



THIRTY-EIGHTH PARLIAMENT

REPORT 31

**STANDING COMMITTEE ON ENVIRONMENT AND
PUBLIC AFFAIRS**

**PETITION NO 136 – KWINANA AIR BUFFER ZONE
EXTENSION: MANDOGALUP**

Presented by Hon Brian Ellis MLC (Chair)

November 2012

STANDING COMMITTEE ON ENVIRONMENT AND PUBLIC AFFAIRS

Date first appointed:

17 August 2005

Terms of Reference:

The following is an extract from Schedule 1 of the Legislative Council Standing Orders:

“1. Environment and Public Affairs Committee

- 1.1 An *Environment and Public Affairs Committee* is established.
- 1.2 The Committee consists of 5 members.
- 1.3 The functions of the Committee are to inquire into and report on –
 - (a) any public or private policy, practice, scheme, arrangement, or project whose implementation, or intended implementation, within the limits of the State is affecting, or may affect, the environment;
 - (b) any bill referred by the House; and
 - (c) petitions.
- 1.4 The Committee, where relevant and appropriate, is to assess the merit of matters or issues arising from an inquiry in accordance with the principles of ecologically sustainable development and the minimisation of harm to the environment.
- 1.5 The Committee may refer a petition to another committee where the subject matter of the petition is within the competence of that committee.
- 1.6 In this order “**environment**” has the meaning assigned to it under section 3(1), (2) of the *Environmental Protection Act 1986*.”

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Government Response

This Report is subject to Standing Order 191(1):

Where a report recommends action by, or seeks a response from, the Government, the responsible Minister or Leader of the House shall provide its response to the Council within not more than 2 months or at the earliest opportunity after that time if the Council is adjourned or in recess.

The two-month period commences on the date of tabling.

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EXECUTIVE SUMMARY, FINDINGS AND RECOMMENDATIONS OF THE
REPORT OF THE STANDING COMMITTEE ON ENVIRONMENT AND PUBLIC AFFAIRS
IN RELATION TO PETITION NO 136 – KWINANA AIR BUFFER ZONE EXTENSION:
MANDOGALUP

FINDINGS AND RECOMMENDATIONS

- 1 The Committee has made the following findings and recommendations, which are grouped as they appear in the text at the page number indicated:

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Finding 1: The Committee finds that:

- **the one year delay in publishing the Extension Buffer decision;**
- **failure to release a revised *Review of the Kwinana Air Quality Buffer Position Paper (2008)* so that it reflects the new alignment in accordance with WAPC’s resolution;**
- **the delay in release of the WAPC Decision Documents in accordance with WAPC’s resolution; and**
- **the extent of restriction of access to Alcoa’s technical study,**

has not been satisfactorily explained.

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Finding 2: The Committee finds that the lack of consultation with affected landowners in the course of the decision to make the Extension Buffer has not been satisfactorily explained.

This lack of consultation does not appear to be consistent with the spirit of SPP 4.1 or WAPC statements as to its approach to the community as a stakeholder in planning decisions.

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Recommendation 1: The Committee recommends that the Government ensure that landowners and residents who are, or may be, affected by a proposed planning buffer have a legislatively enshrined opportunity to comment on those buffers prior to a final decision being made.

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Recommendation 2: The Committee recommends that the Government ensure that landowners and residents who are, or may be, affected by a proposed planning buffer have a legislatively enshrined rights to access documents, including technical studies, on which decisions are to be made in order to make submissions on the appropriate buffer.

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Finding 3: The Committee finds that landowners and businesses affected by the WAPC's decision to make the Extension Buffer should be consulted on implementation, affirmation or amendment of the present buffer line prior to any future decision being made.

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Recommendation 3: The Committee recommends that the Minister for Planning instruct DoP to provide the principal petitioner with a copy of "*the September 2010 WAPC report*" referred to in the Western Australian Planning Commission's Decision Sheet dated 24 May 2011.

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Recommendation 4: The Committee recommends that the Government establish, as a matter of urgency, a legislative regime that confers legal status on planning buffers and ensures planning buffers are:

- established on a defensible, transparent and precautionary basis, which includes:
 - decision maker consultation with affected landowners prior to the final decision being made;
 - a health impact assessment; and
 - recognition of the complexity of an environment such as the KIA.
- clearly delineated and mapped on all State and local government planning instruments (including long term instruments such as strategies); and
- required to be adhered to by responsible authorities and are not easily challenged or thwarted.

The established regime should also ensure that where necessary, administrative arrangements provide detail for the legislative regime, not determine it.

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Recommendation 5: The Committee recommends that the government finalise the boundary of the KAQ Buffer as a matter of urgency.

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Recommendation 6: The Committee recommends that the Government, to protect the surrounding community and industry during finalisation of the KAQ Buffer boundary, implement an urgent interim solution to define and secure the KAQ and Extension Buffers.

REPORT OF THE STANDING COMMITTEE ON ENVIRONMENT AND PUBLIC AFFAIRS

**IN RELATION TO PETITION 136 – KWINANA AIR QUALITY BUFFER ZONE EXTENSION:
MANDOGALUP**

1 INTRODUCTION

Complaints and Reliefs Sought

1.1 Petition 136 was tabled on 27 September 2011, when it stood referred to the Committee pursuant to Standing Order 101(6). It has 434 signatories.

1.2 Petition 136 reads:

We the undersigned residents of Western Australia are opposed to the extension of the Kwinana Industry Area Buffer Zone in the Mandogalup are to 1500m from the Alcoa Slurry ponds. The extension of the buffer zone:

- *Represents a health risk to the population in the area;*
- *Has been developed without consultation with the community and is almost exclusively developed to meet industry needs;*
- *Is in conflict with the area previously identified for future urban development and other land uses;*
- *Significantly reducing the value of the properties in the area;*
and
- *Has denied the residents and business operators in the area with any natural justice, due process, recourse, or appeal.*

Your petitioners therefore respectfully request the Legislative Council to call on the Government to consult with residents before a final decision is made on the buffer zone, provide a full copy of all reports, evidence, and a full list of reasons to support the decision to extend the buffer zone, and in the even the buffer is extended to the 1500 metre point, to fully compensate residents for loss of the full market value of the properties and local businesses and quiet enjoyment of the area before the buffer extension was proposed.

The submission from the principal petitioner elaborates these complaints.

- 1.3 The Mandogalup land affected by the buffer is currently zoned ‘rural’ or ‘urban deferred’. It is not clear that the buffer’s restrictions on residential and sensitive uses represent any change in that current zoned land usage. The petitioners rely on developers having, prior to the decision to extend the buffer, targeted the affected land in anticipation of it being rezoned ‘urban’. This type of rezoning had occurred in 2008 with adjacent ‘urban deferred’ City of Cockburn land but, on making of the buffer, has become more problematic.¹
- 1.4 There is some tension between the petitioners’ complaints that insufficient regard has been had to the health risks associated with Alcoa’s slurry ponds – suggesting support for a greater buffer area - and that their property values have been adversely affected on the basis of inadequate information, which suggests support for a lesser buffer area.
- 1.5 The petitioners unite these disparate concerns in their complaint that Alcoa has been inadequately regulated. In essence, that Alcoa has not been made to control emissions, through appropriate licensing conditions and independent regulatory oversight, so that no health issues arise and unrestricted residential development can occur in the buffer zone. The petitioners say:

There has been a total lack of ongoing government supervision and independent monitoring and auditing which has been at the expense of private landowners ... We feel that if Alcoa was governed correctly and appropriately ... the issues with dust would have been addressed at the source of pollution.²

WAPC decision triggering Petition 136

- 1.6 Petition 136 arises from the Western Australian Planning Commission’s (**WAPC**) decision to extend a *de facto* planning buffer, the Kwinana Air Quality Buffer (**KAQ Buffer**), to the north and east of Alcoa’s Residue Drying/Disposal/Storage area (**RDA**) in the Kwinana Industrial Area (**KIA**) by 1.5km (**Extension Buffer**). This decision followed a 2010 recommendation of a now defunct committee of government

¹ The Town of Kwinana advises that urban zoning may be possible in the future but with restricted uses. See Letter from Mr Neil Hartley, Chief Executive Officer, Town of Kwinana to the Committee, 19 December 2011 (**Town of Kwinana Letter**), p2, Submission from Mr Philip I-Ching Lin, Principal Petitioner, 6 November 2012 (**Submission from Principal Petitioner**), p 2 and Letter from Mr Andrew Trosic, Manager Strategic Planning, City of Cockburn to the Committee, 21 December 2011 (**City of Cockburn Letter**), fifth unnumbered page.

² Submission from Principal Petitioner, pp1 and 2.

agencies, the Kwinana Buffer Review Committee (**KBRC**), which was formed some eight years earlier to make recommendations regarding an appropriate buffer.³

- 1.7 The Extension Buffer intersects Mandogalup, in the Town of Kwinana where the petitioners reside or own land. (In the course of the Committee's inquiry, the Town of Kwinana achieved City status. For consistency with the supporting documents, the Committee has used the designation 'Town of Kwinana' throughout this report.) The map at **Appendix 1** shows the KAQ Buffer and the area of the extension.
- 1.8 The purpose of the Extension Buffer is to provide a transition zone between industrial use at the RDA and non-industrial uses. Residential development is prohibited within the first kilometre of its area and 'sensitive use' restricted within its outer 0.5km.⁴ (Uncertainty in what will constitute unacceptable 'sensitive use' is one of the petitioners' complaints. Kindergartens, hospitals and aged persons housing have been suggested as indicating the types of uses that will be restricted.)⁵
- 1.9 Although the Extension Buffer decision was first made in September 2010, and was the basis for refusal of a subdivision application on 2 February 2011,⁶ the petitioners were not advised of this decision affecting their land until October 2011. This is despite, they advise, numerous requests in the interim of various government agencies (and Alcoa) to be advised of what was occurring with the proposed buffer.⁷

³ See WAPC, Department of Environmental Protection (**DEP**), Water and Rivers Commission and Department of Mineral and Petroleum Resources, *Review of Kwinana Air- Quality Buffer*, August 2002 (**2002 KAQ Buffer Discussion Paper**), pp1-7, for the circumstances leading to the establishment of this committee.

⁴ Western Australian Planning Commission Decision Sheet 20 September 2010 (**WAPC September 2010 Decision Sheet**), p1 in Western Australian Planning Commission and Department of Planning, *Kwinana Industrial (including Air Quality) Buffer: Report to the Western Australian Planning Commission – September 2010*, October 2011, pv (**WAPC Decision Documents**). (It is difficult to identify who authored pages 1 to 31 of the WAPC Decision Documents. In places these pages refer to the Kwinana Buffer Review Committee's (**KBRC**) recommendations but, while they set out DEC and DoH's advice to the KBRC, there is no equivalent section on DoP's advice. This suggests that the document represents the Department of Planning's (**DoP**) advice to the WAPC rather than the KBRC's advice. There is a statement that the assessment of risk is DoP's interpretation (pp10-1).)

⁵ Letter from Mr Gary Prattley, Chairman, Western Australian Planning Commission (**WAPC**) to landowners, 4 October 2011, p1 attached to the letter from Mr Eric Lumsden, Director General, Department of Planning to the Committee, 4 January 2012 (**DoP January 2012 Letter**). The petitioners' complain: "WAPC Letter 4 Oct [sic] 2011 states "land uses can carry on as they are" but "are unable to advise what land uses will/will not be appropriate". It is a dangerous precedent that major planning decisions are being undertaken without due consideration to implementation." (Submission from, Principal Petitioner, p2.)

⁶ *Wattleup Road Development Company Pty Ltd v Western Australian Planning Commission* [2011] WASAT 160 (**SAT case**), p8. The February decision was a reconsideration of a deemed refusal on 11 January 2011 under section 253 of the *Planning and Development Act 2005*, following the developer having given default notice to WAPC regarding its failure to make a decision on the application.

⁷ "MLAG have made numerous and dedicated communications to various departments including WAPC, DEC, Department of Health, Local Council and Alcoa". "MLAG" is the acronym for the Mandogalup Local Action Group, on whose behalf the principal petitioner corresponds. (Submission from Principal

Committee comment on complaints and relief sought

1.10 The Committee is concerned that:

- the local community, including the petitioners, were not consulted prior to the decision to make the Extension Buffer and at the significant delay in advising them that the decision had been made; and
- even after tabling of their petition, the petitioners advise that they have not been provided with documents relating to the Extension Buffer decision.⁸ This is despite the fact that the WAPC directed “*the September 2010 WAPC report*”, comprising advice provided to it, be released to stakeholders in May 2011 (and that a supporting Alcoa technical study be released subject to conditions on its use):⁹ a decision, the Department of Planning (**DoP**) advises, the WAPC made in response to requests from affected landowners.¹⁰

The Committee has made a number of findings and recommendations on these matters.

1.11 It is not clear to the Committee that the Extension Buffer is in conflict with existing land uses. The petitioners’ asserted loss of market value of their properties and businesses appears to depend on an expectation that, but for the Extension Buffer, land uses would have changed to permit more intensive residential development.

1.12 However, the Committee is concerned that:

- there appears to be no avenue for the petitioners to have the merits of their claims assessed. As explained in Part 4, this arises from the informal nature of the Extension Buffer; and
- the longer term local government and State planning instruments for Mandogalup were not consistent in their indications of future land use for the affected land and abutting areas.

1.13 A State Administrative Tribunal (**SAT**) decision last year, *Wattleup Road Development Company Pty Ltd v Western Australian Planning Commission (SAT case)* has resulted in uncertainty as to the planning future, with the finding that no

Petitioner, p2.) That inquiries were made is confirmed by DoP in its statement that “*Affected landowners requested the WAPC to release the report*” prior to WAPC’s May 2011 decision to affirm the Extension Buffer. (Letter from Department of Planning, received 13 November 2012 (**DoP November 2012 Letter**), Appendix p3.)

⁸ Letter from Mr Philip I-Ching Lin, Principal Petitioner, 10 October 2012, p1.

⁹ Western Australian Planning Commission Decision Sheet 24 May 2011 (**WAPC May 2011 Decision Sheet**), p1 in WAPC Decision Documents, pvii.

¹⁰ DoP November 2012 Letter, Appendix pp 3 and 4.

weight should be given to the Extension Buffer in deciding whether to approve a subdivision application within its area.¹¹

- 1.14 The Committee is particularly concerned that Petition 136 replicates some of the complaints investigated by the former Committee in its *Alcoa Refinery at Wagerup Inquiry* (**Wagerup Inquiry**) during 2001-04 and by the current Committee in its *Inquiry into Cockburn Cement Ltd, Munster, 2010-11* (**Cockburn Cement Inquiry**). In both those inquiries, the Committee considered that formal buffers, designated in formal planning instruments, should have been established at the time the relevant industrial facilities were built.¹²
- 1.15 It is too late to rectify this with respect to the RDA but the petition confirms the Committee's view, formed on evidence in its previous inquiries, that the buffer-making process set out in State Planning Policy 4.1 – State Industrial Buffers (**SPP 4.1**) is not appropriate for making planning buffers around complex industrial areas.
- 1.16 As was the case with the Wagerup Inquiry, the evidence presented to the Committee in respect of the Extension Buffer suggests SPP 4.1 places too much emphasis on designating a buffer by reference to “*environmental criteria*” that do not exist.¹³ It also suggests that SPP 4.1 relies too much on individual facility operators (or developers) to designate buffers by reference to individual industry sites and development applications. (**SPP 4.1 is Appendix 2**)
- 1.17 The Committee has received a number of petitions complaining that buffer areas are inadequate, regulation of industry is inadequate or that residential development is being unduly frustrated. In part this flows from: scientific uncertainty in; industry concerns as to cost of; and landowners' often unrealistic expectation as to, what can be done to control industrial emissions.

¹¹ SAT case, pp4-5 (see footnote 6 for case citation).

¹² Respectively, see: Western Australia, Legislative Council, Standing Committee on Environment and Public Affairs (2001-5), Report 11, *Alcoa Refinery at Wagerup Inquiry*, 24 October 2004 (**Wagerup Inquiry Report**) - Committee's Findings at paragraphs 7.214 and 7.215 (p266) and the earlier paragraphs of Chapter 7 leading to those findings - and Western Australia, Legislative Council, Standing Committee on Environment and Public Affairs, Report 24, *Inquiry into Cockburn Cement Ltd, Munster*, 20 October 2011 (**Cockburn Cement Inquiry Report**) - Finding 7, and supporting comments at paragraphs 4.217ff (pp152-4).

¹³ In its Wagerup Inquiry Report, the Committee reported evidence that Alcoa was determining its Wagerup buffer on the basis of noise because: “*In order to have a buffer with a line like that, on my understanding, it has to be based on scientific data. The only data that we have that is science based is the noise boundary. Again, that is because the emissions are well below all recognised guidelines*” (Ms Ann Whitty, Wagerup Refinery Manager, Alcoa World Alumina, *Transcript of Evidence*, February 18 2002, p17 quoted p232) and, after considering evidence that health complaints were arising from the mixture of chemicals rather than emissions above guidelines for specific chemicals, recommended standards for volatile organic compounds and multiple chemicals be developed (Recommendation 20 at p365). As set out in Part 3, the evidence in respect of the Extension Buffer (defined in paragraph 1.6 of this report) is that this has not occurred.

- 1.18 However, these complaints arise in a larger part from the ambiguous nature of planning buffers, which are not formal planning instruments and have no legal status. This ambiguity is present with regard to the Extension Buffer with, as seen above, the petitioners in this case not even being clear that it has been made. (It is important to note that at no time between the Extension Buffer decision and the SAT case decision – a period of some 13 months – was it designated on any public planning document.)¹⁴
- 1.19 It was observed in the Wagerup and Cockburn Cement Inquiry Reports that the lack of legal status, for the proposed Alcoa buffer in Wagerup and of the KAQ Buffer in Cockburn, respectively would and did mean that they were not consistently observed in planning decisions. At present, stakeholders treat planning buffers as a subject for lobbying, not a clear statement of an area in which certain uses will or will not be permitted.
- 1.20 In both of the previous Inquiry Reports, submissions were noted from a wide range of stakeholders, including government, that buffers be made “*formal*”.¹⁵ In the Cockburn Cement Inquiry, the Kwinana Industries Council (**KIC**) submitted that the KAQ Buffer:

*lacks the statutory strength it needs to effectively ward off applications to rezone rural or industrial zoned land to other zonings that allow residential development. This simply has to be fixed.*¹⁶

- 1.21 That the KAQ Buffer’s lack of legal status was a problem was implied in the 2002 *Review of Kwinana Air- Quality Buffer* discussion paper released for the KBRC’s review (**2002 KAQ Discussion Paper**).¹⁷ It was also observed in the 2008 *Review of the Kwinana Air Quality Buffer* position paper (**2008 Position Paper**)¹⁸ and its’

¹⁴ While in answer to questions as to why the WAPC’s resolution to amend and release a revised 2008 KAQ Buffer Position Paper reflecting the Extension Buffer was not implemented, DoP states that the WAPC’s Extension Buffer decision is “*reflected in a plan*” that was “*made available*”, it does not in the relevant answers identify that plan or who it was made available to. In answer to later questions whether any formal planning instruments were amended to reflect the Extension Buffer, it states that the “*City of Cockburn’s non-statutory Southern Suburbs District Structure Plan Stage 3 Hammond Park/Wattleup has recently been altered to reflect the buffer decision*”. (DoP November 2012 Letter, Appendix pp2 and 15)

¹⁵ See Wagerup Inquiry Report, the Shire of Wagerup at p254 and at 256, the then Minister for Environment, “*the security and integrity of the buffer area will need to be protected through relevant town planning zoning schemes*”.

¹⁶ Mr Christopher Oughton, Director, Kwinana Industries Council, *Transcript of Evidence*, 11 April 2011, p3 quoted in the Cockburn Cement Inquiry Report, p144.

¹⁷ “*It would be appropriate for the REA and adjacent Rural zoned land to be complemented by an SPP, to describe the land use planning responses to the environmental and planning constraints of the area. An SPP is prepared by the WAPC and adopted pursuant to section 5AA of the Town Planning and Development Act 1928. Local governments must have “due regard” to an SPP in the preparation and amendment of town planning schemes.*” (2002 KAQ Buffer Discussion Paper, p15)

¹⁸ Western Australia Planning Commission, Department for Planning and Infrastructure, Department of Environment and Conservation (**DEC**) and Department of Industry and Resources, *Review of the Kwinana Air Quality Buffer – Position Paper*, October 2008 (**2008 Position Paper**).

ambiguous status informed the KBRC's recommendations in 2010 to the WAPC. The *Kwinana Industrial (including Air Quality) Buffer: Report to the Western Australian Planning Commission – September 2010*, October 2011 (**WAPC Decision Documents**) observe that once WAPC finalises the KAQ Buffer (there are still outstanding areas):

*it will need to be implemented through the planning system. Consideration may be given to the drafting of a State Planning Policy or amendment to State Planning Policy 4.1 to reflect the buffer and restrict further residential uses in the area where required.*¹⁹

- 1.22 As seen in Part 4, the Extension Buffer's lack of legal status also means that the petitioners are denied any formal avenue to argue their claim for compensation for injurious affectation of their land.
- 1.23 It is not, in the Committee's opinion, appropriate that administrative buffers are expected to govern local government planning schemes, instruments which are written laws. It is also clearly not workable in fact.
- 1.24 As well as its conclusions and findings on the petitioners' complaints and prayers for relief, the Committee has considered the issues arising from the evidence on this petition in the context of matters raised in its Wagerup Inquiry, its Cockburn Cement Inquiry and in other petitions – such as Petition 150 (Kwinana Air Buffer Zone Extension – Munster). The Committee has found that planning buffers need to:
- be established on a defensible, transparent and precautionary basis;
 - be clearly delineated and mapped in relevant formal planning instruments;
 - be not easily challenged and thwarted; and
 - provide the certainty needed by industry, the community and to environmental and health regulators.

The current administrative regime for establishing, amending and enforcing buffers in Western Australia does not meet most of these requirements. The KAQ Buffer is clear evidence of this failure.

- 1.25 The Committee has concluded that:
- planning buffers around designated industrial areas require a legal status at least equivalent to the formal planning instruments they are intended to govern, such as local planning schemes;

¹⁹ WAPC Decision Documents, p23.

- the buffer-making process stipulated in SPP 4.1 requires revision to take into account the issues noted in this report; and
- the protracted KAQ Buffer review requires finalisation .

1.26 The circumstances leading to these conclusions are outlined in Parts 2 to 4 below.

Committee's enquiries

1.27 The Committee's enquiries are detailed at **Appendix 3**.

1.28 The Committee endeavoured to raise the issues canvassed in this report with the WAPC and DoP.

1.29 However, the Chairman of the WAPC became unavailable the day prior to two hearings scheduled for 4 September 2012 (one with the WAPC and one with the DoP). Over the next few weeks, it became apparent that the WAPC hearing could not occur due to the Chairman's absence interstate.

1.30 The Committee, therefore, decided to proceed by way of written questions posed to DoP. It sent its questions by email on 17 October 2012, requiring a response by 29 October 2012 (the Committee had already advised DoP on 29 August 2012 of the topics it wished to canvass at the scheduled hearing; it now advised specific questions). DoP requested a further two weeks to respond but was advised that the Committee's workload and deadlines required the response no later than 5 November 2012.

1.31 DoP did not respond to the Committee's questions within the stipulated time frame. A letter from the DoP was received on 13 November 2012 (**DoP 13 November Letter**), without acknowledgment of the inconvenience caused to the Committee or explanation for the delay.

1.32 Petition 136, and other documents gathered by the Committee, can be accessed at the Committee's website: www.parliament.wa.gov.au » Legislative Council » committees » Environment and Public Affairs Committee » Petitions

2 CONTEXT - PLANNING BUFFERS AND THE KAQ BUFFER REVIEW

Introduction

2.1 Prior to summarising the evidence and Committee's conclusions in respect of the specific petitioner complaints, it is necessary to establish the context for the Committee's considerations. Some of these matters – the overview of planning buffers and the genesis of the KAQ Buffer - have been dealt with in more detail in the Committee's Wagerup Inquiry and Cockburn Cement Inquiry Reports.

Planning buffers - what are they?

2.2 Industrial planning buffers are used to:

*provide a separation distance between industries (which may produce pollutants such as sulphur dioxide, dust, noise, light and odour) and other land uses, such as residential development.*²⁰

2.3 Generally, planning buffers are an area of land on which sensitive land uses – such as schools, hospitals, residential dwellings, child care centres, sporting facilities etcetera – should not be permitted regardless of formal zoning. From an industry and planning perspective, an important buffer function is to minimise the potential for conflict arising from incompatible land uses. (The Wagerup Inquiry is a good illustration of the intractable conflicts that can arise from inadequate separation.)

2.4 Off-site buffers are directed at the dual purposes of “*the protection and long-term security*” of industry and providing “*adequate protection for the interests of surrounding landowners*”.²¹

2.5 However, as seen in Petition 136, the ‘interests’ of surrounding landowners can conflict – in particular, where there is tension between protection of health and amenity and landowners’ wish to engage in uses that maximise the value of their land.

2.6 Planning buffers are not expressly provided for under the *Planning and Development Act 2005*. The need for buffers is given some express recognition in SPP 4.1. Section 26 of the *Planning and Development Act 2005* empowers the WAPC to make a State Planning Policy. Under the *Planning and Development Act 2005*, the Minister may require a local government to amend its local planning scheme to be consistent with a state planning policy²² but SPP 4.1 does not designate any buffer areas: it merely stipulates the process by which they are to be made.

2.7 Under SPP 4.1, buffers arise when any of an industry facility operator, development proponent or local government proposes a buffer around a facility or development, as part of an application for planning approval, or in the course of making or amending a local planning scheme. The WAPC assesses and approves or rejects buffer proposals put to it. It may also suggest a buffer when considering an application before it. (However, as seen below, the proposal for the Extension Buffer did not come to the

²⁰ “*Frequently Asked Questions and Information: Kwinana (including Air Quality) Buffer*” p2, enclosed with letter from Letter from Mr Gary Prattley, Chairman, Western Australian Planning Commission to landowners, 4 October 2011 attached to the DoP January 2012 Letter. This is a specific description of the KAQ Buffer but is applicable to industrial buffers generally.

²¹ Clause 3.2, of the State Planning Policy 4.1 – State Industrial Buffers (**SPP 4.1**), pp5-6.

²² Under section 73, local governments are to “*have regard*” when making local planning schemes Section 77A of the *Planning and Development Act 2005*.

WAPC by a route contemplated in SPP 4.1. Rather, it arose from Alcoa's submission made in the KBRC's general review of the KAQ Buffer.)

- 2.8 The WAPC identifies the KAQ Buffer as “*an aid to land use decision-making*” but as having “*no legal status as a planning consideration*”.²³ SPP 4.1 anticipates that, once made, a buffer will be included in planning instruments with legal status (local planning schemes and any statutory plans and strategic plans) and any policies affecting the subject land.²⁴ If included in legislative planning instruments, a planning buffer can give direction to planning decisions.
- 2.9 Where a buffer is not reflected in planning instruments with legal status, its ability to give direction can be compromised. This underlay the former Committee's finding in the Wagerup Inquiry that buffers should be designated in region or town planning schemes and the issues referred to in paragraphs 1.19 to 1.21 above.²⁵
- 2.10 DoP has described planning buffers as a “*planning overlay that needs to be taken into account in any rezoning*”²⁶ but it is not clear what is meant by “*needs*”. In practice, this seems to be the desired rather than required state of affairs. In answer to the Committee's question “*Can planning buffers be disregarded?*”, DoP said: “*Yes*”.²⁷
- 2.11 When asked to explain why formal planning instruments were not amended to reflect the Extension Buffer, DoP said:

The MRS does not have specific provision for buffer zones or special control areas. There is no legislative requirement for a local government to amend its local planning scheme. However, one of the principles of the 1997 SPP 4.1 is that once a buffer is defined,

²³ 2008 Position Paper, p1.

²⁴ Clause 5.1 of SPP 4.1, p8 and the “*Flow Diagram*”, p3. Clause 2.1, “*Direct Payments to Landowners*”, is also predicated on compensation only being payable on amendment of town planning schemes (p4).

²⁵ “*Further compounding the site issues, the Committee considers it extremely significant to the Wagerup experience that an adequate formal buffer was not established at the time the refinery was constructed ... In discussing the problems at Wagerup, Mr Osborn submitted that “The absence of a coherent, formal land use framework has been a root cause of the problems at Wagerup.” The Committee believes that in order to minimise or prevent similar land use conflicts occurring in the future there should be provisions in relevant region schemes or local government Town Planning Schemes for buffer areas where practicable. Such buffer areas should be designed to prevent potentially conflicting land uses from being developed within the buffer.*” (Wagerup Inquiry Report, p372.)

²⁶ The DoP said of the KAQ Buffer “*It is not a statutory instrument; it is a planning overlay. The metropolitan region scheme would be considered a statutory instrument. It is a planning overlay that needs to be taken into account in any rezoning.*” (Mr David Saunders, Acting Director General, Department of Planning, *Transcript of Evidence*, 11 April 2011, p4 quoted in the Cockburn Cement Inquiry Report, p143.)

²⁷ DoP November 2012 Letter, Appendix p15.

then it needs to be recognised in a town planning scheme".²⁸
(Committee emphasis)

- 2.12 Highlighting the ambiguity surrounding this SPP 4.1 'principle', when asked whether there was any intent to reflect the Extension Buffer in the statutory planning framework under the auspice of the WAPC, DoP responded:

*The WAPC has not formed a view at this time on the specific need for the RDA buffer to be acknowledged in statutory planning instruments.*²⁹

- 2.13 A further issue is that not all planning buffers need, or can be, reflected in planning instruments with legal status. The Minister for Planning advised the Committee that no changes were required to any planning instruments to protect rural land within the Extension Buffer.³⁰ Whether any changes are required for urban deferred land was not addressed by the Minister. The Town of Kwinana suggests this is not clear, as the uses that will or will not be permitted are not known.³¹
- 2.14 Another issue raised by Petition 136 that is common to previous inquiries arises from the fact that under SPP 4.1, decision-making is based on facility operator or developer generated reports that are to be assessed against "*environmental criteria*" and "*environmental guidelines*" (including a guideline for "*societal risk*") which are to be established by government agencies,³² in the circumstance that the necessary environmental and planning criteria, guidelines and standards have not been established.
- 2.15 For example, SPP 4.1 states: "*Societal risk criteria for industry, infrastructure and special uses will be established by the EPA in consultation with the Department of Minerals and Energy*".³³ Under SPP 4.1, once made, off-site buffers are only to be varied on the basis of a "*scientifically based study*".³⁴ Yet there are no such criteria.³⁵ The evidence presented to the KBRC and WAPC when deciding whether to make the Extension Buffer was that there are environmental criteria only for a very limited range of emissions and no criteria for a mixture of emissions or for noise, odour or

²⁸ DoP November 2012 Letter, Appendix p15.

²⁹ DoP November 2012 Letter, Appendix p16.

³⁰ Letter from Minister for Planning, 20 April 2012, p2.

³¹ Town of Kwinana Letter, p2.

³² Clauses 2(2), 4 and 4.2 of SPP 4.1, pp5-7.

³³ Clause 4.2 of SPP 4.1, p7

³⁴ Clause 4.5 of SPP 4.1, pp7-8.

³⁵ "*There are no societal risk criteria produced by the EPA.*" (WAPC Decision Documents, p20).

amenity, all matters that required consideration around the RDA – with up to 53 chemical particulates being present in the KIA (see paragraph 3.22).³⁶

2.16 Even where there are environmental criteria, from the perspective of some stakeholders their utility is in doubt. In its Wagerup Inquiry Report, the former Committee noted advice that the proposed Alcoa refinery buffer was set on the basis of noise standards, as emissions, which triggered significant complaints, fell below all recognised guidelines.³⁷ That is, while the environmental criteria suggested no health issue with emissions, they did not address the conflict arising from concerns at the adequacy of that criteria and perception of a health issue.

2.17 The Minister for Environment advises of a further issue in relying on technical studies to make planning buffer decisions:

DEC does not consider it is appropriate to use monitoring or modelling alone as the primary buffer definition criteria ...

*Using monitoring in this way is considered problematic as it only gives an indication of air quality over the monitoring period and does not reflect future plans for growth within the industrial strip.*³⁸

2.18 Both the KBRC and the WAPC appear to have struggled in trying to apply SPP 4.1 in the circumstances pertaining to the area around the RDA and its location in the KIA. This was particularly apparent in the protracted process of requiring Alcoa to conduct a series of studies seeking some scientific certainty with respect to dust emissions from the RDA when Alcoa was not the sole contributor to emissions in the area and dust was not the only issue to be considered in designating the buffer area. (The ambiguous status of planning buffers also seems to relate to an assumption underpinning the process set out in SPP 4.1, that buffers are established in relation to one industrial facility or development.)

2.19 In the event, both the KBRC and WAPC made decisions regarding the Extension Buffer on the precautionary principle, having regard to the complexity of the RDA

³⁶ For example, on the Environmental Protection Authority (EPA) *Guidance Statement No 3: Separation Distances between Industrial and Sensitive Land Uses (2005)*, DoP advised the WAPC: “The guidelines do not take into account cumulative impacts, non-typical emissions, and potential health impacts, and are not clear on what classification the products stored at the residue disposal area fall under”. DoP’s advice to the WAPC was: “Criteria examined and applied (where available) ... criteria not applicable in this situation” (pp19 and 20). See WAPC Decision Documents pp11-2 for a summary of the range of issues.

³⁷ Wagerup Inquiry Report, p232.

³⁸ Letter from Minister for Environment, 30 October 2012, p2.

environment, range of issues, minimising impact on health and amenity and reducing potential for conflict.³⁹

- 2.20 However, when the Extension Buffer decision was challenged in the SAT case, SPP 4.1 provided a basis for the developer to argue that the Extension Buffer was not supported by scientific certainty. As previously noted, the SAT case has left the status of the Extension Buffer in limbo.

KAQ Buffer Review

Pre- KAQ Buffer review

- 2.21 The KAQ Buffer came into being in the 1980s, essentially as a *de facto* environmental buffer, when concern with sulphur dioxide particulates in the air led the Metropolitan Regional Planning Authority to provide a separation between the KIA and urban land use.⁴⁰ By the 1990s, it was being used to provide separation from both a health and amenity perspective for a wider range of environmental and planning issues, including noise, light spillage, odour and a wider range of particulates.⁴¹
- 2.22 However, it was not consistently applied in planning decisions. Then, as now, the KAQ Buffer's lack of legal status seems to have been a problem. In 1991, the Kwinana Industrial Coordinating Committee requested the State Planning Commission to prepare a State Planning Policy to provide "*subdivision and development guidance to secure the long term protection of the Kwinana Industrial Area and its buffer*".⁴² The WAPC issued SPP 4.1 in 1997 but, as previously noted, this did not establish any buffers; it merely provided a process for individual buffers to be made.
- 2.23 In the interim, overlapping environmental regulation was being developed under the *Environmental Protection Act 1986*. In 1992, the Environmental Protection (Kwinana) (Atmospheric Wastes) Policy (**1992 Kwinana EPP**) was made. This set, through associated regulations, air-quality objectives for sulphur dioxide and PM10 particulates (particles having a diameter of 10 microns or less) in and around the KIA.⁴³ This allowed the Environmental Protection Authority (**EPA**) to apply limits on

³⁹ DoP November 2012 Letter, Appendix p13. While SPP 4.1 does not expressly invoke the precautionary principle, in the SAT case SAT found that principle was implied in the terms "*sustainable use*", "*environmentally sustainable principles*" and "*a risk-management approach*" used in Part A and Clause 3 of SPP 4.1. (The SAT case, pp17-8.)

⁴⁰ The 2002 KAQ Buffer Discussion Paper provides some background at pp1-6. As explored below, this document suggests that the KAQ Buffer was submerged into or became the Environmental Protection (Kwinana) (Atmospheric Wastes) Policy 1992 but it does not explain the differences between the two instruments explored below.

⁴¹ 2002 KAQ Buffer Discussion Paper provides some background at pp1-6.

⁴² Clause 2.3 of SPP 4.1, p4.

⁴³ Clause 3(1) of the Environmental Protection (Kwinana) (Atmospheric Wastes) Policy 1999 and regulation 3 of the *Environmental Protection (Kwinana) (Atmospheric Wastes) Regulations 1992*.

these emissions from each industrial source, enforced through licensing conditions, having regard to total emissions in the 1992 Kwinana EPP designated area.⁴⁴

- 2.24 As observed in the Cockburn Cement Inquiry Report, the 1992 Kwinana EPP operated over approximately the same area as the KAQ Buffer. Various government documents suggest that the 1992 Kwinana EPP defined, identified or “*accommodated*” the pre-existing KAQ Buffer in its designated area.⁴⁵ In its Cockburn Cement Inquiry Report, the Committee noted evidence that the KAQ Buffer had “*evolved into*” the 1999 version of the Kwinana EPP (an unamended re-issue of the 1992 Kwinana EPP) and that the KAQ Buffer was:

*in small part, formally an EPP — approved under the Environmental Protection Act.*⁴⁶

- 2.25 However, the KAQ Buffer was not approved under the *Environmental Protection Act 1986* (or any other legislation). Nor did it ‘evolve’ into the 1992 or 1999 Kwinana EPP. The Kwinana EPPs were (and are) limited to setting air quality standards for the specified emissions (sulphur dioxide and particulate size) with penalties for non-compliance. They do not manage the risk of non-compliance or the range of issues that the KAQ Buffer is intended to address. In particular, they do not stipulate acceptable land usage in the designated area.

- 2.26 Reflecting ongoing concerns with conflicting land uses in the KIA, in 2000 the Fremantle-Rockingham Industrial Area Regional Strategy (**FRIARS**) recommended that:

- The WAPC and DoP prepare planning controls to prevent further residential subdivision within rural zones of the KAQ Buffer;
- a ‘Preferred Land Use Strategy’ be implemented by legislation; and
- the strategy implementation agency and EPA jointly develop environmental performance criteria for inclusion in development policies.⁴⁷

- 2.27 Concerns as to the efficacy of informal planning buffers were not confined to the KAQ Buffer. In 2002, the Committee was advised by the then Department for

⁴⁴ 2002 KAQ Buffer Discussion Paper, p2.

⁴⁵ 2002 KAQ Buffer Discussion Paper, pp1-2.

⁴⁶ Mr Christopher Oughton, Director, Kwinana Industries Council, *Transcript of Evidence*, 11 April 2011, p3 quoted in Cockburn Cement Inquiry Report, p12.

⁴⁷ 2002 KAQ Buffer Discussion Paper, p6. SPP 4.1 is heavily dependent on formal environmental standards and criteria being developed.

Environmental Protection (**DEP**) that the problem of noncompliance with buffers was widespread and required addressing.⁴⁸

Proposal for a buffer around the RDA

KAQ Buffer review

2.28 The 2002 KAQ Buffer Discussion Paper recommended that, rather than relying on a buffer “*via the Kwinana EPP*”, an appropriate “*integrated land use and environmental buffer*” be established for the KIA through both planning and environmental instruments. It suggested that a state planning policy be prepared and adopted pursuant to the equivalent provision to section 26 of the *Planning and Development Act 2005* in the then legislation. This was to go beyond SPP 4.1:

It is envisaged that the SPP for this area would: • *confirm the WAPC’s position on land use and subdivision within the area;* • *reflect the recommended changes to the Kwinana EPP buffer;* • *ensure that the impacts of future land use and development on land within the REA are contained within this area; and* • *set out any specific detailed provisions that may be necessary to achieve the SPP objectives.*⁴⁹

2.29 The 2002 KAQ Buffer Discussion Paper identified six areas where the KAQ Buffer could be realigned to form a new, integrated buffer and three areas where further investigation was required. Relevant to the petitioners, the latter included an area in Mandogalup abutting the RDA.⁵⁰

RDA land use

2.30 Alcoa refines bauxite residue at Kwinana by using caustic (sulphuric acid) to dissolve alumina in ore. Alumina is then precipitated out. The residue (approx. 70% of the ore) consists of a 50/50 mix of mud and sand. This is stored in the RDA, either in ‘wet lakes’ or in ‘pyramids’ of up to 80m, for drying.⁵¹

2.31 Alcoa identifies the following matters that require management at the RDA:

⁴⁸ “*The Committee notes with interest the DEP’s advice that numerous examples of similar land use planning conflicts are being experienced with respect to other industrial activities such as hazardous waste treatment, waste disposal, abattoirs, rendering plants, food processing, cement works and brick works, and sewerage treatment plants*” (Wagerup Inquiry Report, pp257-8 referring to Submission No. 53 from DEP, April 9 2002, p25.).

⁴⁹ WAPC Decision Documents, pp1 and 10 and 2002 KAQ Buffer Discussion Paper, p15.

⁵⁰ 2002 KAQ Buffer Discussion Paper, pp10 and 14.

⁵¹ Ms Katherine Gwynne, Environmental Manager, WA Reside Operations, Alcoa World Alumina Australia, *Transcript of Evidence*, 27 June 2012 (**Alcoa Transcript - Ms Gwynne**), pp2-3.

- groundwater contamination;⁵²
- ‘dust’ in terms of size of particulates;
- particulates in terms of nature - sulphur dioxide, arsenic, nickel, mercury, chromium and lead;⁵³
- odour;
- noise; and
- light spillage.⁵⁴

2.32 Alcoa does not believe that emissions from the RDA pose a health issue for the local community but argues a buffer is necessary to address amenity concerns that could arise from incompatible use,⁵⁵ reducing potential for conflict. It also points to the need to protect its strategic plans for developing the RDA, which it notes are endorsed by the Minister for State Development, against incompatible development.⁵⁶ (Alcoa’s RDA lease runs until 2045.)

2.33 In this respect, it is important to note that at different times, different areas of the RDA are in use. Currently the most active area is Area F, a dry storage area that abuts Mandogalup. Area F is in the process of being closed; when this will occur is subject to Town of Kwinana rezoning approval.⁵⁷ While there will be some vegetation, Alcoa does not intend to cap any closed area with sand or a synthetic layer and rehabilitate

⁵² It has various strategies, including the use of pyramid stacks. “*The benefits obviously of putting less liquor into these areas is there is less potential for groundwater contamination in the future*” (Alcoa Transcript - Ms Gwynne, p3).

⁵³ “*In looking at the residue health-risk assessment, the two types of exposure that are important are PM10, which is as measure of small particles that are 10 microns in diameter or less, and at metals. In the dust—sort of locked up in the dust if you like—are a range of metals. We have listed some of the common ones there, so the health-risk assessment wanted to look at: what is the risk presented by dust per se, which is the PM10 and also what is the risk presented by these individual components within the dust.*” (Dr Alan Michael Donoghue, Director of Health and Chief Medical Officer, Alcoa of Australia *Transcript of Evidence*, 27 June 2012 (**Alcoa Transcript – Dr Donoghue**), p6) and Alcoa PowerPoint presentation, 27 June 2012, slide 11.

⁵⁴ Alcoa Transcript – Dr Donoghue and Ms Gwynne, pp12-3.

⁵⁵ Alcoa Transcript - Ms Gwynne, p2.

⁵⁶ Alcoa Transcript - Ms Gwynne and Mr Patrick Coffey, Principal Consultant Air, Alcoa of Australia, *Transcript of Evidence*, 27 June 2012 (**Alcoa Transcript – Mr Coffey**) pp2,4 and 14.

⁵⁷ WAPC Decision Documents, p5.

it.⁵⁸ The Department of Health (**DoH**) doubted that the proposed closure of Area F was a significant factor in the buffer decision. It advised the KBRC that “*dust reduction achieved by the closure of RDA-F will be countered by dust production from new drying areas*”.⁵⁹ In any event, Alcoa advises that it wishes to preserve its options for future use of Area F, including using the residue as a substitute for quarry sand.⁶⁰

- 2.34 Alcoa considers that landowners/developers have misinterpreted the consequences of closure of Area F, seeing it as a permanent decision that will permit residential development to occur, rather than as a stage in Alcoa’s dynamic use of the RDA.⁶¹

Alcoa proposed off-site buffer

- 2.35 Alcoa was concerned that the 2002 KBRC Discussion Paper failed to recognise the RDA as an active area, treating it instead as a passive storage area and proposing no off-site buffer. It, therefore, made a submission to the KBRC for an off-site buffer.⁶²

- 2.36 From 2002 a protracted process, whereby Alcoa undertook a series of technical studies on dust emissions from the RDA, ensued. This process was completed in December 2009. Alcoa explains the seven year study period by advising that a number of matters required resolution, including:

- correct identification of the chemical composition of dust emitted by the RDA;
- developing a model that distinguished between Alcoa’s emissions and those of other industrial facilities; and
- developing a model that not only indicated past dust dispersion but took into account future plans for the RDA and the prospect of extreme weather events.⁶³

⁵⁸ Alcoa Transcript – Ms Gwynne, pp4-5. WAPC Decision Documents state: “*The Department of Health stated in its advice that regardless of the closure of area F, continuing impacts would be likely as operations would continue to the northwest of the residue disposal area site. It is also important to note that Alcoa is under no obligation to move their operations to the north-western corner, or close area F. Alcoa have a State Agreement that permits them to operate on the entire site until 2045.*” (Original emphasis, p5)

⁵⁹ Letter from Mr Martin Matisons, Principal Toxicologist, Department of Health (**DoH**) to the Kwinana Buffer Review Committee (**KBRC**), July 2010 Appendix p2 in WAPC Decision Documents, p39.

⁶⁰ Alcoa Transcript - Ms Gwynne, p4.

⁶¹ “*There was a lot of concern among some of the developers in the area and the town of Kwinana at that time that once area F was closed that was going to solve a lot of the dust problems and allow development of Mandogalup*” (Alcoa Transcript – Ms Gwynne, pp4-5).

⁶² Alcoa Transcript – Ms Gwynne, p5.

⁶³ Alcoa Transcript – Ms Gwynne and Mr Coffey, pp5 and 10.

2.37 In 2009, Alcoa determined that RDA dust contributions in excess of 1km were mainly at the north east of the RDA due to prevailing south westerly winds but that ambient dust levels could be affected at any location within 3km downwind.⁶⁴ During this technical study period, Alcoa also presented the KBRC with some information on RDA odour and noise impacts and a health impact assessment that it had undertaken at its Pinjarra bauxite processing site.⁶⁵

2.38 Complicating the technical studies from both Alcoa's and the KBRC's perspectives was the lack of formal or agreed environmental and planning criteria against which to measure and assess the range of issues that had to be considered. For example, DoP advised the KBRC that:

*It is important to note, while there are issues regarding the regulatory status and applicability of the criteria outlined in the Alcoa commissioned report, the Environmental Protection Authority does not currently have a policy or guidelines for the definition of a dust buffer for amenity, health or environmental impacts. This lack of policy and standards originate from a gap in scientific understanding and was highlighted in the Department of Environment and Conservation's final advice.*⁶⁶ (Original emphasis)

2.39 In the end, Alcoa presented a study which measured against a range of standards used in different jurisdictions while noting the lack of generally accepted measuring methodologies and standards.

2.40 The second dot point in paragraph 2.36 highlights one of the issues previously noted in the SPP 4.1 approach of requiring technical studies to be performed by facility operators. From Alcoa's perspective (and from an environmental regulation perspective – and it was the environmental regulator who assessed the technical studies and dictated the information to be provided), the critical question is **Alcoa's**

⁶⁴ Alcoa Transcript - Mr Coffey, p10.

⁶⁵ WAPC Decision Documents, p5, Alcoa Transcript – Ms Gwynne and Dr Donoghue, pp5-6.

⁶⁶ WAPC Decision Documents, p6. And, for example, Alcoa's evidence: "I guess the issue with that is that we have provided the contours to the committee to determine then what is an acceptable level of dust contribution and where a buffer should be established, but there are not actually any Western Australian guidelines on what is an acceptable TSP level to protect amenity" (Alcoa Transcript – Ms Gwynne, p11.) DoP also summarised DoH's advice as follows: "The Department of Health states that the National Environmental Protection Measures standards do not accommodate additive or potentiating health affects [sic] that may arise from a mix of pollutants (i.e. impacts of a "cocktail" of various chemicals), and in the Kwinana Industrial Area air shed there are many pollutants. The Department also recognised that there is a gap in scientific evidence of the affects [sic] of a mix of pollutants." (WAPC Decision Documents, p7)

contribution to emissions in the area;⁶⁷ from a planning and health perspective, the critical question is the **total** emissions in the area.⁶⁸

- 2.41 The Committee is concerned at the focus on dust emissions and limited information collated on the other issues relevant to determining the buffer area. Further comment on this is made in Part 3.

KBRC's 2008 proposal and 2010 recommendation

- 2.42 In the midst of Alcoa's incomplete technical studies, the 2008 Position Paper, proposing a buffer area of 1km around the RDA, was released for public comment.

- 2.43 The 2008 Position Paper noted that the final RDA buffer boundary was subject to further investigation.⁶⁹ However, the City of Cockburn complains this advice was ambiguous, suggesting that the indicated 1km area was the only land under consideration for inclusion in the buffer area. Alcoa confirms this misunderstanding was held by landowners.⁷⁰

- 2.44 After consideration of Alcoa's final study, presented in December 2009, the KBRC recommended in 2010 to the WAPC that it extend the KAQ Buffer for 1.5km around the RDA on the basis that this:

- *Reflects advice provided by Department of Health and Department of Environment and Conservation;*
- *Incorporates the strategic interests of both the Kwinana Industrial Area and adjacent lands;*
- *Protects the safety and amenity of residents;*
- *... aligns with policy and criteria set by Western Australian Planning Commission, Environmental Protection Authority and the National Environment Protection Council; and*

⁶⁷ "We believe that the GHD dust model you have in front of you is the best available tool we have to determine Alcoa's contribution to current and future dust levels in the area." (Alcoa Transcript – Ms Gwynne, p2). Also: "one thing we found is that the background dust levels in the area predominate the monitored levels, and that is reflected in the modelling as well. It was therefore necessary to come up with some measure of where and how we could attribute an effect to the Alcoa contribution, and that was quantified at levels that were 20 per cent above background. That was proposed by GHD and we discussed that approach with DEC air quality management. They agreed that it was a reasonable approach." (Alcoa Transcript – Mr Coffey, p10.)

⁶⁸ The options DoP put to the WAPC were directed at "the possible level of risk for the health and amenity impacts arising from dust, odour and noise emissions from the Kwinana Industrial Area and the Alcoa residue disposal area". (WAPC Decision Documents, p10)

⁶⁹ 2008 Position Paper, Map p3 and advice p4.

⁷⁰ City of Cockburn Letter, third to fourth unnumbered pages and Alcoa Transcript – Ms Gwynne, p5.

- Does not ‘quarantine’ land from future development.⁷¹

2.45 Commenting on the Alcoa report, government departments observed to the KBRC that there was a high level of uncertainty with fugitive dust emission rates, background levels, frequency and magnitude of emission events.⁷² They also observed that there were no universally accepted standards for cumulative emissions against which readings can be measured.⁷³

No public consultation on KBRC Extension Buffer recommendation or WAPC decision

2.46 The KBRC’s 2010 recommendation was not released for public comment. The petitioners say that “*a comprehensive interim report should have been issued between the vague 2008 consultation and the Sept 2010 decision*”, including an opportunity to comment on technical data.⁷⁴ The DoP acknowledges there is “*merit*” in this view.⁷⁵

2.47 The date of WAPC’s Extension Buffer decision is not entirely clear – there was a decision in September 2010 that WAPC’s May 2011 Decision Sheet states was “*re-affirm[ed]*” in May 2011⁷⁶ but was acted on by the WAPC in the interim to refuse the Wattleup subdivision application that was the subject of the SAT case. DoP advised the Committee that the September 2010 decision was effective from the date that it was made but was “*affirmed*” in May 2011.⁷⁷ DoP’s purported answer to the question “*What were factors that led to the RDA Buffer Decision being reconsidered?*” does not respond to the question, it simply recites the factors leading to the original September 2010 decision.⁷⁸

2.48 Whatever the correct date of the final decision, each WAPC decision directed publication of information concerning the relevant Extension Buffer decision:

- WAPC’s September 2010 Decision Sheet states that WAPC “*updates and releases a “Review of Kwinana Air Quality Buffer Position Paper (2008)” [sic] so that it reflects the new alignment*”; and

⁷¹ WAPC Decision Documents, p23.

⁷² See DoH and DEC’s reports to the KBRC, respectively Letter from Mr Martin Matisons, Principal Toxicologist, Department of Health, July 2010 (**DoH Report to KBRC**) and Letter from Mr Drew Farrar, Acting Manager Air Quality Management Branch, Department of Environment and Conservation, date unclear (**DEC Report to the KBRC**) in WAPC Decision Documents respectively pp39-40 and p33. See also Letter from Minister for Environment, 23 April 2012, p2.

⁷³ DEC Report to the KBRC, pp3-4 in WAPC Decision Documents, pp34 and 35.

⁷⁴ Submission from Principal Petitioner, p2.

⁷⁵ DoP November 2012 Letter, Appendix p9.

⁷⁶ WAPC’s May 2011 Decision Sheet, p2 in WAPC Decision Documents, pviii.

⁷⁷ DoP November 2012 Letter, Appendix p1.

⁷⁸ DoP November 2012 Letter, Appendix p1.

- WAPC’s May 2011 Decision Sheet records resolutions to “1. *Release the September 2010 WAPC report to stakeholders, in conjunction with planning advice*” and “2. *Release the full Alcoa report to stakeholders, in conjunction with planning advice, with conditions on its use and circulation*”.⁷⁹

2.49 These resolutions appear to have only been implemented to a very limited extent and with a narrow view as to the “*stakeholders*”. At some stage, local governments were advised of the Extension Buffer. The Town of Kwinana says that it was hampered in responding to inquiries it received from landowners in being directed not to use information concerning the Extension Buffer other than for assessing planning matters.⁸⁰

2.50 As noted above, affected landowners were not notified of the making of the Extension Buffer until early October 2011,⁸¹ after petition 136 was tabled. In response to the Committee’s initial enquiry, the Minister for Planning advised that there were “*several reasons*” for failure to notify affected landowners of the Extension Buffer decision until October 2011, including:

- consultation with the State Solicitor’s Office and Alcoa on release of Alcoa’s report;
- the time frame for review of the buffer decision was not settled until May 2011; and
- preparation of a Frequently Asked Questions document.⁸²

None of these seem compelling. Presumably any issues surrounding release of Alcoa’s report were resolved prior to May 2011, when WAPC resolved to release it.

2.51 DoP advised the Committee in November 2012 that the State Solicitor’s Office advice was, in fact, that release of the Alcoa report in conjunction with planning advice “*was*

⁷⁹ WAPC’s Decision Sheet dated 21 September 2010 records WAPC’s decision that the WAPC: 4. *updates and releases a ‘Review of the Kwinana Air Quality Buffer Position Paper (2008)’ so that it reflects the new alignment.* And WAPC’s Decision Sheet dated 24 May 2011 records WAPC’s decision to: “*Release the September 2010 WAPC report to stakeholders, in conjunction with planning advice; Release the full Alcoa report to stakeholders, in conjunction with planning advice, with conditions on its use and circulation*”. (WAPC Decision Documents, ppvi and viii.)

⁸⁰ Respectively DoP January 2012 Letter, p1 and Town of Kwinana Letter, p2.

⁸¹ The Minister for Planning advises this was by letter dated 4 October 2011. (Letter from Minister for Planning, 20 April 2012, p1.)

⁸² Letter from Minister for Planning, 20 April 2012, p1.

unlikely to breach legal duties of confidentiality".⁸³ Yet DoP had advised the Committee in May 2012 that Alcoa's report was "*not publicly available*".⁸⁴

- 2.52 At the same time, DoP "*stipulated*" to the Committee that in providing it with a copy of Alcoa's report, the Committee was not to use or circulate it for any purpose other than assessing a planning matter.⁸⁵
- 2.53 Neither of the Minister for Planning nor DoP explain how the need to provide for a buffer review (or a Frequently Asked Questions document) impedes – for over a year - notification of the current situation, together with advice that a review date is to be determined, or why questions surrounding release of Alcoa's technical study precluded release of the other decision documents.
- 2.54 The Committee asked DoP why the WAPC's 20 September 2010 and 24 May 2011 resolutions to release information were not implemented and who made the decision not to implement those resolutions. DoP's response was that the WAPC's September 2010 decision to release of a revised 2008 Position Paper showing the Extension Buffer was "*partially implemented, and the extension of the buffer as per the 21 September 2010 decision is reflected in a plan*" that was "*made available*".⁸⁶ Nothing beyond "*reflection*" in a "*plan*" is identified as implementation. Later DoP concedes "*an updated Position Paper was not produced*".⁸⁷
- 2.55 It transpires from DoP's answers to later questions that the only plan reflecting the Extension Buffer is, in fact, the City of Cockburn's non-statutory Southern Suburbs District Structure Plan Stage 3 Hammond Park/Wattleup that has "*been recently altered*". It is not clear to the Committee how this constitutes implementation of WAPC's decision to release a revised position paper.
- 2.56 In answer to the questions, if the WAPC's decision to update and release a revised position paper was not implemented, why not and who made the decision not to implement it, DoP said: "*A plan was made available [see above] but an updated Position Paper was not produced*".⁸⁸ This is not an answer to the questions.
- 2.57 DoP advised the Committee that the WAPC's May 2011 resolution to release the WAPC Decision Documents was implemented "*in response to requests that were received by the WAPC after October 2011*". The petitioners, however, advised the

⁸³ DoP November 2012 Letter, Appendix p5.

⁸⁴ Letter from Mr Eric Lumsden, Director General, Department of Planning, 31 May 2012 (**DoP May 2012 Letter**), p1.

⁸⁵ DoP May 2012 Letter, p1.

⁸⁶ DoP November 2012 Letter, Appendix p2.

⁸⁷ DoP November 2012 Letter, Appendix p2.

⁸⁸ DoP November 2012 Letter, Appendix p2.

Committee in October 2012 that they had not been provided with the WAPC Decision Documents:

- despite that being a call for relief in Petition 136; and
- notwithstanding DoP's advice that the reason WAPC made the decision to release the documents was because "*Affected landowners requested the WAPC to release the report*".⁸⁹

Finding 1: The Committee finds that:

- **the one year delay in publishing the Extension Buffer decision;**
- **failure to release a revised *Review of the Kwinana Air Quality Buffer Position Paper (2008)* so that it reflects the new alignment in accordance with WAPC's resolution;**
- **the delay in release of the WAPC Decision Documents in accordance with WAPC's resolution; and**
- **the extent of restriction of access to Alcoa's technical study,**

has not been satisfactorily explained.

SAT case

- 2.58 As previously observed, a complicating factor in resolving the petitioners complaints is the impact of the SAT case, which renders the current status of the Extension Buffer uncertain.
- 2.59 The SAT case arose in the following circumstances. In the interim between its September 2010 and May 2011 Extension Buffer decisions, the WAPC rejected a subdivision application in respect of land zoned 'urban' in the City of Cockburn but falling within the Extension Buffer area (**Wattleup Subdivision**) on the basis of inconsistent use.⁹⁰
- 2.60 SAT accepted criticism of Alcoa's 2009 report: doubting the adequacy of the AUSPLUME model it used, as that model could not accurately predict dust dispersion

⁸⁹ DoP November 2012 Letter, Appendix pp3-4.

⁹⁰ On 2 February 2011, after a deemed refusal had occurred on 11 January 2011. (SAT case, p8.)

near the source and there were issues in the manner of calibration of that model against the real world, and finding that the extent of monitoring was inadequate.⁹¹ (Some of these issues were raised in the Alcoa report itself.)⁹²

- 2.61 As a result, in October 2011, SAT decided that “*no weight*” should be given to the Extension Buffer in considering whether the Wattleup Subdivision application should be granted.⁹³ It recommended that the Extension Buffer not be represented in the “*town planning framework*” pending further scientific data being gathered by the Wattleup developer in respect of its proposed subdivision site.⁹⁴
- 2.62 The Minister for Planning advised the Committee that as a result of the SAT case, “*alignment of provisions in each of the Local Governments’ town planning schemes*” can only conclude after the Wattleup developer study.⁹⁵ The City of Cockburn advised the Committee that it is not “*formally*” progressing the Extension Buffer pending the Wattleup developer’s study.⁹⁶
- 2.63 The Town of Kwinana, however, advised that it will “*respond further to separation distances required between industry and sensitive uses*” (that is it seems, implement the Extension Buffer).⁹⁷

Committee comment

- 2.64 That the WAPC can reject a subdivision application on the basis of a buffer which has not been publicly announced, and is not reflected in any formal planning documents, raises a question as to the transparency of the buffer-making process.
- 2.65 The SAT case, while reflecting the approach of SPP 4.1 to determining buffers on the basis of established environmental and planning criteria and technical studies, undermines use of the Extension Buffer as a planning tool, creating additional uncertainty for local governments, industry, developers and landowners, including the petitioners.
- 2.66 The Committee is concerned that the Minister for Planning advises implementation of the whole Extension Buffer area is dependent on the Wattleup developer undertaking a technical study that is site-specific to the particular Wattleup Subdivision and has a

⁹¹ SAT case, p16.

⁹² DoH advice to the KBRC noted that Alcoa’s report states that its model is unable to predict dust dispersion with any certainty within 1 km of the source due to wind turbulence and shadowing. (DoH Report to the KBRC, Appendix p2 in WAPC Decision Documents, p39).

⁹³ SAT case, p16.

⁹⁴ SAT case, p25.

⁹⁵ Letter from Minister for Planning, 20 April 2012, p2.

⁹⁶ City of Cockburn Letter, p4. DoP January 2012 Letter, p1.

⁹⁷ Town of Kwinana Letter, pp1-2.

focus on dust emissions from a near-by sand quarry. This study has appears to have little relevance to the petitioners' land in Mandogalup.⁹⁸

- 2.67 Further, government agencies have no power to direct the Wattleup developer, who may decide to delay the development or withdraw the application, to undertake the required study.⁹⁹ The Minister for Environment advises that it is not known when, or even whether, the study will occur.¹⁰⁰
- 2.68 This situation, which impacts on the reliefs sought by the petitioners and has ramifications for reliance on buffers as a planning tool in the KIA generally, requires urgent resolution.

3 PETITIONERS' COMPLAINTS

Introduction

- 3.1 As has been observed, the petitioners' complaints as to the Extension Buffer's impact mirror residents' complaints made in the former Committee's Wagerup and the Committee's Cockburn Cement Inquiries. In both of those inquiries, there were health concerns mixed with a desire to limit the buffer area (respectively, the proposed informal Alcoa buffer around its refinery at Wagerup and the KAQ Buffer as it applied in Munster) and assertions that better environmental regulation would obviate the need for buffers.¹⁰¹
- 3.2 The Committee was surprised to learn that the Department of Environment and Conservation (DEC) has no monitoring station to the east of the RDA.¹⁰² It has not, however, undertaken an inquiry into the adequacy of the EPA/DEC's regulation of Alcoa.
- 3.3 While not suggesting that an inquiry would have found any deficiencies in this case,¹⁰³ the Committee notes that it has previously undertaken two long inquiries into land use

⁹⁸ DoP also queries the relevance of this study to whole Buffer Extension area. It states: "*Please note the Wattleup study may not have direct relevance to the situation in Mandogalup*" (DoP November 2012 Letter, Appendix p18).

⁹⁹ DoP November 2012 Letter, Appendix p 18.

¹⁰⁰ Letter from Minister for Environment, 23 April 2012, p1 and DoP November 2012 Letter, Appendix p18. While DoP states that the Wattleup study has commenced (DoP November 2012 Letter, Appendix, p18), the Committee was contemporaneously advised by the Minister for Environment that DEC had not received the final monitoring plan promised by the developer in December 2011 and was unaware of the current status of PM10 monitoring and testing of the chemical composition of the dust. (Letter from Minister for Environment, 30 October 2012, p2)

¹⁰¹ For example, the evidence in the Cockburn Cement Inquiry that: "*A modern industry should not need a buffer zone; it should be able to keep its emissions inside the boundary fence*". (Mr Ronald Jones, *Transcript of Evidence*, 4 April 2011, p6 quoted in Cockburn Cement Inquiry Report p152.

¹⁰² Alcoa Transcript – Mr Coffey, pp9-10.

¹⁰³ The Committee held a private hearing at which Alcoa briefed it on its RDA management practices.

conflict arising from inadequate buffer planning and in both Inquiry Reports made a significant number of recommendations for improved regulation of the relevant industrial facilities. Yet the underlying systemic issue in the way planning buffers are made and implemented, identified in both reports, has not been addressed by the planning authorities. In reporting on Petition 136, the Committee has, therefore, focussed on the issues arising from the buffer-making regime.

3.4 The Committee also notes that even were it to inquire whether more stringent environmental conditions could be placed on Alcoa's operation of the RDA, the 1999 Kwinana EPP and National Environmental Protection Measures (NEPMs) do not cover the full range of issues arising and the RDA is only one facility amongst a number that contribute to the issues requiring planning management in the Mandogalup area. In any event, the former Committee noted in its Wagerup Inquiry Report evidence that an "engineering solution is unlikely to completely resolve community concern".¹⁰⁴

3.5 Assertions that better environmental regulation would obviate the need for planning buffers can, as well as overlooking short comings in scientific knowledge and current technology, also overlook two fundamental purposes of an industrial planning buffer:

- to guard against risk;¹⁰⁵ and
- to protect industry from incompatible land uses.¹⁰⁶

3.6 On risk, as DoH observed in its advice to the KBRC:

The role of a buffer is to allow emissions to dissipate without adverse impacts on nearby sensitive land uses.

*Even with good pollution control technology and practice, unintended or accidental emissions still occur which planning policies must anticipate and allow for. Equipment failure, accidents and abnormal weather conditions are among the causes ...*¹⁰⁷

3.7 On protection of industry, as the Kwinana Industries Council (KIC) observed in the Committee's Cockburn Cement Inquiry, allowing residential encroachment on industry areas can place unnecessary, additional financial burdens on industries to

¹⁰⁴ Wagerup Inquiry Report, p103.

¹⁰⁵ Leaving aside problematic science and deliberate breaches of environmental conditions or standards, as SPP 4.1 states: "Even with good pollution control technology and practice, these industries often have residual emissions of pollutants which cannot practicably be avoided (i.e. gas, odour, dust, noise). In addition, there may be unavoidable risk of injury or death from accidents associated with industrial activity or the storage of dangerous goods". (Clause 1.1 of SPP 4.1, p1.)

¹⁰⁶ Clause 1(2) - Objectives of SPP 4.1, p5.

¹⁰⁷ DoH Report to the KBRC, Appendix pp5-6. in WAPC Decision Documents pp42-3.

improve their environmental outcomes, with: “a devastating effect on its ability to financially continue to compete ...”.¹⁰⁸

- 3.8 While the Committee is aware of the current pressures for release of land for residential development, little benefit is derived from permitting land uses that have potential for adverse health and amenity outcomes for residents and which may threaten industry.

Complaint the Extension Buffer represents a health risk

Introduction

- 3.9 The petitioners’ rely on the SAT case to complain that the Extension Buffer was made on the basis of inadequate technical information. They also point to DoH correspondence stating that, while there is no hard evidence that dust causes asthma, long term breathing high concentration of dust is thought to reduce lung function and contribute to chronic bronchitis and cardiopulmonary disorders.¹⁰⁹
- 3.10 The petitioners argue that if health risks are unknown they should be investigated. They also assert “[t]he Mandogalup Cell is generally outside the Alcoa dust emission according to the various models”.¹¹⁰
- 3.11 In its Wagerup Inquiry Report, the former Committee noted evidence that a full health impact assessment should be carried out to determine whether a buffer zone was required whenever a new major industrial development was proposed.¹¹¹ In its Cockburn Cement Inquiry, the Committee made the following recommendation:

Recommendation 22: The Committee recommends that the Government establish a health impact assessment process for planning proposals and planning schemes similar to the process for environmental impact assessment,

and suggested that assessment should be conducted by a government agency.¹¹²

¹⁰⁸ Wagerup Inquiry Report, p148.

¹⁰⁹ Submission from Principal Petitioner, p1 quoting a letter from DoH dated 6 September 2011.

¹¹⁰ Submission from Principal Petitioner, pp2 and 1.

¹¹¹ In response to the following proposition put to him by the Chair: “Taking up your earlier point on better planning, could one therefore surmise that you would be in favour of the Government taking the lead on the issue of land-use policy buffers and so on rather than it being driven by the company?” Professor Holman submitted “Very much so. You have to be aware of the false economy of taking the least cost option when it actually involves siting things close to populated areas.” Professor Holman also expressed his view that “we need a full health impact assessment of all major, new industrial developments.” (Professor D’Arcy Holman, Chair in Public Health, School of Population Health, University of Western Australia, *Transcript of Evidence*, August 18 2003, pp5 and 15 quoted in Wagerup Inquiry Report, p115.)

¹¹² Immediately prior to the recommendation, the Committee said: “The Committee was of the view that all planning proposals and planning schemes should be potentially subject to a health impact assessment,

- 3.12 The Committee notes DoP advice that “A health risk assessment would normally be undertaken as part of the technical analysis”¹¹³ It commends involvement of DoH in the KBRC’s decision to recommend the WAPC make the Extension Buffer.
- 3.13 However, it is concerned that no health impact assessment was conducted by an appropriate government agency in the seven years that it took to produce that recommendation.

Range of issues – odour and noise

- 3.14 While dust is generally identified as the major health concern around the RDA, there are a number of other compatible land use questions that may impact on health. These include odour, noise, light spillage and groundwater contamination. DoH pointed out to the KBRC that:

*Frequent intermittent odour events from the RDA for example, while inherently may not be of sufficient potency to cause a clearly defined toxicological health effect, can nevertheless cause significant discomfort from non-toxicological health effects. For many individuals frequent noise events lead to unrest and blame ... For a few individuals the response to frequent odour and frequent peak dust events can lead to physiological symptoms.*¹¹⁴

DoH also observed that odour complaints could indicate pollution hot spots but were not a useful indicator of health impacts, as the population might not know it was at risk until the health effects emerged.¹¹⁵

- 3.15 As seen in Part 2, the full range of buffer issues does not appear to have been adequately addressed by technical studies in the KBRC review. In its briefing to the Committee, Alcoa pointed out that the RDA buffer needed to address issues other than dust - such as noise, light spillage and odour. It advised the Committee that noise and light spillage complaints typically occur when it is constructing new areas and raising embankment heights. However, it also received unrelated noise complaints for reverse beepers on vehicles.¹¹⁶

similar to the way they are potentially assessed for environmental impact by the EPA under Part IV of the EP Act. The need for a health impact assessment and the level of assessment could be determined by the body which has the responsibility of conducting the assessment, whether that is the DOH or another relevant body, in the same way that the EPA is required to make these decisions for environmental impact assessments.” (Cockburn Cement Inquiry Report, p115.)

¹¹³ DoP November 2012 Letter, Appendix p12.

¹¹⁴ DoH Report to the KBRC, Appendix pp4-5 in WAPC Decision Documents, pp41-2.

¹¹⁵ DoH Report to the KBRC, Appendix p4 in WAPC Decision Documents, p41.

¹¹⁶ Alcoa Transcript – Ms Gwynne and Mr Coffey, pp2 and12-3.

- 3.16 Alcoa presented some indicative studies on odours to the KBRC, which were based on information from its other sites, and a 2004 strategic land planning strategy that addressed noise.¹¹⁷ The WAPC Decision Documents state that Alcoa's odour and noise study was "*Suspended due to financial constraints*" but that Alcoa's estimate was that there was a 2 to 2.5km area of odour impact from the wet lakes at the RDA. A similar profile was indicated for noise impact.¹¹⁸
- 3.17 The WAPC Decision Documents do not reveal why the KBRC did not pursue technical studies on these matters.
- 3.18 The Committee enquired of DoP "*What power does WAPC, DoP or DEC have to compel individual developers or industry to undertake studies required to determine appropriate buffer areas in the Kwinana Industrial area?*". The DoP said:

*Under the 2009 draft SPP 4.1 a technical analysis is required if a proponent seeks to reduce the buffer from those specified in EPA guidance statement 3 and in circumstances where industry seeks to expand their operations or where cumulative impacts may occur. Industries or operations that pose potential risk to amenity or health, and are not addressed in EPA guidance statement 3 may also require technical analysis.*¹¹⁹

- 3.19 How a draft SPP 4.1 can confer power to compel the undertaking of technical studies is not explained. Nor is how the suggested power to compel studies where "*cumulative impacts may occur*" explained in the circumstance that DoP concedes there is no power to compel the Wattleup developer to produce the study required by SAT. Further, as seen below, the advice in the WAPC Decision Documents is that the EPA's guidance statement 3 did not address the circumstances pertaining to determination of an appropriate buffer around the RDA.

Dust

- 3.20 As noted above, dust (or particulates) raises health concerns in respect of both size and chemical composition.

¹¹⁷ WAPC Decision Documents state: "*Noise estimates – 45 decibel contour drawn based on the 35 db night maximums set by regulators, with an additional 10 included because of extra noise producing sources on site (i.e. earth moving equipment). Estimates were taken from a strategic land planning strategy produced by SKM in 2004 for Alcoa*" (p6) and "*Alcoa noise impacts are indicative estimates only, provided by Alcoa based on previous studies of their other operations and past experience. Estimates are not based on site specific scientific studies*" (p12).

¹¹⁸ WAPC Decision Documents, pp3 and 5 and Map 4 appended at p51.

¹¹⁹ DoP November 2010 Letter, Appendix p18.

- 3.21 Alcoa was keen to stress to the Committee that its contribution to dust in the RDA area was not the sole basis on which the buffer area should be determined, as there were other sources (and as seen above issues) that needed to be taken into account.¹²⁰
- 3.22 While it is clearly in Alcoa's interests to minimise its role, the Committee notes that the National Pollutant Inventory, which collates the self-reported information provided by emitters that exceed specified limits, states that 33 facilities report on emission of 53 substances in Kwinana.¹²¹ It also notes that SAT's concern at reliance on the Extension Buffer was, in part, due to reliance on Alcoa's study in respect of the RDA to set the buffer area where the main contributor to dust at the Wattleup Subdivision site was an abutting sand quarry.¹²²
- 3.23 As previously observed, Alcoa maintains that dust from the RDA poses amenity, not health, issues for the surrounding community. It points to a health impact assessment it conducted in Pinjarra that found no health impacts from emissions from an identical refining process.¹²³ DoH, however, advised the KBRC that:

*it would not be reasonable to assume that the concentration of individual constituents nor the atmospheric behaviour and chemistry of PM at Kwinana would be similar to PM at Pinjarra.*¹²⁴

- 3.24 WAPC Decision Documents report that DEC considers dust an amenity issue for planning buffers, with health impacts dealt with by particulate standards in the NEPMs. (The NEPMs are made by the National Environmental Protection Council. The Environmental Protection and Heritage Council website explains: "*NEPMs may consist of any combination of goals, standards, protocols, and guidelines. Typically a NEPM may contain: a goal; one or more standards; one or more monitoring and reporting protocols, and may also contain guidelines*". Amongst other things,

¹²⁰ "I guess a point that is worth stressing is that our dust monitoring shows that dust levels entering our property are frequently greater than the dust levels that we monitored downwind of our property. The Kwinana industrial area is generally a reasonably dusty area, and we are just one of the sources that contribute to dust in the area; there are quarries and other sources." Alcoa's studies were designed to "provide input to the buffer review process" rather than dictate designation of the buffer area (Alcoa Transcript – Mr Coffey, pp10 and 8.) "One of the reasons we develop a model is to try to understand how the dust is generated from our site only and then predict ours is really to try to understand our contribution. But overall from a buffer development perspective you would need to take into account all the other sources. That is another important point in this; in terms of the buffer development, it is only our dust source and our dust model that is being taken into account there." (Alcoa Transcript – Ms Gwynne – pp12-3)

¹²¹ <http://www.npi.gov.au/npidata/action/load/summary-result/criteria/year/2011/destination/ALL/lga/544/source-type/ALL/subthreshold-data/Yes/substance-name/All>, (viewed on 7 August 2012).

¹²² The SAT case pp20-1, where after considering the potential impact of the sand quarry on the site and a "360 Environmental report" concerning that site, SAT said: "*Finally, there has not been any adequate monitoring of dust and other airborne pollutants in relation to the site.*" (Committee emphasis)

¹²³ Alcoa Transcript – Ms Gwynne and Dr Donoghue, pp5-7.

¹²⁴ DoH Report to the KBRC, Appendix p4 in WAPC Decision Documents, p41.

NEPMS set guidelines for measuring air toxicity in respect of five substances. Under the *National Environmental Protection Council (Western Australia) Act 1996*, the NEPMs impose obligations on the State government to meet the standards they set out. DEC's website states: "*There is limited information about the levels of air toxics in our environment*".¹²⁵ WAPC Decision Documents state:

*The Department of Environment and Conservation stated that the total suspended particulates are now normally considered as a measure of amenity, however at the time of its inclusion in the Kwinana Environmental Protection Policy it was considered a measure of health impacts. Its role as a measure of health impact is now largely replaced by pm10 (particulate matter) standards within the National Environmental Protection Measures (NEPM).*¹²⁶

- 3.25 Rather confusingly given this reported view, in its advice to the KBRC DEC pointed out that the NEPMs only measure health impact in terms of particle size, not chemical, and do not take into account the "*cumulative impacts of a very complex mix of atmospheric emissions*" at the boundary of a very large industrial estate. (It also advised that there were no NEPM standards for PM2.5 particles.)¹²⁷
- 3.26 As noted above, the 1999 Kwinana EPP only provides air quality standards for sulphur dioxide and air borne particulates of under 10 microns. Similarly, the WAPC Decision Documents state that, the NEPMs only provide air quality standards for six pollutants: carbon monoxide, nitrogen dioxide, photochemical oxidants, sulphur dioxide, lead and particulates of 10 microns.¹²⁸
- 3.27 In the SAT case, DEC questioned the efficacy of sole reliance on licence conditions and the NEPMs to manage health, giving evidence that:

*We have the tools on paper but it is not a very strong tool [in practice]. The licence does help but it is not a very strong tool really. ... sometimes the conditions are just enough to keep control of emissions but it is not enough to ensure best practice.*¹²⁹ (Original brackets)

- 3.28 DEC also gave evidence in the SAT case that:

¹²⁵ Respectively <http://www.ephc.gov.au/nepms/> and https://secure.dec.wa.gov.au/airquality/Current_Air_Quality/Pollutant/Air_Toxics, viewed 21 November 2012, viewed on 23 November 2012.

¹²⁶ WAPC Decision Documents, p26.

¹²⁷ DEC Report to the KBRC, p4 in WAPC Decision Documents, p35.

¹²⁸ WAPC Decision Documents, p27.

¹²⁹ Ms Constance Dewan, Environmental Scientist, DEC, quoted in the SAT case, p23.

*Current research has not been able to determine a concentration level below which PM does not affect cardiopulmonary health. Health effects are seen at very low levels and the effects increase steadily as the particle concentration increases. Hence it is not possible to define a scientific valid 'safe' level at which the majority of the population will be spared adverse health effects. This is also true for other key air pollutants of ozone, nitrogen dioxide and sulphur dioxide.*¹³⁰

3.29 Alcoa, however, put another perspective to the Committee:

*The other thing to say is that these health guideline values that I mentioned a moment ago have inbuilt safety margins and it is a really important point to realise that just because an exposure might go over a given guideline value, that is not to imply that that will necessarily result in health effects.*¹³¹

3.30 Illustrating the issues that arose in considering Alcoa's technical study, that study examined particulates of PM10 representing – Alcoa says – a conservative approach to identifying potential health issues.¹³² DoH advised the KBRC that environmental scientists and health professionals accept measuring at this level¹³³ but DEC drew the KBRC's attention to the fact that the Alcoa study did not report on PM2.5 particles.¹³⁴ The KIC's view is that:

Dust can be measured as either PM10, PM2.5 or as Total Suspended Particulates.

*Monitoring for all three measurements is carried out in the Kwinana airshed. Industry and regulators intend moving towards **the PM2.5** measurement because it monitors the smallest dust particles, which are currently thought to be more important with regards to their potential health impacts.*¹³⁵ (Committee emphasis)

3.31 Further, as Alcoa points out, its technical study was aimed at identifying the chemical composition, generation mechanisms and dispersion of dust from the RDA. It was not intended to provide guidance on the broader mix of emissions in the area surrounding

¹³⁰ Ms Constance Dewan, environmental scientist, DEC quoted in the SAT case, p19.

¹³¹ Alcoa Transcript – Dr Donoghue, p7.

¹³² Alcoa Transcript – Dr Donoghue, p7.

¹³³ DoH Report to the KBRC, Appendix p2 in WAPC Decision Documents, p39.

¹³⁴ DEC Report to the KBRC, p5 in WAPC Decision Documents, p36.

¹³⁵ <http://www.kic.org.au/files/KIC%20Air%20Quality%20Brochure.pdf>, (viewed on 9 August 2012).

the RDA. (Alcoa estimates its emissions as 20% of the background dust.)¹³⁶ DoH raised this in its advice to the KBRC. It said:

*The KIA air shed contains many different compounds ranging from gaseous to metallic which have potential to form complexes with each other and PM in the atmosphere and distribute over a wide area. Hence dust emissions from the RDA can not [sic] be considered in isolation. The dust modelling report attempts to address this by including an estimate of the background concentration in the modelling however, the uncertainties around the level of background concentration remain. Background levels of pollutants are subject to change with changes in industry types and age.*¹³⁷

- 3.32 DEC advised the KBRC that the NEPM standards were not intended for use in defining buffers.¹³⁸ DoH, noting that Alcoa's Pinjarra PM10 profile had identified 24 known air borne elements, also cautioned against using NEPM PM10 standards (which it, like the DEC, noted related to size not chemical composition):

*in isolation as a surrogate guideline for dust emissions potentially rich in such compounds at Kwinana without further investigation.*¹³⁹

- 3.33 In correspondence to the Committee, the DoP relies on the EPA's *Authority Guidance Statement No 3: Separation Distances between Industrial and Sensitive Land Uses (2005)* as providing default guidance for setting buffers.¹⁴⁰ This document states that the separation distance for aluminium production is 1.5 to 2km.
- 3.34 However, these guidelines do not consider cumulative impacts. Nor do they take into account potential health impacts. WAPC Decision Documents observed that this guidance statement was difficult to apply to the RDA, as aluminium was not produced at the RDA and it was more active than indicated by the guidance statement's waste deposit category (requiring a separation of 3-500m).¹⁴¹ (The lack of reality in the administrative distinction between "production" and "deposit" is perhaps reflected in the KBRC's initial failure to identify the RDA as an active site.)

¹³⁶ Alcoa Transcript – Mr Coffey, p10.

¹³⁷ DoH Report to the KBRC, Appendix p4 in WAPC Decision Documents, p41.

¹³⁸ DEC Report to the KBRC, p4 in WAPC Decision Documents, p35.

¹³⁹ DoH Report to the KBRC, Appendix p4 in WAPC Decision Documents, p41.

¹⁴⁰ While at p18 of the Appendix to its correspondence DoP says a technical analysis is required if a proponent seeks to reduce the buffer from that "specified" in the EPA's guidance statement, in answer to an earlier question it said "The EPA's guidance statement number 3 – Separation distances between Industrial and Sensitive Land uses (GS3) – is for guidance only". (DoP November 2010 Letter, Appendix p13.)

¹⁴¹ "The guidelines do not take into account cumulative impacts, non-typical emissions, and potential health impacts, and are not clear on what classification the products stored at the residue disposal area fall under", (WAPC Decision Documents, p27.)

- 3.35 WAPC Decision Documents report that DEC advised the KBRC that the EPA did not have a guideline or policy for definition of a dust buffer for amenity, health or environmental impacts due to a gap in scientific knowledge in respect of these matters.¹⁴²

Recommendations to KBRC

- 3.36 DEC's recommendation to the KBRC was that in view of all the uncertainties, it would not be advisable to determine the buffer area on the basis of Alcoa's dust contours. As summarised in the WAPC Decision Documents, DEC considered that air quality was not the most important issue in determining the buffer boundary but rather the long term strategic goals for the region.¹⁴³ DoH, however, saw the lack of scientific certainty as requiring a precautionary buffer area of 1km in which no residential development was permitted and a further 0.5km where sensitive uses were prohibited. (While the summary of DoH's position in the WAPC Decision documents may suggest amenity was the only concern, DoH's advice clearly relates its recommendation to both health and amenity).¹⁴⁴ DoP assessed the risks against planning strategies for the area, including the fact that more industries were expected to locate to Kwinana.¹⁴⁵
- 3.37 The WAPC Decision Document's recommendation to the WAPC for the Extension Buffer area followed a conclusion that a 1km area would "*provide for the safety and amenity of land uses surrounding the Kwinana Industrial area*" and a further 0.5km area would be consistent with DoH advice and "*available scientific evidence*".¹⁴⁶ Another factor in that conclusion was that it did not quarantine the land adjacent to the KIA from future non-sensitive land use and development.¹⁴⁷
- 3.38 This buffer proposal was one of three options considered. WAPC Decision Documents note:

*Department of Health stated that this option reflects the currently available evidence, as well as the limitations associated with that evidence, and an appreciation of existing and future land uses.*¹⁴⁸

¹⁴² WAPC Decision Documents, p6.

¹⁴³ WAPC Decision Documents, p6.

¹⁴⁴ WAPC Decision Documents, p7 and DoH Report to the KBRC, Appendix p6 and in WAPC Decision Documents p43 and Letter from Mr Martin Matison, Principal Toxicologist, Department of Health to the Kwinana Buffer Review Committee, August 2010, p1 in WAPC Decision Documents, p46.

¹⁴⁵ WAPC Decision Documents, p21.

¹⁴⁶ WAPC Decision Documents, p22.

¹⁴⁷ WAPC Decision Documents, p23.

¹⁴⁸ WAPC Decision Documents, p22.

Committee comment

- 3.39 The Committee has noted its concerns that no health impact assessment occurred, and that the full range of issues was not subject to adequate technical study, in the process by which the Extension Buffer was made above.
- 3.40 However, regardless of the merits of the petitioners' complaints in these respects or in respect of inadequate monitoring of the area by DEC and inadequate regulation of Alcoa (which the Committee has not inquired into and makes no finding on), there are clearly gaps in scientific understanding and environmental criteria that preclude the certainty sought by the petitioners.
- 3.41 The tension between the complaints made by the petitioners in desiring both health and amenity protection and ability to develop their land without restriction has been noted.
- 3.42 Given the pressures for rezoning the affected land to permit residential development, and the limited utility of available environmental criteria to conclusively establish buffer requirements, the Committee is not persuaded that the KBRC or WAPC was wrong to take a precautionary approach to making the Extension Buffer in 2010, notwithstanding the identified flaws in information available at that time.
- 3.43 The Committee is nonetheless concerned that the technical studies on which the decision was made were solely the facility operator's dust studies related to the RDA. As well as not presenting a full picture of the range of issues it was necessary to determine, as seen in Part 4, this limited the information that the WAPC (or, perhaps, DoP) was prepared to release to landowners.
- 3.44 The Committee is also concerned at suggestions in the WAPC Decision Documents of ambiguity in DEC's approach to managing health issues in areas surrounding industrial facilities. In this respect, the Committee notes that there are suggestions that the 1999 Kwinana EPP may be amended to delete standards for PM10 particulates. Given the advice DEC provided to the KBRC and its evidence in the SAT case, the Committee is also perplexed by the Minister for Environment's statement to the Committee that he had been advised by DEC that it could not comment on health and amenity issues in the Mandogalup area, as these fell within the health and planning portfolios.¹⁴⁹
- 3.45 While the Committee concurs that health risk is not the only issue in determining a planning buffer, it should not be excluded with the sole question arising from dust emissions being amenity and long term planning objectives. It seems to the Committee that where there is scientific uncertainty and gaps in environmental criteria, a combination of environmental licensing and planning approaches is required

¹⁴⁹ Letter from Minister for Environment, 23 April 2012, p2.

to managing possible health impacts, including through planning buffers. The Committee notes that this is the more common view expressed by government agencies.

Complaint the Extension Buffer in conflict with previously identified land use

3.46 As previously observed:

- the affected Mandogalup land is zoned rural or urban deferred; and
- whether the Extension Buffer will require any changes to current planning instruments, such as local planning schemes, is unclear.

3.47 In October 2011, DoP advised affected landowners that the Extension Buffer does not change existing uses – that is, if a landowner currently has a dwelling on their land, the Extension Buffer will not change this. DoP’s view is that rather than restrict current land use, the Extension Buffer does not support the **intensification** of sensitive (including residential) uses.¹⁵⁰

3.48 The petitioners, however, assert conflict with previous identification of the affected Mandogalup land as an area for **future** residential development¹⁵¹ It follows that their complaint is not addressed by reference to current land use.

3.49 The Committee has observed that the petitioners’ submission with respect to advised future use is supported by the WAPC Decision Documents, which note that the Town of Kwinana draft Eastern Residential Intensification Concept and a similar Jandakot Structure Plan 2007 (that identified land east of the RDA as long term urban zoning) will require amendment, depending on the final buffer alignment.¹⁵²

3.50 The Committee has also previously noted Alcoa and the City of Cockburn’s advice that the 2008 Position Paper was understood as indicating the proposed buffer around the RDA, rather than an area for which the buffer had not been determined.¹⁵³ And that developers, residents and local governments had assumed that the ‘deferred urban zoning’ for the affected area would now be changed to ‘urban’.

¹⁵⁰ DoP Frequently Asked Questions, p4, sent under cover of WAPC letter dated 4 October 2011 to affected landowners and DoP January 2012 Letter, p1.

¹⁵¹ Submission from Principal Petitioner, p2.

¹⁵² WAPC Decision Documents, pp31 and 30 respectively. In its Cockburn Cement Inquiry Report, the Committee quoted from the Kwinana Industries Council submission that all three local governments in the KAQ Buffer area, including the Town of Kwinana: “*have areas of land within their boundaries that are proposed for rezoning to allow for residential development either within or adjacent to the buffer zone. ... This is symptomatic of a lack of understanding of the ramifications of facilitating residential development too close to industry*”. (Submission No 94 from the Kwinana Industries Council, 16 November 2010, p2 quoted in the Cockburn Cement Inquiry Report, p149)

¹⁵³ Alcoa Transcript - Ms Gwynne, p5. City of Cockburn Letter, p5.

3.51 However, the 2008 Position Paper refers to continued modelling and states:

*No buffer around area 9 [RDA] can be technically established at this time.*¹⁵⁴

3.52 While the Town of Kwinana confirms that its local planning strategy and draft District Structure Plan both identify “*potential long term urban usages*”, it says its draft structure plan is noted to be subject to finalisation of regional studies including the resolution of the buffer.

3.53 Alcoa advised the Committee that it believed that in part developer activity and landowner hopes were based on an incorrect view of the impact of its pending closure of Area F. It said:

*There was a lot of concern among some of the developers in the area and the town [sic] of Kwinana at that time that once area F was closed that was going to solve a lot of the dust problems and allow development of Mandogalup.*¹⁵⁵

3.54 Contemporaneous factors that suggested rezoning without restriction could not be assumed were: other planning documents look to expansion of the KIA;¹⁵⁶ the ongoing review of the KAQ Buffer also suggested expansion of its area; and publicly available documents stated that Alcoa’s current lease of the RDA would run for a further 45 years.

Committee comment

3.55 On the information available to it, the Committee considers that there are questions as to whether the Extension Buffer is in significant conflict with identified land use in Mandogalup.

3.56 However, this uncertainty arises from conflicting indications in long term planning documents as to the future uses that would be permitted and uncertainty in what uses will now be permitted under the Extension Buffer.

3.57 In addition, the Committee notes that the SAT case finding that no weight could be given to the Extension Buffer in determining a subdivision application means that

¹⁵⁴ 2008 Position Paper, p4.

¹⁵⁵ Alcoa Transcript – Ms Gwynne, p5.

¹⁵⁶ WAPC Decision Documents note that the Industrial Land Strategy states that the KIA is “*currently Perth’s only heavy industry site*” and notes the impact of a future port at Cockburn. There is an observation that the Latitude 32 District Structure Plan states that a “*key consideration for developing the land as industrial will be the constraints placed on the Alcoa site by encroachment from urban-residential uses*” It also notes that the Fremantle Rockingham Industrial Area Strategy (FRIARS) 2000 highlights the importance of the KIA as the State’s premier industrial site and that planning processes should maximise its development potential. (WAPC Decision Documents, pp28-9).

future land use is not resolved by the making of the Extension Buffer. It is particularly concerned that resolution of an appropriate buffer around the RDA now appears to hinge on a site specific study by the Wattleup developer which may, in fact, never occur.

- 3.58 The Committee is also concerned that, as the Extension Buffer illustrates, buffers may need to operate below zoning level (in particular, distinguishing between the type of ‘urban’ or sensitive land uses, and even the subset of residential land uses, that will and will not be permitted) and, if so, may not be reflected in formal planning instruments. The Town of Kwinana considers that the extent of impact on the “*urban deferred*” zoning is not clear. It notes that some non-sensitive urban uses may be permitted within the outer 0.5km of the buffer area.¹⁵⁷
- 3.59 Not only does this raise the implementation issues noted above (as, absent description in formal planning instruments, a buffer has no legal status) but, as seen below, amendment of a formal planning instrument would trigger mandatory public consultation and provide an avenue for affected landowners to pursue a claim for compensation¹⁵⁸ – matters currently denied to the petitioners by virtue of the informal nature of the Extension Buffer.

Complaint the Extension Buffer made without community consultation and directed at industry needs not those of local community

Lack of community consultation

- 3.60 As the petitioners complain, the WAPC made the Extension Buffer without community consultation. The government’s position is that, as that buffer was made on the basis of technical advice, it was “*not potentially subject to change by way of public consultation*”.¹⁵⁹
- 3.61 However, when justifying the buffer-making process against SPP 4.1 statement that “*The final combination of management practices and off-site buffer areas to comply with the environmental and planning criteria will often involve negotiation between stakeholders, the EPA/DEC and planning authorities*”, WAPC Decision Documents state Alcoa, “*some landowners*” and the local governments have provided input. The stakeholders are identified as:

- Alcoa;
- QUBE Pty Ltd, Burgess Design Group and Prime West Monitoring; and

¹⁵⁷ Town of Kwinana Letter, pp1 and 2.

¹⁵⁸ Wagerup Inquiry Report, p255.

¹⁵⁹ DoP January 2012 Letter, p1. DoP November 2012 Letter, Appendix pp7-9.

- the Kwinana Industries Council.¹⁶⁰

WAPC Decision Documents also state that “*property developers (QUBE)*” were consulted by the KBRC.¹⁶¹

- 3.62 Essentially, the petitioners ask why they were not considered stakeholder landowners, whether by the KBRC or the WAPC. (This appears to be an issue with the informal nature of buffers: in its Wagerup Inquiry, the Committee noted submissions that a ‘formal buffer’ – that is, one reflected in local government schemes - provides an opportunity for community consultation that an informal process does not.)
- 3.63 The question has a particular resonance where, as in this case, the making of a planning buffer involves a decision at the policy margins: balancing protection of industry against conflicting land use, risk from both perspectives and landowners desire to develop their land in the context of technical difficulty in identifying and measuring the level of risk. This is a matter on which the petitioners might reasonably provide meaningful input.
- 3.64 In addition, WAPC Decision Documents reveal the view that the Extension Buffer be directed at amenity, rather than health. There are no relevant technical standards for amenity. There is no reason to prefer government bureaucracies’ and industry’s view of the level of acceptable amenities to the exclusion of the petitioners’ views.
- 3.65 Relying on the above statements in the WAPC Decision documents, the Committee asked DoP “*How does the ability of the affected landowners in Mandogalup to provide meaningful input into the decision on the RDA Buffer differ from that of: The developers who were consulted in the review process?*”. DoP said: “*In the review process landowners, land developers and the public were not consulted*”.¹⁶² This response is inconsistent with the WAPC Decision Documents.
- 3.66 The Committee also asked DoP to explain how lack of consultation with affected landowners was consistent with:
- WAPC’s Annual Report 2010/11’s identification of community groups and individual landowners as stakeholders, as well as developers.
 - SPP 4.1’s statement that the final combination of management practices/off-site buffer areas “*often*” involve negotiation with adjacent landowners. SPP 4.1’s objective is:

¹⁶⁰ WAPC Decision Documents state, under the heading “*Stakeholder preferences*”, the views of Alcoa, QUBE Pty Ltd, Burgess Design Group and Prime West Monitoring (WAPC Decision Documents, pp9-10). The 2008 Position Paper identifies Alcoa and the Kwinana Industries Council among other entities with which the KBRC worked to produce that paper (2008 Position Paper, inside cover).

¹⁶¹ WAPC Decision Documents, pxi.

¹⁶² DoP November 2012 Letter, Appendix p9.

To recognise the interests of existing landowners within buffer areas who may be affected by residual emissions and risks, as well as the interests, needs and economic benefits of existing industry and infrastructure which may be affected by encroaching incompatible land uses,

- the statement in the WAPC Decision Documents that section 4 “*outlines the interests of stakeholders in the area and their perspectives on development in the area*”; and
- WAPC’s Annual Report 2010/11’s advice that the WAPC is working to improve planning processes through which the community can participate.¹⁶³

DoP was asked to comment in its capacity a member of WAPC. (It was also one of the government departments comprising the KBRC.)

3.67 With respect to SPP 4.1, DoP acknowledged “*the lack of consultation is not compatible with these objectives*”. It did not respond to the question regarding the statement in WAPC’s Annual Report, omitting the question in its letter. In answer to the other questions, it states “*the issues were of a highly technical and scientific nature and consultation was therefore restricted to relevant Government agencies*”.¹⁶⁴

3.68 Yet WAPC Decision Documents state that corporate non-government entities, one at least of which is identified as a property developer, were provided with an opportunity to express their views.

Finding 2: The Committee finds that the lack of consultation with affected landowners in the course of the decision to make the Extension Buffer has not been satisfactorily explained.

This lack of consultation does not appear to be consistent with the spirit of SPP 4.1 or WAPC statements as to its approach to the community as a stakeholder in planning decisions.

¹⁶³ Respectively: WAPC’s 2010/11 Annual Report, p17; clause 4.4 of SPP 4.1, p7; WAPC Decision Documents, p22; and WAPC Annual Report 2010/11, p13.

¹⁶⁴ DoP November 2012 Letter, Appendix p8.

Favouring of industry interests

- 3.69 DoP denies that the Extension Buffer was developed exclusively to meet industry needs. When asked by the Committee to identify the “*primary purpose*” in making an industrial buffer and the “*primary interests*” protected, it responded by stating that SPP 4.1 has the “*dual purpose*” of developing buffers that protect industry from uses that restrict or adversely impact their operations and to protect sensitive land uses from “*locating nearby to industry where there is a real risk to health and amenity*”.¹⁶⁵
- 3.70 While DoP’s statement does not answer the question posed, it does suggest that industrial buffers are not primarily directed at protecting or preserving landowners’ ‘property rights’ in the sense of development options.
- 3.71 Protecting industry from encroaching land uses is the first objective identified by DoP on its website when describing the purpose of SPP 4.1:

*The purpose of the policy is to provide a consistent statewide approach for the **protection and long-term security of industrial zones**, transport terminals (including ports) other utilities and special uses.*

*It will **also** provide for the safety and amenity of surrounding land uses while having regard to the rights of landowners who may be affected by residual emissions and risk.*¹⁶⁶ (Committee emphasis)

- 3.72 In its evidence to the Committee, Alcoa approached the Extension Buffer as a conflict management tool. This was also the view of Cockburn Cement Ltd in the Cockburn Cement Inquiry. Cockburn Cement Ltd saw the 1999 Kwinana EPP as addressing environmental issues, while:

*A town planning buffer, on the other hand, is, or should be directed at avoiding use conflict.*¹⁶⁷

- 3.73 In the Cockburn Cement Inquiry, the KIC said that local government town planners are perhaps too focused on promoting residential development in “*marginal areas*”:

¹⁶⁵ DoP November 2012 Letter, Appendix pp11-2.

¹⁶⁶ <http://www.planning.wa.gov.au/publications/1176.asp>, (viewed on 7 August 2012). The listed objectives are: “*To provide a consistent statewide approach for the definition and securing of buffer areas around industry, infrastructure and some special uses. To protect industry, infrastructure and special uses from the encroachment of incompatible land uses. To provide for the safety and amenity of land uses surrounding industry, infrastructure and special uses. To recognise the interests of existing landowners within buffer areas who may be affected by residual emissions and risks, as well as the interests, needs and economic benefits of existing industry and infrastructure which may be affected by encroaching incompatible land uses*”.

¹⁶⁷ Letter from Mr Darrin Strange, General Manager of Operations Western Australia, Northern Territory, Cockburn Cement Limited, 9 May 2011, Enclosure 1, pp2-3 quoted in Cockburn Cement Inquiry Report, p153.

*When this occurs, conflict is inevitably created. Industry is then placed under additional pressures, the new residents who move in feel they have been let down and trapped, and the developers move on to new projects. In this situation the only winner is the developers, while the losers include the regulators, the local governments, industry and the new residents.*¹⁶⁸

- 3.74 The KIC also submitted to the Cockburn Cement Inquiry that failing to respect an industrial buffer, by allowing residential encroachment, can place unnecessary, additional financial burdens on industries to improve its environmental outcomes. This can have:

*a devastating effect on its ability to financially continue to compete, and thus off-shore relocations can become attractive. Ultimately the integrity of the industrial area is weakened, local jobs are lost, and the State economic powerhouse begins to fail.*¹⁶⁹

Committee comment

- 3.75 As seen above, Alcoa instigated consideration of a buffer around the RDA. The Committee has no issue with this. In its Wagerup Inquiry, the Committee found it inappropriate for Alcoa to be expected to settle complex land use issues through implementing its own buffer.¹⁷⁰
- 3.76 However, when the facts that the RDA buffer was instigated by Alcoa and there were no independent government studies is coupled with lack of community consultation on the final buffer proposal, it is perhaps not surprising that the petitioners have a perception of bias towards industry.
- 3.77 As observed earlier, it is difficult to identify the petitioners' main complaint – that the buffer should have been wider to protect health or that it should be narrower to enable urban or residential development. Mixed with this is a (perhaps unrealistic) submission that DEC could – if it wanted to – control emissions so as to remove health risks, enabling urban development. Perhaps this assertion is not surprising when DoH makes submissions like that it made in the Cockburn Cement Inquiry:

The DOH further submitted that the Buffer is only one measure which is available to combat the emission problems; the combination and balance of different measures is also important:

¹⁶⁸ Submission No 94 from the Kwinana Industries Council, 16 November 2010, p2 quoted in the Cockburn Cement Inquiry Report, p149.

¹⁶⁹ Submission No 94 from the Kwinana Industries Council, 16 November 2010, p2 quoted in the Cockburn Cement Inquiry Report, p148.

¹⁷⁰ Wagerup Inquiry Report, p267.

*In this particular instance it is the combination of the buffer conditions plus the conditions on the licence that is critical. The buffer in and of itself is one measure and it is a normal routine measure, but it is the interaction in this instance between that and the conditions. **You could have no buffer but very, very strict conditions or you may have a combination of both** and that is how we normally would measure it.*¹⁷¹ (Committee emphasis)

This suggests that total control without a buffer is in fact an option.

- 3.78 Leaving aside the problematic science and deliberate breaches of environmental conditions/standards, as SPP 4.1 states:

*Even with good pollution control technology and practice, these industries often have residual emissions of pollutants which cannot practicably be avoided (i.e. gas, odour, dust, noise). In addition, there may be unavoidable risk of injury or death from accidents associated with industrial activity or the storage of dangerous goods.*¹⁷²

- 3.79 The WAPC Decision Documents recommend the Extension Buffer to the WAPC as taking into account the interests of existing and future land owners, planning to that time, and the needs and economic benefits of existing industries.¹⁷³
- 3.80 While the Committee accepts that the Extension Buffer was made on the precautionary principle with a view to protecting landowners' interests as well as those of industry, where landowners' interests lie in the balancing of the competing interests – including the internally competing landowners' interests - has been determined by bureaucrats without input from the local community.
- 3.81 It is important that those affected by an industrial site have an opportunity to be heard on where the balance should lie in assessing the various interests at stake. The Committee notes that whatever reservations government bureaucracies may have about the public commenting on technical matters, Alcoa stressed to the Committee the importance of managing perceptions.¹⁷⁴ Whether or not public comment is found to be useful in assessing those studies, there is a benefit in the **fact of** opportunity to comment.

¹⁷¹ Dr Tarun Weeramanthri, Executive Director, Public Health Division, Department of Health, *Transcript of Evidence*, 11 April 2011, p3 quoted in the Cockburn Cement Inquiry Report, p152.

¹⁷² Clause 1.1 of SPP 4.1, p1.

¹⁷³ WAPC Decision Documents, p22.

¹⁷⁴ Alcoa Transcript – Mr Coffey, p11.

3.82 The Committee considers that landowners and residents should have an opportunity to comment on proposed buffers **prior** to a final decision being made. As noted above, DoP concedes that lack of consultation with the petitioners prior to making the Extension Buffer decision is not compatible with SPP 4.1. It is also not compatible with other public statement as to how the WAPC operates. In answer to the Committee’s question whether any assurance could be provided that the petitioners would be consulted in the 2016 review of the Extension Buffer, DoP responded: “*No – that matter will be considered by the WAPC at the appropriate time*”.¹⁷⁵ It follows that consultation needs to be a legislatively enshrined **right**. As the process for making the Extension Buffer demonstrates, consultation dependant on administrative discretion may not occur.

Recommendation 1: The Committee recommends that the Government ensure that landowners and residents who are, or may be, affected by a proposed planning buffer have a legislatively enshrined opportunity to comment on those buffers prior to a final decision being made.

3.83 In order for consultation to be meaningful, residents and landowners will require access to the technical studies on which buffer proposals are based. The Committee notes that members of the public are entitled to comment on technical matters in development applications considered under the *Environmental Protection Act 1986* and that they often do so. It sees no reason in principle why they should be precluded from commenting on technical matters relevant to making a buffer.

Recommendation 2: The Committee recommends that the Government ensure that landowners and residents who are, or may be, affected by a proposed planning buffer have a legislatively enshrined rights to access documents, including technical studies, on which decisions are to be made in order to make submissions on the appropriate buffer.

4 RELIEFS SOUGHT BY THE PETITIONERS

Future Consultation

4.1 The petitioners ask the House to call upon the government to consult with them prior to a “*final*” Extension Buffer decision. It seems to the Committee that this plea arises

¹⁷⁵ DoP November 2012 Letter, Appendix p19.

from the petitioners' uncertainty at the time of tabling the petition whether an RDA buffer decision had been made. (As observed in paragraph 1.9, although they were clearly aware that a decision was contemplated, affected landowners were not notified until after tabling of the petition that the Extension Buffer decision had in fact been made.)

4.2 However, there will be future decisions regarding the Extension Buffer. The WAPC May 2011 Decision Sheet states that it resolved to "*Review the extent and location of the buffer around the Alcoa RDA in 5 years (2016)*".¹⁷⁶ Also, the SAT case requirement for a further technical study to support the Extension Buffer raises the prospect of review. DoP identifies the purpose of that study as being to provide a further assessment to "*conclude whether the one kilometre RDA Buffer and 0.5 kilometre non-residential transition zone should be confirmed or varied*".¹⁷⁷ Although, as noted above, there is no certainty this study will occur.

4.3 In response to the question of what will occur with the Extension Buffer in the event the Wattleup developer does not pursue its subdivision application (in which case, the study will not be required), DoP said:

*"The work of the WTCIC will continue".*¹⁷⁸

4.4 The Western Trade Coast Industries Committee (WTCIC) advises that it was established in May 2011 to "*coordinate and drive government action within the Western Trade Coast*". The government is currently promoting the area comprising the KIA, Rockingham Industrial Area, Latitude 32 Industrial Area and Australian Marine Complex as "*Australia's gateway to global industry and trade*" under the banner Western Trade Coast.¹⁷⁹ The KAQ Buffer is intended to protect this combined area. As seen, DoP suggests that the WTCIC is responsible for resolving the issues with the Extension Buffer. When asked about the future of the buffers in the KIA generally, DoP refers to a "*Land Use Planning Working Group*" being established "*to inform the WTCIC on land use planning for the Western Trade Coast*".¹⁸⁰

4.5 The WTCIC, however, says that it has an "*advisory role on matters relating to the [KAQ Buffer] however no decision making powers. This responsibility rests with the [WAPC] which is supported in that regard by [DoP and DEC]*". (Committee emphasis) DoP and DEC are members of the WTCIC.¹⁸¹

¹⁷⁶ WAPC May 2011 Decision Sheet, p2 in WAPC Decision Documents, pviii,

¹⁷⁷ DoP November 2012 Letter, Appendix p16.

¹⁷⁸ DoP November 2012, Appendix 1 p18.

¹⁷⁹ <http://www.landcorp.com.au/project/westerntradecoast/>, (viewed on 12 November 2012).

¹⁸⁰ DoP November 2012 Letter, Appendix p20-21.

¹⁸¹ Letter from Mr Simon Proud, Director, Western Trade Coast Industries Committee, 9 December 2011 (**WTCIC Letter**), p1.

- 4.6 Given that DoP is a member of both the WTCIC and WAPC, and its acknowledgement that no government agency has power to require the Wattleup developer to undertake the study required by the SAT to give to the Extension Buffer sufficient “*weight*” for it to be relevant to considering planning applications, DoP’s lack of a strategy to deal with that scenario is concerning.
- 4.7 Regardless of which of the WTCIC or DoP is performing the advisory and which the decision-making role, clearly the SAT case casts doubt on the efficacy of the Extension Buffer as a planning tool and a response will need to be made to that decision,
- 4.8 However, the indications from DoP are that landowner stakeholders may not be consulted.
- 4.9 Although DoP acknowledged there was “*merit*” in the petitioners’ view that a further consultation paper should have been released between 2008 and the final Extension Buffer proposal, it was not prepared to give any assurance that the petitioners would be consulted in any future review, saying that it would be up to the WAPC to make a decision at the relevant time.¹⁸²
- 4.10 The Town of Kwinana advises that its local planning scheme and district Structure Plan may be amended to reflect the Extension Buffer and advertised for public comment¹⁸³ but the extent to which that can affect implementation of a WAPC decision is uncertain. When asked whether this process had potential to alter the Extension Buffer, DoP said “*No*”.¹⁸⁴
- 4.11 The Committee considers that landowners and businesses affected by the Extension Buffer decision should be consulted on implementation, affirmation or amendment of the present buffer line prior to any future decision being made.

Finding 3: The Committee finds that landowners and businesses affected by the WAPC’s decision to make the Extension Buffer should be consulted on implementation, affirmation or amendment of the present buffer line prior to any future decision being made.

¹⁸² DoP November 2012 Letter, Appendix p9.

¹⁸³ Town of Kwinana Letter, p2.

¹⁸⁴ DoP November 2012 Letter, Appendix p19.

Release of WAPC Decision Documents

4.12 In correspondence earlier this year, DoP advised the Committee that it has “*always been intended that the outcome of the review of the buffer will be published in due course*”. But it does not contemplate publication prior to finalisation of outstanding issues.¹⁸⁵

4.13 This is despite WAPC’s Decision Sheet dated 21 September 2010 recording the WAPC’s decision that the WAPC:

4. updates and releases a ‘Review of the Kwinana Air Quality Buffer Position Paper (2008)’ so that it reflects the new alignment,

and WAPC’s Decision Sheet dated 24 May 2011 recording the WAPC’s decision to:

- 1. Release the September 2010 WAPC report to stakeholders, in conjunction with planning advice;*
- 2. Release the full Alcoa report to stakeholders, in conjunction with planning advice, with conditions on its use and circulation.*

4.14 The Committee has found that failure to provide the relevant documents to the petitioners has not been satisfactorily explained. It has also been advised by the petitioners that the WAPC Decision Documents still had not been provided to them at 10 October 2012.¹⁸⁶

Recommendation 3: The Committee recommends that the Minister for Planning instruct DoP to provide the principal petitioner with a copy of “*the September 2010 WAPC report*” referred to in the Western Australian Planning Commission’s Decision Sheet dated 24 May 2011.

Compensation

Ability to make claim depends on whether amendment of planning instruments

4.15 The petitioners point to SPP 4.1, which requires consideration to be given to the purchase of land included in a buffer and compensation to land owners (Part 5 of the

¹⁸⁵ DoP January 2012, p2.

¹⁸⁶ Letter from Mr Philip I-Ching Lin, Principal Petitioner, 10 October 2012, p1.

policy). They also point to the 2002 KAQ Buffer Review Committee Position Paper (which they understand as a WAPC document), which noted that mechanisms were to be found to ensure equitable outcomes for private landowners affected by any buffer expansion.¹⁸⁷

4.16 The petitioners' call for relief in respect of compensation for asserted loss of market value of their land arises from a current lack of a legal (or administrative) avenue to pursue their claims.

4.17 Part 11 of the *Planning and Development Act 2005* provides an avenue for a landowner to seek compensation where land is "injuriously affected"¹⁸⁸ by a "planning scheme",¹⁸⁹ "interim development control orders" or "planning control areas". Injurious affectation can occur where changes made to a planning scheme impact on:

(1) *Zoning of the scheme area for appropriate purposes.*

(2) *Designation of uses in zones as permitted, prohibited or requiring approval.*¹⁹⁰

4.18 However, as previously observed, at present, the Extension Buffer has not resulted in changes to any planning instruments listed in Part 11 of the *Planning and Development Act 2005* and whether this will occur in the future is unclear.

4.19 DoP originally suggested to the Committee that amendments to formal planning instruments were anticipated, advising the Committee in January 2012 that restriction

¹⁸⁷ Submission from Principal Petitioner, p2.

¹⁸⁸ Section 174 of the *Planning and Development Act 2005* provides: "(1) Subject to subsection (2), land is injuriously affected by reason of the making or amendment of a planning scheme if, and only if — (a) that land is reserved (whether before or after the coming into operation of this section) under the planning scheme for a public purpose; or (b) the scheme permits development on that land for no purpose other than a public purpose; or (c) the scheme prohibits wholly or partially — (i) the continuance of any non-conforming use of that land; or (ii) the erection, alteration or extension on the land of any building in connection with or in furtherance of, any non-conforming use of the land, which, but for that prohibition, would not have been an unlawful erection, alteration or extension under the laws of the State or the local laws of the local government within whose district the land is situated. (2) Despite subsection (1)(c)(ii), a planning scheme which prescribes any requirement to be complied with in respect of a class or kind of building is not to be taken to have the effect of so prohibiting the erection, alteration or extension of a building of that class or kind in connection with, or in furtherance of that class or kind in connection with, or in furtherance of, non-conforming use." Section 172 provides: "**non-conforming use** means a use of land which, though lawful immediately before the coming into operation of a planning scheme or amendment to a planning scheme, is not in conformity with a provision of that scheme which deals with a matter specified in Schedule 7 clause 6 or 7".

¹⁸⁹ Planning scheme means: "a local planning scheme, region planning scheme or improvement scheme that has effect under this Act and includes — (a) the provisions of the scheme being — (i) the provisions set out in the scheme; and (ii) any State planning policy that, with any modifications set out in the scheme, has effect under section 77(2)(b) as part of the scheme; and (iii) any provisions that have effect under section 257B(2) as part of the scheme; and (b) all maps, plans, specifications and other particulars contained in the scheme and colourings, markings or legends on the scheme". (Section 4 of the *Planning and Development Act 2005*).

¹⁹⁰ Clause 6 of Schedule 7 to the *Planning and Development Act 2005*.

of “*more intensive development of sensitive uses ... would normally be achieved by reflecting the buffer in the statutory planning framework*” but that a decision on this was in “*abeyance*” pending the study required by the SAT case.¹⁹¹ However, when the Committee sought an explanation of why the September 2010 decision to make the Extension Buffer was not reflected in the statutory planning framework in the year prior to the SAT case decision, DoP said the metropolitan regional scheme had not been altered as “*The MRS does not have specific provision for buffer zones or special control areas. There is no legislative requirement for a local government to amend its local planning scheme.*”¹⁹²

- 4.20 The Minister for Planning advised the Committee that the making of the Extension Buffer does not trigger compensation rights. It is not clear whether this is because no changes to statutory planning instruments are required or this advice reflects the Minister’s view on the merits of a claim, not whether there is a right to bring one.¹⁹³
- 4.21 As well as the uncertainty in whether the Extension Buffer will be reflected in statutory planning documents, the petitioners complain that neither the WAPC nor Town of Kwinana are able to advise what land uses will or will not be appropriate in the final 0.5km of the buffer zone.¹⁹⁴
- 4.22 The Committee considers that it is not possible (or advisable) to provide a proscriptive list of uses that will or will not be permitted. It is the nature of planning that there will be proposals at the fringes that should be assessed on their individual merits.
- 4.23 However, there needs to be more certainty in the uses that are at the fringes. DoH advised the KBRC that permitted uses could be restaurants, hotels, petrol stations, shopping centres and entertainment venues; with uses “*probably*” not permitted being schools, hospitals and child care facilities.¹⁹⁵
- 4.24 The Minister for Planning advises that “*it was intended*” that a list of appropriate land uses would be prepared but the implications of the SAT decision have hampered this.¹⁹⁶ This does not explain failure to prepare such a list prior to the decision being made, which is the petitioners’ complaint, or in the interim between September 2010, when the Extension Buffer decision was made, and October 2011, when the petitioners were advised of the Extension Buffer decision.

¹⁹¹ DoP January 2012 Letter, p1.

¹⁹² DoP November 2012 Letter, Appendix p15.

¹⁹³ Letter from Minister for Planning, 20 April 2012, p2.

¹⁹⁴ Submission from principal petitioner, 6 November 2011, p2.

¹⁹⁵ Letter Mr Martin Matisons, Principal Toxicologist, Department of Health to the KBRC, August 2010 in WAPC Decision Documents, p46.

¹⁹⁶ WAPC Decision Sheet, 24 May 2011, p2 in WAPC Decision Documents, pviii.

- 4.25 Identification of uses that will or will not be permitted is crucial to decisions on whether planning schemes require altering and, therefore the petitioners' rights to make a claim for compensation.

Committee comment

- 4.26 The petitioners' claim for compensation appears to the Committee to rest on an assumption that, but for the Extension Buffer decision, land currently zoned "urban deferred" would have been rezoned urban without restriction on land use.

- 4.27 However, designation of an urban deferred zone offers the prospect, not certainty, that rezoning will occur. The zoning "urban deferred" is described by DoP on its website in the following manner:

*land suitable for future urban development. Various planning, servicing and environmental requirements need to be addressed before urban development can occur.*¹⁹⁷

Where there is a KAQ Buffer review in discussion from at least 2000 and long term planning documents also suggest expansion of the KIA, the Committee is not certain that rezoning or rezoning without restrictions could be assumed. (The Committee has expressed its concern that planning documents appear to have been inconsistent in their indications of long term uses.)

- 4.28 The proposal for a review of the Extension Buffer in 2016 also raises the question of whether it will remain in place in view of the likely closure of Area F of the RDA by that time. (Although, as noted above, Alcoa's plans for the RDA include future use of Area F and the RDA is not the only industrial facility impacting on land use decisions for the Extension Buffer area.) Added to this is the uncertainty surrounding the status of the Extension Buffer in light of the SAT case and the conflicting messages from DoP and WTCIC as to which entity is responsible for resolving it's status.

- 4.29 The current uncertainty in the status of the Extension Buffer, what uses will or will not be permitted and whether or not planning schemes will require changes is unsatisfactory.

- 4.30 The fraught issue of compensation for buffers around the Kwinana area has a history. SPP 4.1 states:

For example, the prohibitive cost to the State of purchasing the buffer around the Kwinana Industrial Area (when considered by the Kwinana Industrial Coordinating Committee (KICC) in 1991) resulted in the KICC requesting the then State Planning Commission

¹⁹⁷ <http://www.planning.wa.gov.au/5587.asp> (viewed 22 June 2012)

to prepare a policy to provide subdivision and development guidance to secure the long term protection of the Kwinana Industrial Area and its buffer.

- 4.31 The Committee acknowledges that issues surrounding compensation in the KIA are complex – including in terms of whether land uses have been changed by a buffer and what entity, in the event injurious affectation is established, is responsible for providing compensation.
- 4.32 Policy documents suggest an obligation to compensate landowners for loss of property value as a result of the making of a buffer. However, the *Planning and Development Act 2005* only provides for compensation as a result of injurious affection by a planning scheme. Whether the petitioners may have a claim under the legislation may depend not on the fact of the Extension Buffer decision but on government administrators and local government decisions on how it is implemented.
- 4.33 The Committee notes that in its Wagerup Inquiry, local governments raised the issue that amendment of their local planning schemes would trigger compensation claims when considering whether the proposed buffer would be reflected in those schemes.¹⁹⁸ It also notes that the WAPC was prepared to refuse a subdivision application that was consistent with local planning scheme urban zoning on the basis of the Extension Buffer, when that buffer was not reflected in any statutory planning documents.
- 4.34 The Committee has not inquired into the merits of the petitioners' claims to compensation, but the extent to which their right to bring a claim is dependent on decisions as to the way in which the WAPC's Extension Buffer decision is implemented is of concern.
- 4.35 The Committee's conclusions and recommendations are set out in Part 5.

5 CONCLUSIONS AND RECOMMENDATIONS

- 5.1 In considering Petition 136 it is apparent that SPP 4.1 has proved deficient in a number of respects, including that it:

¹⁹⁸ Mr Leece also advised that the Harvey Shire Council: *"has concerns over possible claims by landowners for "injurious affection" should rezoning of land be proceeded with for the buffer."* Mr Leece submitted that the Harvey Shire Council would expect Alcoa or the Government to indemnify it against such claims. (Letter from Mr Keith Leece, Chief Executive Officer, Shire of Harvey, 25 July 2003 quoted in the Wagerup Inquiry Report ,p251) In relation to costs associated with the buffer process, Mr O'Connor advised that there were two main costs to the Waroona Shire Council: a) The identification of a formal buffer in the Waroona Shire Council's town planning scheme may create the basis for compensation claims by affected landowners. He wrote that *"Whilst such claims are unlikely to be successful, Council would not initiate a town planning scheme amendment until such time as it has a legally binding agreement with either Alcoa or another party accepting all responsibility for meeting costs associated with defending such claims and agreeing to meet any costs associated with successful claims."* (Letter from Mr Kevin O'Connor, Chief Executive Officer, Shire of Waroona, 30 July 2003, quoted in the Wagerup Inquiry Report, p254).

- provides a process for making buffers, but does not describe or establish any buffers;
- relies on environmental and planning criteria when measurement and assessment remain uncertain and criteria have not been established;
- relies on individual facility operators or developers to produce technical studies that relate to their emissions when:
 - for complex industrial sites such as the KIA, it is the cumulative impact of industrial activities that is relevant;
 - the range of issues extends beyond air quality; and
 - copyright/business confidentiality means non-government stakeholders are not privy to, and are precluded from responding to, the information on which decision affecting their interests are made; and
- confers no consultation rights or avenue to make a claim for compensation.

5.2 As examined in Parts 1 to 4, managing land use conflicts through informal planning buffers has been a long-term problem for the State. For example, in its Wagerup Inquiry Report, the Committee noted that emission guidelines had not been updated since 1985 and recommended standards for multiple chemical exposure be developed. It also reported evidence that an “*engineering solution*” was unlikely to finally resolve community concern¹⁹⁹ and observed that to prevent conflicting land issues developing, planning buffers should be designated through provisions in town planning schemes (now called local planning schemes).²⁰⁰ In its Cockburn Cement Inquiry, the Committee noted the KBRC’s 2008 recommendation that government consider drafting a State Planning Policy to reflect and protect the KAQ Buffer ... “*once it is finally defined*”.²⁰¹ That day is still to come.

5.3 When the Extension Buffer will be settled is rendered even more problematic by the SAT case and uncertainty in whether the Wattleup developer will ever undertake the SAT recommended study and lack of power for government departments to ensure that it in fact occurs. As previously observed, this situation arises from the SAT’s approach mirroring SPP 4.1’s reliance on individual studies by developers (and facility operators). To add to this unfortunate scenario, the relevance of that study to the petitioners’ land in Mandogalup is moot.

¹⁹⁹ Government Response to the Recommendations of the Wagerup Medical Practitioners’ Forum, p7 quoted in Wagerup Inquiry Report, p103.

²⁰⁰ Wagerup Inquiry Report, p372.

²⁰¹ Cockburn Cement Inquiry Report, p150.

- 5.4 Industry is expected to operate using contemporary environmental and operational standards. Even so, it is not possible for some industries to contain all their potential impacts within their property boundaries under all circumstances. Buffers provide a necessary separation between industry and other land uses: they provide a boundary line for the environmental and health regulation of industry to ensure land outside the buffer is not subject to unacceptable impacts from industry.
- 5.5 As is quite clear from the Wagerup Inquiry, the Cockburn Cement Inquiry, the WAPC Decision documents and the evidence considered by the Committee, the location of buffers cannot be established solely on the basis of scientific assessment of all current and potential future impacts of current and future industry. Any scientific assessment can only provide guidance. It is also easier and preferable to make planning buffers with a view to avoiding conflict than to try and manage conflict once it occurs.
- 5.6 The Committee, therefore, makes the following recommendation:

Recommendation 4: The Committee recommends that the Government establish, as a matter of urgency, a legislative regime that confers legal status on planning buffers and ensures planning buffers are:

- **established on a defensible, transparent and precautionary basis, which includes:**
 - **decision maker consultation with affected landowners prior to the final decision being made;**
 - **a health impact assessment; and**
 - **recognition of the complexity of an environment such as the KIA.**
- **clearly delineated and mapped on all State and local government planning instruments (including long term instruments such as strategies); and**
- **required to be adhered to by responsible authorities and are not easily challenged or thwarted.**

The established regime should also ensure that where necessary, administrative arrangements provide detail for the legislative regime, not determine it.

- 5.7 The now defunct interdepartmental KBRC review that had been underway since at least 2002 did not resolve the KAQ Buffer's final boundary. This requires urgent resolution.
- 5.8 It also, given the history of difficulty in resolving conflict issues arising from piecemeal planning decisions, difficulty in determining the final boundary of the KAQ Buffer and the problems the Committee has found with the current buffer-making process, requires urgent interim measures made on a precautionary basis to protect the community and industry.
- 5.9 The WTCIC advised the Committee in December 2011 that it had "*been very clear to the DoP and DEC members of the WTCIC that it expects a robust, clearly understood and secure buffer be finalised as quickly as possible*"²⁰² but DoP's November 2012 correspondence to the Committee suggests that finalisation of the buffer (or buffers) around the KIA is in the WTCIC's hands. The Committee is concerned at the lack of clarity in responsibility for resolving the outstanding buffer issues.

Recommendation 5: The Committee recommends that the government finalise the boundary of the KAQ Buffer as a matter of urgency.

Recommendation 6: The Committee recommends that the Government, to protect the surrounding community and industry during finalisation of the KAQ Buffer boundary, implement an urgent interim solution to define and secure the KAQ and Extension Buffers.

Department of Planning's response to the Committee's inquiries

- 5.10 Throughout this report, the Committee has observed DoP 'responses' to the Committee's written questions that are incomplete, tardy and not, in fact, responsive to the question asked.
- 5.11 A number of reports have recently been tabled in the House explaining to public servants the House's expectations regarding their role in Committee inquiries. The Committee considers that DoP officers would benefit from perusal of those reports.

Report commended to the House

- 5.12 The Committee commends its report to the House.

²⁰² WTCIC Letter, p1.

A handwritten signature in black ink, appearing to read 'B. Ellis', is centered on a light gray rectangular background.

Hon Brian Ellis MLC

Chair

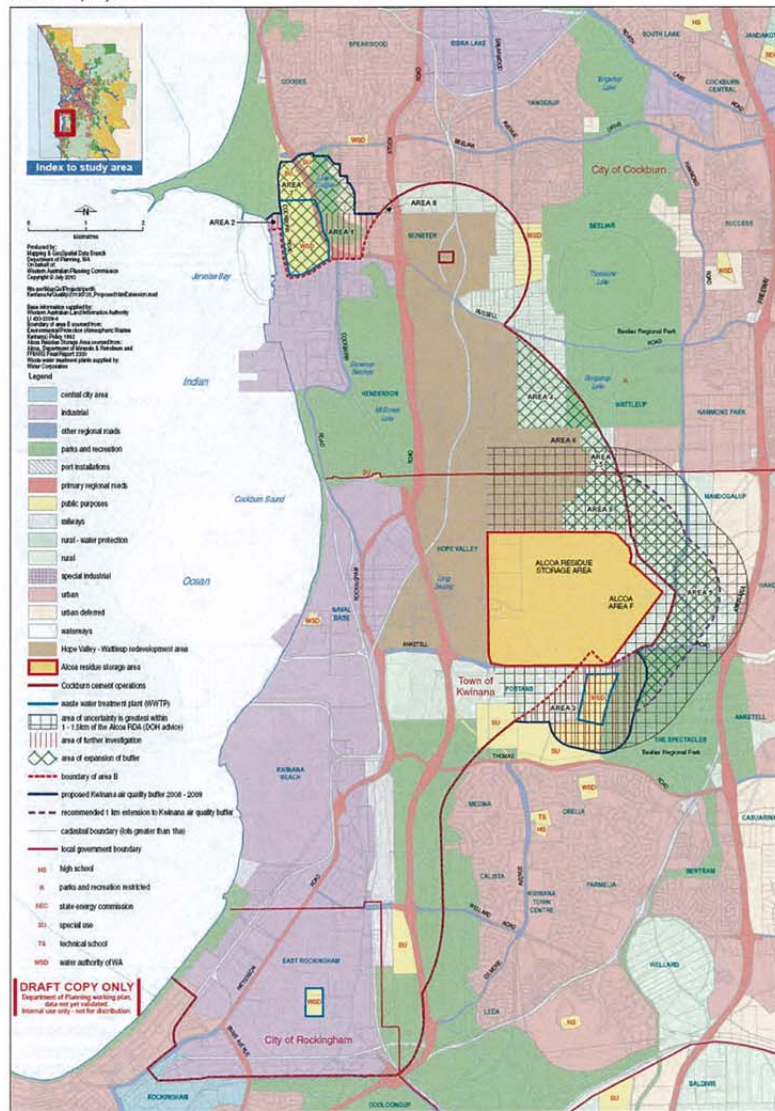
Date: 30 November 2012

APPENDIX 1

MAP – EXTENSION BUFFER AREA

Map 2: Impact of the proposed 1 km extension, plus the 0.5 km area of uncertainty, as per DOH advice August 2010

Kwinana air quality buffer



Proposed 1 km extension to Kwinana air quality buffer

APPENDIX 2

INQUIRY PROCESS

- On referral, the Committee sought, and was provided with, a submission elaborating from the principal petitioner, Mr Philip I-Ching Lin elaborating the petitioners' concerns.
- The Committee also sought submissions from the:
 - Minister for Planning;
 - Minister for Environment;
 - Town of Kwinana;
 - City of Cockburn;
 - Department of Planning;
 - Department of Environment and Conservation; and
 - Western Trade Coast Industries Committee.
- After consideration of the submissions and evidence provided, which included copies of the Western Australian Planning Commission's Decision Documents (as described in footnote 4 the body of the Report) and Alcoa's technical report on dust issue for areas surrounding the RDA (as defined in 1.6 in the body of the Report), provided by the Department of Planning at the Committee's specific request, the Committee held a private briefing with Alcoa to discuss its technical report. Its attempts to hold a hearing with the Western Australian Planning Commission are set out in Part 1 of the body of this report.
- The Committee requested an update from the principal petitioner on response to the petitioners' concerns in September 2012 and was advised in October 2012 that those concerns had not been addressed.

APPENDIX 3
STATE PLANNING POLICY 4.1 – STATE INDUSTRIAL BUFFER
POLICY

WESTERN AUSTRALIAN PLANNING
COMMISSION

STATEMENT OF PLANNING POLICY No. 4.1

STATE INDUSTRIAL BUFFER POLICY

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BACKGROUND INFORMATION

1. INTRODUCTION

The purpose of the State Industrial Buffer Policy is to provide a consistent Statewide approach for the protection and long-term security of industrial zones, transport terminals (including ports) other utilities and special uses. It will also provide for the safety and amenity of surrounding land uses while having regard to the rights of landowners who may be affected by residual emissions and risk.

The background information draws a number of conclusions which are pertinent to a State Industrial Buffer Policy. These are based on an assessment of the need for buffer areas, an explanation of current practices in WA and elsewhere and a discussion of equity and compensation issues. The policy establishes objectives and principles and how the principles should be applied to define and secure buffer areas and who should pay for them. It is intended that the Western Australian Planning Commission (WAPC) will, after the policy has been in operation for a period of two full years, undertake a review of its effectiveness, and if necessary amend the Policy.

1.1 Why Have a Buffer Area?

Industry and infrastructure by their very nature may generate a range of emissions of pollutants including noise, dust, gas, odour, fumes, lighting overspill as well as risk levels which may not be compatible with other land uses. As a result, most industries and infrastructure as well as some other uses need to be separated from residential areas and other sensitive uses with a buffer area (refer to definitions in Appendix 1) to ensure that amenity (environmental quality, health and safety standards) is maintained at acceptable levels.

The buffer area may be accommodated on-site within the plant, outside the plant but within the property boundary, or off-site on surrounding properties. The extent of the buffer area will depend on the industry/infrastructure/special use and particular circumstances (e.g. scale of operations).

In the case of industries of a light/service nature and technology parks, the impacts can usually be retained on-site or within the technology park or industrial area boundaries. This is a normal requirement of the performance-based definitions used for these industries/activities (refer to Appendix 1). Building setbacks in effect form the buffer area. The use of setbacks in this instance is most effective, particularly when combined with landscaping, for reducing impacts to acceptable levels (e.g. building bulk, noise and light overspill from storage areas, car parking and servicing areas, etc).

However, other industries such as hazardous, noxious and resource processing as well as infrastructure such as power generation facilities, effluent treatment plants and ports (including associated road/rail/pipeline transport routes into these areas) and some specific uses such as motor racing often require extensive buffer areas which may extend off-site on to surrounding properties. Often these industries and infrastructure are a vital component of the economy of Western Australia and are essential for the quality of life that we enjoy. For example, the resource processing sector in 1992-1993 directly employed 6.3 per cent of the State's workforce and contributed 31.8 per cent of the gross state product—equivalent to \$11 billion. Even with good pollution control technology and practice, these industries often have residual emissions of pollutants which cannot practicably be avoided (i.e. gas, odour, dust, noise). In addition, there may be unavoidable risk of injury or death from accidents associated with industrial activity or the storage of dangerous goods.

Resource processing industries and infrastructure very often need to be at strategic locations, for example, close to infrastructure such as port facilities and key transport connections. These industries will also need to be near their workforce and other industries with which synergies have developed. The present location of many established industries therefore represents a vital land use to the State. Similarly, infrastructure, particularly ports, may have significant locational constraints. This type of infrastructure is restricted to only a few locations which are suitable in WA. It is therefore necessary to recognise the locational constraints of these facilities, the significant investments they represent and to fully consider the costs to the community when determining the highest and best use of surrounding buffer land.

1.2 Application

The policy applies to all industry infrastructure and special use categories where on-site and off-site buffer areas are required. It also has regard to associated road/rail/pipeline transport routes servicing these facilities and airports.

This policy addresses the buffer requirements of the following industrial categories (existing and new industry)—

- resource processing industry;
- general industry;
- hazardous industry;
- noxious industry;
- extractive industry;
- rural industry;
- light industry;
- service industry; and
- technology parks.

The policy also addresses the buffer requirements of major infrastructure (existing and new infrastructure) including—

- ports;
- major freight terminals;
- waste water treatment plants;
- water treatment plants;
- power generation facilities;
- power distribution terminals and substations;
- solid waste disposal sites;
- airports; and
- gas/petroleum pipelines

Also included are those other **special uses** that may require a buffer area, such as major sporting facilities like speedway racing, football and soccer stadia.

1.3 Implementation of a Statement of Planning Policy

Section 5AA of the Town Planning and Development Act outlines the criteria for the preparation of a Statement of Planning Policy, and sets down the role for local government as—

7 Preparation of schemes

(5) *Every local authority in preparing or amending a town planning scheme*

(a) shall have due regard to any approved statement of planning policy prepared under section 5AA which affects its district;

This means that whenever a local government amends or reviews a scheme or prepares a new district scheme it must pay due regard to this statement of planning policy. Obviously the WA Planning Commission will be aware of the inclusion or otherwise of buffer areas in new schemes, and will assess them accordingly.

In addition, the Environmental Protection Authority (EPA) will also be assessing schemes under the most recent planning legislation amendments. This Policy will fit in with the new legislation which has the following key features—

- statutory plans are now subject to formal environmental assessment by the EPA. Acceptable buffer areas in accordance with this Policy will be part of that assessment.
- agencies responsible for preparing and amending statutory plans now have equivalent status to proponents under the environmental assessment system. A local government will have to notify the EPA about its intention to prepare or amend a scheme, so that the EPA can determine if a formal assessment is needed.
- preparation of an environmental review of a scheme may be required by the EPA prior to formal advertising.
- submissions received during formal advertising which contain environmental issues must be referred to the EPA.
- the EPA may recommend conditions which shall be incorporated in statutory plans before consideration for final approval by the WAPC.

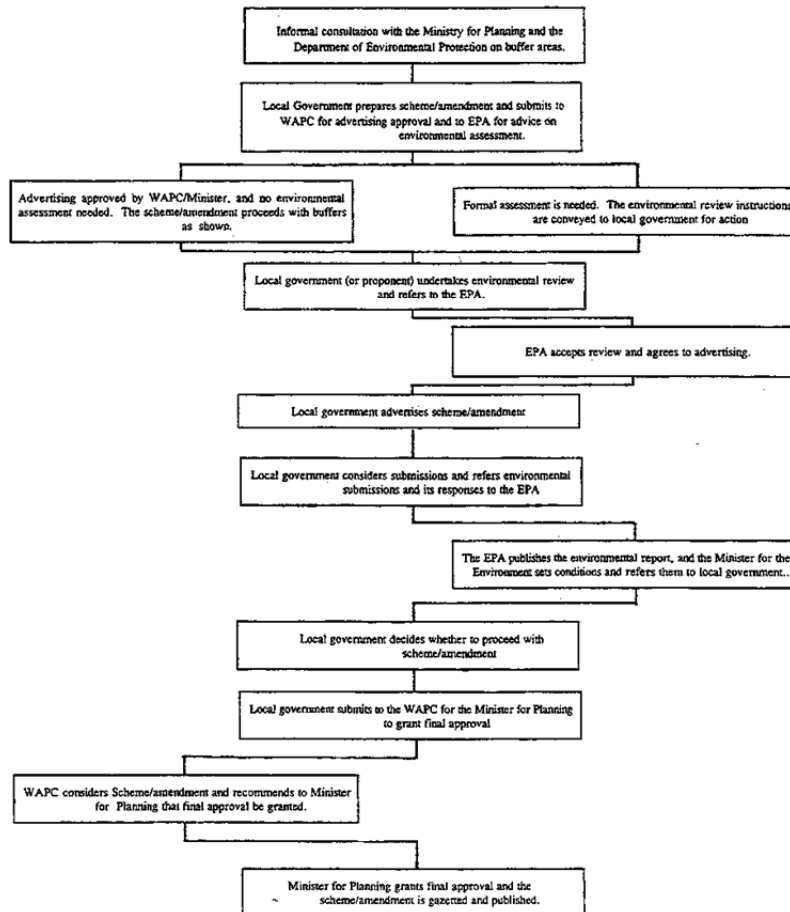
The Department of Environmental Protection is in the course of preparing a Generic Industrial Buffer Distance Review, which will form the primary guide to the need for buffers, along with appendices to this Policy.

Generally the following procedure as shown diagrammatically on page 9 should be followed by local government when preparing a scheme or scheme amendment. In this context it should be noted that it will often be the Proponent behind the initiation of a scheme or scheme amendment who will be responsible for some of the following—

- Informal consultation with the Ministry for Planning and the Department of Environmental Protection when the preparation of a scheme or the amendment of a scheme is being considered to determine the need for, and the scope of buffer areas.
- The EPA would then be formally notified when the local government resolves to amend or prepare a scheme. This would be at the same time local government sought approval to advertise from the WAPC.
- Under the provisions in the Environment Protection Act the EPA must notify local government within 28 days whether a scheme or amendment needs to be assessed. It would be at this stage that the EPA would give informal advice on buffer areas if there was to be no formal assessment.
- If formal assessment is required the EPA has 60 days to send instructions concerning the scope and content of an environmental review. These formal instructions would cover the general requirements for the implementation of buffer areas.

- Local government would then prepare, or have prepared by a proponent, an environmental review and receive clearance from the EPA before the scheme is advertised for public comment.
- Once this clearance is received, approval from the WAPC to advertise is sought, and the scheme is advertised and treated as any other scheme.
- Any submissions that relate to environmental matters, (the submissions commenting on buffer areas could be considered of this nature,) would be referred to the EPA. The EPA will report to the Minister for the Environment on any environmental factors which should be incorporated into the scheme.
- The scheme with resolutions on the submissions and the advice from the Minister for the Environment is then referred to the WAPC for final approval.

FLOW DIAGRAM
STATE INDUSTRIAL BUFFER POLICY



2. LAND USE RESTRICTIONS

While buffer areas are an effective tool for dealing with residual emissions and risk, they often affect land not owned by the proponent (which is often held in private ownership) and can result in limitations being imposed on the use and development of this land. This raises issues of equity and possible compensation, in particular, who should "pay" for off-site buffer areas around proposed or established industry and infrastructure.

The legal position in Western Australia in relation to compensation should be made clear first. Claims for compensation under Section 12 of the Town Planning and Development Act, 1928, can arise only where a property is injuriously affected by the making of a town planning scheme subject to the following limitations—

12(2a)(b) Subject to the provision of paragraph (c), land shall not be deemed to be injuriously effected by reason of any provision of a town planning scheme which comes into force on or after the appointed day, and which deals with any of the matters specified in clause 10 of the First Schedule, unless the scheme

(i) permits development on that land for no purpose other than a public purpose;

or

(ii) prohibits wholly or partially the continuance of any non-conforming use of that land or the erection, alteration or extension on the land of any building in connection with or in furtherance of, any non-conforming use of the land, which, but for that prohibition, would not have been an unlawful erection, alteration or extension under the laws of the State or the by-laws of the local authority within whose district the land is situated.

It is essential that once buffer areas are defined, the impacts of industry/infrastructure are confined within the buffer on the one hand and, on the other hand, the buffer area is not encroached upon by sensitive uses. It is important that any variations to a defined buffer area must have regard to the rights of landowners, existing industries and the future development intentions of the industry or infrastructure.

The interests of landowners affected by buffer areas can be addressed either directly or indirectly.

2.1 Direct Payments to Landowners

This approach involves payment to the owner of land within the buffer area that is incorporated in the town planning scheme by the developer through acquisition of the land or the acquisition of the rights or interests in the land that restrict its development or use (or other economic mechanisms referred to in Appendix 2), and would be negotiated depending on the particular circumstances. This approach is most applicable in the case of new industrial estates and infrastructure which is surrounded by low intensity broad hectare rural uses (examples include Kemerton and the Collie Power Station). It is also applicable in some instances to single site industries such as Alcoa's Wagerup and Pinjarra Refineries which are surrounded by broad hectare rural land which has been acquired and is farmed by Alcoa.

This approach would be supported by restrictions under planning controls over the uses permitted in the buffer area.

2.2 Indirect Payments to Landowners

An alternative to the above involves the re-planning of buffer areas to allow the development of compatible higher-value land uses, referred to as compatible land uses. These compatible land uses would neither generate significant emissions and/or risk, nor warrant protection from them.

This approach allows the buffer area to be retained in private ownership. However, its application depends on local/regional opportunities for the development of compatible higher-value land uses, the availability of servicing infrastructure and compatibility with the planning framework for the area. It is most applicable where it is possible to match the buffer area with the outer boundaries of the compatible land uses.

This approach has been applied to the buffer areas around special industrial zones in the Shires of Albany and Plantagenet. However, the remote location of these zones has raised concerns about the suitability of this land for compatible use zones and the degree to which landowners accept this solution.

2.3 Established Industry and Infrastructure

Within some areas surrounding established industrial estates, single-site industries infrastructure (e.g. ports) and other special uses, sensitive uses have been allowed to encroach over time due to poorly defined buffer areas and/or the absence of adequate planning and development controls to secure them. In these circumstances the nature of land uses within what should be the buffer areas, and regional/local conditions may make it neither practical nor reasonable for the established industry or infrastructure to be responsible for removing those sensitive uses. Where this occurs subdivision and land use controls may be the most appropriate to prevent further encroachment.

In extreme cases, where the encroachment of sensitive uses is extensive and environmental criteria are exceeded by significant levels, on advice from the Environmental Protection Authority, the government may restrict further industrial development or provide the resources to either relocate the industry or infrastructure or to enable it to meet established emission standards at the boundary of the encroaching sensitive use.

Where there is potential for land use conflicts to occur, and the alternatives mentioned above are not realistic options, planning authorities may need to prepare specific policies or strategies to provide strategic land use and development control guidance for town planning schemes. For example, the prohibitive cost to the State of purchasing the buffer around the Kwinana Industrial Area (when considered by the Kwinana Industrial Coordinating Committee (KICC) in 1991) resulted in the KICC requesting the then State Planning Commission to prepare a policy to provide subdivision and development guidance to secure the long term protection of the Kwinana Industrial Area and its buffer.

Proposals for new development and expansion/upgrading of existing facilities in established industrial estates, single-site industries and infrastructure (including new activities associated with the growth of trade at ports) should have regard to the interests of affected landowners in surrounding areas, where unacceptable impacts extend beyond any existing buffer areas. (The WAPC in conjunction with the EPA would determine those impacts that are unacceptable). In recognition of these interests, the developer may need to upgrade processing systems to mitigate impacts and negotiate with affected landowners, in the same way as with proposals for new facilities and industrial estates in greenfield sites, where indirect solutions in the form of compatible land uses cannot be applied.

STATE INDUSTRIAL BUFFER POLICY

1. OBJECTIVES

- (1) To provide a consistent Statewide approach for the definition and securing of buffer areas around industry, infrastructure and some special uses.
- (2) To protect industry, infrastructure and special uses from the encroachment of incompatible land uses.
- (3) To provide for the safety and amenity of land uses surrounding industry, infrastructure and special uses.
- (4) To recognise the interests of existing landowners within buffer areas who may be affected by residual emissions and risks, as well as the interests, needs and economic benefits of existing industry and infrastructure which may be affected by encroaching incompatible land uses.

2. PRINCIPLES

- (1) Industries, infrastructure and special uses requiring off-site buffer areas are an important component of economic growth in Western Australia and are essential for the maintenance of our quality of life. These facilities and associated buffer areas must be planned for.
- (2) Off-site buffer areas shall be defined for new industry, infrastructure and special uses where necessary to comply with accepted environmental criteria. Off-site buffer areas shall also be defined for established industry and infrastructure to comply with accepted environmental criteria where there are existing land use conflicts or where there is the potential for land use conflicts to occur.
- (3) Once an off-site buffer area is defined, the boundary should not be varied unless justified in a scientifically based study (e.g. the impacts of industry/infrastructure should be maintained within the buffer and it should not be encroached upon by sensitive uses).
- (4) It is essential that once an off-site buffer area is defined, it must be recognised in a town planning scheme.
- (5) Where a buffer area is included as part of a town planning scheme, all issues relating to restrictions on land use and development, and the effect on landowners and existing industry, shall be addressed by the scheme.

3. THE NEED TO PLAN FOR BUFFER AREAS

All industries, infrastructure and special uses incorporate a buffer area within the boundaries of the site. However, for many industries infrastructure and special uses it is just not practical (usually not economically viable) to retain the entire buffer area on-site.

3.1 On-Site Buffer Areas

Light and service industry and technology parks should retain all emissions and hazards on-site or at least within the zone or park area.

On-site buffer areas should be sufficient to address local amenity. Local governments should ensure that sufficient setback distances (including the treatment of setbacks, e.g. landscaping) are included in their town planning schemes to retain residual emissions and risks within site boundaries. Easements to provide protection for infrastructure such as drainage lines, transmission lines and gas and petroleum pipes should also be shown as these are one form of on-site buffer. Provisions should also be included to ensure acceptable levels of visual amenity.

3.2 Off-Site Buffer Areas

Off-site buffer areas may be required for the following categories of industry, major infrastructure and special uses—

- hazardous industry;
- noxious industry;
- resource processing industry;
- extractive industry;
- rural industry;
- medium and general industry;
- major sporting venues; and
- noisy sports such as speedway or drag racing.

Off-site buffer areas should be defined and secured as early as possible in the planning stages for new facilities and the expansion/upgrading of existing facilities to ensure the protection and long-term security of the industry/infrastructure, including associated road/rail/pipeline transport routes. Off-site buffer

areas should also be determined and secured for established industry and infrastructure where there are existing or potential land use conflicts with the facility.

The definition and securing of off-site buffer areas is important to —

- provide certainty for industry, encouraging continuing investment in the State;
- provide a greater level of certainty for infrastructure which often represents major investment by the State and is not easily replaced, particularly for resource processing industries and its major infrastructure such as ports which have significant locational constraints; and
- ensure that the buffer provides adequate protection for the interests of surrounding landowners.

The remainder of the policy focuses on defining and securing off-site buffer areas, in view of the importance of this matter to the State.

4. THE DEFINITION OF OFF-SITE BUFFER AREAS

The identification of an off-site buffer area requires the application of both environmental criteria and planning criteria to determine the actual size and boundaries of the buffer area. This will require the boundaries of buffer areas to meet the requirements of the Environmental Protection Authority, the Western Australian Planning Commission and the Department of Minerals and Energy.

The Environmental Protection Authority and Department of Environmental Protection (DEP) through the administration of the Environmental Protection Act, will advise on the environmental standards and management of industry/infrastructure/special uses including environmental criteria for both new and established industry, infrastructure and special uses. The DEP Generic Industrial Buffer Distance Review will be a guide to these buffer distances and environmental standards.

Environmental criteria may be developed for specific types of emissions and risk and may be applied to a defined area in the form of an Environmental Protection Policy. These criteria shall be applied by the industry or responsible authority (developer) to determine the buffer area required around an existing or proposed industry or infrastructure or to ensure compliance with an Environmental Protection Policy. Guidelines may be developed to assist with defining buffer areas for generic industry and infrastructure types (e.g. ports). It is important that responsible authorities have regard to these environmental guidelines and criteria when investigating and defining land use zones in site specific locations.

Where an industry or authority responsible (developer) for the operation of an established facility and the Western Australian Planning Commission consider that either existing or potential land use in the vicinity has the potential to compromise the operation of that facility, the developer shall undertake a buffer definition study to define the extent of the buffer area required to secure the facility. Such a study will identify the likely emissions, hazard and risk, noise or lighting and model the development to show the extent of these outside the development site. The study should also show how amelioration could occur, and if this is not possible, the buffer distances required to enable the use to be developed. The incompatible uses that need to be avoided in the buffer area would also be identified.

The Western Australian Planning Commission shall evaluate the buffer definition study recommendations when considering land use decisions that may need to be made in the relevant area.

Extractive industry is a special case, as it can be a temporary use or a long term use. In the case of basic raw materials, or materials used in the development of urban areas for buildings, roads and infrastructure, its cost effectiveness often requires proximity to the urban areas. Each case will need to be considered separately, with hard rock quarries being of a long term nature perhaps needing different treatment to the limestone and sand extraction areas.

4.1 Planning Criteria

The definition of an off-site buffer area will require the application of planning criteria as stated in WAPC policies and in local government planning schemes for land use and development control. These criteria may be expressed through the following planning instruments where they affect the subject land—

- town planning schemes;
- region plans and strategies;
- structure plans; and
- policies.

The application of planning criteria will require consultation between the Environmental Protection Authority and Western Australian Planning Commission prior to the finalisation of the boundaries of an off-site buffer area. Existing land use will be recognised as an important factor in defining the buffer area.

4.2 Environmental Criteria

The following types of environmental criteria shall be applied on a site or area-specific basis by the developer for the purpose of determining the size of buffer areas and for protecting buffer areas from inappropriate uses. These include—

- risk (individual and societal);
- air quality (e.g. dust, sulphur dioxide);
- noise; and
- odour.

It is recognised that the following types of environmental criteria need to be developed further by the Environmental Protection Authority, industry and planning authorities to provide a more scientific approach for the definition and protection of buffer areas.

- societal risk;
- odour; and
- dust.

Some criteria for odour have been produced by the Department of Environmental Protection. The Environmental Protection Policy for Kwinana specifies dust levels for industry within the policy area. Dust levels for new industries are set on a case-by-case basis using the Kwinana criteria where appropriate. While there are criteria for individual risk assessment, there are presently no criteria in Western Australia or Australia for societal risk. However, the Environmental Protection Authority requires that where residential areas abut hazardous industry, societal risk assessment should be carried out. In the interim, the Environmental Protection Authority uses criteria developed by the Health and Safety Executive in the United Kingdom as a guide in determining its advice on specific proposals.

Societal risk criteria for industry, infrastructure and special uses will be established by the EPA in consultation with the Department of Minerals and Energy.

4.3 Environmental Protection Policies

Environmental Protection Policies may also be used to define off-site buffer areas where it is necessary to establish environmental quality objectives and standards for industry or infrastructure.

In the determination of boundaries and any environmental quality standards for buffer areas in Environmental Protection Policies, it is essential that the Environmental Protection Authority and Western Australian Planning Commission liaise closely to ensure that both environmental and planning criteria are adequately addressed.

4.4 How Should Industry and Infrastructure Comply with Environmental and Planning Criteria?

Industry and infrastructure normally comply with adopted environmental and planning criteria through a combination of—

- appropriate management practices which should not unreasonably inhibit industry capacity or infrastructure usage; and
- off-site buffer areas.

The size of the buffer area is dependent on the management practices used. The balance is normally based on a weighing up of the economic viability of incorporating management practices versus the availability and cost of securing a buffer area. Best practicable environmental management practices (BPEMPs) may be acceptable where an adequate off-site buffer area can be provided. If only a smaller buffer area is available then best environmental management practices (BEMPs) may be required. Although it is accepted that best environmental management practices are preferred, in reality best practicable environmental management practices will usually be negotiated.

The final combination of management practices and off-site buffer areas to comply with the environmental and planning criteria will often involve negotiation between the developer, the Department of Environmental Protection, other adjacent landowners, industry or infrastructure operators (existing and potential) and planning authorities (Western Australian Planning Commission and local governments).

The Western Australian Planning Commission may require the preparation of a structure plan to indicate how the environmental and planning criteria can be satisfied where there are "trade-offs" between the management practices used and the size of the off-site buffer area (e.g adjacent to gas pipelines).

Risk management should ensure that the individual risk criteria are not exceeded and that societal risk levels are reduced as low as possible. The Health and Safety Executive in the United Kingdom recognises three criteria: tolerable, scrutiny and intolerable. Where the societal risk is below the tolerable criteria, no action should be taken. Where the risk is above the intolerable criteria, the proposal is unacceptable. Where the risk is between the tolerable and scrutiny criteria, as low as reasonably practicable (ALARP) principles should apply. Where the risk is between the scrutiny and intolerable criteria the proposal should be re-examined and benefits identified. An assessment is then made regarding these benefits as to whether it should proceed at these elevated risk levels. ALARP should still apply.

In cases where it is not possible to determine whether the environmental criteria have been met, generic buffer distances, as recommended by the Department of Environmental Protection, may be applied. These distances were defined based on work from overseas and interstate, using information from the Department's complaints register and the judgment of officers who deal with these industries. Depending on the management practices of the industry and site-specific studies of the extent of any off-site impacts, these buffer distances may be varied.

The monitoring of existing facilities will continue by the Department of Environmental Protection to ensure compliance with licence conditions, industry standards and regulations. As new technology is developed and management practices improved, industry and infrastructure will be expected to progressively improve management practices, where practicable, irrespective of licensing conditions or current industry standards and regulations (as well as standards in environmental protection policies).

4.5 Variation of Buffer Areas around Established Industry Infrastructure or Special Uses

Where an industry, infrastructure or encroaching sensitive use seeks to vary the boundary of a buffer area once defined, the variation shall not be allowed unless justified by the proponent seeking the variation in a scientifically based study. The study should comply with adopted environmental and planning criteria to the satisfaction of the Environmental Protection Authority and the Western Australian Planning Commission.

A final decision on the variation of the buffer area would need to take into account the results of that study, the needs of industry and infrastructure (including any arrangements between the proponent seeking the variation, and the industry or infrastructure, to upgrade a facility to reduce the off-site buffer requirement) environmental needs and the rights of adjacent landowners.

5. PLANNING FOR OFF-SITE BUFFER AREAS

Once a buffer area is defined, steps should be taken to ensure that it is effective. A range of mechanisms can be used to manage these buffer areas. These are included in Appendix 2. One or more of these mechanisms should be applied to specific buffer areas by the developer, planning authorities or the State government, depending on the particular circumstances. They can be used either independently or in conjunction with each other. These are—

- (i) the application of planning mechanisms to prevent incompatible land uses being developed within the buffer area.
- (ii) the use of mechanisms involving the purchase of land by the developer, whether this is a Government agency or private industry. This could also involve a negotiated purchase of development rights from the land owner. These tools would be applicable where existing zones permitted incompatible uses.
- (iii) the buffer area can be reserved for a public purpose, and compensation paid to the landowners to secure it or purchase it. In such cases there may be arrangements made between local government, the industry and State government agencies in relation to financial liability.

5.1 The Planning Process

The planning process has an important role to play in ensuring the development of compatible land uses in buffer areas.

Once a buffer area is defined and accepted by the Western Australian Planning Commission, the local government or the Western Australian Planning Commission will incorporate the buffer within any statutory plans, strategic plans or policies affecting the subject land.

Buffer areas should be incorporated into strategic plans and regional and/or local government town planning schemes through appropriate land use designations, zoning and development controls. Where there is potential for land use conflicts to occur, planning authorities may also prepare area-specific policies or strategies to provide strategic land use, subdivision and development control guidance for town planning schemes. Thus, in a rural zone a scheme text could specifically deal with further subdivision or residential development within the buffer area.

The Western Australian Planning Commission may prepare guidelines for buffer areas where—

- the potential for land use conflict is significant and the particular industry/infrastructure has strategic importance to the State;
- land use conflicts cannot be resolved by local governments; and
- there is a need to improve co-ordination between local governments.

Ideally, compatible land uses (e.g. light/service industry) should be used to create tiered or graduated zones which coincide with off-site buffer areas around industry and infrastructure. However, this is limited to locations where there are regional/local opportunities for this type of complementary development, servicing infrastructure is available and where it is compatible with the planning framework for the area (e.g. would not unduly compromise other planning objectives for the locality).

Where compatible land uses are permitted, the designation of these uses should be guided by a structure plan of the area.

5.2 The Application of Economic Mechanisms to Secure Buffer Areas

The application of economic mechanisms may be appropriate in the following circumstances—

- Where the developer prefers to acquire the agreed buffer area (and it is economically viable to do so, such as at the Alcoa Wagerup Refinery) to control existing unacceptable uses.
- Where the proposed buffer area allows, through existing zoning provisions, uses that are not compatible with the use to be buffered. (In such cases the proponent, particularly if a Government agency, may need to undertake a cost benefit analysis to determine whether to proceed with the development and acquire the buffer area or the rights or interests in the land to restrict its development or use.)

5.3 Interim Measures to Secure Buffer Areas around Established Industry and Infrastructure

Interim consultation measures may need to be applied to secure a buffer area where a buffer definition study has been initiated around an established industry or infrastructure.

The Western Australian Planning Commission will consult with the Department of Environmental Protection or the authority responsible for the operation of a facility (e.g. port authority, Water Corporation) when considering any proposals for sensitive uses (including associated subdivision and rezoning proposals) within the vicinity of a facility where a buffer definition study has been commenced.

Where the Western Australian Planning Commission receives advice that a proposal for a sensitive use may have an effect upon the operation of an existing facility or be affected by off-site impacts from that facility, it may require the proponent to carry out the necessary studies to determine the extent of the impacts.

6. WHO SHOULD PAY FOR OFF-SITE BUFFER AREAS

The application of this statement of planning policy does not affect the legal position in Western Australia where compensation is generally not liable for zoning (and development control) restrictions imposed through town planning schemes.

6.1 Non-conforming Uses

The policy recognises that the imposition of a buffer area could adversely affect existing use rights under town planning schemes and rights to certain permitted development, such as a single residence to support a farming use. Matters such as these need to be adequately dealt with using either planning or economic mechanisms prior to the scheme or scheme amendment being referred to the Western Australian Planning Commission.

Prevention of continuance of a legally permitted use by a new town planning scheme incurs a liability to compensation. This Policy seeks to ensure that such instances do not occur without specific equitable attention to such issues.

Where a new industry or infrastructure or an expansion is being considered, any environmental conditions set by the Minister for the Environment would be likely to involve the securing of an appropriate buffer area.

6.2 New Industry and Infrastructure

Where a Government agency, local government or a private developer as the proponent of new industrial estates, single-site industries and infrastructure or special uses, incorporates an off-site buffer area over privately owned land to satisfy environmental criteria, and it is not possible to apply compatible use zones, then appropriate economic mechanisms shall be considered by the proponent to satisfy the Western Australian Planning Commission requirements for the buffer area.

6.3 Established Industry Infrastructure or Special Uses

Where land use conflicts (or potential conflicts) arise in defined off-site buffer areas around established industrial estates, single site industry and infrastructure or special uses, as a result of the approval of encroaching sensitive uses (or a proposal for a sensitive use) the industry or infrastructure or special use should not be required to pay compensation. Rather, the State government may investigate the extent or likely extent of the conflicts and if it decides, after careful consideration of the costs/benefits to the community that it is in the interests of the State for that incursion to occur, to either—

- provide a mechanism and the resources to relocate that industry or infrastructure; or
- provide that industry or infrastructure with the resources to meet established emission standards at the boundary of the encroaching sensitive use.

Alternatively, where the State government decides that the industry or infrastructure or special use should be able to continue to operate without modifying its emission standards planning authorities may apply planning mechanisms to prevent more intensive development of sensitive uses, perhaps for example, by limiting further subdivision. Unless such mechanisms require the removal of non-conforming land uses then the existing uses will be permitted. It should be noted that such action will inevitably restrict the operations of the industry or infrastructure or special use while those sensitive uses remain.

Alternatively the planning authority may consider proposals to redevelop the buffer area land to a more acceptable standard.

6.4 New Proposals for Industry Infrastructure or Special Uses

Where a developer of new proposals for industry infrastructure or special uses (including expansion/upgrading of existing facilities and new activities associated with the growth of trade at ports) incorporates a new or expanded off-site buffer area over privately owned land to satisfy environmental criteria, and it is not possible to apply compatible use zones, then appropriate economic mechanisms should be applied to secure the buffer area. The application of these mechanisms should be applied by the proponent to secure the buffer area, to satisfy the environmental conditions on the environmental approval for the industry or infrastructure.

APPENDICES

APPENDIX 1

Glossary of Terms

For the purposes of this discussion paper the following terms have been used—

- **Best Environmental Management Practices**—Technologies (production) and management processes (including computer based systems and staff management) which achieve the maximum environmental performance possible.
- **Best Practicable Environmental Management Practices**—Technologies (production) and management processes (including computer based systems and staff management) which take into account practical financial and operating considerations whilst still achieving the required environmental performances.
- **Buffer Area**—is the area within which sensitive uses are either restricted or prohibited.
- **Developer**—reference to the developer may include the developer or proponent of a specific industry or it may include a government or local government agency in the case of the development of an industrial estate (LandCorp) or government infrastructure (Water Corporation, Western Power, port authorities, etc), or special use but does not include the authorities which initiate or approve proposals for the zoning of land.

- **Extractive Industry**—means an industry which involves—
 - the extraction of sand, gravel, clay, turf, soil, rock, stone, minerals, or similar substance from the land, and also includes the management of products from any of those materials when the manufacture is carried out on the land from which any of the materials so used is extracted or on land adjacent thereto, and the storage of such materials or products; and
 - the production of salt by the evaporation of salt water.
- **General Industry**—means an industry other than a cottage, extractive, hazardous, light, noxious, rural or service industry.
- **Hazardous Industry**—means an industry which, when in operation and when all measures proposed to minimise its impact on the locality have been employed (including measures to isolate the industry from existing or likely future development on other land in the locality) would pose a significant risk in relation to the locality, to human health, life or property, or to the biophysical environment. Examples of such industry include oil refineries and chemical plants but would generally exclude light, rural or service industries.
- **Infrastructure** includes public installations that provide a service such as—
 - Ports
 - Major freight terminals
 - Waste water treatment plants
 - Water treatment plants
 - Power generation facilities
 - Power distribution terminals and substations
 - Solid waste disposal sites
 - Airports, and
 - Gas/petroleum pipelines
- **Light Industry**—means an industry;
 - in which the processes carried on, the machinery used, and the goods and commodities carried to and from the premises, will not cause any injury to, or will not adversely affect the amenity of the locality by reason of the emission of light, noise, electrical interference, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water or other waste products; and
 - the establishment of which will not, or the conduct of which does not, impose an undue load on any existing or proposed service for the supply or provision of water, gas, electricity, sewerage facilities, or any other like services.
- **Noxious Industry**—means an industry in which the processes involved constitute an offensive trade within the meaning of the Health Act 1911 (as amended).
- **On-site buffer areas.** On-site buffer areas are those contained wholly on the site of the particular use.
- **Off-site buffer areas.** For some uses it is not possible to contain all potential emissions or risk of acceptable criteria within the site boundaries. In these cases an off site buffer area is needed.
- **Proponent**—The meaning of the term Proponent is the same as for Developer.
- **Resource Processing Industry**—includes major industries which normally involve—
 - the processing of natural resources (including chemical industries);
 - substantial capital investment;
 - significant employment; and
 - a need for substantial separation or buffer distances to sensitive areas.
- **Sensitive Use**—includes residential dwellings, major recreational areas, hospitals, schools and other institutional uses involving accommodation.
- **Service Industry**—means a light industry carried out on land or in buildings which may have a retail shop front and from which goods manufactured on the premises may be sold; or land and buildings having a retail shop front and used as a depot for receiving goods to be serviced.
- **Special Uses**—means those uses other than industrial uses that require a buffer area to enable them to operate in harmony with surrounding areas. Uses such as sporting stadia, airports, and motor sports sites are specifically targeted in this grouping.
- **Technology Park**—means a specialised location for scientific and technological research and development activities, and may include production, manufacturing and assembly of products providing these activities relate to and are ancillary to the technological research and development of activities on each site. Development should consist of high quality buildings set in a spacious, park-like setting, and the nature of uses and site layout and design should not adversely affect the amenity of the locality.

APPENDIX 2

Mechanisms For Securing Buffer Areas

A range of mechanisms may be applied to secure buffer areas depending on the circumstances. These mechanisms include economic instruments, special Acts of Parliament and statutory planning controls. The mechanisms are discussed below and may be implemented individually or in conjunction with each other.

1. Economic Mechanisms

There are a number of economic mechanisms that can be applied by the developer to secure and consolidate buffer areas. These measures vary from outright purchase, land swaps, acquiring interests or rights to restrict the development or use of land, and in extreme cases the relocation of industry or infrastructure.

(i) Direct Acquisition of Buffer Areas

This mechanism may be applied where land costs are not excessive and existing and potential land uses are clearly incompatible with the industry or infrastructure developed to best practicable management standards.

Where the developer is the Government, acquisition can be accomplished under existing legislation enabling the Government agency concerned or otherwise by special act of Parliament.

(ii) Land Exchanges

This mechanism has limited application. However, where opportunities can be identified, land within the buffer area may be swapped for land of similar value and type outside the buffer area.

(iii) Acquiring Rights or Interests in Land to Restrict Development or Use

This mechanism involves entering into agreements with the owners of vacant land to acquire the rights or interests in land to restrict its development or use. The mechanism in such agreements can be registered as a restrictive covenant on the title. Under this option the owner could continue to own and use the land in a way that is compatible with the adjoining industrial and/or infrastructure uses.

(iv) Payments to Industry or Infrastructure

In extreme cases, where environmental constraints are large, the government may consider direct payments to industry or infrastructure to enable it to upgrade to meet acceptable emission standards.

(v) Relocation of Industry

The government may consider providing the necessary resources to facilitate the relocation of existing industry or infrastructure in extreme cases where environmental constraints are large and the industry/infrastructure is unable to meet reasonable environmental quality standards in the vicinity.

2. Special Acts of Parliament

Where buffer areas are not acquired by the developer, Agreement Acts can ensure that decisions on development within buffer areas take into account the views of the Minister responsible for the agreement. Such an approach was taken in the Dardanup Pine Log Sawmill Agreement Act 1992. This Agreement Act requires the Minister for Planning to consult with the Minister responsible for this Agreement before exercising any discretionary powers on any application under the planning system to increase residential development in the buffer area.

This mechanism is most suited to controlling development within a buffer area around a single resource processing industry site.

A special Act of Parliament may also be used to facilitate the acquisition of land and lesser interests in land in buffer areas around resource processing precincts. This would enable the Government to place restrictive covenants on property titles purchased and sell the land to private owners to develop in a compatible manner.

3. Planning Controls

A range of planning controls can be applied to maintain the integrity of buffer areas and include both statutory and non-statutory mechanisms.

(i) Subdivision Control

Restriction of the subdivision of land is one way in which the intensity of occupation (population density) within privately owned buffer areas can be limited. Controls on subdivision may impose appropriate restrictions as this is within the discretion of the Western Australian Planning Commission. Subdivision decisions of the Western Australian Planning Commission are subject to the appeal process.

(ii) Improvement Plans

These plans can facilitate the development of an area for compatible uses. For example, an Improvement Plan (IP 14) has been prepared for the East Rockingham Industrial Area to facilitate the orderly development of land in the area (approximately 1336 ha) for a range of industrial uses and parkland buffer areas. Improvement plans can be prepared only within the area covered by the Metropolitan Region Scheme.

(iii) Town Planning Schemes/Development Control

Town planning schemes may be prepared at the regional level through regional planning schemes by the Western Australian Planning Commission and local level by local governments. At the

regional level regional planning schemes can establish broad zones and reservations to secure the general purpose of buffer areas (e.g. industrial or rural). Regional planning schemes may also call-in development that may affect the integrity of the buffer area for determination by the Western Australian Planning Commission.

At the local level scheme controls can be used to restrict sensitive uses such as residential dwellings.

(iv) Region Plans

Region plans can allocate land for particular uses so that there is adequate separation between industries and residential areas prior to development proceeding. These are non-statutory plans that promote a framework for future land use and development. They are the initial guidelines for the future regional development of an area.

(v) Structure Plans

Structure plans provide a framework for co-ordinated planning and provision of services, and are the precursor to the statutory region scheme. They ensure that planning for new growth areas is consistent with region plans. They may also identify appropriate sites for infrastructure where off-site buffers are required, and guide subdivision design to minimise the impact of polluting industries and infrastructure and the encroachment of surrounding sensitive land uses.

(vi) Local Rural Strategies

Local rural strategies can guide the subdivision and development of rural land. They primarily provide a mechanism for protecting good quality farmland.

APPENDIX 3

Persons/Organisations Consulted

Western Australia

John Murphy—Department of Transport
Jim Riddle—Western Power
Adrian Chegwiddden—Western Power
Bob Jackson—Water Authority of Western Australia (now the Water Corporation)
Garry Middle—Department of Environmental Protection
Neville Duckett—LandCorp
Tom Grigson—Department of Resources Development
Ian Williams—Dover Consultants
Joe Bosworth—Dover Consultants
Wilma Coote—Technology Park Management

Victoria

Robin Dunstone—Department of Planning and Development
Peter Anderson—Department of Planning and Development
Joanne Caminiti—Department of Business and Employment

New South Wales

Derek Mullins—Department of Urban Affairs and Planning
Ron Baker—Department of Urban Affairs and Planning
Elizabeth Loseby—Department of Urban Affairs and Planning
Jan Murell—Department of Urban Affairs and Planning
City Planner—Botany Council

Submissions on the Draft Policy were received from—

The City of Fremantle
Shire of Manjimup
Department of Minerals and Energy
Shire of Capel
Chamber of Commerce and Industry
Shire of Busselton
Shire of Katanning
Shire of Moora
Shire of Beverley
Shire of Brookton
Shire of Pingelly
Shire of Cuballing
Shire of Wickepin
Shire of Corrigin
Fremantle Port Authority
Homeswest
City of Belmont
Urban Development Institute of Australia
Town of Kwinana
Shire of Harvey
Town of Bassendean
Shire of Augusta Margaret River

Shire of Ashburton
 Western Australian Municipal Association
 Department of Resources Development
 Shire of Broome
 Esperance Shire Council
 Water Corporation
 City of Armadale
 Australian Institute of Valuers and Land Economists
 Department of Transport
 Chittering Ratepayers Association
 Town of Vincent
 Western Power
 Shire of Swan
 Town of Kwinana
 City of Cockburn
 City of Wanneroo
 Shire of Denmark
 Town of Albany
 Waters and Rivers Commission
 Shire of Northam
 Shire of Dardanup
 Main Roads Western Australia
 Stuart Devenish (WAMA)

APPENDIX 4

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APPENDIX 5
Project Brief

State Industrial Buffer Policy

1. Background

The Infrastructure Coordinating Committee of the WAPC at its meeting of 17 May 1995 resolved to prepare this policy in recognition of the need to provide a consistent Statewide approach to the protection of the integrity of industrial land.

2. The Problem

There has been concerns that buffer areas around industrial land are being developed for uses that are incompatible with existing and potential development of industrial areas in the State (e.g. Kwinana and Narngulu at Geraldton). An industry background report commissioned by DRD outlines the need to protect the integrity of buffer areas around heavy industry.

Some work has been undertaken in an attempt to address this problem by DRD (*Draft State Heavy Industry Land Policy* and related policy paper *Protecting the Integrity of Heavy Industry Buffer Areas*) and LandCorp (for specific proposals in the Shires of Greenough, Plantagenet and Albany). The Commission's Policy D.C. 4.2 *Planning for Hazards and Safety* addresses buffer areas in part. At present the WAPC does not have a basic industrial buffer policy that covers safety and amenity issues and the long term security related to industrial zones.

The Infrastructure Coordinating Committee of the WAPC has indicated that the problem also extends to transport terminals (including ports) and other utilities.

3. Purpose

The purpose of this policy is to provide a consistent Statewide approach for the protection and long term security of industrial zones, transport terminals (including ports) and other utilities. Also, to provide for the safety and amenity of surrounding land uses while having regard to the rights of landowners who may be affected by residual emissions and/or risk.

4. Scope of the Policy

There will be two phases to the project. The **first phase** will involve some research in the form of a discussion/issues paper. It should be focused into the following areas—

- * need for buffers;
- * definitions of terms such as buffer, sensitive use and industry types that require buffer areas (both on-site and off-site);
- * identification of existing processes and responsibilities;
- * literature review;
- * equity and compensation issues and
- * alternative approaches for maintaining buffer areas.

The **second phase** will involve policy development. The policy should address the following matters (this phase will include some overlap with the first phase) —

- * definitions of terms such as buffer, sensitive use and industry types that require buffer areas (both on-site and off-site);
- * identification of existing processes and responsibilities;
- * the protection of new buffer areas (by industry type); and
- * the protection of existing buffer areas.

The scope is primarily concerned with the various mechanisms for protecting industrial areas. It does not include an assessment of the existing processes/responsibilities for defining industrial buffer requirements for risk, air quality, odour and noise as these are already well established by existing legislation/policy.

Reference to transport terminals and other major utilities is restricted to the following—

- * ports (shipping);
- * major freight terminals;
- * waste water treatment plants;
- * water treatment plants;
- * power generation facilities; and
- * power transmission terminals and distribution substations.

5. Steering Committee

The project will be overseen by an interdepartmental/industry steering committee consisting of representatives from—

Ministry for Planning (chair)
LandCorp
Chamber of Commerce and Industry
Department of Commerce and Trade
Department of Resources Development
Department of Minerals and Energy
Department of Environmental Protection
Department of Transport
Water Corporation

It is anticipated that up to four Steering Committee meetings will be required.

6. Consultation

Consultation will occur through the Steering Committee. The draft policy will also be released to relevant State and local government agencies and industry. This will give an opinion of the proposal from the many stakeholders. Specifically this process will involve—

- * consulting with the Steering Committee members on—
 - the study brief (including contents of the discussion paper);
 - the draft discussion paper;
 - the draft policy (prior to formal consideration/release by the WAPC); and
 - the final policy and report on submissions (prior to formal consideration/release by the WAPC).
- * consulting with key interest groups on the final discussion paper.
- * the WAPC formally releasing the draft policy for comment to—
 - relevant State government agencies;
 - relevant industry bodies; and
 - relevant local authorities.

7. Desired Outcomes

The desired outcomes of the project are—

Phase 1 Discussion/Issues paper

- * A discussion/issues paper which identifies relevant approaches and principles for maintaining buffer areas; the discussion/issues paper to be used as the basis for developing the policy.

Phase 2 Policy Preparation

- * A draft policy to be released by the WAPC for formal consultation.
- * A final policy for consideration and adoption by the WAPC for use by government agencies (State and local) and industry for the planning and maintenance of buffer areas.

8. Project Administration

The project will be undertaken in-house by the Strategies and Policies Branch. Some assistance will be sought from the Steering Committee in the preparation of the discussion/issues paper, particularly the literature review.

The project will be undertaken within the current work program of the branch.

The time-frame for the preparation of the issues/discussion paper and draft policy is four months with completion in the second quarter of 1996.