable development comprise two of the tests in integrated decision making on both strategic and statutory planning matters that involve balancing conflicting policy directions or outcomes.

Principle: The achievement of acceptable planning outcomes.

The Victorian planning system does not require 'perfect' outcomes, but rather strives to achieve reasonable outcomes that are acceptable to society at large.

Principle: Integrated decision making.

Planning attempts to consider all matters relevant to a decision to achieve net community benefit and sustainable development

Principle: Land use buffers.

Land use buffers or separation distances offer a tool by which acceptable risk together with acceptable outcomes can be achieved.

3.2 Issues and submissions

The need for the planning system to be improved to recognise interface issues between MHF and adjoining land uses was highlighted in the submission of Mr Peter Willis, SC on behalf of ExxonMobil.¹¹ He suggested a pattern has arisen from a number of VCAT and Panel cases dealing with MHF and adjoining land use and development and safety risks.

As described in Chapter 2 of the Discussion Paper, planning policy indirectly addresses MHF and land use safety but there is a lack of specificity in relation to how developments around MHF should be managed. Submissions such as that from Mr Josh Abbott and Mr Andrew Low from Viva Energy Australia highlighted:

- how the lack of direct reference to MHF in planning schemes creates uncertainty over buffer distances¹²
- what such distances should be between a MHF and a sensitive land use
- what type of land use and development would be appropriate or inappropriate around an MHF and how such an assessment should be undertaken.

¹¹ ExxonMobil owns Mobil and Esso. The head company ExxonMobil will be referred to unless comments relate to a particular Mobil or Esso facility.

¹² The terms buffer distances and separation distances are used interchangeably.

Save Williamstown noted that in recent years an emphasis on changed use of industrial land or brownfield redevelopment has increased, and it cited the Hobsons Bay Industrial Land Management Strategy.

The Committee notes that while there may be disagreement on specific outcomes to be pursued for MHF planning, there was much common ground arising from parties' submissions. This was noted in the submission from Mr Finanzio.

Generally, there were calls for the planning system to be improved as follows:

- transparency in decision-making
- relevant information and a clear policy framework that allows consideration of risk and the consequence and likelihood of an event occurring
- clear consideration in the framework of whether land use proposals are likely to be acceptable and what separation distances should apply.

The Committee is also aware of the need for any changes to the planning system to be sufficiently sensitive to the impacts of unnecessarily sterilising land surrounding a MHF from development, in particular where strategic imperatives may identify forms of land use as appropriate for an area.

The submission from Ms Karmen Markis from Hobsons Bay City Council highlighted the need for an evidence based approach. Such an approach should seek to avoid applying blanket controls that are not strategically justified that limit use and development of land around MHF.

This chapter addresses what the planning system can do in resolving such complex challenges and providing the decision making framework that allows for the successful operation of MHF and the protection of the community.

The range of planning tools and how they might be applied is considered; including the relationship of tools to buffers and separation distances. The process of buffer area identification is considered by the Committee below including the approach of WorkSafe.

3.3 The technical basis for controls

3.3.1 Background

In its guidance note *Land use planning near a major hazard facility* (2010) WorkSafe presents the basis of its advice for land use around MHF. The genesis for WorkSafe preparing this advice is the UK's review and improved planning guidance following the 2005 fire at an oil storage terminal in Buncefield, Hertfordshire.

WorkSafe's advice on planning near MHF is non-statutory and advisory only.

In its guidance note WorkSafe identifies two risk areas: the Inner Planning Advisory Area (IPAA) and the Outer Planning Advisory Area (OPAA):

Inner planning advisory area - the individual risk of fatality from potential foreseeable incidents is greater than or equal to 1×10^{-7} per year (one chance in 10 million years).

Outer planning advisory area - the consequence of a credible incident is not likely to cause a fatality but persons present may suffer some adverse effects

*or have difficulty responding to an emergency that may result in injury or harm.*¹³

In addition to its general guidance note WorkSafe has produced maps which identify the IPAA and the OPAA around Coode Island, the Williamstown Gellibrand Tank Farm, the Yarraville Fuel Terminal and the Newport Fuel Terminal.

The methodologies used to determine the IPAA and OPAA is largely based on the Safety Case which is prepared by the MHF, as required under the OHSR, and assessments of the individual risk and societal risk. WorkSafe's guidance note says '*there is no standard methodology or criteria applicable to advice on planning proposals on land surrounding an MHF. However, all methodologies use the concepts of individual and societal risks which can be expressed quantitatively or qualitatively.*'

It then defines individual risk and societal risk as being:

- *Individual risk is expressed as the probability of a typical user of the development under consideration (eg a dwelling, industrial use) being harmed in the course of a year from an incident at a major hazard facility.*
- *Societal risk is a measure of the likelihood of a large-scale incident involving mass casualties. This measure depends upon integrating the risk of a major incident occurring with the number of people living or working in the vicinity of a major hazard facility who could be exposed resulting in death or major injuries.*

WorkSafe's advice on these risk concepts is based on a review of the Safety Case and any other relevant information that allows a reasonable estimate of areas of land affected by potential incidents at an MHF.

3.3.2 Evidence and submissions

(i) WorkSafe's use of Inner and Outer Planning Advisory Areas

A number of submitters suggested that WorkSafe adopt an alternative approach for assessing the risk around MHF. In particular Mr Ian Thomas¹⁴ from I.F. Thomas & Associates, Consulting Chemical, Environmental and Risk Engineers, Ms Val Green¹⁵ and Save Williamstown suggested the adoption of the UK's system known as *Planning Advice for Developments near Hazardous Installations*, (PADHI and now PADHI+). Others suggested looking to NSW's *Hazardous Industry Planning Advisory Papers* (HIPAPS).

Discussion

The Committee has briefly looked at both the UK and NSW systems.

¹³ Worksafe, *Land use planning near a major hazard facility*, 2010.

¹⁴ Submission 33.

¹⁵ Submission 17.

United Kingdom

Similar to WorkSafe's role, the UK's Health and Safety Executive (HSE) only provides advice on certain developments in the vicinity of major hazard sites. It is a statutory consultee and also provides advice on proposed development near major accident hazard pipelines.

HSE uses three planning areas called consultative distances and these are based on three contours that represent levels of individual risk. These contours represent 10 chances per million (i.e. 1×10^{-5}), 1 chance in a million (ie 1×10^{-6}) and 0.3 chances in a million (i.e. 0.3×10^{-6}) per year respectively of receiving a dangerous dose or defined level of harm as a result of an incident at a facility.

The UK then considers what are termed *sensitivity levels*. There are four sensitivity levels which are determined through consideration of the numbers of people at a proposed development, their sensitivity (vulnerable populations such as children, old people) and the intensity of the development. It provides examples of sensitivity levels. Factories for example are rated sensitivity level 1, houses are rated as sensitivity level 2, primary schools and aged care facilities are sensitivity level 3 and places where large numbers of people may be present such as large hospitals and football grounds are rated sensitivity level 4.

Using the combined consideration of consultative distances and the sensitivity levels a development is then either *advised against* or *don't advise against*.

The UK with its three consultative distance contours and its sensitivity levels, which are a form of societal risk, is therefore a finer grained system than the system used by WorkSafe. However its consultative distance is the same as the individual risk used for determining the IPAA. While WorkSafe says it uses societal risk insufficient information is provided to determine how this risk is factored into the determination of IPAA's and OPAA's.

New South Wales

Similar to WorkSafe, NSW assesses individual and societal risk for land surrounding hazardous industries. It uses a fatality risk level of one in a million per year (1×10^{-6} per year) as the limit for risk acceptability for residential area exposure. This is higher than the fatality risk used by WorkSafe, however, NSW also has risk levels for other situations that are for example, slightly higher for hospitals, aged care facilities and schools and with suggested lower risk criteria for sports complexes and open space areas and even lower for industrial land use.

It also outlines its criteria for injury caused by the following:

Heat radiation - Incident heat flux radiation at residential and sensitive use areas should not exceed 4.7 kW/m^2 at a frequency of more than 50 chances in a million per year.

Explosion Overpressure - Incident explosion overpressure at residential and sensitive use areas should not exceed 7 kPa at frequencies of more than 50 chances in a million per year.

Toxic Exposure - Toxic concentrations in residential and sensitive use areas should not cause irritation to eyes or throat, coughing or other acute

physiological responses in sensitive members of the community over a maximum frequency of 50 in a million per year.

NSW incorporates the principle of 'as low as reasonably practicable' (ALARP) as the suggested basis for determining societal risk. The calculated incremental societal risk is compared to plots that show three risk bands: 'negligible risk', 'tolerable risk' and 'intolerable risk'. If the incremental societal risk lies within the negligible region development can go ahead. However if the incremental societal risk falls in the intolerable band then societal risk is too high and the development should not go ahead. For the tolerable region which is where risk has been reduced to as low as reasonably practicable then consideration should be given to the relocation of people away from the area and the development should only go ahead if benefits clearly outweigh the risks.

NSW relies on the applicant wishing to establish a hazardous facility to do consequence analysis and consider the impact of possible accidents (e.g. fires, explosions and toxic releases) in terms of injury or fatalities, damage to property or damage to the biophysical environment.

Therefore in summary: WorkSafe's individual risk criteria is more conservative than that used in NSW however NSW's criteria is more nuanced; NSW applies its criteria to all hazardous facilities not just MHF.

Conclusion

The use of IPAA and OPAA provide a basic and simple approach to land use planning around MHF.

The WorkSafe individual risk criterion is comparable to the UK and NSW and therefore provides a similar level of protection.

While limited information is available about the detailed methods used by WorkSafe to determine IPAA and OPAA, it appears to the Committee that WorkSafe's basis for advising on land use planning around MHF satisfactorily serves the purpose of identifying areas where development should be limited due to the potential for fatalities and injuries should there be a major incident.

There is potential for WorkSafe to either upgrade its current approach or possibly adopt the UK's more refined approach for determining individual and societal risk planning areas. The Committee does not make a recommendation on this issue as it is not within its TOR. The Committee however encourages WorkSafe to continually review this area to make sure it stays abreast of best practice.

(ii) Access to information, transparency and WorkSafe's role

As highlighted above there is dearth of information available about the approach used by WorkSafe in determining IPAA and OPAA. The information available is largely limited to the information sheet *Land use planning near a major hazard facility*. This compares poorly with the publications and advice provided by NSW and the UK's HSE.

NSW Hazardous Industry Planning Advisory Papers (HIPAPS) are a set of guidance papers that are based on the State Environmental Planning Policy No 33 – *Hazardous and Offensive Development* (SEPP33)¹⁶. These papers, published by the NSW Department of Planning and Environment, are for all new hazardous industries and hazardous storage facilities, not just MHF. While the papers focus on human safety and cover a broad range of issues including, for example, Industry Emergency Planning, Route selection and hazard study guidelines, they consider the impacts on the natural environment.

The UK's HSE has published *Land Use Planning Methodology* which is a detailed up to date publication that explains how HSE assesses land use near MHF.

The UK's HSE does not appear to produce land use planning maps but it has an easily accessible simple to use free online app that provides accessible advice to planning authorities and developers to determine if a proposed development lies within one of the consultative distances and whether the proposed development type based on sensitivity levels should be supported, or not. Further advice in relation to a proposed development can be obtained, for a fee, from the HSE.

Concerns were raised by a number of submitters that only four planning advisory maps around MHF had been produced and all but one, the planning advisory areas around Coode Island, are difficult to access. WorkSafe in its 2010 guidance note indicates that it would be progressively providing maps to the relevant planning authorities.

The lack of access to MHF Safety Cases was also highlighted as a major stumbling block for developers, community and planning authorities as not having access to these makes it difficult for an independent assessment of the planning implications in the area surrounding a MHF. This issue has been highlighted in a number of VCAT cases where only on rare occasions has a Safety Case been made available for restricted viewing under confidentiality conditions. The Committee also heard of a number of examples where the MHF would not provide the Safety Case and VCAT and planning decisions had to be made without specific site information.

Viva Energy provided a copy of its Safety Case summary for its Geelong refinery and the Lara LPG Terminal however this Safety Case summary, while providing general information about the two sites and associated risks, does not provide sufficient information to undertake a technical review. It also does not appear to be easily accessible as it could not be located on the Viva Energy website. The Committee was advised that it is available in the local library.

Mr Thomas called for full safety cases to be made publicly available or at the absolute least available to Councils, lawyers and consultants who required them.

Mr Thomas at the reconvened Hearing Day described safety cases as "*public relations documents*" and better rules should exist for how they are drawn up.

Save Williamstown stated in its submission¹⁷ that without access to a safety case when it was involved in a previous VCAT hearing, individual submitters needed to resort to funding expert evidence relevant to safety, which was costly. It was also their experience that

¹⁶ Under the NSW *Environmental Planning and Assessment Act 1979*.

¹⁷ Submission 23.

experts did not necessarily have access to the Safety Case to ensure evidence from different expert witnesses was either accurate or contestable.

The difficulty in accessing information on land use planning from WorkSafe and MHF has led to considerable additional expense by proponents, opponents, authorities and the like as they endeavour to make their case at VCAT or Planning Panels or in some cases the Supreme Court. It has also led to protracted hearings, or in some cases multiple hearings at VCAT and Planning Panels.

This then goes to transparency. As Mr Finanzio put it:

Much of the information provided to WorkSafe is shrouded in commercial sensitivity or concerns security of the facility and so is rarely subject to review other than by the regulator WorkSafe who itself has an interest in a simple and easy manage framework.

Mr Finanzio then went on to say:

The guidance documents themselves are based on internal WorkSafe policy judgements with planning consequences which have not been scrutinised to the same extent that one might expect of an operative planning policy of such importance. For example the adoption and delineation of the Inner and Outer Planning Advisory Areas.

In a planning context like Victoria (and arguably universally) community acceptance of policy judgements and planning decisions implementing those judgements) is increased when the process by which those judgements are made in an open and transparent and is evidently the result of rigorous analysis, particularly where competing options exist. If the options are considered and the outcomes informed by evidence which has been subject of rigorous scrutiny the result is more likely to win broad based support.¹⁸

Another submitter described the WorkSafe system as a 'black box'.

In its defence WorkSafe said it lacks the resources to do more and it does not have the necessary expertise in land use planning.

While concerns were raised that there was almost a total reliance on WorkSafe it was generally acknowledged that it is government's responsibility to oversee land use planning decisions around MHF and that WorkSafe is the appropriate government agency with the knowledge, skills and expertise to undertake an assessment of the risk of MHF.

Mr Finanzio and WorkSafe both indicated that there could be a role for an independent review process of WorkSafe's land use planning advice.

Discussion

The Committee agrees that WorkSafe has the skills and expertise to undertake assessments of the risks from MHF on surrounding land use. The Committee was also advised that there

¹⁸ Submission 8.

are several standard computer models that can be used to do these assessments and external modellers proficient in their use and application.

Victoria has a well-established framework for managing air emissions from stationary sources that has its foundations in the *Environment Protection Act 1970*, further detailed in the State Environment Protection Policy (Air Quality Management) 2001 (SEPP (AQM)) and supported by various EPA guidelines, a regulatory computer software model and other material. A brief overview is shown in Figure 1 below. This system has operated for more than 30 years.

When an industry facility undertakes activities which are scheduled through regulations and wishes to expand or if it wants to commence a scheduled activity it is required to submit a works approval application. That application may be required to model its air emissions to show compliance with policy before a licence is issued or amended.

To model air emissions applicants for a licence or a licence amendment are required to use a computerised regulatory model (as specified in the SEPP (AQM)). This regulatory model has at its core mathematical equations based on physical laws that represent the transport and dispersion of pollutants (including odour). The model requires complex inputs including background pollution levels (if relevant), emission rates and concentrations for all relevant pollutants by site location, local terrain data and local meteorological data such as wind speed and direction. For large industrial operations, in particular, modelling requires highly skilled modelers to ensure the input data is correct and to interpret the outputs. Model outputs can include tables and pollution contours. Consultation with the EPA in the construction of the model input files is often necessary.

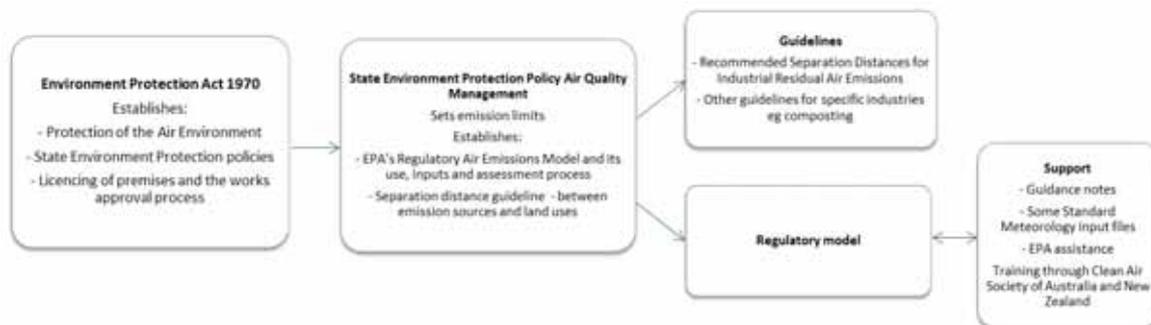


Figure 1 EPA Framework for emissions from stationary sources

In addition to assessment by EPA, the air dispersion modelling results are often presented in VCAT cases and planning scheme amendments particularly when an assessment of separation distances is under consideration.

Through this process EPA relies on external modelling specialists rather than undertaking this task in-house. Most training in the regulatory model is provided through the Clean Air Society of Australia and New Zealand, a non-profit professional association.

Conclusion

The Committee considers that it may be useful for WorkSafe to consider adopting a similar assessment framework used by EPA. This would require MHF to use external assessors to determine IPAA and OPAA contours. These external assessors would be required to be

experts in the use a standard model, or suite of models, selected by WorkSafe. The modelling outputs would be reviewed by WorkSafe's specialists as independent reviewers. Establishing this type of approach will require upfront resourcing to develop the guidance and selected models. However adopting this type of approach could, in the long run have efficiency gains for WorkSafe. It would in some part overcome some of the criticism the Committee has heard about the lack transparency in WorkSafe's assessments of MHF while not requiring public disclosure of MHF Safety Cases.

3.3.3 Conclusions and recommendation

The Committee fundamentally accepts that the WorkSafe approach and use of IPAA and OPAA to inform planning should be continued. For this to improve certainty around planning and MHF, the Committee concludes that further guidance notes should be developed for other MHF. Later in this report the Committee suggests an approach to prioritisation of sites based on criteria such as existing surrounding sensitive land use and the level of hazard and risk from a particular facility. To facilitate this process the Committee encourages the adoption of an approach similar to the EPA's whereby the risk assessments and development of IPAA and OPAA are undertaken on a standardised basis by external providers and reviewed by WorkSafe.

The Committee recommends:

The Minister for Planning consult with WorkSafe Victoria to facilitate the development of further land use planning guidance for Major Hazard Facilities on a priority basis; including the identification of WorkSafe's Inner and Outer Planning Advisory Areas and the use of a standardised methodology based on the EPA's air emissions assessment framework.

3.4 Net community benefit and sustainable development

(i) Discussion

Moving from the technical basis for controls to the type of controls, the Committee considers it important to reflect on what land use planning can and should be able to achieve. Clause 10.04 - *Integrated decision making*, of the VPP states:

Society has various needs and expectations such as land for settlement, protection of the environment, economic well-being, various social needs, proper management of resources and infrastructure. Planning aims to meet these by addressing aspects of economic, environmental and social well-being affected by land use and development.

Planning authorities and responsible authorities should endeavour to integrate the range of policies relevant to the issues to be determined and balance conflicting objectives in favour of net community benefit and sustainable development for the benefit of present and future generations (Committee emphasis).

Consistent with the objectives of local government under the Local Government Act 1989, municipal planning authorities are required to identify the potential for regional impacts in their decision-making and co-ordinate

strategic planning with their neighbours and other public bodies to achieve sustainable development and effective and efficient use of resources.

Thus when considering a thematic issue such as MHF, it is tempting to stray towards a 'definitive answer' or 'hard line' as to where a MHF or surrounding land use should prevail one over the other. This temptation must be resisted as the Victorian planning system was established to be performance based and allow for integrated consideration of competing interests and priorities as required in Clause 10.04.

Sometimes the protection of an MHF, or the establishment of a new one may carry the balance in planning terms, on other occasions a surrounding, and indeed encroaching, land use may be preferred when the net community benefit and sustainable development approach is exercised.

3.5 State Planning Policy Framework (SPPF)

The interface between MHF and residential use and development, including increasing residential densities, has highlighted the potential for land use conflict. Submissions to the Committee raised the need to engage in policy debate about what the planning objectives should be in relation to planning for MHF and land surrounding these facilities. The debate needs to extend to how buffer areas and separation distances are established and then what changes to planning controls need to be addressed.

As outlined in the Discussion Paper, current State policy is inconsistent in dealing with MHF. Although State policy does recognise the importance of avoiding land use conflict and risk, it does not include specific references to MHF and direction for land surrounding these facilities, particularly in terms of public and community safety and risk management.

The current policies are either general when dealing with land use separation, with strong emphasis on amenity impacts, or are specific to industry and how it should plan to avoid impacting residents. There is no clear policy on how sensitive uses, and in particular residential development that is located close to a MHF, should consider matters of safety and land use conflict.

Sensitive land uses encroaching on a MHF may force changes to the MHF operation and this may affect economic viability and even force closure. This becomes more critical when the industry is considered to be of state significance due to the nature of commodities processed, stored or distributed.

(i) Submissions and evidence

The Committee heard evidence from by Mr Robert Milner, town planner on behalf of ExxonMobil. He expressed the view that it is important to avoid surprises in the planning process when an element such as risk is not evident in the planning scheme. He considered that if it is accepted that the presence and operation of MHF materially impacts upon other parties' use and enjoyment of property, such facilities should be recognised in planning schemes. He suggested that a reference in the SPPF that acknowledges the presence and significance of MHF and strategies that will be applied to their management should be included.

Although he did not specify where such a policy reference should be introduced, he did make reference to risk and safety issues associated with MHF that cascade through the structure of planning schemes. He also referred to Clause 17.02 that deals with industry.

Hobsons Bay City Council submitted that clear guidance in the SPPF is needed and that Clause 05.08 *Hazardous Facilities* drafted by the SPPF Review Advisory Committee provides a good starting point.¹⁹ Hobsons Bay highlighted the need to balance policies supporting urban consolidation and increasing residential density in areas with good infrastructure and access to services with policies supporting industry.

Brimbank City Council submitted that an improved policy framework is required and suggested Clause 13 - *Environmental Risks* in the SPPF as a starting point. This could provide certainty about how to plan for MHF and surrounding land use. Mr Dhiraj Joti from Brimbank City Council submitted that state policy for MHF should be developed in conjunction with WorkSafe to apply a precautionary approach to planning and decision making to manage the risk and hazards from such facilities. He submitted that this is particularly important as an event at a MHF could be catastrophic for surrounding land uses.

The submission from Mr Finanzio identified a policy vacuum with respect to planning around MHF and that planning for MHF should involve both:

- Protection of the community.
- Facilitation of the ongoing operation of industrial facilities which are important to the continued existence of that community.

However, he submitted that policy also seeks to use land efficiently in accordance with strategic outcomes contemplated by zoning and the policies which underpins zoning. This can lead to conflict. Questions Mr Finanzio put to the Committee relating to strategic land use planning included:

- What is the land use outcome that we want to see over time – does it favour industry or does it favour community renewal and regeneration?
- Is an attempt at compromise and compatibility between uses sought, and if so, how will that be achieved?

Mr Finanzio submitted that these higher level strategic questions require answering before the application of particular planning tools can be considered.

(ii) Discussion

The Victorian planning system operates on a performance basis. Whilst this approach has arguably been somewhat eroded over time as the preference for mandatory and discretionary controls has waxed and waned, it still essentially holds true. The system establishes generic tools such as zones and overlays under which wide discretion is generally allowed and for which decisions are made on the integration and balancing of often conflicting planning policy.²⁰ Determination of that balance is via integration of applicable policies, purposes and decision guidelines that produce an acceptable outcome in generating net community benefit and sustainable forms of development.

¹⁹ Shown in Appendix F. Note this has not been endorsed by Government and has no official status.

²⁰ As shown in Clause 10.04 of the Victoria Planning Provisions.

Decisions must also be made within the framework of the objectives of the *Planning and Environment Act 1987*²¹, which include, amongst others, the fair, orderly, economic and sustainable use and development of land and the planning and creation of safe and liveable environments and communities.

These principles and objectives are applied in all planning decision making and they are equally relevant to planning for MHF and their surrounds.

In terms of State policy, the Committee does not consider it necessary to fundamentally favour one land use over another; this would be against the principles articulated above. The answer as to what land use is supported over another is determined by how well they respectively address the objectives of the Act; the policy requirements of the SPPF; and the articulation of these elements in more place based strategic planning.

To undertake this policy balancing exercise and achieve evidence based decision making requires good information and access to it. The Committee considers it important that the policy challenges be more clearly articulated to ensure that public safety is prioritised where necessary; that is identification of where a MHF exists and recognition of its potential hazard to nearby land use.

As already highlighted this can sometimes be difficult with MHF as the safety case for a facility is not usually publicly available. There are commercial and possibly security reasons for why a detailed safety case may not be accessible to include in the decision making process.

To overcome this constraint, the Committee considers a policy framework is needed in planning schemes that ensures the relevant stakeholders are brought together to enable a flow of information that can assist in ensuring that informed decisions be applied in relation to the planning process for land surrounding these sites.

MHF generally are considered by the Committee to be industrial activities or facilities that provide a societal and economic benefit beyond their immediate location. Many have state or regional significance in terms of what they do and the goods they produce and distribute.

The proposed State policy dealing with Hazardous Facilities (see Appendix F) suggested by the SPPF Advisory Committee is considered by this Committee to be worthy of consideration. It offers an integrated policy that could be included as a sub-clause under either Clause 13 or 17 of the existing SPPF. Clause 13 deals with risk and would be a logical location where risk from MHF is required to be highlighted and brought to the attention of applicants and decision makers. Clause 17 deals with economic development including industry and is relevant for proposed and existing MHF where potential hazard may occur both on and off site that needs to be assessed and considered.

Clause 13 currently includes a risk based policy for bushfire (Clause 13.05). Similarly, a sub-clause could be introduced that addresses safety to life and property with respect to the operation of MHF.

²¹ At Section 4.

(iii) Conclusions and recommendation

The Committee concludes that change to State planning policy under the SPPF that recognises MHF and safety is warranted, is generally supported by all submitters, and would be beneficial in aiding decision making around MHF. Change to policy that recognises MHF and the risks from their operations to surrounding land would more clearly identify an issue that needs to be considered earlier in any strategic planning or permit application process. The Committee does not believe it necessary to introduce policy that favours one form of land use over another, as it considers the planning tests for decision making are robust enough to allow discretion to be exercised and informed decisions made. What is considered important by the Committee is to ensure that policy recognises MHF and their operating risks so that stakeholders in the planning process are involved early, are not taken by surprise over risk issues and can collaborate on identifying risks and hazard issues and their quantification and management.

The Committee considers the combination of prioritised mapping of IPAA and OPAA by WorkSafe which is then supported by State planning policy that recognises MHF and operating risks, should provide the strategic support for considering and applying other planning tools such as zones and overlays. This will significantly aid in identifying trigger points for considering hazard from MHF earlier in a planning process. As Mr Milner commented, it would '*turn the valve down*' on urban consolidation policy implementation where potential risks occur within IPAA's and OPAA's that have been mapped by WorkSafe and better recognise community safety as the important element for consideration.

The Committee considers the draft Planning Policy Framework policy 05.08 on Hazardous Facilities drafted as part of the SPPF review is a good starting point and should be included in the SPPF as a sub-clause in either Clauses 13 or 17 of the SPPF.

It introduces clear policy, recognises MHF and their associated operating risks, refers to guidance notes from both WorkSafe and the EPA and includes decision guidelines for stakeholders on safety risk and consequence and expert advice from WorkSafe.

The Committee recommends:

Amend the State Planning Policy Framework to include in Clause 13 – *Environmental Risks* the draft policy 05.08 – Hazardous Facilities from the Planning Policy Framework (review of the State Planning Policy Framework) included in Appendix F in this report.

3.6 Local policy

In terms of planning policy for MHF, the focus of submissions was on State rather than local planning policy. There was recognition of using local policy to further articulate any State policy directions through the use of framework plans to identify and record the presence and implications of MHF in the Local Planning Policy Framework (LPPF).

Development of local policy from the higher strategic directions of State policy can more fully describe outcomes sought at a local level for a MHF and its surrounds and provide support for how such outcomes are to be achieved through zones and overlays. The

submission from Latrobe City Council²² identified that local policy does have this role in managing conflicting land use through the linkages it can provide to the application of zones and overlays.

The role that local policy had taken with respect to MHF and risk and hazard was to some extent, highlighted in the Discussion Paper and it is clear to the Committee that some Councils took up the challenge of addressing the policy gap in the SPPF with respect to MHF through local policy. Examples include Maribyrnong City Council's local policy at Clause 22.04 - *Yarraville Port Industrial Precinct Policy* and Clause 22.02 - *Francis Street Mixed Use Policy*. Both these local policies seek to manage land use conflict through recognition of the value of the industrial activity and the need to ensure safety is appropriately addressed including through land use buffers/separation distances and discouragement of residential use within certain distances of MHF.

For municipalities where MHF exist the submission from Casey City Council²³ commented on the benefit of local policy recognising MHF. This recognition will assist decision making and the understanding by local communities about the MHF use and operation and the context within which any decisions would be made.

The Committee considers local policy should be used where relevant and appropriate to provide direction and outcomes at a local level with respect to MHF and their safety risk and consequences.

Local policy can also provide further guidance to achieve policy implementation and in particular what tools such as zones and overlays are applied for and around MHF and any mapped advisory areas developed by WorkSafe. The Committee provides its view on a possible approach later in this chapter.

Planning authorities have the capacity to develop local policy now, and the Committee encourages such policy development in appropriate circumstances where it will provide additional strategic guidance around MHF. Later in this chapter the Committee recommends the development of practice note(s). These should include guidance on when a local policy may be appropriate.

3.7 Zones and overlays

Zones regulating land use and development and overlays typically regulating development are considered together due to the issue raised in many submissions about the benefit of a planning control (including an overlay) that can manage both use and development of land around MHF.

Zones applied to MHF sites and surrounding areas were identified and discussed in the Discussion Paper.

²² Submission 11.

²³ Submission 34.

(i) Submissions and evidence

Zones

Submissions to the Discussion Paper and at the Hearings generally did not consider that a modified or new zone would be the appropriate planning tool primarily because of the limitations such a zone may have for established areas where existing use rights may weaken its effectiveness.

Submissions were made about the use of the Special Use Zone (SUZ), however these commentaries were focussed on particular schedules to the SUZ or its application which, for the most part, were associated with MHF sites themselves rather than to surrounding land. Mr Milner gave evidence that the SUZ applied to a MHF site generally focuses on the safety and amenity issues from the MHF operator's perspective and would not apply to surrounding land in a manner that would be likely to be viewed by an affected party. He further suggested that a use-specific zone written around a MHF would add no additional benefit to that offered by a SUZ.

With respect to zoning of land around a MHF, Hobsons Bay City Council submitted that for residential land, the Neighbourhood Residential Zone (NRZ) presents an opportunity of allowing Councils to set a limit on the number of lots that can be subdivided. The NRZ provides the ability to control densities and provides an additional tool for areas where increased residential density could be discouraged. Council noted the comment from the Residential Zones Standing Advisory Committee: *Stage One Overarching Issues Report* that:

The Committee notes that, although not specifically addressed in PN78, it may be appropriate to restrict residential development in existing residential zones close to uses with significant off-site impacts and posing risks to safety or could be relevant near hazardous industries.

Certainly, the use of the NRZ is one of a number of mechanisms available for Councils to manage the further intensification of residential development in existing areas around MHF. It is a tool that could assist in managing established residential areas near a MHF that would fall within the IPAA and OPAA areas mapped by WorkSafe.

Overlays

In contrast, there was support for the use of an overlay type control that could manage not only development but particular land uses that would be considered at risk to human safety from an event at a MHF. Suggestions were made for both the introduction of a new overlay specific to MHF hazards and the use of one of the existing overlays which would introduce a permit trigger that would be capable of allowing safety risks around MHF to be considered.

The Greater Geelong City Council submission²⁴ stated that although the Environmental Significance Overlay (ESO) appears an appropriate tool, the development of a new overlay for hazardous facilities would be useful. A new overlay would set out standard criteria around separation distances, people density on surrounding site, requirements for building design to address emissions and any other relevant issue. It could also extend more broadly

²⁴ Submission 31.

to other hazardous facilities that may have amenity issues. Schedules to the new overlay would have the ability to be refined to suit respective MHF through tailored scheduling requirements.

Hobsons Bay City Council supported a new overlay that would have discretionary permit triggers with recommending referral authority provisions and balanced objectives and decision guidelines for land around MHF. Council considered the overlay would need to identify the elements required to be assessed against particular objectives and decision guidelines, in terms of what would be appropriate measures to ensure safety and amenity of a proposed use and/or development if it is impacted by off-site effects with operation of a MHF. Council also stated that any new overlay would need to be based on appropriate evidence of safety risk to ensure that its coverage does not result in unnecessarily burdening land or resulting in inconsistent approaches to its application.

The submission from Mr Willis identified that an ideal outcome would be for a specific control on land surrounding MHF such as a new MHF Environs Zone, MHF Buffer Zone or MHF and Environs Overlay which would enable the control of use, subdivision and development.

Similarly, other Councils such as Brimbank City Council²⁵ suggested a new overlay control that would include referral requirements to organisations such as WorkSafe.²⁶

Submissions such as that from Hobsons Bay City Council also suggested the use of an overlay like the Melbourne Airport Environs Overlay (MAEO), Airport Environs Overlay (AEO) or the Bushfire Management Overlay (BMO) as examples where not only development but land uses could be managed by the planning tool.

With respect to overlays, Mr Milner's evidence was that:

The application of an overlay provides scope to address the following matters:

- *The creation of a permit requirement and discretion for uses that may conflict with and would be sensitive to the threats and risks posed by the operation of a MHF and or specified pipeline.*
- *An assurance regarding the continued operation of the MHF.*
- *Greater protection for the surrounding affected area.*
- *Information for interested and affected proximate parties regarding the presence of an MHF and the potential impacts, including threats, noise and odour.*
- *Advice on matters that will be taken in to regard when assessing applications for use and development of land; and*
- *Referrals to relevant authority(s) (WorkSafe Victoria, the Environmental (sic) Protection Authority and the MHF operator).*

Another benefit of an overlay is that of stakeholder notification or awareness. Application of an overlay over land around a MHF would ensure that landowners and prospective landowners are made aware of the presence of the overlay and what it seeks to do with

²⁵ Submission 29.

²⁶ Discussed later in this chapter.

respect to any nearby MHF. The overlay will increase awareness of the relationship between land around a MHF and the MHF itself.

In the absence of a new overlay, Mr Willis submitted that a pragmatic solution would be the use of the ESO. This would overcome any reluctance to create additional zones and overlays and fit in with the existing structure of the VPP.

Mr Milner gave evidence supporting the use of the ESO. He considered:

- *It would not necessitate the creation of another customized overlay and would demonstrate an efficient and effective use of the VPPs.*
- *The ESO is already widely used to not only protect environmental assets, flora and fauna but also protect areas surrounding treatment plants, landfills and materials recycling from the off-site amenity and safety issues presented by those activities.*
- *The schedule can be crafted to the specific circumstances of the MHF.*
- *The overlay map can present and encompass the Inner and Outer Advisory Areas as a single and consolidated statement with the distinctions between the different considerations being a second order of consideration in the case of a permit application and referral.*

The overlay would depict the affected areas nominated by WorkSafe and not the threshold distances advanced in Clause 52.10.

In considering the above, Mr Willis submitted that ExxonMobil acknowledges that, although the ESO only regulates development and not use, and that ExxonMobil's preference was for control on use, a control over development is generally considered sufficient to achieve the purposes for which it would be proposed. Mr Willis noted that despite the environmental connotation of the ESO, it has been used in the form of providing buffers in a number of planning schemes²⁷.

The ESO Mr Willis submitted, could be applied to the IPAA and OPAA areas mapped by WorkSafe with discretion for permit applications supported by advice from bodies such as WorkSafe and the EPA. An ESO would not be restricted to cadastral boundaries like that of a zone, and this would ensure risk areas are addressed by the overlay. Measurement of advisory areas was suggested by Mr Willis to be taken from MHF site boundaries rather than from particular machinery or sites of equipment or tanks or the like given these pieces of infrastructure may change over time and upset the extent of mapped areas.

A key message arising from the submissions of WorkSafe is that because MHF have large quantities of dangerous goods on-site, an incident at a MHF, such as a fire or explosion, could have the potential to cause fatalities and serious injuries, as well as inflict property damage at the facility and in the surrounding area. Such a low likelihood but high consequence can result in the surrounding community having limited time to take action such as evacuation. This may increase the level of impact particularly for those sectors of the community who are either unable to evacuate quickly and without assistance (e.g. the elderly, the young or the infirm) or are particularly susceptible to the effects of an incident

²⁷ Latrobe Planning Scheme under ESO1 for buffers around coal mines, Kingston Planning Scheme under ESO4 for former landfill buffers.

(e.g. the elderly or people with pre-existing health conditions). Those at greatest risk are generally linked with what WorkSafe refer to as sensitive uses such as schools, childcare centres, hospitals, elderly care centres/residences, or facilities with large numbers of people gathered such as recreation, conference and entertainment facilities.²⁸

WorkSafe has identified that within an IPAA residential development (or increased residential density) and sensitive uses (as described above) would not be supported and within OPAA an additional safety margin is applied where sensitive uses might be considered.

(ii) Discussion

The IPAA and OPAA approach was discussed in Section 3.3 above, and the Committee fundamentally supports this approach as being appropriate for forming the basis of a planning control in some form.

The Committee notes the commentary from submitters about zones and their less favoured pursuit as the means by which land use around MHF could be managed with regards to hazards compared to the use of an overlay. The Committee does acknowledge that the use of zones currently for MHF (such as the SUZ in Hobsons Bay and IN2Z in Greater Dandenong) appears satisfactory and provides sufficient governance over how the facilities themselves are managed and developed. This is reinforced by the licensing requirements of WorkSafe.

The Committee also acknowledges that for existing residential areas the use of the NRZ may assist in managing the density of residential development. This is an option that would be available to planning authorities where there is sufficient strategic support for this type of application under both State and local policy and it does not require a fundamental change to the VPP to introduce. The Committee considers that whether the NRZ is used or not would be dependent on strategic policy support, and also whether or not an alternative planning tool such as another zone or overlay is applied that would eliminate the necessity of applying density limits to the NRZ.

The ability to regulate land use as well as development was viewed by submitters as an opportunity to ensure risks to people and sensitive uses could be managed. The MAEO and AEO are examples of overlays that can control and prohibit certain types of land uses. The Committee is aware that introducing a planning control that can prohibit land uses may not be particularly fair when the robustness of either the hazard mapping or the consideration of the extent of risk is uncertain.

This is heightened when access to appropriate information may not be available (e.g. access to MHF safety cases) or where the MHF safety case may not provide the appropriate type of information to support determination of the extent of hazard risk. The extent of uncertainty about prohibiting land uses means that discretion to grant a permit becomes more appropriate. Requiring a permit provides for a process where a proposed use and development can be considered and assessed against the policy framework and objectives and decision guidelines of the permit requiring control. This provides for a 'check and balance' approach with land use and development of land surrounding MHF.

²⁸ Sensitive uses were discussed in Chapter 2.

Although the introduction of the MAEO and AEO and their control of land use create precedent for an overlay to go beyond solely controlling development and a new overlay specifically for MHF may appropriately have the same role, the Committee considers the option of using an overlay like the ESO to be a more practical and achievable option for regulating hazard risks over land surrounding MHF. The ESO has been used to manage amenity, hazards and risks in both urban and rural environments. It has been used to protect water quality in water supply catchments, provide protection of buffers for waste water treatment plants, provide buffers to both former and existing landfills, coal mines, industry and ports as well protection of environmental values and assets. The Committee considers that a schedule to the ESO has the ability to include requirements in the schedule/s to the ESO that can be tailored to the circumstance and context of land surrounding particular MHF. Also, the application of the ESO and schedules to land around MHF can be driven by planning authorities at the local government level meaning local ownership of the process and outcomes are possible.

Clause 42.01 – *Environmental Significance Overlay* includes a purpose which seeks to implement State and local policy, identifies areas where the development of land may be affected by environmental constraints and ensures development is compatible with identified environmental values. Clause 42.01-1 of the ESO requires a schedule to contain a statement of environmental significance and the environmental objective to be achieved. Clause 42.01-2 establishes permit requirements for the construction of a building or the construction or carrying out of works and provides for a schedule to specify when a permit is not required. Relevantly, the sub-clause also requires permits for the subdivision of land unless specified in a schedule that one is not required. Clause 42.01-4 includes decision guidelines which require the consideration of State and local policy, the statement of environmental significance and objective and any other matters specified in a schedule to the overlay. All of these provisions create a framework within which development on land surrounding MHF where hazard risk is present can be considered via a planning permit application.

The Committee notes the example of the use of the ESO through Schedule 1 - *Port of Melbourne Environs* (ESO1) in the Maribyrnong Planning Scheme which seeks to manage potential conflicts between land in the port environs and the adjoining Port of Melbourne. The ESO1 includes a statement of environmental significance that identifies the environs around the Port of Melbourne and that land in the overlay should not be developed in a way that would compromise the protection and expansion of the port. Similarly the environmental objectives of the ESO1 seek to minimise land use conflicts and to ensure that land use surrounding the port does not constrain the operation and development of the port. Relevantly, permits are required for buildings and works associated with certain types of land uses including accommodation, childcare centres, education centres, places of assembly and offices as well for the subdivision of land.

The ESO1 in the Maribyrnong Planning Scheme highlights how the ESO could be applied through schedules that are drafted to manage development associated with uses that would be considered to be sensitive to hazard risks arising from the operation of a MHF.

The Committee was provided with a draft ESO schedule in Mr Milner's evidence which had a similar structure to that of the ESO1 in the Maribyrnong Planning Scheme, but with more

detailed objectives relating to MHF and using the example of the Altona Refinery and its environs (refer to Appendix G). The emphasis of this draft ESO schedule is protection of the health and safety of the community in the locality of a MHF and to provide for its ongoing operation. The schedule requires permits for development associated with sensitive uses including residential and contains decision guidelines. The decision guidelines seek to ensure the relationship between the proposed development and the use of land associated with that development are appropriate in terms of safety, hazard risk and industry viability. They particularly require regard to any increase in the number of people who may be present because of the development proposal. The decision guidelines require that the responsible authority consider the views of both WorkSafe and the EPA.

The ESO has the potential through the use of multiple schedules to address the scaling effect of the IPAA and OPAA mapped by WorkSafe. In this way a schedule that is tailored to the more restrictive nature of the IPAA and another schedule tailored to the more specific restrictions of the OPAA would allow for a more responsive approach to managing development associated with the appropriateness or otherwise of various land uses against the level of risk posed by hazards from a MHF.

Drafting of schedules to the ESO to address MHF risks to surrounding land also has the potential to include application requirements and referral (discussed further in Section 3.7) and notification requirements.

Application requirements also provide an opportunity to tailor the schedule to require certain types of information to be submitted with a permit application to assist a responsible authority and referral authority in forming a view and assessing a proposed development. Such information could include:

- A site plan that shows the proposed development in relation to the MHF site and the relationship between the activities of the development and that of the operation of the MHF.
- The manner in which people occupying the site of the proposed development would be protected from hazards arising from a hazard risk event associated with the operation of a MHF including through the use of, for example building materials.
- Provision of an Emergency Evacuation Management Plan or similar that could be prepared to the satisfaction of the responsible authority and/or WorkSafe.

Implementing the ESO approach to MHF buffer and hazard risk would be based on WorkSafe mapping of IPAA and OPAA. Support for planning authorities to implement the ESO would be required from State Government through a combination of a Ministerial Direction and a Planning Practice Note to enable a consistent approach but one that could be tailored to local circumstances and context.

Having regards to the above discussion on the use of the ESO, the issue remains in relation to what happens if a change to a sensitive use occurs under the zoning of land within an advisory area that does not require a permit and no development is proposed that would trigger a permit process under the ESO dealing with hazardous facilities? Although there is a possibility this may occur, the Committee considers it unlikely because conversion of an existing building to a sensitive use such as a child care centre would likely necessitate a permit under the zone. It would also likely require some form of buildings and works to

accommodate the change of use hence also triggering a permit process. Once that occurs then hazard and safety can be considered in relation to the proposal.

(iii) Conclusions and recommendation

The Committee does not consider it necessary for adjustments to be made to zones on the basis that there were difficulties as identified with regards to the application of zones to MHF themselves. The use of the NRZ to established residential areas around MHF is considered to have potential but would be tied to strategic justification. It may be that the use of other planning tools could nullify the application of the NRZ.

Whilst superficially attractive, the Committee also concludes that a new overlay tool is not needed. The use of existing tools, and particularly the ESO with appropriate schedules, should be able to produce an acceptable outcome, namely to control development near MHF.

The Committee considers the use of the ESO and a schedule similar to that drafted in Mr Milner's evidence is appropriate. The ESO could include two schedules that reflect the requirements and varying levels of hazard risk associated with IPAA and OPAA. This would produce a more responsive set of provisions for development around MHF.

The ESO and schedules would not need to be developed concurrently for all MHF. A priority program for application could be developed concurrently with the preparation of advisory area mapping discussed in Section 3.3. Such a priority program is discussed further in Section 3.11.

The Committee recommends:

Apply the Environmental Significance Overlay with separate schedules for WorkSafe's Inner and Outer Planning Advisory Areas to provide a more responsive approach to managing development associated with sensitive uses.

Consider the draft schedule to the Environmental Significance Overlay provided in Appendix G as a model, together with the specification of application, notification and referral requirements.

Prepare a Ministerial Direction under Section 7(5) of the *Planning and Environment Act 1987* and an associated Planning Practice Note to guide the development of local policy and the application of the Environmental Significance Overlay and schedules to planning around Major Hazard Facilities.

3.8 Particular provisions

The references to particular provisions under Clause 50 have primarily been in relation to Clause 52.10 – *Uses with adverse amenity potential*. The clause focuses mainly on the issue of amenity rather than safety although risk is mentioned in the purpose. Clause 52.10 is designed to ensure industry does not locate near sensitive uses; but does not address the counter situation where sensitive uses are encroaching on an industry.²⁹

There is the opportunity to include a new or revised particular provision for MHF.

²⁹ The so-called 'reverse buffer' situation.

Clause 52.10 is addressed in detail in Chapter 4.

(i) Submissions and evidence

Particular Provisions have been considered in terms of providing a supporting role to policy and any overlay based on the IPAA's and OPAAs mapped by WorkSafe. The Hobsons Bay City Council's *Interim Guidelines for Major Hazard Facilities Land Use Planning* is another example where additional guiding policies could be referenced in a Particular Provision.

The submission from Melton City Council³⁰ included similar sentiments in terms of assisting with managing hazards and MHF.

Mr Milner gave evidence that a Particular Provision could be useful for distinguishing between the significance of WorkSafe's IPAA's and OPAAs.

(ii) Discussion

The Committee considers that unless the Particular Provision has some direct relationship with the permit trigger or establishes a permit trigger, the benefit of having a clause introduced into this part of the VPP would appear limited. Information about how permit applications may be handled or about what WorkSafe's IPAA's and OPAAs mean are considered more appropriately included in a planning practice note (or similar).

There has been a tendency in recent times to add a new particular provision for almost any new issue. Without commenting on any specific particular provision, the Committee does make the observation that this approach could carry some risk of undermining the fundamental policy/zones/overlay approach of the VPP if not managed carefully.

(iii) Conclusion

The Committee does not consider changes to the Particular Provisions of the VPP, beyond Clause 52.10, are necessary if the changes to State policy and the use of the ESO are implemented as recommended by the Committee.

3.9 General Provisions

Commentary on the General Provisions in the VPP focused on the desirability of expanding the referral authority scope of both WorkSafe and the EPA to permit applications that go beyond those affecting MHF sites specifically. Referrals are addressed in Section 3.10 below.

Another element raised in relation to the General Provisions of the VPP include the merits of including references to hazard risk around MHF under the decision guidelines in Clause 65 *Decision Guidelines*.

(i) Submissions and evidence

Commentary on Clause 65 was limited and perhaps the sentiment was best summed up in the evidence of Mr Milner where he suggested that inclusion of a specific consideration of MHF and pipelines as a decision guideline in Clause 65 would be an option but not if similar decision guidelines which have the same effect are associated with an overlay.

³⁰ Submission 44.

(ii) Discussion

Regarding Clause 65, the Committee recognises that there is no specific reference to hazard and risks associated with MHF. There are references to State and local policy, zone and overlay purposes and Section 60 *What matters must a responsible authority consider?* of the *Planning and Environment Act 1987* which does include the effects of development on the environment and the effects of the environment on development. There is also a reference to hazards associated with flooding, erosion and fire. However, safety from industrial hazards is not specifically included.

The Committee notes that some consideration was given to an additional decision guideline not being necessary if the relevant planning tool addresses the issue of hazard risk. However, the Committee considers that it would be beneficial to include a reference similar to that provided for flood, erosion and fire as an additional decision guideline under Clause 65 that includes hazard from industrial events posed by MHF.

(iii) Conclusion and recommendation

The decision guidelines under Clause 65 should be modified to include an additional decision guideline to refer to industrial hazards associated with MHF on surrounding land.

The Committee recommends:

Modify the Clause 65 *Decision Guidelines* to include an additional decision guideline to refer to hazards associated with Major Hazard Facilities.

3.10 Referrals

Whether key agencies should be referral authorities for development applications was a key issue discussed in submissions and the Hearing.

(i) Submissions and evidence

There was general recognition by submitters of the expert role played by WorkSafe with respect to hazard risk and public safety around MHF. A significant gap in the planning system that was identified by some submitters is the lack of formal opportunity for WorkSafe or the EPA to provide comment or become involved in land use and development proposals affecting land surrounding MHF that may be at risk from hazard from the operation or upset in the operation of a MHF. WorkSafe becomes involved when a MHF is proposed or there is a proposed change to an existing MHF operation or site conditions. However, there is no such opportunity under the VPP or planning schemes, apart from some examples of local policy or local control (e.g. overlay schedule) that provides for it.

Generally, submitters were supportive of greater WorkSafe involvement as a referral authority over land within the planning advisory areas identified around MHF. The general consensus was that WorkSafe be a recommending referral authority, more so, than as a determining referral authority. This was best summed up in the submission from Mr Willis. He considered that conferring discretion on a responsible authority to approve uses within a buffer area after taking into account guidance from a body like WorkSafe as a recommending referral authority would retain the opportunity for review. He stated that:

While in the ordinary course, it (WorkSafe as a recommending referral authority) would be expected to be accorded great weight (entirely appropriate), it would be capable of review at VCAT. This balances the interests of the parties and preserves the integrity of the planning system.

Alternative positions were put to the Committee by Hobsons Bay City Council and were also suggested by Ms Green. They foresaw a benefit of bringing together a new team in the Department of Environment, Land, Water and Planning (DELWP), as a recommending referral authority, that could receive advice from WorkSafe and the EPA. This new group could interpret that advice in a manner that bridges the technical gap between land use planning and the MHF framework as required. Hobsons Bay City Council considered that in this way, any lack of expertise could be overcome with clear and sound advice to aid decision making.

Hobsons Bay City Council also submitted that both WorkSafe and the EPA may require similar teams within their respective organisations to provide advice, with both acting as recommending referral authorities, to permit applications lodged on land within the vicinity of MHF. In addition, Council also considered MHF operators themselves would have a role to play because they would be best placed to provide information on their operations and the risks associated with them. Ms Markis submitted that:

Consequently, they should be required to provide comments to the new team in DELWP. Alternatively, they can be recommending referral authorities. Council does not support determining referral authority status as this will give a commercial entity significant influence and in a worst case scenario create de-facto decision makers for land around them.

Clause 66.02 includes requirements for referral of certain types of permit applications based on state wide criteria. For example, Clause 66.02-4 requires a proposal for development within 60 metres of a major electricity transmission line to be referred to the relevant electricity transmission authority that has determining referral authority status. Similarly, the submission from Yarra Ranges Shire Council³¹ raised the issue of whether Clause 66 should include referrals where proposals are located in certain proximity to MHF.

(ii) Discussion

The Committee considers the inclusion of WorkSafe Victoria and the EPA as both referral authorities under Section 55 of the *Planning and Environment Act 1987* as prudent measures with broad general support from submitters.

The Committee also notes that WorkSafe when questioned in the Hearing was extremely reluctant to take on a referral authority role, based primarily on the resource implications and the need to potentially have planning expertise to go with their technical expertise in risks and hazards. WorkSafe however, as with other parties, could not suggest an alternative agency or location for such a role.

³¹ Submission 8.

The Committee understands the reluctance to take on the role but still considers that WorkSafe is the logical source of such advice. There is no other suitable agency that possesses the technical understanding of risks and hazards to feed in to the planning process.

The Committee considers that inclusion of referral authorities should be considered in two ways:

- For the IPAA reflected in an ESO schedule; WorkSafe should be a determining referral authority and the EPA a recommending referral authority.
- For the OPAA reflected in an ESO schedule; WorkSafe and the EPA should be recommending referral authorities.

WorkSafe's status as a referral authority increases as the level of risk and hazard increases; that is the closer you get to the source of the risk.

The Committee considers these would be the most effective way to ensure these key agencies are involved in considering and providing advice on permit applications triggered for development and subdivision within the inner and outer advisory areas around MHF.

The Committee does not support including them as referral authorities outright under Clause 66.01 for subdivision and Clause 66.02 for specific use and development referrals as the focus should be on the IPAA and OPAA for the declared MHF across the State. Changes to the schedule to Clause 66.04 would need to be made in the relevant planning schemes however to reflect the new ESO schedules and referral provisions.

On the question of Agency resourcing, the Committee understand that this could be a significant impediment to implementing such a referral authority approach in the short term, but this does not in the Committee's view detract from the fundamental need for WorkSafe to have a significantly greater input into decision making around MHF.

The Committee has also considered the submission requests for a 'specialist unit' within DELWP to assist responsible authorities with advice and decision making around this issue. The Committee does not consider this should be necessary provided the appropriate expertise is successfully accessed via referrals. Such a unit could further entrench inconsistency and confuse the responsibility for the provision of such expert advice.

(iii) Conclusions and recommendations

The Committee concludes that WorkSafe should be included as a determining referral authority under Section 55 of the *Planning and Environment Act 1987* for permit applications for development and subdivision within IPAA, and that WorkSafe and the EPA be included as recommending referral authorities for OPAA.

The Committee recommends:

Subject to further consultation on implementation, include WorkSafe Victoria as a determining referral authority and the Environment Protection Authority as a recommending referral authority in Clause 66 for permits required by Environmental Significance Overlays applied to Inner Planning Advisory Areas for Major Hazard Facilities.

Subject to further consultation on implementation, include WorkSafe Victoria and the Environmental Protection Authority as recommending referral authorities in Clause 66 for permits required by Environmental Significance Overlays applied to Outer Planning Advisory Areas for Major Hazard Facilities.

3.11 Planning around Victoria's Major Hazard Facilities

(i) The issue

The Committee's TOR require it to report on the issues to be addressed for each of the 38 MHF. The Committee is recommending in principle for planning for MHF:

- the improvement of state planning policy
- the development of local policy where relevant
- the application of the ESO with two schedules for existing MHF for the IPAA and OPAA.

As previously identified there are 38 MHF currently registered by WorkSafe. The need for additional planning controls around these facilities is variable dependent on their specific operation and the land use context.

(ii) Discussion

The Committee has considered all 38 MHF and has categorised them into 'high', 'medium' and 'low' priority for the development of IPAA and OPAA's and associated controls. The criteria are qualitative and based on a review of the planning scheme for each of the facilities and aerial photography.

It is important to note that the priority is not a reflection of the specific risk from a facility, but rather a desktop review of land use 'sensitivity' around facilities leading to some sense of priority for planning control development.

Table 2 Criteria for planning priority for MHF

Priority	Criteria
High	<ul style="list-style-type: none"> - School(s) and aged care within 1km. - Residential use within 500m³². - High potential for residential use within 500m.
Medium	<ul style="list-style-type: none"> - Within industrial or commercial use area.³³ - No residential or sensitive use within 500m. - Low potential for residential use within 500m.
Low	<ul style="list-style-type: none"> - No existing residential use or sensitive uses within 1km (excluding farmhouses). - Low potential for residential use in future. - No other industrial or commercial use within 1km.

³² The Committee considers it unlikely that a planning advisory area or need for a risk ESO would need to extend to this distance but has used it as a 'trigger' distance for this purpose.

³³ Industrial and commercial employees must be considered in planning but the Committee considers the potential for organised evacuation and coordinated emergency response is greater; and thus the risk lower.

These priorities relate only to hazard and risks, priorities for broader amenity buffers may also exist.

The Committee has generally considered the distances from the site boundary but in some circumstances, such as the Paper Australia facility near Morwell, where there is a large site, allowance has been made for this and noted accordingly.

The table of priorities is included in Appendix H.

The Committee considered providing consideration of some level of 'State significance' for facilities to recognise those that are critical to the State's economy. However it has concluded that the focus should be on the level of risk and proximity to sensitive uses. A sense of 'State significance' can be included in the control as suggested in the 'Statement of Environmental Significance' in the ESO provided by Mr Milner shown in Appendix G.

(iii) Conclusion and recommendation

The Committee concludes that the IPAA and OPAA and associated planning controls identified in this chapter should be developed and applied based on the priorities outlined in Appendix H. These priorities should be used as a guide and be further refined subject to consultation with operators, WorkSafe, the EPA and local government.

The Committee recommends:

Develop and apply the inner and outer planning advisory areas and associated Environmental Significance Overlays in accordance with the priority identified in Appendix H.

4 Protection of amenity

4.1 Background

The Committee has been careful to clearly differentiate between impacts on amenity³⁴ and the risk to human safety and life from industrial incidents.³⁵ These are separate but related issues that should not be confused in land use planning. As noted in the Discussion Paper at chapter 6.2, the Committee's TOR also require consideration of buffers for adverse amenity for other industrial uses, specifically "*A buffer or separation distance can achieve both risk and amenity objectives, although a buffer to protect the amenity of sensitive uses is often considerably greater*".

Section 2.2 and 6.2 of the Committee's Discussion Paper provided background information on how amenity buffers are considered in planning, including through the SPPF industrial zones and particular provision at Clause 52.10 in the VPP; and its relationship to the EPA *Recommended Separation Distances for Industrial Residual Air Emissions* (IRAE Guidelines).³⁶

In this chapter the Committee uses the terms 'buffer' and 'separation distance' interchangeably. The Committee considers any differences are semantic in nature; the key issue is a spatial separation to reduce the impact of offsite emissions (odours, dust, noise, smoke etc.) from an industry to a sensitive receptor.

(i) Principles for amenity buffers

In addition to managing risks from MHF as discussed in Chapter 3, the Committee's TOR provide:

The Advisory Committee is to make recommendations on the following matters:

- ...
- *Principles for applying land use buffers more broadly to other uses with adverse amenity potential.*

The Committee is of the view that the principles relating to buffers and separation distances have not changed over time; the key issues as always are about how to apply them in planning or other systems and their basis. Some of the key principles are articulated below.

Principle: Emission control is the responsibility of the emitter.

The IRAE Guidelines note:

*It needs to be recognised that where there are industrial air emissions from premises, even with good pollution control technology and practice, there may still be unintended emissions which must be anticipated and allowed for.*³⁷

³⁴ Defined in dictionaries sighted by the Committee as the 'pleasantness' of a place.

³⁵ This approach was generally supported in submissions. See for example Mobil submission (58) at paragraph 3.8.

³⁶ EPA Publication 1518, March 2013.

³⁷ In Section 6.

These guidelines relate primarily to industrial emissions but the principle is equally applicable to any land use that periodically creates emissions that adversely affect neighbouring properties. This may include dust from feedlots, odour from composting operations or any other source.

There may be offences and remedies through the *Environmental Protection Act 1970* (pollution) or the *Public Health and Wellbeing Act 2008* (nuisance), but the responsibility for preventing emissions that adversely impact others fundamentally rests with the emitter.

Principle: Even best practice source emission control does not guarantee there will never be offsite adverse amenity impacts.

As the IRAE Guidelines and Clause 52.10 make clear, a buffer or separation distance is usually required in addition to on-site emission controls to minimise offsite adverse amenity impacts when upset conditions occur. Such distances need to be soundly based and may decrease over time with technological advances in pollution control and other changes such as decreased production.

Such distances should be designed to ensure offsite amenity impacts are reduced to an 'acceptable' level, not to the point where there will never be an offsite impact, as this may be a very great distance.

Principle: Buffer or separation distances must be evidence based and adequate to reduce offsite amenity impacts under upset conditions to an acceptable level.

The separation distance must be large enough to achieve its objectives without unnecessarily restricting other land uses. The basis for the distance, whether a standard or site specific calculated distance, must be transparent with all the assumptions behind it clear.

Principle: Planning authorities should not promote or approve land use change to sensitive uses within a buffer or separation distance without a sound strategic planning process and strong State and local policy support.

There are many instances where transition to sensitive uses such as residential occurs as old industrial areas are repurposed. However this should be done strategically and logically and with the engagement of the relevant industry.

What is to be avoided is to use the planning process as a lever to force a particular land use and development outcome in the absence of sound policy.

Principle: Land uses requiring a buffer or separation distance should not have the expectation that they will receive planning support on a new site, or expand on an existing site, with inadequate buffers or separation distances.

Just as sensitive uses should not encroach on existing industry, industry should be required, as per Clause 52.10, to not establish or expand in areas where adequate separation distances cannot be achieved.

Principle: Where possible, buffers or separation distances should be in the control or ownership of the emitter.

With greenfield industrial development or in a regional locations this may be relatively simple to achieve and gives the industry greater control if sensitive uses are approaching³⁸. However in many instances a buffer or separation distance extends well beyond the property owned by the emitting industry; and the examples given in Section 4.2 fall into this category.

In these circumstances the balance again must be sought in net community benefit terms as to whether land use planning should resolve the issues in favour of protecting an industry or facilitating the growth in sensitive uses. Again the policy framework becomes paramount.

Principle: Information in plain English about potential amenity impacts should be readily available to the community, industry and decision-makers.

Whether through planning schemes or other mechanisms, the presence of potential amenity impacts should be clearly identified to inform decision making at the societal and individual level.

(ii) Key issues

In response to the Committee's Discussion Paper, many submissions addressed the issues around amenity and buffers/separation distances. The Committee considers the key issues that arise for further consideration are:

- Are the provisions in the VPP adequate and suitable to effectively apply buffers to industry and other land uses with off-site impacts?³⁹
- Does planning effectively consider amenity concerns from industry; and effectively consider the situation where sensitive uses are encroaching on industry and other land uses?
- Are the linkages between land use planning and environmental protection effective in protecting amenity?

The Committee notes that all submissions that addressed the issues around land use buffers were in general agreement that the system as it stands is inadequate and needs refinement to provide clearer direction to both industry and its neighbours. That is not to say that all submitters were in agreement on the exact approach to be pursued.

The issues are considered in more detail below.

³⁸ For example Mobil own significant areas of land in Altona which are primarily used for buffer purposes.

³⁹ The Committee is aware that the Animal Industries Advisory Committee has been considering issues around amenity and separation distances for animal based industries (e.g. intensive livestock production). The recommendations on separation distances of this Committee and the Animal Industries Advisory Committee should be considered together.

4.2 The adequacy of existing amenity provisions

(i) Submissions and evidence

The existing amenity protections and how they work in practice were addressed by many submitters and particularly the operation of Clause 52.10 and the relationship between this clause and the IRAE Guidelines.

Mr Finanzio noted that the distances in Clause 52.10 were developed many years ago from the EPA Publication *Recommended Buffer Distances for Industrial Air Emissions*, the precursor to the IRAE Guidelines. He submitted that this was acknowledged by EPA officers in cross examination in the *Reachy* VCAT case in 2011.⁴⁰ He also submitted that the buffer distances in both Clause 52.10 and the IRAE Guidelines are generally not supported by science and analysis and are out of date.

Mr Willis submitted that Clause 52.10 only needs modest changes but it has a confusing purpose and appears to cover both amenity and risk. Some words should be deleted and cross-referenced to a risk related control. He submitted that at least the Clause has some flexibility compared to the inflexibility of State Environment Protection Policy (Control of Noise from Industry, Commerce and Trade) N-1 (SEPP N-1).

Others such as Wellington Shire Council supported a more comprehensive review of Clause 52.10⁴¹, as well as noting the Clause's ambiguity.

Other submitters noted that Clause 52.10's primary purpose is to ensure industry and other uses with adverse amenity potential do not locate inappropriately close to sensitive uses. It is not designed to avoid encroachment of sensitive uses on industry and other uses with adverse amenity potential.⁴² It was suggested that a complementary provision to Clause 52.10 to manage sensitive uses encroaching on those with adverse amenity potential might be desirable.

Brimbank City Council noted at the Hearing:

... the use of reverse buffers 'advisory areas' is recognised in both EPA and WorkSafe publications, and has been applied in decision making by Councils, VCAT and Planning Panels Victoria⁴³.

The City of Melbourne also considered that Clause 52.10 requires attention:

Clause 52.10 should be reviewed to provide more than just an advisory role in determining the need for permits for industrial and warehousing uses. It should also include the provision to allow for permits to be required for sensitive uses located in the vicinity of MHF and in a proposed MHF overlay, in a manner similar to land within other overlays.⁴⁴

⁴⁰ *Reachy Pty Ltd v Greater Geelong CC* [2011] VCAT 1202.

⁴¹ Submission 38.

⁴² The 'reverse amenity' issue.

⁴³ Brimbank City Council submission p5.

⁴⁴ Submission 47, page iii.

The Metropolitan Waste and Resource Recovery Group (MWRRG)⁴⁵ said that there is no clear and consistent approach in the land use planning system to identify separation distances around facilities. Furthermore different approaches are used to establish separation distances – either a standard approach or a site specific approach. The site specific requires technical assessment and modelling which is costly and dependent on information being provided by the facility operator and the operator funding the assessment. The City of Casey⁴⁶ supports changes to Clause 52.10 and in making submissions to EPA in 2015 on recommended separation distances it:

... advocated that a 'one stop shop' document should be prepared for all separation distances for industry covering noise, vibration and hazardous air emissions, as well as residual odour and dust emissions, identifying the relevant legislation, responsible authorities or agencies. This could then set the maximum separation distances for all industry types and specify the component distances (ie. noise, dust, etc.) to assist with assessing any requests for reductions in separation distances or encroachments.

The City of Casey also submitted to EPA that in respect to Clause 52.10:

...additional permit triggers be developed to ensure separation distances were protected; the EPA be made a statutory referral authority for applications for a range of other uses with adverse amenity potential listed in Clause 52.10 that have no note or a 'Note 2' irrespective of whether or not they comply with specified threshold distances; and the EPA be made a statutory referral authority for sensitive uses that may encroach into recommended separation distances (ie. reverse buffers).

As part of its submission, EPA⁴⁷ attached its options paper 'Better Managing Encroachment' (December 2015)⁴⁸. The purpose of the options paper is "... to identify and evaluate options for improving the management of residential encroachment on industry through the planning system." The paper addresses the situation where residential development is allowed too close to industry and residents are impacted by odour, dust and noise.

The options paper states that separation distances are to protect the health and amenity of people from adverse impacts from air emissions such as odour, dust and noise; however the distinction between health and amenity is rarely clear.

The options paper notes that separation distances are also introduced to protect industry, because impacts from industrial facilities on residents nearby can constrain the operation of industrial facilities.

The EPA's submission and options paper raised a number of important issues summarised as:

⁴⁵ Submission made during initial consultation, 12 November 2015.

⁴⁶ Submission 34.

⁴⁷ Submission 59.

⁴⁸ Options Paper, Unpublished. The options paper had input from a steering committee of government and industry group stakeholders but the views in the options paper are EPA's.

- The provisions of the SPPF addressing encroachment are scattered across various policies, but with most detail and emphasis in the industrial policies. Buffer provisions could be better linked or consolidated to improve their visibility in the planning system.
- EPA considers a range of zones could be applied to improve industrial buffers, but overlays are the more appropriate tools to achieve buffer protection.
- EPA would generally support a new overlay which recognises industrial risk as well as environmental, health and amenity impacts. Such an overlay could control use and development, provide spatial recognition of buffer distances and provide different schedule for different risks.

The EPA did not consider they should, or need to be a referral authority for all proposals within the separation distances for activities included in Clause 52.10, but rather planning tools which could require a permit for development should reference relevant EPA tools and guidelines.

The EPA did support a review of Clause 52.10 to:

- clarify the specific risks to be addressed
- identify the sensitive uses requiring protection
- clarify the meaning of ‘threshold distances’ as distinct from separation distances
- achieve consistency with EPA guidance where relevant
- ensure appropriate information is included with applications
- expand the referral triggers to require certain applications to be considered by EPA and WorkSafe.

EPA also indicated they are open to reviewing the IRAE Guidelines, despite them being reviewed relatively recently, to ensure consistency with Clause 52.10 and to ensure that all distances included have a technical basis.

A number of submitters also pointed out the difference in approach between Clause 52.10 and the IRAE Guidelines to spatial definition. Clause 52.10 threshold distances, remembering they are primarily threshold distances to determine whether a permit is required, are measured from ‘any part of the land’ of the proposed amenity impacting use.⁴⁹ The IRAE Guidelines discuss distances from the source of the emission. Helpfully, the IRAE Guidelines include useful diagrams for how the distances should be applied.

The MWRRG considers that buffers around strategically important waste and resource recovery facilities are critically important. The MWRRG said that with the expansion of the Urban Growth Boundary the separation distance around waste and resource facilities are at risk and that waste and resource recovery facilities had been encroached over time as result of lack of effective protection and poor decision making. Where encroachment has occurred then the sector has to ensure further encroachment is avoided and conflicts and inappropriate development are minimised.

MWRRG is currently collaborating with other government agencies, local government and industry⁵⁰ in the Local Buffer Support Program (LBSP) which is seeking to define and protect

⁴⁹ A definition which has spawned a long history of contested VCAT decisions in itself.

⁵⁰ Membership includes DELWP, EPA Sustainability Victoria and the Metropolitan Planning Authority (MPA).

these buffers to ensure that adverse impacts from these facilities on adjoining communities are minimised. The LBSP Action Group which is considering a proposed new overlay is in the process of finalising its recommendations.

The Victorian Water Industry Association (VWIA) also submitted that the protection of amenity buffers around sewage infrastructure and waste water treatment plants is problematic, and there are many instances of buffer erosion and encroachment.

(ii) Discussion and conclusions

Policy

The Committee has made recommendations specifically in relation to State policy around MHF in Chapter 3.

Having reviewed the clauses of the SPPF relating to amenity provisions, and specifically those relating to noise and air quality (13.04-1 and 13.04-2), the Committee considers the only change required at this time is to update the references to, for example, the IRAE Guidelines. Whilst improvements can always be made to policy, the Committee is not satisfied that in relation to amenity, the need for further articulation is required. Where there appears to be a greater need is how the policies are given effect in planning schemes through particular controls. This issue is discussed further below.

A separate, but related, issue is policy support for particular industries. An example has been that of buffers for waste treatment and recycling facilities. Clause 19.03-5 *Waste and resource recovery* seeks to protect and maintain buffers for waste and resource recovery facilities.

In the Committee's view, the difficulty in protecting sites and buffers for such facilities is less about provisions for buffer protection, and more about policy support for the types of industry themselves. If the policy support and planning tools are available but the 'public good' outcomes are not being achieved, this is an issue more broadly for Government, not necessarily the VPP.

The Committee is aware that there are other more comprehensive programs looking at planning reform, such as Smart Planning, and a broader review may suggest changes in structure and content for the SPPF.

In the current VPP, planning authorities, typically local governments, may prepare local policy consistent with State policy if they wish.

Zones and overlays

The use of zones for managing amenity issues occurs most commonly in the industrial zones, with the IN1Z explicitly requiring consideration of amenity through its interaction with Clause 52.10. The Industrial 3 Zone (IN3Z) is an explicit 'buffer' zone being a transitional zone between industry with significant amenity impacts and sensitive uses such as residential areas.

Again, as for policy, the Committee does not consider there is a need for wholesale change in zones to address amenity impacts. The tools exist and it is a question of strategic planning and application decision making. In some circumstances planning has progressed such that

large areas are zoned to protect a core industrial area, and the Port of Hastings SUZ is one such example. This in turn provides for significant buffer opportunity within the zone and opportunities for transitional uses between core industrial development and sensitive uses within the zone.

Conversely, rezoning to sensitive uses such as residential without due consideration of amenity impacts from industry is fraught with risk. But this requires strategic planning and a conscious decision via an amendment; it is not an indication that the appropriate zoning tools are not available.

'Legacy' issues such as existing residential use hard up against industry are always difficult to plan for and manage. The Committee does not consider these are issues that can be solved through the development of a new zone. Decisions about buffer purchase, back-zoning or other approaches are available now. The right response in particular circumstances is a complex mix of economic, social and political decision making and does not in the Committee's view require new zoning tools.

Similarly in relation to amenity, the Committee does not consider a new type of overlay is needed. In Chapter 3 the Committee discussed the increasingly broad use of the ESO in relation to amenity buffers. In particular in rural and regional contexts the ESO has been used explicitly for amenity buffers. Examples include the recently applied ESO Schedule 8 *Manufacture of Milk Products Amenity Buffer* in South Gippsland at Korumburra.

The Greater Shepparton Planning Scheme has a range of ESO schedules applied to waste water treatment plant amenity buffers to manage development. For example ESO2 in the scheme has the following environmental objective for the Shepparton plant:

A buffer needs to be maintained around the complex to restrict the intensity of housing development in proximity to the complex and to direct residential development at an urban scale away from it. This will safeguard the complex's operations and avoid any future conflict with any residential expansion of Shepparton. A buffer will also protect existing and future landowners from effects of the complex.

The Committee broadly supports the use of the ESO in this way, as discussed in Chapter 3. It is however clearly a simpler proposition in a rural or sparsely populated context. Placing an ESO amenity buffer around an industrial use in an urban context will be more problematic and likely to be hard fought by neighbours. The main point is that the tools do exist, and in the Committee's view new ones are not needed. The issues are twofold:

- The need for evidence based assessment of the need for buffers; that is the technical basis for recommended separation distances to which, for example, an ESO, might be applied.
- Assessment of the balance sought by Clause 10.04 that the application of a buffer tool is in the interests of 'net community benefit' and 'sustainable development'. These concepts bring up the full range of environmental, economic and social considerations that must be incorporated in decision making.

Particular Provisions

The Committee considers the form and operation of Clause 52.10 in the VPP is the area requiring most attention. There was very strong agreement in submissions that Clause 52.10 requires revision. The Committee observes that in our experience there has been a call to review this clause since the VPP commenced.⁵¹

A review should consider the following elements:

- The ambiguity in Clause 52.10 as to whether it is addressing risk, amenity or both. In most instances, the threshold distances will be for amenity and it is likely that the risk distance, at least in terms of the area modelled for a MHF, will be lesser.
- The type of amenity impacts Clause 52.10 is addressing. For example, is noise being considered or is Clause 52.10 confined to the consideration of air emissions?
- A review of the technical basis for distances in the clause to ensure that they are based on best available understanding of emissions sources, management methods, allowance for topography, prevailing weather conditions and plant size are therefore defensible as a permit trigger threshold.⁵²
- Revising the clause to make it explicitly applicable to 'reverse amenity' situations as well; where a sensitive use is encroaching on industry. This could be triggered through the use of a Ministerial Direction⁵³ which requires amendment proposals within the threshold distances to explicitly assess amenity concerns.

The other main issue is whether a single joint guideline or particular provision could be developed to replace Clause 52.10 and the IRAE Guidelines. The Committee does not have a strong view on this either way although it thinks the development of such an instrument should be possible and would clarify confusion around threshold 'trigger distances' and required separation distances. At the very least the fundamental basis for the two instruments should be the same; the analysis and development of separation distances.

In all of these approaches, and as discussed in Chapter 3, the Committee does not consider there should be a 'one size fits all' approach to decision making around buffers.⁵⁴ Whilst this is superficially attractive it is not part of Victoria's performance based planning system. There must be room to test where the 'net community benefit' outcomes lie on a continuum, whilst protecting the fundamentals of community safety and wellbeing.

(iii) Recommendations

The Committee recommends:

Update the references in the State Planning Policy Framework as relevant to include reference to the revised *Recommended Separation Distances for Industrial Residual Air Emissions (2013)* and *Noise from Industry in Regional Victoria Guidelines (2011)*.

⁵¹ At least one previous Advisory Committee has recommended that Clause 52.10 and the IRAE Guidelines been considered for review and merging if possible; see *Waste Transfer & Recycling Facilities Review Final Report (AC) [2009] PPV 95 (25 September 2009)*.

⁵² EPA's IRAE Guidelines articulates the basis on which variations to the separation distance can be made

⁵³ See for example Ministerial Direction 14: *Ports Environs*.

⁵⁴ EPA Guidelines provides for variations in separations distance based on six potential variables.

The Minister for Planning, in consultation with the Environment Protection Authority and stakeholders (industry, technical specialists and the planning and development profession) commission a comprehensive review of Clause 52.10 to:

- Review the head clause to clarify its application to risk (non Major Hazard Facility) and amenity.
- Review the head clause to clarify its application and use, including diagrams to assist with interpretation and expand its use to include ‘reverse amenity’ situations.
- Review the list of *Type of Production, Use or Storage* and the technical basis of threshold distances.

The Minister for Planning consult with the Environment Protection Authority to further consider the longer term development of a single instrument that combines Clause 52.10 and the IRAE Guidelines.

Develop a Ministerial Direction, based on Ministerial Direction 14, which requires planning scheme amendments which would allow or intensify sensitive uses to explicitly consider the *Types of Production, Use or Storage* in Clause 52.10.

4.3 Agent of change

The Discussion Paper provided the following thought starter:

- *Could the ‘agent of change’ principle be introduced to planning schemes for industry to ensure that the onus on ensuring appropriate buffers rests with the encroaching sensitive use.*

The Discussion Paper noted that the agent of change principle has been explicitly recognised and applied in Clause 52.43 relating to live music as a purpose of that clause.

(i) Submissions and evidence

Mr Finazio urged caution in relation to introducing the ‘agent of change’ principle, as he considered that the principle is not universally applicable and naïve and “...*fails to understand the practical workings of the planning system*”.⁵⁵ Mr Finazio cited the example of the law of nuisance, which states that it is no defence to a nuisance that the person affected moved to the nuisance. He also considered that it is inconsistent with the current regulatory environment under which industry is required to operate.⁵⁶ Mr Finazio stated that the threshold question in relation to encroachment on sensitive issues should be:

...what is the land use outcome that we want to see over time: how does it favour industry? Does it favour renewal and regeneration? Is an attempt at compromise and compatibility between uses sought, and if so how will that be achieved?

⁵⁵ AV Jennings Waterline submission p36.

⁵⁶ AV Jennings Waterline submission p3.

Further, Mr Finanzio stated that:

... placing the onus on the agent of change calls upon the proponent to prove a negative – that is new operation won't affect the existing established MHF – in circumstances where the MHF has all of the relevant information to assess risk and consequences, and where often that information is highly technical and sensitive.⁵⁷

Mr Finanzio considered that:

A proper and fair approach would require the facilities themselves to say what they regard as the limits of development in the vicinity of their operation, and to justify why those limits should exist.

Local Government submissions generally supported use of the principle. Latrobe City Council submitted that the principle is generally the principle behind Section 60 of the *Planning and Environment Act 1987* which requires the balancing of a range of planning elements.⁵⁸

South Gippsland Shire Council noted that the ESO affecting the curtilage of the dairy factory in Korumburra is consistent with the 'agent of change' principle. They noted that the agent of change principle exists in relation to live entertainment venues, and considered that the principle is likely to become an increasingly important principle in coming years with increasing community expectation of the level of amenity and safety they expect to enjoy in residential areas.⁵⁹

Other councils such as the City of Wodonga⁶⁰ the City of Casey and the City of Melton also supported incorporating the principle in planning.

Some industry submitters suggested incorporating the principle. The APA Group submitted that:

The principle would place responsibility for ensuring that all risks are mitigated with the 'agent of change'. This would justifiably place responsibility for ensuring that all risks are mitigated with the party that is seeking to alter the status quo, rather than requiring the existing party to attempt to retrofit an existing facility, which can be difficult, costly and in some cases unfeasible.⁶¹

Save Williamstown stated that the agent of change should be introduced into planning schemes for industry so that the onus on ensuring appropriate buffers is with the encroaching sensitive use. This is because "a bad decision on a new development can impact on the ability to operate safely".

⁵⁷ AV Jennings Waterline submission p36.

⁵⁸ Submission 11, p14.

⁵⁹ Submission 36.

⁶⁰ Submission 13.

⁶¹ Submission 70, p3. Noting that APA's interests relate to pipelines.

(ii) Discussion and conclusions

The Committee notes the use of the agent of change principle explicitly in Clause 52.43 but does not think this clause stands as justification for extending the principle more broadly in the planning scheme. The live music Particular Provision was developed for a particular set of generally inner city issues and related to a particular cultural strength of Melbourne and Victoria; the live music industry.

As discussed earlier in this report, the Victorian planning system requires the careful balancing of policies, whether for industrial protection or for increased urban development or some other land use planning outcome. It is important that policy clearly articulates where the balance should lie in any given situation, but this should not be in the form of a blanket 'first in best dressed' approach.

With proper policy guidance, the net community benefit equation should be able to account for, for example, the closure or relocation of a particular industry (MHF or otherwise) in the face of urban encroachment, or indeed the foregoing of urban development opportunities to protect a critical industry.

4.4 Other instruments

A range of other non-planning instruments were also considered by the Committee. The Committee does not make recommendations in relation to these but includes commentary for completeness.

(i) State Environment Protection Policy N-1

State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) N-1 1989 (SEPP N-1) relates to noise and sets limits on noise at locations where the beneficial use is to be protected for example for such as dwellings. It is the legal responsibility of noise emitters to limit their noise to comply with the SEPP. The SEPP recognises that Melbourne's planning system may involve industrial areas being located near residential zones, and aims to protect people from the effects of noise in these noise-sensitive areas. The policy is also used as a planning tool and also requires new and proposed industries to be designed in order to not exceed limits outlined in the SEPP.

SEPP N-1 sets noise limits for industry in the Melbourne 'metropolitan region'. It is sometimes criticised as the onus for compliance always rests with the emitter, regardless of whether a new sensitive use has located near to an existing industrial operation. In practice this onus is sometimes 'contracted out' through a planning instrument or approval. That is, the party moving towards the noise emission agrees to undertake, for example, particular noise mitigation on their development. A recent example is discussed in *Newport Properties*⁶² where VCAT determined (in the legal opinion attached to the decision) that a noise emitter was not bound by SEPP N-1 in circumstances where a neighbouring sensitive use applicant was bound by a planning instrument to undertake noise assessment and mitigation.

⁶² *Newport Properties Pty Ltd v Vic Track Pty Ltd & Ors* VCAT Decision dated 22 February 2016.

(ii) Noise from Industry in Regional Victoria

The *Noise from Industry in Regional Victoria* guidelines (NIRV) provides recommended maximum noise levels for industry in regional Victoria. It includes four parts:

- Part 1 describes the areas where the guidelines apply, and the premises and noise sources it addresses.
- Part 2 sets out advice for regulators applying the guidelines.
- Parts 3 and 4 are for industry, acoustic consultants and regulators, to determine the recommended noise levels.

The NIRV Guidelines are non-statutory - unlike SEPP N-1.

The NIRV Guidelines provide the methods to set noise levels for industry in regional Victoria, and aim to provide a balance between protecting community wellbeing and amenity near industrial premises, and at the same time, support the social and economic value of industry in regional Victoria.

They set out recommended maximum noise levels ('recommended levels'), which can be applied to manage the impacts of noise on the community. The recommended levels provide different degrees of amenity protection in different land-use zones. Land zoning will impact on the level of protection provided to sensitive uses, in particular where residential areas are adjacent to industrial or business zones.

(iii) Best Practice Environmental Management Guidelines

The Best Practice Environmental Management Guidelines (BPEM) are published by EPA and are legislative documents under state environment protection policies that contain required outcomes for best practice environmental management.

For instance, the BPEM '*Siting, Design, Operation and Rehabilitation of Landfills*' (Publication 788.3, August 2015), provides existing and future operators of landfills, planning authorities and regulating bodies with information on potential impacts on landfills and how these are mitigated, a clear statement of environmental performance objectives, and suggested measures to meet the objectives.

Separately, the EPA '*Demonstrating Best Practice*' Guideline (Publication 1517 February 2013) outlines how EPA assesses best practice, and provides guidance on how to demonstrate compliance with best practice requirements.

5 Pipelines

5.1 Introduction

There are pipelines of various sizes and capacities that transport gas, petroleum, water and sewage throughout the state. These pipelines can be above or below ground and be in streets, railway reserves and in urban and rural areas.

Rupture of any pipeline is likely to cause disruption but if there is a full bore rupture of a high pressure gas or a liquid hydrocarbon pipeline in a built up area it has the potential to cause catastrophic damage and injury or death.

Pipelines are not specifically included in the Committee's Terms of Reference. The issue however, was raised in many submissions and bears some similarities to the planning around MHF and the Committee has considered it to some extent on this basis. The Committee's consideration is limited to onshore pipelines which have the potential to be hazardous. The Committee has not considered offshore or water and sewage pipelines or ship to shore transfers although they were also highlighted by some submitters as potential hazards.

The Committee has been greatly assisted in consideration of planning issues related to high pressure pipeline by the many detailed and thoughtful submissions. It has been especially assisted by the extensive work undertaken by, or on behalf of, Energy Safe Victoria (ESV) who is Victoria's technical regulator of the pipeline industry.

5.2 Why consider pipelines?

With Melbourne and other Victorian cities undergoing unprecedented urban renewal Spiire, in their report prepared for ESV, reported that the pipeline industry is struggling to meet its legislative and regulatory obligations to assess risk in this rapidly changing context.⁶³

Mr Thomas⁶⁴ presented a series of graphs showing an analysis of 616 explosions from various countries around the world for the period between 1910 and 2013. A total of 11,466 people were killed in these explosions. Mr Thomas's analysis showed natural gas and petroleum pipelines were the top two causes of fatalities. Of the 41 countries which Mr Thomas examined Australia had the least number of deaths from explosions over the period analysed.

In a joint presentation to the Committee Mr Dalrymple and Mr Baker representing the Metropolitan Fire Brigade (MFB) and CFA⁶⁵ said that while pipeline incidents are rare there had been two significant pipeline incidents in the last 31 years. When there is a call out MHF firefighters will be familiar with the site and there will be good communications and well maintained firefighting equipment available. However if there is a pipeline rupture it is generally the first time emergency services have seen the site and there are often no convenient hydrants or phones. Access to the pipeline by emergency services can often be difficult and controlling a pipeline incident can be resource hungry.

⁶³ Spiire, Background Report, Land Development around Pipelines, February 2016.

⁶⁴ Submission, 10 February 2016.

⁶⁵ Submissions 67 and 26 respectively.

It was also submitted that there is no legislative requirement or other mechanism such as a Memorandum of Understanding (MOU) to consult with emergency services in terms of planning or response in relation to pipelines.⁶⁶

Mr Cronin⁶⁷ from ESV told us that the main risk with pipelines is gas explosions. With a rupture of an oil pipeline oil seepage is the main issue in which case there is generally more time to respond to repairing the pipeline and cleaning up the leaked oil. The main threat of this type of rupture is environmental damage not human life and health, unless there is ignition.

It is clear to the Committee that like MHF a ruptured high pressure pipeline can cause catastrophic damage which could cost people's lives, cause considerable injuries, impact on the environment as well as destroy and damage buildings. It is also evident to the Committee that emergency services' ability to respond to a rupture would be assisted by mapping of pipeline locations and through planning better accessibility to the pipeline.

(i) Pipeline Terminology

In the pipeline industry there are various terms used to define various types of pipelines in use in various settings that are common.

The *Pipelines Act 2005* and licence conditions oblige pipeline licensees to comply with Australian Standard AS2885 *Pipelines—Gas and liquid petroleum*, (2012) (AS2885). AS2885 is the overarching Standard that applies to pipelines in Australia. It relates to the design, construction, testing, operations and maintenance of gas and petroleum pipelines that operate at pressures in excess of 1050kPa for gaseous fluids and 345kPa for liquids. Under the standard, the pipeline licensee is responsible for the safety of the pipeline and it places a range of obligations on the pipeline licensee including maintenance of the pipeline, a safety assessment when there is a change in land use along the pipeline and if required the upgrade, or relocation of the pipeline or the implementation of physical barriers.

The design of a pipeline, which incorporates safety measures, is specified into categories in AS2885 and the categories are based on its location.

These classifications, as cited by several submitters, are as follows:

- **Rural R1 Rating:** *'Land that is unused, undeveloped or is used for rural activities such as grazing, agriculture and horticulture. Rural applies where the population is distributed in isolated dwellings. Rural includes areas of land with public infrastructure serving the rural use; roads, railways, canals, utility easements.'*
- **Rural Residential R2 Rating:** *Land that is occupied by single residence blocks typically in the range 1 ha - 5 ha or is defined in a local land planning instrument as rural residential or its equivalent. Land used for other purposes but with similar population density shall be assigned rural residential location class. Rural residential includes areas of land with*

⁶⁶ The MFB's response to the Discussion Paper.

⁶⁷ Hearing, 23 March 2016.

public infrastructure serving the rural residential use; roads, railways, canals, utility easements.

- **Residential T1 Rating:** *Land developed for community living. Residential applies where multiple dwellings exist in proximity to each other and dwellings are served by common public utilities. Residential includes areas of land with public infrastructure servicing the residential use; roads, railways, recreational areas, camping grounds/caravan parks, suburban parks, small strip shopping centres. Residential land use may include isolated higher density areas provided they are not more than 10% of the land use. Land used for other purposes but with similar population density shall be assigned Residential location class.*
- **High Density T2 Rating:** *'Land that is developed for high-density community use. High density applies where multi-storey development predominates or where a large number of people congregate in the normal use of the area. High density includes areas of public infrastructure serving the high density use; roads, railways, major sporting and cultural facilities and land use areas of major commercial developments; cities, town centres, shopping malls, hotels and motels.'*⁶⁸

AS2885 also includes definitions for land uses including sensitive uses and industrial and heavy industrial uses. Included in heavy industrial uses are industries that “*may contain features that cause a pipeline failure to escalate either in terms of fire or for the potential release of toxic or flammable materials into the environment.*”

For sensitive uses AS2885 states:

Sensitive use location class shall be assigned to any portion of pipeline where there is a sensitive development within a measurement length. It shall also include locations of high environmental sensitivity to pipeline failure.

It also states:

The sensitive use location class identifies land where the consequences of a failure may be increased because it is developed for use by sectors of the community who may be unable to protect themselves from the consequences of a pipeline failure. Sensitive uses are defined in some jurisdictions, but include schools, hospitals, aged care facilities and prisons. Sensitive use location class shall be assigned to any portion of pipeline where there is a sensitive development within a measurement length. It shall also include locations of high environmental sensitivity to pipeline failure.

The “measurement length” is the distance from the pipeline of relevant land uses and is based on the radius of the 4.7 kW/m² heat radiation contour calculated under AS2885.1-2012 for “full bore rupture” of the pipe leading to ignition of the escaping gas.

⁶⁸ As cited in Spiire Background Report, Land Development around Pipelines February 2016.

A sensitive use is defined in AS2885 as a secondary land use classification considered to be equivalent to T2 for risk management purposes. Sensitive uses in AS2885 include child care centres, pre-schools, primary schools, hospitals, aged care facilities and prisons.

Mr Cronin provided a table that compares AS2885 sensitive uses with sensitive uses widely accepted in planning (Child care facilities, residential, pre-school and primary schools) as well as sensitive uses proposed by APA⁶⁹.

5.3 Pipelines in Victoria

(i) Submissions

ESV submitted that in Victoria there are over 4,686 kilometres of onshore high-pressure pipelines transporting natural gas and other petroleum products including LPG, oil, unprocessed hydrocarbons and liquid fuels. Over 2,000 kilometres of pipelines, owned by APA Group, transport high-pressure gas to approximately 1.5 million residential consumers and 50,000 industrial and commercial users throughout the state. Approximately 300 kilometres of the pipeline system traverses or skirts built up metropolitan areas.⁷⁰

When a pipeline is built it is designed and constructed to the current surrounding land use and its future use however with an operational life of more than 60 years it is difficult to foresee future land use decades into future.⁷¹ The design takes into account the worst case scenario such as the effects of a full-bore rupture or ignition of a flammable fluid such as petroleum.

The pipeline industry uses physical and other measures such as fences, concrete slabbing, signage and security patrols to assist in providing tiers of barriers to protect pipes from third party damage⁷². The industry also has a regime of pipeline inspections to ensure that the integrity of the pipeline is maintained.

When development is proposed near a pipeline, mitigation measures such as upgrading the pipeline, relocation of the pipeline and reducing the pressure can be implemented however the main threat to pipelines that are outside the control of the pipeline industry is third party interference. This occurs not just in urban areas but can for example include agricultural use of diggers.

ESV reported that there has been an increase in unauthorised encroachments within three metres of licensed pipelines which is an offence under the *Victorian Pipelines Act 2005* if boring, excavating or opening up ground occurs.

VicTrack highlighted the issues it faces with pipelines saying they cause “*huge concern*” and it is currently auditing the pipelines on its rail reserves.⁷³ It said that there are around 380 pipelines under rail lines some of which are high pressure pipelines. While no new pipelines have been laid on VicTrack’s land for some decades VicTrack provided an example where,

⁶⁹ Submission, APA, 12 February 2016. These were summarised in Chapter 2.

⁷⁰ Submission, APA VTS Australia (operations) Pty Limited, 12 February 2016.

⁷¹ Document 36, Spiire, also discussed in Chapter 2.

⁷² Submission, Australian Pipelines and Gas Association, 9 February 2016.

⁷³ VicTrack represented by Sotirios Katakouzinis and Sue Lowther, 23 March 2016.

below one busy Melbourne rail line, there were six different pipelines. For VicTrack damage to the above ground pipelines concerns it most.

Wyndham City Council said pipelines almost encircle its entire municipality and this presents *“significant challenges, particularly, in the Wyndham context where a large part of the municipality, previously predominantly rural, is being transformed and transitioning to urban”*.⁷⁴

The dial before you dig is a relatively well known warning, however it was also claimed that landowners and developers don’t know where pipelines are unless there is an easement on title or signage about the presence of a pipeline. Local government datasets on pipeline locations are also often inaccurate.⁷⁵

Due to concern about the increasing risk posed by pipelines to new communities and areas of urban renewal, and the lack of coordination between industry and government, in 2013 ESV formed the voluntary Land Development Around Pipelines Working Group (LDAP) which comprises of officers from ESV, the Metropolitan Planning Authority (MPA), DELWP, DEDJTR and the Australian Pipelines and Gas Association (APGA) the peak body representing Australasia’s pipeline infrastructure industry.⁷⁶

The objective of the working group is:

... to identify improvements to the way licensed pipelines and land surrounding these pipelines are identified and managed. In particular, to identify the most effective mechanism for pipeline licensees and planning authorities to discharge the requirements of AS2885 and Clause 19.03-6 of the State Planning Policy Framework.

The APGA has also established the Pipeline Corridor Committee which includes regulators as well as APGA members *“to minimise the likelihood of failures in the planning around pipelines and to ensure pipeline owners are informed and given the opportunity to be involved”*.⁷⁷

The APGA advised they are currently in the process of mapping each pipeline in Victoria by type. Included in the mapped data will be the location of pipeline easements, their measurements lengths and their pipeline licensee. The mapped data will be available via a web portal for use by planning authorities.

(ii) Discussion and conclusion

One of the objectives of the *Planning and Environment Act 1987* is:

... to protect public utilities and other assets and enable the orderly provision and coordination of public utilities and other facilities for the benefit of the community.

⁷⁴ Submission, City of Wyndham, February 2016.

⁷⁵ Spiire, Land Development around Pipelines, February 2016.

⁷⁶ A copy of the Terms of Reference for the LDAP Working Group was provided to the Advisory Committee.

⁷⁷ Submission, P Fearon, ESV, 9 February 2016.

With reported increased encroachment the Committee considers the current planning system is failing to achieve the first part of this objective in a coordinated manner.

Submitters outlined how the pipeline industry builds to a certain standard that takes into account existing and future land use. However with a life span of many decades it is not always possible to foresee the type of land use that may be near a pipeline years or decades into the future. The pipeline industry provides a range of protective measures to prevent damage and can upgrade or use other mitigation measures if development is proposed.

While it is an offence under the *Pipelines Act 2005* to in any way open up ground or to building without authorisation within three metres of any pipeline in Victoria the exact location of some pipelines is unknown.⁷⁸ If the location of pipelines is unknown then it is difficult to effectively plan around them and the risk of rupture logically increases. The co-ordinated mapping of pipelines by industry is strongly supported by the Committee and should assist planning and other authorities to plan for, and avoid risk to, pipelines.

The LDAP has undertaken substantial work to consider ways in which the management of pipelines can be improved. The group brings together representatives of the key stakeholder groups together with their wealth of knowledge. The work undertaken to date by this relatively informal group has been extremely useful to this Committee in understanding the central key issues surrounding pipelines in the planning context.

In subsequent sections the Committee discusses different planning issues around pipelines and considers that the LDAP, perhaps with increased representation and an independent Chairperson, should be given enhanced status to coordinate and advise on any needed revisions to planning controls. The Committee considers that this could be done by giving the LDAP Advisory Committee status under the *Planning and Environment Act 1987* (s151). This concept was raised in the reconvened Hearing day and received general support.

(iii) Recommendation

The Committee recommends:

The Minister for Planning consult with the Minister for Energy with a view to formalising the membership and operation of the Land Development Around Pipelines Working Group as a Section 151 Advisory Committee with an independent Chairperson under the *Planning and Environment Act 1987*; and for this group to advise on improving planning around high pressure gas and liquid hydrocarbon pipelines.

5.4 Essential Service Pipelines

(i) Submissions

Major gas and petroleum pipelines traverse Victoria. The products transmitted through these pipelines are essential for the functioning of the Victorian and Australian economy. Key transmission elements include:

- Crude oil which is carried from off shore to Longford and then via the Western Altona Geelong pipeline (WAG) to Mobil's Altona refinery and Viva's Geelong Refinery.

⁷⁸ *Pipelines Act 2005* sections 118(1) and 120 (1).

- Natural gas which is also carried from off shore to Longford. The Victorian Transmission System (VTS) transports natural gas to the Victorian market and to interstate markets and feed a network of distribution pipelines. Other important high pressure pipelines include the Pakenham to Wollert Pipeline and the 800 km Eastern Gas Pipeline which supplies about half of the natural gas consumed in NSW.
- Transmission via pipeline of 74% jet fuel requirements from the Mobil refinery to Melbourne airport. The remaining jet fuel is currently supplied by truck however a new pipeline is planned which will enable all Melbourne Airport's jet fuel to be supplied by pipelines. Viva, which supplies around 55% of Victoria's, and 25% of Australia's, fuel needs, transfers fuel between its Geelong refinery to its Newport Terminal.

Damage to these key transmission networks has the potential to cause major disruption to virtually all aspects the daily life of Victorians, the economy and indeed those interstate that rely of supplies from Victoria.

A number of submitters said that the essential pipelines should be recognised as being of state significance and protected from encroachment.

(ii) Discussion

Several industrial areas with large tracts of land are afforded state significance in Clause 17.02-3 *State significant industrial land* in the SPPF. This policy aims to protect heavy industrial areas from inappropriate development and maintain adequate buffer distances from sensitive or incompatible uses.

Products delivered through high pressure pipelines in Victoria are vital to the everyday lives of Victorians as well the economy of the State as well as the people and economy of some other Australian states. Victorians were made only too aware of the importance of the gas supply to the state when an explosion occurred at the Longford plant in 1998 and gas supplies were severely disrupted for several weeks. Although a rupture of an essential pipeline may not cause such widespread disruption it could be extremely inconvenient and possibly detrimental to many businesses and people. Based on the importance of the essential major gas and petroleum pipeline transmission system and the need to protect them from encroachment and inappropriate development it is arguably as important to protect them as it is to protect identified areas of state significant industrial land. The Committee considers that these major transmission pipelines should be considered as infrastructure of state significance.

The Land Development Around Pipelines Working Group could be asked to nominate these essential pipelines and how they should be recognised in state policy.

(iii) Recommendation

The Committee recommends:

The Land Development Around Pipelines Working Group nominate essential high pressure gas and liquid hydrocarbon pipelines and consider recognising them in the State Planning Policy Framework as being of State significance.

5.5 Planning framework for pipelines

5.5.1 Planning scheme controls

(i) Background and submissions

The Discussion Paper provided a summary of a number of planning scheme amendments that have included consideration of pipelines. More examples were provided during Hearings including:

- Use of Section 173 Agreements in Lara West to notify people buying within a pipeline measurement length⁷⁹ about the presence of a pipeline located within the area (Greater Geelong Planning Scheme Amendment C246). This recommendation was rejected by the Minister for Planning following concerns raised about the practicalities of its use.
- Referral to ESV for example included in the Schedule to the Urban Growth Zone (Greater Geelong Planning Scheme Amendment C246).
- Application of a Design and Development Overlay (DDO) in Latrobe City Council. This has been applied in the Latrobe Valley Planning Scheme to all major pipeline infrastructure. The DDO schedule includes decision guidelines. The DDO extends over 200 metres (100 metres either side of 20 to 40 metre easement). If residential development is proposed then a risk assessment is required. Mr Pullman for Latrobe City Council said that more than 800ha of residential development had been approved in the overlay and while the overlay needs revision it does work well particularly as it requires dialogue between developers and the pipeline operator.
- There is also a DDO Schedule 8 (DDO8) Pipeline Policy Area in the Mornington Peninsula Planning Scheme which has the following design objective:

To ensure that all buildings and works and in particular buildings designed to accommodate people are sufficiently separated from oil and gas pipelines to avoid a safety hazard.

DDO8 then exempts from a permit the construction of a dwelling or a building designed to accommodate 20 or more people provided the structure is more than:

- 3 metres from a type A pipeline alignment.
- 3 metres from a type B pipeline alignment.
- 200 metres from a type C pipeline alignment.

No permit is required to construct any other building or to construct or carry out other works more than 3 metres from any pipeline.

The decision guidelines require the responsible authority to consider the comments of the authority responsible for the administration of the *Pipelines Act 1967*.⁸⁰

VicTrack said that it is unfortunate that DDO8 is not translated into any of the planning scheme maps and therefore has no application.

⁷⁹ From AS2885 the “measurement length” is the distance from the pipeline for full bore rupture of the pipe leading to ignition of the escaping gas. It is based on the radius of the 4.7kW/m² heat radiation contour calculated under AS2885.1-2012. This can be up to 750 metres from a pipeline for the largest high-pressure gas pipelines in Victoria, and is commonly over 250 metres.

⁸⁰ Submission, VicTrack, February 2016. This should now reference the *Pipelines Act 2005*.

- In the Greater Geelong Planning Scheme Amendment C285 requirement in the DPO to seek the views of the relevant authority administering the *Pipelines Act 2005* during the urban design master plan for the site.
- Notification - the Pipeline Operator and Owner is to be notified when sensitive uses are proposed in the Urban Growth Zone proposed to implement the Wollert Precinct Structure Plan (PSP) and within a specified distance from an existing pipeline (Whittlesea Amendment C187 (Wollert PSP)).

ESV and others expressed their frustration with the current system due to its limited ability to deliver a satisfactory outcome. ESV gave a summary of its consideration of planning issues around pipelines over the last 2 or 3 years. It stated that:

Since 2013, ESV has supported the assessment of 21 planning zone changes, 32 Precinct Structure Plans, one Development Plan Overlay, 15 planning permits, three subdivision application and two planning strategy consultations. This has involved working with 19 different planning authorities, 10 different pipeline licensees, and consideration of 23 different pipelines.

Hobsons Bay also expressed frustration with the current system advising that Council does not have expertise or resources to consider pipeline risk or impacts on and from pipelines and it has had to rely of external experts which is costly.

(ii) Discussion and conclusion

Without a properly structured policy framework, consideration of pipelines by local government, landowners and developers through to Planning Panels and VCAT have resulted in inconsistent decisions and approaches in an attempt to tailor the planning framework to fit with addressing land use and development in proximity to existing pipelines. This approach does not meet the test of fair and orderly planning which is one of the key objectives of the *Planning and Environment Act 1987*. Submitters suggested the ad hoc approach has resulted in unnecessary costs and delays.

5.5.2 Interstate approaches to pipelines

(i) Submissions

Some submitters provided interstate examples of where pipelines have been explicitly considered in their planning provisions.

Spiire for ESV provided several interstate examples of planning approaches to protect pipelines. It was particularly impressed by the approach taken in Perth, Western Australia to manage use and development around its two high pressure gas lines.⁸¹ The salient points are in summary:

- Setback distances, based on specified risks levels and Quantitative Risk Assessments (QRA), are specified for sensitive, residential and commercial/ industrial developments. These vary depending on the pipeline and pipeline infrastructure.

⁸¹ Spiire, Options Report, Land development around Pipelines. February 2016.

- If development is proposed within the setback distance then it needs to be demonstrated that the risk is acceptable and a pipeline management plan, endorsed by the pipeline owner is required and must be lodged, with the planning application, with responsible authority.
- Small scale infills and incidental development (e.g. those attached to an existing development) are exempt.
- The pipeline owner is responsible for upgrading and maintaining the pipeline and the developer is responsible for works to protect the development.
- Notification Areas are specified and are the areas where consultation with the pipeline owner is required. These vary along the pipelines and are between 275 metres and 660 metres.
- Details about the requirements are set out in a Planning Bulletin.⁸²

VicTrack provided information about the planning provisions for Ipswich, Queensland where the planning scheme maps show high pressure gas and oil pipelines and overlays applied. The overlays control use and works to ensure that the pipelines are not damaged and that people and developments are protected.⁸³

(ii) Discussion and conclusions

Perth and Ipswich consideration of pipelines provide examples of approaches that can be used to protect pipelines from encroachment and ensure development does not damage the pipeline through control measures. The Ipswich map makes it very clear where the pipelines and overlays are and if something similar was available in Victoria it would be arguably beneficial to responsible authorities, land owners and developers alike. The Western Australian Planning Commission provides information about requirements and the necessary guidance for stakeholders and the notification areas ensures that dialogue between developer and the pipeline owner occurs early in any proposed development.

5.5.3 Current Victorian Planning for Pipelines

(i) Background

The State Planning Policy Framework at Clause 19.03-6 *Pipeline infrastructure* has the following objective and strategies:

Objective

To plan for the development of pipeline infrastructure subject to the Pipelines Act 2005 to ensure that gas, oil and other substances are safely delivered to users and to and from port terminals at minimal risk to people, other critical infrastructure and the environment.

⁸² Western Australian Planning Commission, *Planning bulletin 87: High Pressure Gas Transmission Pipelines in the Perth Metropolitan Region*, October 2007.

⁸³ Submission, VicTrack, 8 February 2016.

Strategies

Recognise existing transmission-pressure gas pipelines in planning schemes and protect from further encroachment by residential development or other sensitive land uses, unless suitable additional protection of pipelines is provided.

Plan new pipelines along routes with adequate buffers to residences, zoned residential land and other sensitive land uses and with minimal impacts on waterways, wetlands, flora and fauna, erosion prone areas and other environmentally sensitive sites.

Provide for environmental management during construction and on-going operation of pipeline easements.

There is currently a referral requirement to the relevant gas supply authority in Clause 66.01 *Subdivision referrals*. Of relevance is a referral requirement for applications to subdivide land crossed by a gas transmission pipeline or a gas transmission pipeline easement to the relevant gas supply authority as a determining referral authority. Submitters such as ESV identified that no similar referral mechanism exists under Clause 66.02 for use and development in proximity to pipelines.

(ii) Evidence and submissions

Many submitters suggested the existing approach in the VPP is ineffective in identifying and protecting pipelines. Some submitters were also keen to prevent the presence of pipelines ‘sterilising’ large areas of land from development.

Criticism included:

- Clause 19.03-6 is not translated into the Local Planning Policy Framework⁸⁴, zones or overlays or particular provisions.⁸⁵
- There is an absence of mechanisms in the VPP for pipeline licensees to be notified of land use and development changes near pipelines.
- There is no definition of pipeline in the VPP or the *Planning and Environment Act* and no details on who the relevant gas supply authority is.
- No guidance on how to gain approval to cross or traverse a pipeline. Licensees also give inconsistent advice and often too late.

ESV submitted that “*the current system is inadequate and results in a situation that is unmanageable from a risk perspective*”.⁸⁶

It was therefore recommended by a number of submitters that Clause 19.03-6 be amended to incorporate strategies to manage issues around pipelines and that the referral mechanism be improved.

⁸⁴ Energy Safe Victoria.

⁸⁵ Submission, City of, Melbourne February 2016.

⁸⁶ Submission, ESV, February 2016.

The Urban Development Institute of Australia (UDIA) was another organisation that submitted that there is a lack of guidance on pipeline issues that results in delays in the planning and development process.

Clause 66 Referral and Notice Provisions

VicTrack said that when it receives notice of a planning permit application, it will notify the asset owner of the pipeline as the pipeline owner is not otherwise notified. Under the *Planning and Environment Act 1987*, the pipeline owner is entitled to notice of the application as an occupier of the land but this does not happen. VicTrack does not believe that the Responsible Authority should indirectly delegate this obligation to bodies such as VicTrack.

Hobsons Bay City Council said that currently it is required to notify the Minister responsible for administering the *Pipelines Act 2005* when amending the planning scheme. However its experience has been that notification to the Minister or ESV does not guarantee a response.⁸⁷

The Property Council submitted that if the definition of gas supply authority in the *Building Regulations 2006* were applied then planning permits would be referred to the Minister responsible for the *Pipelines Act*. It also stated that the former Department of State Development, Business and Innovation (now Department of Economic Development, Jobs, Transport and Resources (DEDJTR)) had advised that any matters relating to the *Planning and Environment Act 1987* should be referred to DEDJTR, and not ESV or any licensees. Small scale proposals should, in the Property Council's opinion, be referred to DEDJTR which could then consult the licensee.

In its submission, ESV proposed, as did Mr Milner in his evidence, that the pipeline licensee be the recommending referral authority as the licensees have to do the risk assessment. ESV stated there would be a resourcing issue if it was to be the referral authority. The Property Council said that it is inappropriate for the licensee to be the referral authority and that it wants transparency in decision making.

Furthermore the Property Council stated:

*We consider that it would be more appropriate for decisions relating to potential life threatening impacts, such as a catastrophic failure in infrastructure is more appropriately determined by the Minister, or the DSDBI, in consultation with the ESV.*⁸⁸

Spiire in its report commissioned for ESV recommended that as lower risk pipelines still have a risk associated with them, that under Clause 66.02 *Building and Works* referral to the licensee for proposals to use or develop land within the measurement length could be beneficial, although it recognises that not all use and development would require a referral.

⁸⁷ Submission, February 2016.

⁸⁸ Submission, February 2016.

(iii) Discussion and conclusion

Clause 19.03-6 provides for the recognition of pipelines in planning schemes and protection from encroachment by residential development. The Committee considers that Clause 19.03-6 has the fundamentals of what planning seeks to achieve in relation to pipelines. However, many submitters highlighted that the clause is deficient and needs to be improved for more effective implementation.

There was a call for a definition of pipelines to be included in Clause 19.03-6. As there is a definition of pipelines in the *Pipelines Act 2005* the Committee does not consider that an explicit definition is required in Clause 19.03-6, noting that the Clause currently makes reference to the *Pipelines Act 2005*.

There was little discussion on whether recognition of pipelines should be included in local policy. The issue of the implementation of Clause 19.03-6 into zones and overlays is discussed later in this chapter.

The referrals in relation pipelines in Clause 66 should also be improved as the current referral to the relevant gas supply authority is confusing: does it mean the licensee; or does it mean ESV?

There were various opinions as to who the determining referral authority should be in Clause 66.01 - *Subdivision Referrals* associated with proposals to subdivide land crossed by a gas transmission pipeline or a gas transmission pipeline easement. Suggestions included ESV and the pipeline licensee. While the Committee notes comments about resourcing difficulties at ESV it agrees with the Property Council, and the general thrust of its argument about transparency, that for proposals to subdivide land crossed by a gas transmission pipeline or a gas transmission easement, referrals under Clause 66.01 should be to the state's technical regulator responsible for pipeline safety with ESV as the determining referral authority.

The main focus of the Committee and Hearings and submissions was on high pressure pipelines, in particular those rated at less than the High Density T2 rating. There was little discussion about the protection of the distribution pipelines. Spiire recommended that the determining referral authority under Clause 66.02 *Use and Development* referrals for lower risk pipelines (including high pressure non rupture pipelines) be made to the pipeline licensee. Without fulsome consideration of this recommendation the Committee considers that this may be a practical approach which should be further considered by the LDAP.

(iv) Recommendations

The Committee recommends:

Refer the following issues to the revised Land Development Around Pipelines Working Group for consideration:

- **Clause 66.01 Subdivision referrals be amended to replace the gas supply authority as the determining referral authority for proposals to subdivide land crossed by a gas transmission pipeline or a gas transmission easement with Energy Safe Victoria as the determining referral authority.**

- For lower risk pipelines consider including a referral to the pipeline licensee in Clause 66.02 for building and works within the pipeline measurement length.

5.5.4 Other planning controls

(i) Submissions

In addition to improving Clauses 19.03-6 and Clause 66 and mapping pipelines, Spiire⁸⁹ and other submitters considered a number of planning options that could be used to protect pipelines including the no change option, the use of Section 173 agreements, inclusion of a new particular provision; *'Management of Land Use and Development around pipelines'* as well as consideration of the use of zones or overlays. The 'no change' option was not generally supported as there was agreement between most submitters that the system can be improved. The use of section 173 agreements and the option of a particular provision were eliminated as they were essentially considered costly and burdensome.

(ii) Zone

Any discussion in relation to using zones to protect pipelines was limited. Spiire suggested updating existing zones in the VPP to include a permit condition restricting uses in the measurement length. If uses are contemplated in the measurement length then a permit would be required. Spiire considers this option could be feasible but it is not transparent and does not provide sufficient policy direction.

(iii) Overlays

There was a broad consensus that the most appropriate planning tool to protect pipelines is an overlay. Mr Milner gave evidence that *"overlays are a visual representation in a map and is the way people enter the planning scheme"*.

As previously mentioned various overlays have been applied to protect pipelines including DPOs and DDOs. Spiire in its Options Report⁹⁰ did not consider either of these overlays as appropriate, for example, the DDO is used to ensure a particular design outcome and the DPO is used for discreet precincts and essentially falls away after the development is completed. Spiire also considered an ESO as a tool that might be the best fit out of the current overlays available in the VPP, however it does not manage use nor does it, in Spiire's opinion, provide adequate protection for pipelines. Spiire considered that a new overlay is needed. In its report one of the recommendations for higher risk pipelines is for a new overlay called *'Major Hazard Facilities and Pipelines Overlay'*, with two pipeline schedules one for rural areas and the other for pipelines in residential areas.⁹¹ Mr Willis supported the protection of pipelines along their measurement length in rural areas through a measure that opens the dialogue between the developer and the pipeline operator.⁹² Mr Bartley for

⁸⁹ Spiire, Options Report Land Development around Pipelines, February 2016.

⁹⁰ Spiire, Options Report Land Development around Pipelines, February 2016.

⁹¹ There would be another schedule for MHF and there would be planning mechanisms to cover low risk pipelines.

⁹² Hearing, 17 March 2016.

the Property Council however considered that a Development Plan Overlay (DPO) would be a suitable mechanism as the design takes into account the views of ESV and the pipeline manager.

APA Group also considered that a new overlay should extend over the measurement length. It supports an overlay that controls use and development. APA Group along with others stressed that an overlay would not prohibit or prevent the development of sensitive uses within the overlay area; rather it would ensure that planning decision making is based on an adequate risk assessment and design process. There are many examples of land use and development in close proximity to high pressure gas pipelines that have existed for numerous years with no issue, for example, the pipeline along Dandenong Road. There are also ways to mitigate the risk for example through the use of special building materials to withstand explosions.⁹³

APA suggested that the overlay be called a "*Risk Management Overlay*" or similar, to ensure that the focus is on risk rather than hazard. The overlay would:

... not prohibit or prevent the development of sensitive uses within the Overlay area; rather it would ensure that planning decision making is based on an adequate risk assessment and design process.

Mr Bartley however did not consider that an overlay should extend over the measurement length, only over the easement however Ms Bannister said that restricting the overlay to anything less than the measurement length had no rationale, with APGA agreeing that the risk area is clearly linked to the measurement length.

MPA submitted that while an overlay has merit it suggested that the *Pipelines Act 2005* and its enforcement provisions be exercised before additional controls are added. It also considered that built form/urban design outcomes from an overlay would need to be carefully analysed. Viva Energy also considers that further consultation is required before applying controls near pipelines and one way may be through an overlay.

Mr Milner considered that an ESO with schedules would provide adequate protection and makes use of existing VPP tools.

(iv) What should an overlay include

APA Group and VicTrack both referred to sections 118 and 120 of the *Pipelines Act 2005*, which prohibits a person from excavating, boring or opening any ground or constructing a building within three metres of a pipeline. However, the measurement length of pipelines is not protected or controlled by statute. Three metres was considered inadequate.

The question then becomes should the overlay cover the measurement length?

⁹³ APGA Submission, February 2016.

The APGA submitted that:

For pipelines, 'risk areas' are clearly linked to a pipeline's measurement length, which is clearly defined in the national standard, AS2885 and should be used when determining risk areas for pipelines.⁹⁴

As noted above, Mr Bartley did not support use of an overlay over a pipeline measurement length.⁹⁵

If an overlay excluded all sensitive uses from the measurement length then ESV estimated that, using an average measurement length of 300 metres this would equate to 2,953 km². ESV reported that the issue of which pipelines should be included in an overlay was discussed at a January 2016 industry stakeholders workshop (as well as through other discussions) and a criteria was developed that would confine the area to be covered by an overlay. The agreed criteria for the application of an overlay are:

- 1. Pipelines carrying gas and high vapour pressure liquids (i.e. ruling out fluids that are liquids at atmospheric pressure); and*
- 2. Pipelines with a hoop stress in excess of 30 per cent of the specified minimum yield strength (SMYS).*

This would limit the overlay to 86 licensed pipelines from the total of 214 licensed pipelines in Victoria. If additional criteria such as using the AS2885 designed based classification system were applied then this would eliminate a number of pipelines in high density urban environments from requiring an overlay as they have already been designed and constructed to the highest possible standard.

A set of overlay permit triggers for use only have been put forward that are based on the AS2885 designed based classification system. For example, where a pipeline has a Residential T1 Rating and a sensitive use such as a high density residential development is proposed, a permit would be required as this could require a High Density T2 classification.⁹⁶ These ratings were explained earlier (see section 5.2.1).

The Property Council also identified that:

Whilst the standard has regard to population densities and sensitive uses which may be impacted as relevant to determining the measurement length area, nowhere is it mentioned that the standard should serve as a basis for determining the appropriate distance of a use from the pipeline.

The Property Council also noted that AS2885 also does not contain any methodology for calculating densities, being either population or dwelling density figures, which are attributed to each its land use classes. It then referred to the *Plan Melbourne* (2014) house density thresholds.

Other states are also facing similar problems as Victoria with the disjunction between AS2885 and state planning legislation. AS2885 is currently being reviewed with a revised

⁹⁴ Submission, APGA, February 2016.

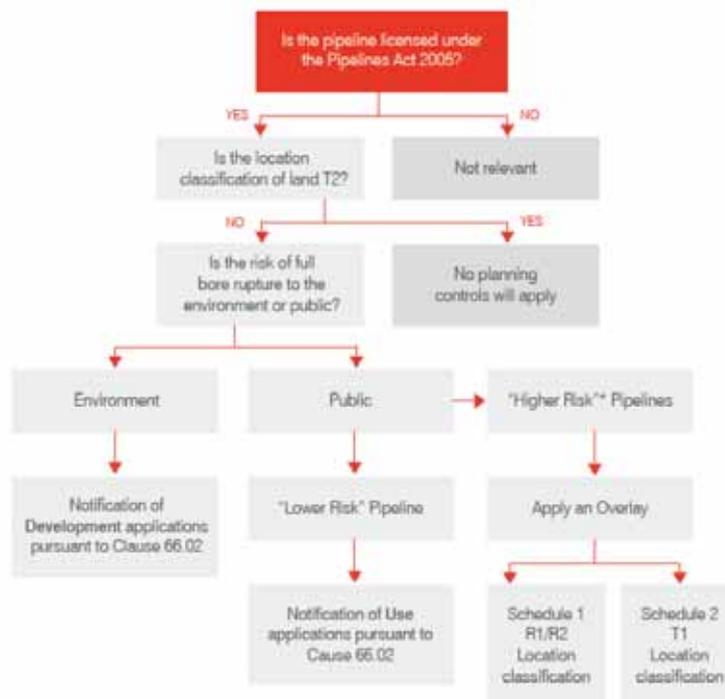
⁹⁵ Hearing, 23 March 2016.

⁹⁶ Spiire, Land Development around pipelines, February 2016.

draft due by the end of 2016. In addition ESV is leading a current project that aims to provide clearer guidance to pipeline licensees on the interpretation of aspects of AS2885 and to provide guidance to help a licensee's ability to work with a proponent during the delivery of a project within a pipeline easement or pipeline corridor.

As a way forward Mr Cronin presented a flow chart for determining applicable control mechanisms for different pipelines (see Figure 2).

RECOMMENDED PROCESS FOR DETERMINING PLANNING CONTROL MECHANISMS FOR PIPELINES IN VICTORIA



*"Higher Risk" pipelines are defined as:
lines carrying gas and high vapour pressure liquids (i.e. ruling out fluids that are liquids at atmospheric pressure); and
lines with hoop stress in excess of 30 per cent of specified minimum yield strength.



Figure 2 Process for determining planning controls for pipelines

(v) Planning Practice Note

There was considerable support for the development of a Planning Practice Note (PPN) from several Councils, ESV and the pipeline industry. The City of Wyndham said that a PPN would *assist Council in processing planning applications and planning scheme amendments*⁹⁷ and APA said that *a practice note could provide guidance as to when the Overlay should be applied*.⁹⁸

⁹⁷ Submission, City of Wyndham, February 2016.

⁹⁸ Submission, APA, February 2016.

(vi) Discussion and conclusions

While the planning scheme does recognise pipelines at Clause 19.03-6 and calls for pipelines to be recognised in planning schemes, the translation into more detailed controls has been done rarely.

The Committee considers Clause 19.03-6 does not provide the necessary safeguards and mechanisms to ensure that people are protected from potential harm from a pipeline rupture and pipelines are protected from inappropriate development. A more strategic approach is needed. In a similar vein to the discussion and conclusions about the planning system and MHF in Chapter 3, the Committee considers it important that planning schemes recognise pipelines and the safety risks and that attention is paid to the planning process for land surrounding them.

The Committee's view is that there was significant support for the application of overlays to pipelines as the most sensible way forward. Some submitters called for a new overlay such as Risk Management Overlay and a few called for the overlay to control use and development.

As noted in Chapter 3, the Committee considers an existing overlay, and probably the ESO, could be applied with tailored schedules. The schedules could be developed for sensitive uses defined in AS2885 and the *Pipelines Act 2005*. Whether the ESO should apply to the entire measurement length is an issue that requires further consideration as the Committee does not consider this should be a 'one size fits all' approach.

(vii) Recommendations

The Committee recommends that for the higher risk pipelines as defined within the industry developed definition above a range of planning responses be considered by LDAP.

The Committee recommends:

Refer the following potential planning responses to the revised Land Development Around Pipelines Working Group for consideration:

- **The development of Environmental Significance Overlay schedules for urban residential areas and rural areas to reflect a more responsive approach to manage the balance between development control and 'at pipeline' protection.**
- **The Environmental Significance Overlay schedules include sensitive uses to be protected including as a minimum the sensitive uses identified in AS2885.**
- **The Environmental Significance Overlay schedules include application, referral and notice requirements to Energy Safe Victoria and the pipeline operator/owner as relevant.**
- **The Environmental Significance Overlay schedules be mapped on a priority basis, with the pipeline measurement length being the starting point for the relevant area to be mapped.**

- **The application of the Environmental Significance Overlay schedules to pipelines that do not meet the High Density T2 rating as defined in AS2885.**
- **The preparation of a Planning Practice Note to assist in the implementation of an improved planning process.**

Appendix A Terms of Reference

Terms of Reference

Major Hazard Facilities Advisory Committee

Advisory Committee appointed pursuant to Part 7, Section 151 of the Planning and Environment Act 1987 to report on improvements to the way land use buffers around Major Hazard Facilities are determined and implemented.

Version: 14 September 2015

Name

1. The Advisory Committee is to be known as the 'Major Hazard Facilities Advisory Committee'.
2. The Advisory Committee is to have members with the following skills:
 - a. Technical and policy experience working with regulatory frameworks related to managing risk, environmental assessment and adverse impacts on safety and amenity, such as the *Dangerous Goods Act 1985* and *Environment Protection Act 1970*.
 - b. Expert knowledge and experience of the Victorian land use planning system in different development settings, including urban renewal and growth areas in a metropolitan and regional context.
 - c. Expertise in strategic and statutory land use planning, including a sound understanding of the implementation of policy through land use planning decisions.

Purpose

3. The purpose of the Advisory Committee is to provide advice to the Minister for Planning about improvements to land use planning for areas surrounding major hazard facilities (MHFs), in order to better manage the interface areas between existing and new development and land used for MHFs.
4. The Advisory Committee is to provide advice and present its findings and conclusions on the following matters:
 - a. The issues and challenges for Victoria's land use planning framework in protecting the safety and amenity of residents and businesses in areas surrounding MHFs and ensuring the ongoing viability of MHFs.
 - b. The role of the land use planning system in mitigating any potential adverse impacts on local communities from MHFs and any potential adverse impacts of urban growth and renewal on MHFs.
 - c. Approaches and measures to address the identified issues and challenges, including potential improvements to the way land use planning can complement other regulatory frameworks that aim to protect the safety and amenity of residents and businesses in areas surrounding MHFs, and the role of State, local government and relevant agencies, such as WorkSafe and the Environment Protection Authority.
 - d. The information and tools required to support appropriate, timely and consistent land use planning decisions for areas surrounding major hazard facilities, including criteria for land uses that are appropriate in areas surrounding MHFs, and the most effective way to implement these.

5. The Advisory Committee is to make recommendations on the following matters:
 - a. issues to be addressed for each of Victoria's 40 registered MHFs and principles about how the land use planning system can assist in managing risks and any adverse impacts, including the potential role and function of land use buffers.
 - b. principles for applying land use buffers more broadly to other uses with adverse amenity potential.
6. The Advisory Committee's recommendations should enable the following outcomes to be achieved:
 - a. Streamlined processes and approvals with clear and consistent guidance for proponents and decision-makers.
 - b. Decision-makers are able to balance urban growth and renewal opportunities with the protection of established facilities.
 - c. Clarity on the scope, application and relationship of relevant planning scheme provisions and other "non-planning" tools, such as WorkSafe land use planning advisory notes and EPA publications and guidelines.

Background

7. The Victorian Government is committed to conducting an inquiry into regulations for neighbourhoods near major hazard facilities to preserve resident's safety while allowing industries to operate and grow.
8. The State Planning Policy Framework supports the protection of air quality, industrial development, essential community infrastructure and residential amenity and provides an overarching policy basis for the protection of industries from encroachment of unplanned sensitive uses and the protection of residents from adverse effects.
9. Plan Melbourne includes a number of initiatives related to land use buffers for issues such as extractive industry; noise; air quality; freight; water and sewerage assets; and waste management. The Local Government Buffer Support Program is an example of work by the Metropolitan Waste and Resource Recovery Group to develop a suite of land use planning tools and other effective measures that can be used by local government, industry professionals and site owners to better manage interface areas with waste and resource recovery facilities.

Method

10. The Advisory Committee may apply to vary these Terms of Reference prior to submission of its reports.
11. The Advisory Committee may inform itself in anyway it sees fit, but must consider:
 - a. The requirements of the VPP, Clause 52.10, related provisions such as Clause 66, policies in the State Planning Policy Framework, and where relevant, Plan Melbourne and Regional Growth Plans.
 - b. Land Use Planning Advisory notes issued by WorkSafe.
 - c. The requirements of any relevant EPA publications and guidelines and Statements of Environment Protection Policy.
12. The Advisory Committee is expected to consult with the parties nominated in Clause 14 and prepare and publish a Discussion Paper that takes into account the matters raised in Clause 11, within 40 business days from the date of its appointment. This paper should be made publicly available for the purposes of public consultation. The Advisory Committee must ensure the Discussion Paper is made

widely available for consultation for a period of 20 business days, including through public notification, if required.

13. The Advisory Committee must invite public submissions about the Discussion Paper in the context of its Terms of Reference and consider all submissions.
14. The following parties should be asked to present to the Advisory Committee (all such proceedings will be open to the public, unless specific matters of commercial confidentiality are demonstrated):
 - a. WorkSafe, Environment Protection Authority, Port of Melbourne Corporation and any other relevant agencies.
 - b. Groups representing residents and local communities in areas surrounding major hazard facilities.
 - c. Owners/ operators of major hazard facilities and relevant industry bodies and stakeholders.
 - d. Local government.
15. The Advisory Committee may meet and invite others to meet with them when there is a quorum of at least two Committee members.
16. The Advisory Committee may limit the time of parties appearing before it in the interests of efficiency.
17. The Advisory Committee may prohibit or regulate cross-examination.
18. The Advisory Committee may appoint its own legal counsel to assist in any of its deliberations if required.

Submissions are public documents

19. The Advisory Committee must retain a library of any written submissions or other supporting documentation provided directly to it until a decision has been made on its report or five years has passed from the time of its appointment.
20. Any written submissions or other supporting documentation provided to the Advisory Committee must be available for public inspection until the submission of its report, unless the Advisory Committee specifically directs that the material is to remain confidential.

Outputs

21. The Advisory Committee must produce a written report for the Minister for Planning including:
 - a. A response to the 'Purpose' of the Terms of Reference.
 - b. An assessment of submissions to the Advisory Committee.
 - c. Any other relevant matters raised in the course of the Advisory Committee hearing.
 - d. A list of persons who made submissions considered by the Advisory Committee.
 - e. A list of persons consulted or heard.
22. The report may be submitted in two stages, that being the Discussion Paper and the Final Report.

Timing

23. The Advisory Committee is required to complete its research, preliminary consultation and the preparation of the Discussion Paper within 40 business days from the date of receipt of notification of its appointment.
24. The Advisory Committee is required to commence its hearings and workshops within 30 business days from the release of the Discussion Paper.
25. The Advisory Committee must complete its work and submit its final report to the Minister for Planning within 8 months of its appointment.

Fee

26. The fee for the Advisory Committee will be set at the current rate for a Panel appointed under Part 8 of the *Planning and Environment Act 1987*.
27. The costs of the Advisory Committee will be met by the Department of Environment, Land, Water and Planning (Planning).



Richard Wynne MP
Minister for Planning
Date: 24/9/15

The following matters do not form part of the Terms of Reference:

Project Manager

28. Technical input to the Advisory Committee can be provided by Fleur Elijah, Senior Policy Officer, Planning or alternate nominee of John Ginivan, Executive Director, Planning and Building Systems, Department of Environment, Land, Water and Planning.
29. Day to day liaison for the Advisory Committee will be through Greta Grivas, Senior Project Officer of Planning Panels Victoria on telephone (03) 8392 6393 and email Greta.grivas@delwp.vic.gov.au.

Appendix B Submitters to matters raised in the Terms of Reference

(Initial comments on matters raised in Terms of Reference, November 2015)

No.	Submitter
1	Toll Group
2	Mornington Peninsula Shire Council
3	Yarra Ranges Shire Council
4	Wyndham City Council
5	Melbourne Water
5A	Melbourne Water
6	Greater Dandenong City Council
7	Confidential submission
8	Gas Energy Australia
9	Save Williamstown Inc.
9A	Save Williamstown Inc.
10	Department of Economic Development, Jobs, Transport and Resources (DEDJTR) – Earth Resources Division
11	APA Group
12	WorkSafe
13	Mobil Oil Australia Pty Ltd
14	Esso Australia Pty Ltd (part of the ExxonMobil Group)
15	Metropolitan Planning Authority (MPA)
16	Plastics and Chemicals Industries Association (PACIA)
17	Hobsons Bay City Council
18	APA Group on behalf of Australian Gas Networks
19	Energy Safe Victoria
20	Environment Protection Authority Victoria
21	Maribyrnong Truck Action Group (MTAG)
22	Port of Melbourne Corporation
23	Viva Energy
24	VicTrack

Appendix C Submitters to the Discussion Paper

(In response to exhibition of Discussion Paper, submissions received February 2016)

No.	Submitter
MHF001	Sally Louise Robson
MHF002	Betsy Ann Dunne
MHF003	Qenos
MHF004	Steven Bilston
MHF005	Lotte Dawes
MHF006	Jesse Maskell
MHF007	Moreland City Council
MHF008	Yarra Ranges Shire Council
MHF009	Crib Point Engineering
MHF010	Ten-Rose International Simmental
MHF011	Latrobe City Council
MHF012	Municipal Association of Victoria (MAV)
MHF013	Wodonga City Council
MHF014	WorkSafe
MHF015	Victorian Planning and Environmental Law Association (VPELA)
MHF016	VicTrack
MHF017	Val Green
MHF018	Moonee Valley City Council
MHF019	William Teunis Korevaar
MHF020	Godfrey Moase
MHF021	Daniel Herrmann
MHF022	Peter Anthony Thurmer
MHF023	Save Williamstown Inc.
MHF024	Krystyna Tyrrell
MHF025	Marc Muehlhaeuser
MHF026	Country Fire Authority
MHF027	ProUrban
MHF028	David Johnson
MHF029	Brimbank City Council

No.	Submitter
MHF030	Moyne Shire Council
MHF031	City of Greater Geelong
MHF032	Maribyrnong City Council
MHF033	IF Thomas and Associates
MHF034	City of Casey
MHF035	Maribyrnong Truck Action Group (MTAG)
MHF036	South Gippsland Shire Council
MHF037	Gemma Byrne
MHF038	Wellington Shire Council
MHF039	Daniel McMinnon
MHF040	Cardinia Shire Council
MHF041	Suzanne Orange
MHF042	Dennis O'Connell
MHF043	Energy Safe Victoria
MHF044	Melton City Council
MHF045	Melbourne Water
MHF046	BAE Systems Australia
MHF047	City of Melbourne
MHF048	Mornington Peninsula Shire Council
MHF049	Amanda Walker
MHF050	Wyndham City Council
MHF051	Toll Holdings Ltd
MHF052	Hobsons Bay City Council
MHF053	Coliban Water
MHF054	AV Jennings Waterline Pty Ltd
MHF055	Plastics and Chemicals Industries Association
MHF056	Australian Pipelines and Gas Association
MHF057	Esso Australia Pty Ltd (part of the ExxonMobil Group)
MHF058	Mobil Refining Australia Pty Ltd (part of the ExxonMobil Group)
MHF059	Environment Protection Authority Victoria
MHF060	South Kings Properties Pty Ltd on behalf of Precinct 15 Landowners
MHF061	Newport Properties Vic Pty Ltd

No.	Submitter
MHF062	Newport Townhomes Pty Ltd
MHF063	Norman Stanley Roberts
MHF064	Narelle Grey
MHF065	Property Council of Australia
MHF066	Melissa Valcic
MHF067	Metropolitan Fire Brigade
MHF068	Port of Hastings Development Authority
MHF069	Viva Energy Australia Pty Ltd
MHF070	APA VTS Australia (Operations) Pty Ltd
MHF071	Port of Melbourne Corporation
MHF072	Athena Lorbach
MHF073	Department of Economic Development Jobs Transport and Resources (DEDJTR)
MHF074	Metropolitan Planning Authority
MHF075	Victorian Water Industry Association
MHF076	Urban Development Institute of Australia
**	Confidential submission #1
**	Confidential submission #2

Appendix D Parties to the Advisory Committee Hearings

Submitter	Represented by
WorkSafe	Mike Connell, Melinda Collinson and Jenny Kisler
EPA Victoria	Dan Keely
Latrobe City Council	Jason Pullman
Brimbank City Council	Dhiraj Joti
Metropolitan Fire Brigade	Adam Dalrymple, David Baker and Julian Yaxley
Hobsons Bay City Council	Karmen Markis
Mornington Peninsula Shire Council	Allan Cowley
Godfrey Moase	Suzanne Orange
Daniel McKinnon	
AV Jennings Waterline Pty Ltd	Mr Adrian Finanzio SC of Counsel instructed by Nick Sutton of Planning and Property Partners Pty Ltd
ExxonMobil (Mobil Refining Australia Pty Ltd and Esso Australia Pty Ltd)	Peter Willis SC of Counsel instructed by David Hope of K&L Gates and calling expert evidence from the following: <ul style="list-style-type: none"> - Robert Milner (10 Consulting Group Pty Ltd) in Land Use Planning
South Kings Properties Pty Ltd on behalf of Precinct 15 Landowners	Jonathan Adams of CVC Venture Managers Pty Ltd
Newport Properties Vic Pty Ltd	Jonathan Adams of CVC Venture Managers Pty Ltd
Newport Townhomes Pty Ltd	Jonathan Adams of CVC Venture Managers Pty Ltd
Val Green	
IF Thomas and Associates	Ian Thomas
Gemma Byrne	
Municipal Association of Victoria	Gareth Hately
Energy Safe Victoria	Steve Cronin and Sarah Auld
Property Council of Australia	Mark Bartley, Lawyer from HWL Ebsworth Lawyers
Australian Pipelines and Gas Association	Steve Davies
VicTrack	Sotirios Katakouzinis and Sue Lowther

APA VTS Australia (Operations) Pty Ltd	Natalie Bannister, Lawyer from Hall & Wilcox Lawyers
Viva Energy Australia Pty Ltd	Andrew Low, Josh Abbott from Davis Advisory who called expert evidence from the following: - Simon Casey in Safety Risk
Port of Hastings Development Authority	Dr Michael Kennedy
Save Williamston Inc.	Charmian Gaud

Appendix E Document list

Version – End of Hearing 2 May 2016

No.	Date	Description	Tabled by
1	17/3/16	Submission from WorkSafe and brochure re planning around MHF	Ms Collinson for WorkSafe
2	17/3/16	Three IPAA and OPAA maps for Yarraville, Newport and Point Gellibrand	Ms Collinson for WorkSafe
3	17/3/16	Submission	Mr Joti for Brimbank City Council
4	21/3/16	Submission, overheads and attachments	Ms Markis for Hobsons Bay City Council
5	21/3/16	Submission	Ms Orange for Mr Moase
6	21/3/16	2 folders of cases and attachments	Mr Finanzio for AV Jennings
7	21/3/16	Photographs and press articles	Mr McKinnon
8	21/3/16	Submission	Mr Finanzio for AV Jennings
9	22/3/16	Submission including overheads and evidence of Mr Dreher given in Hatherly Grove case	Mr Willis for ExxonMobil
10	22/3/16	Schedule to the ESO Altona-Somerton Pipeline	Mr Milner
11	22/3/16	Submission	Mr Adams for Precinct 15 landowners
12	22/3/16	Submission addendum	Ms Green
13	22/3/16	Overheads and submission	Mr Thomas
14	22/3/16	14a) Offshore reliability data handbook (extract) 4 th edition; 14b) Hint Dossier Gas Pipeline Explosion at Ghislenghien Belgium (one copy of both held by Chair)	Mr Thomas
15	23/3/16	Submission	Mr Cronin and Ms Auld for ESV
16	23/3/16	Overheads	Mr Cronin and Ms Auld for ESV
17	23/3/16	LDAP Terms of Reference	Mr Cronin and Ms Auld for ESV
18	23/3/16	Options Report	Mr Cronin and Ms Auld for ESV
19	23/3/16	Draft comparison of sensitive uses	Mr Cronin and Ms Auld for ESV
20	23/3/16	Submission	Mr Bartley for Property Council

No.	Date	Description	Tabled by
21	23/3/16	Maps and photographs Dandenong Road	Mr Bartley for Property Council
22	23/3/16	Extract from Maribyrnong C135 Panel Report	Mr Bartley for Property Council
23	23/3/16	Extract from APA Annual Report	Mr Bartley for Property Council
24	23/3/16	<i>Newport Properties Vic Pty Ltd v Victrack and Ors</i> VCAT Decision 22 February 2016	Mr Katakouzinis and Ms Lowther for VicTrack
25	23/3/16	Railmap Portal (A3 sheet)	Mr Katakouzinis and Ms Lowther for VicTrack
26	24/3/16	Overheads and submission	Mr Abbott and Mr Low for Viva Energy
27	24/3/16	Plan of 180 Greens Road Dandenong with planning advisory areas	Ms Pickering for APA
28	24/3/16	Submission	Ms Gaud for Save Williamstown
29	2/5/16	Further submission	Ms Gaud for Save Williamstown
30	2/5/16	Further submission	Ms Green
31	2/5/16	Further submission	Mr Thomas
32	2/5/16	Further submission	Mr Low for Viva Energy
33	2/5/16	Further submission	Ms Collinson for WorkSafe
34	2/5/16	Possible Planning Controls	Mr Willis for ExxonMobil
35	2/5/16	Overhead presentation	Mr Wimbush for Advisory Committee
36	2/5/16	Memo to AC from ESV re 'Sensitive Uses'	Mr Cronin and Ms Auld for ESV
37	2/5/16	Extract from NFPS Panel Report, 1998	Mr Pullman for Latrobe City Council
38	2/5/16	Recommended process for planning controls for pipelines	Mr Cronin and Ms Auld for ESV
39	2/5/16	Correspondence Latrobe City to DPI, DPI to Latrobe City	Mr Pullman for Latrobe City Council

Appendix F SPPF Review AC Suggested Hazardous Facilities Section

Note: This is a suggested approach by the SPPF Advisory Committee and is not adopted Government policy.

05.08 HAZARDOUS FACILITIES

05.08-S-01 Hazardous facilities

State Policy

VC## dd/mm/yyyy

Worksafe Victoria sets standards to ensure that industrial operations are carried out in a safe manner, but it is prudent to limit sensitive uses close to hazardous facilities to reduce any adverse outcomes should an accident occur. [\[New\]](#)

Objectives and strategies

Objective 1 To limit adverse impacts on people from adverse events at hazardous facilities. [\[New\]](#)

Strategy 1.1 Require, wherever possible, suitable separation between hazardous facilities and sensitive land uses. [\[New\]](#)

Strategy 1.2 Protect hazardous facilities from the unplanned encroachment of sensitive uses. [\[Update\]](#)

Particular provisions

1. Clause 52.10 – Uses with Adverse Amenity Potential

Guidelines for decision makers

Guidelines:

1. The use and intensity of development should not expose people to unacceptable health or safety risks and consequences associated with an existing Major Hazard Facility. [\[18.03-2p7\]](#)

Consider as relevant: [\[17.02-1p7\]](#)

1. Any comments from the Victorian WorkCover Authority on requirements for industrial land use or development under the *Dangerous Goods Act 1985* and associated legislation and the *Occupational Health and Safety (Major Hazard Facilities) Regulations 2000*. [\[17.02-1p9\]](#)

Background documents

Land use planning near a major hazardous facility: Guidance Note (Worksafe Victoria, 2010). [\[Update\]](#)

Recommended Separation Distances for Industrial Residual Air Emissions (Environment Protection Authority, 2013 - Publication 1518). [\[Update\]](#)

05.08-gnut-01 Hazardous facilities

Local policy: Gumnut

C## dd/mm/yyyy

Local policy tailored for each municipality can be inserted here if required

Appendix G Draft schedule to the ESO (from Mr Milner)

SCHEDULE [X] TO THE ENVIRONMENTAL SIGNIFICANCE OVERLAY

Shown on the planning scheme map as ESO[X].

[NAME OF MAJOR HAZARD FACILITY] ALTONA REFINERY ENVIRONS

1.0 Statement of environmental significance

[Insert a brief description of the Major Hazard Facility] The Altona Refinery is a registered Major Hazard Facility that supplies half of Victoria's refined fuel needs. It operates 24 hours a day, 365 days a year and processes crude oil into a full range of petroleum products.

The inappropriate establishment or siting of incompatible and sensitive land uses could impact on:

- The safety and amenity of people exposed to the [insert name of Major Hazard Facility] Altona Refinery.
- The operation of the [insert name of Major Hazard Facility] Altona Refinery.

2.0 Environmental objective to be achieved

- To protect the health and safety of the community in the locality of the Major Hazard Facility.
- To regulate the establishment and siting of high amenity and sensitive land uses in the [insert name of Major Hazard Facility] Altona Refinery environs so that health and safety risks and amenity impacts are minimised.
- To recognise the existing use of land but discourage its more intensive use for sensitive purposes including Accommodation, Child care centre, Education centre, Place of assembly or Hospital.
- To ensure that the use and development of land around the [insert name of Major Hazard Facility] Altona Refinery is compatible with the operation of the [insert name of Major Hazard Facility] Altona Refinery.
- To avoid the potential for future land use conflicts between the [insert name of Major Hazard Facility] Altona Refinery and its environs.
- To exclude the establishment of land use and development in the [insert name of Major Hazard Facility] Altona Refinery environs that requires or supports the presence of a large number of people for an extended period of time.
- To provide for the ongoing development of the [insert name of Major Hazard Facility] Altona Refinery as a State significant industrial resource.
- To ensure that any use and intensity of development in the overlay area does not constrain the ongoing operation and development of the [insert name of Major Hazard Facility] Altona Refinery.

3.0 Permit requirement

A permit is not required to:

- Construct a building or construct or carry out works, unless the building or works is associated with the following uses:
 - Accommodation
 - Child care centre
 - Education centre
 - Place of assembly
 - Hospital
 - Subdivide land.

- Remove, destroy or lop any vegetation, including dead vegetation.

4.0 Decision guidelines

Before deciding on an application, the responsible authority must consider:

- The proximity of the site to the Major Hazard Facility.
- The potential for the proposed use or development to impede upon the long-term development and operation of the Major Hazard Facility.
- The potential for unnecessary exposure to any off-site impacts associated with the operating hours of the Major Hazard Facility.
- The sensitivity of the proposed use to the principal function and operating hours of the Major Hazard Facility.
- The provision for appropriate measures to ensure that the safety and amenity of the proposed use will not be impacted by off-site impacts associated with the operating hours of the Major Hazard Facility.
- Whether the proposal will result in an increase in the number of people affected by noise, odour, light or other amenity impacts arising from the operations of the Major Hazard Facility.
- Whether the proposal will result in an increase in the number of people affected by exposure to risk to health or life arising from the operations of the Major Hazard Facility.
- The potential for the proposed use to expand and attract additional people.
- The views of WorkSafe Victoria.
- The views of the Environment Protection Authority (EPA).

Appendix H Major Hazard Facilities planning priority

Name of MHF (from WorkSafe website, Jan 2016)	Qualitative Description of Land Use Context	Priority for Planning Advisory Area and ESO Development and Application
APA GasNet Australia (Operations) Pty Ltd 180 Greens Road, Dandenong	Within Industrial 1 Zone and surrounded by industrial use (Industrial 3 Zone and Industrial 2 Zone). Significant industrial and commercial employment area.	Medium
Arch Wood Protection (Aust) Pty Ltd Station Street, Trentham	Residential use commences approximately 200m from site. Most of the township of Trentham within 1km.	High
Australian Vinyls Corporation Ltd 65 Leakes Road, Laverton North	Residential use approximately 250m to south east of site. Residential use, schools within 1km of site.	High
BHP Billiton Petroleum Pty Ltd Brumbys Road, Port Campbell	Remote rural location with scattered farmhouses.	Low
BOC Limited 351 Hammond Road, Dandenong South	Within Industrial 1 Zone and surrounded by industrial use (Industrial 3 Zone and Industrial 2 Zone). Significant industrial and commercial employment area.	Medium
Caltex Australia Petroleum Pty Ltd 411 Douglas Parade, Newport (WorkSafe Planning Advisory Areas Available)	Residential use within 500m to the north west. Schools within 1km. Should be considered in conjunction with Viva MHF to south.	High
Dow Chemical (Australia) Ltd 541-583 Kororoit Creek Road, Altona	Largely industrial context. Should be considered in conjunction with adjoining Qenos site which is closer to residential.	Medium - High

Name of MHF (from WorkSafe website, Jan 2016)	Qualitative Description of Land Use Context	Priority for Planning Advisory Area and ESO Development and Application
Elgas Ltd 120 Greens Road, Dandenong	Within Industrial 1 Zone and surrounded by industrial use (Industrial 3 Zone and Industrial 2 Zone). Significant industrial and commercial employment area.	Medium
Energy Australia Gas Storage Ltd 285 Waarre Road, Port Campbell	Remote rural location with scattered farmhouses.	Low
Esso Australia Pty Ltd Cemetery Road, Hastings	Largely industrial context at least 1km from residential use. Should be considered in conjunction with adjacent United Petroleum site.	Medium - High
Esso Australia Pty Ltd Garretts Road, Longford	Remote rural location with scattered farmhouses.	Low
FBT Transwest Pty Ltd 1 Amanda Road, Tottenham	Industrial context in Industrial 1 Zone. Significant industrial and commercial employment area.	Medium
LyondellBasell Australia Pty Ltd Refinery Road, Corio	Significant industrial complex. Residential use approximately 500m to the north west and schools within 1km.	High
Melbourne Water Corporation Simpson Road, Christmas Hills	Water treatment facilities. Relatively remote location with no residential use within 500m.	Low
Melbourne Water Corporation Thompson Road, Bangholme	The South Eastern Treatment Plant already has a significant suite of planning controls for amenity that will also assist with managing risks and hazards.	Low
Melbourne Water Corporation Stonyford Road, Silvan	Relatively remote location. The small township of Silvan is located nearby but appears to be some distance from treatment facilities.	Low - Medium
Mobil Oil Australia Pty Ltd 29 Francis Street, Yarraville (WorkSafe Planning Advisory Areas Available)	Residential use to the north west approximately 250m away.	High

Name of MHF (from WorkSafe website, Jan 2016)	Qualitative Description of Land Use Context	Priority for Planning Advisory Area and ESO Development and Application
Mobil Refining Australia Pty Ltd Cnr Kororoit Creek Road and Millers Road, Altona	Large residential area commences approximately 150m to the north. Schools within 1km.	High
Mobil Refining Australia Pty Ltd Nelson Place, Williamstown (WorkSafe Planning Advisory Areas Available)	Residential development commences approximately 250m to the west.	High
Mobil Refining Australia Pty Ltd Koroit Creek Road, Altona	Large residential area commences approximately 150m to the north. Schools within 1km.	High
Hexion Pty Ltd Gate 3, 765 Ballarat Road, Deer Park	Residential use commences approximately 300m to the north. Commercial use approved to the east.	High
Nufarm Australia Ltd 103-105 Pipe Road, Laverton North	Industrial context in Industrial 2 Zone. Significant industrial and commercial employment area.	Medium
Ixom Operations Pty Ltd 215 Dohertys Road Laverton North	Industrial context in Industrial 2 Zone. Significant industrial and commercial employment area.	Medium
Ixom Operations Pty Ltd 166-180 Dohertys Road, Laverton North	Industrial context in Industrial 2 Zone. Significant industrial and commercial employment area.	Medium
Origin Energy Resources Pty Ltd 5775 South Gippsland Highway, Lang Lang	Rural location with neighbouring quarrying. Zoning in vicinity has 40ha minimum lot size for subdivision.	Low
Origin Energy Resources Limited 305 Waarre Road, Port Campbell	Remote rural location with scattered farmhouses.	Low
Paper Australia Pty Ltd Traralgon West Road, Morwell	Residential use to the east of the site but a very large site with main plant on the western edge. Locality already subject to coal related constraints.	Low

Name of MHF (from WorkSafe website, Jan 2016)	Qualitative Description of Land Use Context	Priority for Planning Advisory Area and ESO Development and Application
Qenos Pty Ltd 471-513 Kororoit Creek Road, Altona	Significant industrial complex with residential use approximately 300m to the south east.	High
Viva Energy Australia Ltd Burleigh Street, Spotswood (WorkSafe Planning Advisory Areas Available)	Significant residential use to the south and west, in some cases (south) nearly on the plant boundary.	High
Viva Energy Refining Pty Ltd Refinery Road, Corio	Significant industrial complex. Residential use approximately 500m to the north west and schools within 1km.	High
Viva Energy Refining Pty Ltd 137-207 McManus Road, Lara	In the Industrial 2 Zone within the Heales Road Industrial Estate. Existing rural living area to the north approximately 300m away.	Medium
Stolthaven Coode Island Pty Ltd 42-52 MacKenzie Road West Melbourne (WorkSafe Planning Advisory Areas Available)	Within established industrial context. Nearest residential use approximately 700m to the west. Significant industrial and commercial employment area.	Medium
Supagas Pty Ltd as Trustee of the AFT Trust Unit 23 Commercial Drive, Dandenong South	Within Industrial 1 Zone and surrounded by industrial use (Industrial 1 Zone) with commercial zoned land to the east. Significant industrial and commercial employment area.	Medium
Terminals Pty Ltd 40 Wharf Road, Corio	Significant industrial complex. Residential use approximately 300m to the south west. Should be considered with LyondellBasell and Viva Refining.	High
Terminals Pty Ltd 70-78 Mackenzie Road, West Melbourne	Within established industrial context. Nearest residential use approximately 700m to the west. Significant industrial and commercial employment area.	Medium

Name of MHF (from WorkSafe website, Jan 2016)	Qualitative Description of Land Use Context	Priority for Planning Advisory Area and ESO Development and Application
Toll North Pty Ltd 180 Fitzgerald Road, Laverton North	Within large Industrial 2 Zone. Significant industrial and commercial employment area.	Medium
United Petroleum Pty Ltd 5 Barclay Crescent, Hastings	Site is within 250m of residential use to the west. Should be considered in conjunction with Esso to the east.	High
Elgas Limited 61 Radnor Drive, Deer Park	Residential use approximately 200m to the west.	High