

The Tyranny of Separation Distances

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Overview

- What are Separation Distances?
- How are they used?
- What is the problem?
- State of Play in WA
- Elsewhere
- What works?
- What should happen in WA?

What are Separation Distances?

“All reasonable and practicable measures should be taken to minimise the generation of waste and its discharge to the environment”
EP Act

“If emissions cannot be contained on-site, there is a need for a buffer to separate the industrial use or the infrastructure from sensitive land uses to ensure that land use conflicts are minimised.”

WAPC SPP4.1 (draft) 2009

Separation Distance - the shortest distance between the boundary of the area that may potentially be used by an industrial land use, and the boundary of the area that may be used by a sensitive land use

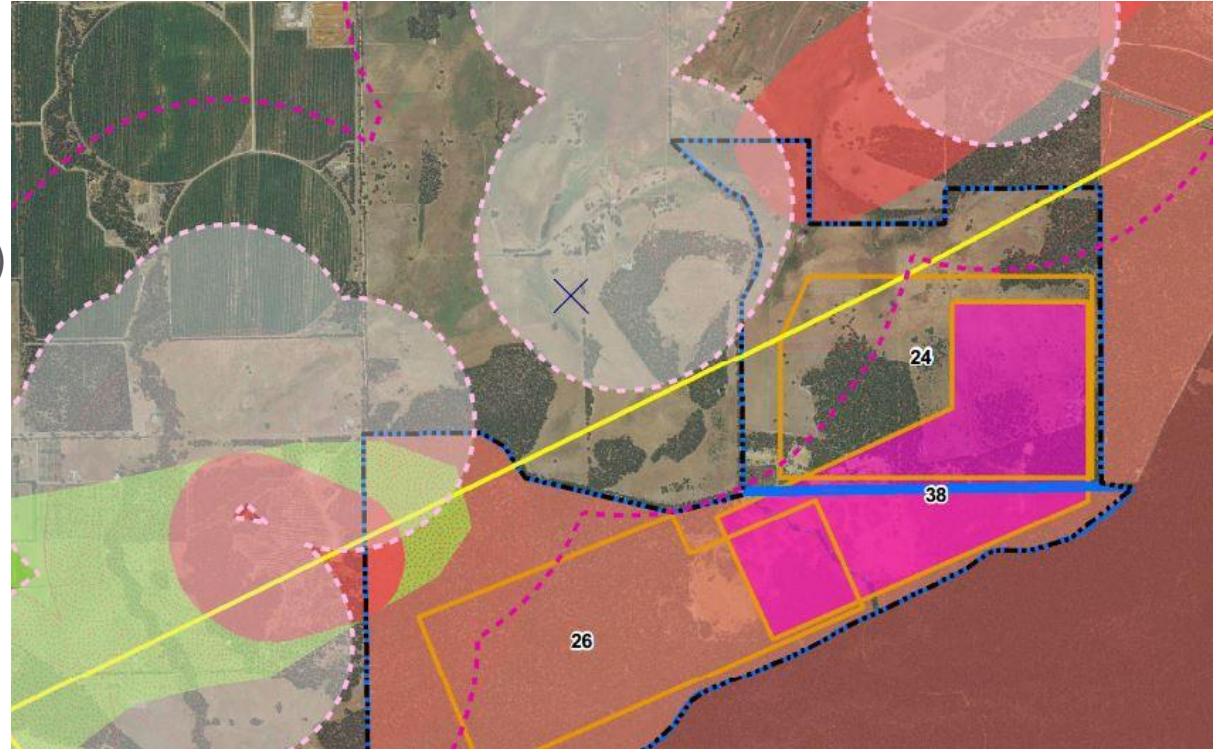
Buffer – all the land between the boundary of the area that may potentially be used by an industrial land use, and the boundary of the area within which unacceptable adverse impacts due to industrial emissions on the amenity of sensitive land use are possible. This may be represented by the separation distance.

EPA GS3 2005

How are they used?

Uses

- Site Selection
- Approvals (planning/environment)
- Environmental Protection
- Strategic planning
- Industry safeguard



State of Play in WA

The key context

“the process is procedurally fair and that all relevant EPA policies, guidelines and procedures are publicly available and are applied fairly and consistently.”

EPA Admin Procedures 2012

This is the problem!

State of Play in WA

WAPC – SPP 4.1

- Statutory requirement relating to the expectations for separation distances and buffers with respect to industrial facilities.
- Principle 2 “...*offsite buffer areas shall also be defined for established industry and infrastructure to comply with accepted environmental criteria where there is a potential for land use conflicts to occur*”
- The Policy also notes that once a buffer is established, it should be recognised in the Town Planning Scheme
- No specific guidance in relation to the size of the buffers
- Puts the onus firmly in the realm of planning

State of Play in WA

EPA – Guidance Statement 3 (2005)

Widely used and referred to in legal matters

“provides advice on the use of the generic separation distances that have been developed...for a range of industrial land uses”

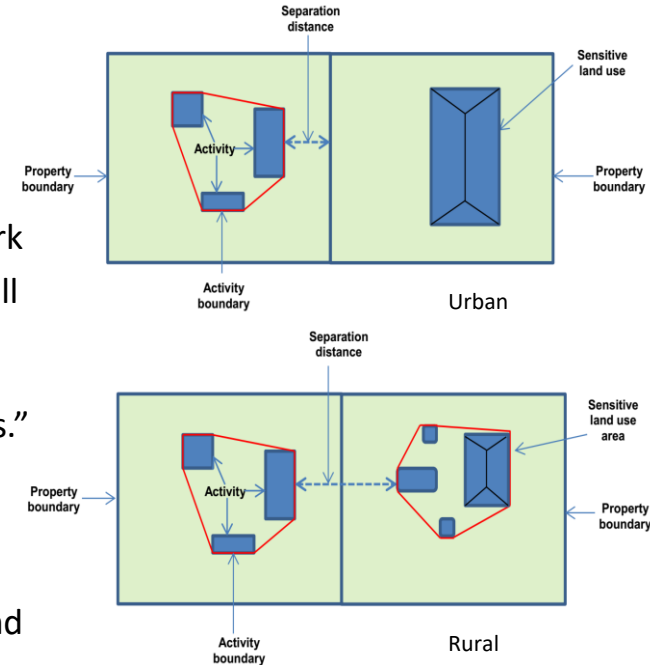
Useful *“to identify the need for specific buffer definition studies where:*

- *a new industrial land use is proposed near an existing or proposed sensitive land use; or*
- *a new sensitive land use is proposed near an existing or proposed industrial land use; and*
- *to provide general guidance on separation distances in the absence of site specific technical studies, or, where only an estimation of the area that could be subject to land use conflicts is required.”*

State of Play in WA

DER – Draft Guidance Statement (2015)

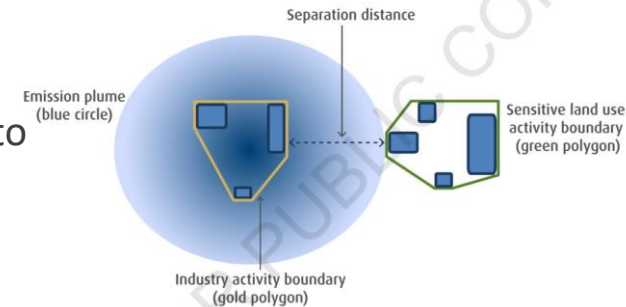
- Developed through consideration of documentation from other jurisdictions including GS3 and Victoria’s commensurate guidance from 2013
- Intended to form part of the DER’s Environmental Risk Assessment Framework
- Industrial premises (proposed or existing) that do not meet the distances “will be considered as having a higher risk to public health and amenity” and will therefore require a more detailed consideration of risk and “additional management or process conditions or infrastructure improvement conditions.”
- “Where the location of a proposed prescribed premises does not meet the separation distance and the risks to public health or amenity are unacceptable, a works approval or licence will not be issued.”
- Two methods for measuring separation distances: one for urban scenarios and one for rural.



State of Play in WA

EPA – Draft Environmental Assessment Guideline (2015)

- Released in September 2015 (to provide some consistency?)
- More comprehensive document than GS3.
- Greater definition around the concepts of separation distances and buffers and their application
- “should be measured from the activity boundary of the industry to the activity boundary of the nearest sensitive land use.”
- Separation distances for Prescribed Premises are delineated through the DER’s guidance on the matter (now withdrawn)
- Separation distances substantially modified from GS3 and therefore generally provide greater protection for sensitive land uses (what about industry?)



What is the problem in WA?

- New Guidance provides a very conservative approach to assessment and consideration of separation distances – some have significantly increased with no justification
- Potentially improves things for receptors, but not for industry.
- Information relating to the changes is required
- Minimum distances (EPA EAG) as opposed to generic distances – again with no justification
- Lack of consistency in terms of the application of the distances.
- Status of document
 - EPA EAG Draft
 - DER GS Withdrawn “consideration of distances from sensitive receptors will still be used by DER to inform assessments and decision making. Distances will be assessed on a case-by-case basis”
- Whole of government is warranted to ensure a consistent approach and that distances are logical and equitable for both the ‘source’ as well as the ‘receptor’

Elsewhere - Victoria

- EPA Victoria (EPAV) 2013 “Recommended Separation Distances for Industrial Residual Air Emissions”
- Considers odour and dust emissions from industries (noise, vibration, ambient and hazardous air pollutants not considered) and describes the policy framework associated with the guidance and its application.
- Under VPPs, industrial facilities have ‘use’ rights which enable them to operate providing they comply with the appropriate regulations. Separation distances provide an appropriate tool for use in siting potentially non-complementary land-uses adjacent to the ‘source’ sites.
- *Planning and Environment Act 1987* requires that Separation Distances document must be given weight
- Provision of a table including industry type and size coupled with a recommended separation distance
- “EPA’s default minimum in the absence of a detailed, site-specific assessment”
- Range of industries it considers is much narrower and more generic than WA.
- Good detail and examples of how the guidance is to be applied and for dealing with variation from a recommended separation distance

Elsewhere – South Australia

- SA EPA 2016 “Evaluation Distances for Effective Air Quality and Noise Management”
- “Evaluation distances provide an envelope around an activity (or multiple activities) within which environmental risks need to be assessed against current knowledge, technologies and practices.”
- An industry can be placed closer to a sensitive land-use only when appropriate studies have been carried out
- Distances “are not to be applied retrospectively to existing interfaces between current activities and sensitive uses that may already be within the distance. In these circumstances the EPA manages the risks under existing authorisation and programs.”
- Consideration of both the impact of a new source site on an existing receptor as well as the converse
- Detailed consideration of how evaluation distances relate to activity boundaries (cf. multiple sources (activities) that exist within the same locality and therefore should be considered holistically
- Minimum separation distances should apply for some industries.
- “the EPA’s experience indicates that the residual environmental risk remains unacceptable, even within best management processes and technologies in place.”

Elsewhere - ACT

- Environmental Protection “Draft Separation Distance Guidelines for Air Emissions) November 2014.
- Based on and sometimes directly reproduced from SA EPA documentation – applied in the same way as WA (tables and distances provided)
- designed to provide guidance for new industries and redevelopment of industries or activities which require approval pursuant to the ACT’s *Planning and Development Act 2007*.
- in circumstances where land is zoned under the ACT’s ‘Territory Plan’, the entirety of that land needs to be treated as sensitive, notwithstanding its current use.
- “not intended to address occupational health and safety measures, or circumstances where there is a direct health issue” or “major hazards such as fire or explosion, nor do they address the cumulative impacts of industrial activities.”
- ‘buffer area’, being “the area from the activity boundary to the outer limit of the separation distance”, the document makes it clear that In addition, there is a recognition that “Industries themselves can be incompatible neighbours” and dealt with on a case by case basis.

Elsewhere - Queensland

- EP Act “proposals are assessed to ensure they will not adversely affect environmental values including air quality, public amenity and safety” and “ensuring the proposal, if implemented, is not likely to cause environmental nuisance or environmental harm.”
- Qld’s DEHP has adopted the “Victorian EPA philosophy on buffer distances and that is, separation distances are provided as a risk management tool to manage unexpected or accidental emissions from a facility.”
- Department of Environment and Resource Management released “State Planning Policy 5/10. Air, Noise and Hazardous Materials” in 2010.
- “strategically plan and manage the interface between land zoned for industry and land zoned for sensitive land uses to support and protect industrial land uses in appropriate locations.”
- Schedule 2 includes ‘Triggers’ for further investigation, providing “a benchmark against which local government can determine whether further planning investigation is required about the location of industry zones and zones for sensitive land uses.”
- Talks about distances in terms of medium, high impact or noxious and hazardous industry with associated generic distances to consider.

Elsewhere – New South Wales

- No current overarching guidelines
- Current approach to EIA/approvals based on Vic Planning Provisions
- NSW Department of Primary Industries – Living and Working in Rural Areas Handbook 2007
 - Synthesis of available information in relation to buffer distances for various industry types, sourced from industry guidelines and policy.
 - Provides difference distances from a number of potential receptors.
 - Minimum distances (as opposed to generic distances) but can be varied

Elsewhere - Tasmania

- Tasmanian Planning Scheme (TPS) pursuant to the *Land Use Planning and Approvals Act 1993*
- SPPs include a range of ‘codes’ which incorporate standard provisions.
- Code 9 - Attenuation Code
 - “To minimise adverse impacts on the health, safety and amenity of sensitive use from activities which have the potential to cause emissions” and “To minimise the likelihood for sensitive use to conflict with, interfere with, or constrain, activities which have the potential to cause emissions.”
- The Code applies only to Level 1 and 2 activities
 - Level 1: These activities may cause environmental harm to a less significant degree and are assessed and regulated by local government
 - Level 2: These activities are more environmental significant and are assessed and regulated by Tas EPA
- The Code details a number of ‘Use Standards’ for three key scenarios:
 - “Activities with potential to cause emissions”,
 - “Sensitive use within an attenuation area”
 - “Lot design”.
- Scenarios are provided with an *Objective, Acceptable Outcome* and *Performance Standards*

Elsewhere – Northern Territory

- No guidance in relation to separation distances in relation to environmental considerations.
- Recommended for NT to develop buffer distances for inclusion in the NT Planning Scheme
- Currently only occurs on a case by case basis – no consistent approach and generally sourced from other jurisdictions

What is good?

- SA and Vic – closest to ideal model
- Vic
 - clearly defined methodology
 - Good approach to varying distances and how
 - Legally required to be considered
- SA
 - transparent and easy to follow
 - Consistent approach to dealing with distances
 - More prescriptive in approach and more conservative starting point
 - Minimum distances provided in certain circumstances
- Tas has some good points to consider
 - prescriptive and therefore subject to less interpretation.
 - detailed description of outcomes expected (application of attenuation distances, objectives and outcomes)
 - conservatism via distance from the boundary of the source property rather than from the source of impact itself (generating an internal buffer)



What is needed?



1. The framework must provide an appropriate level of protection.
 - Existing receptors and established industries
2. The framework should be robust enough to provide detail as to what an expected separation distance should be, particularly in the absence of other scientific evidence to the contrary.
 - Clear guidance as to how to vary that distance
 - discussion about the impacts of concern, how they should be considered and provide detail in relation to the expectations of the studies that should be completed.
3. The framework should include minimum separation distances between a source and a receptor that should never be breached.
 - Clearly defining these minimum distances will provide a minimum level of protection to be expected in all circumstances and all parties the understanding of the 'worst-case scenario' if an approval is granted for a new source or receptor.

None of the current systems within Australia provide all requirements.

Distances set out as generic separation distances that are necessarily important, but the mechanism to vary them is.

What should/could happen in WA?

- Current lack of consistency and transparency (no justification for changes made in the EPA and DER)
- EPA GS3 (2015 update still in draft form and DER 2015 'retracted')
- DER still intends to undertake its own approach – big issues!
- WA system clearly needs updating
 - Transparent,
 - Robust
 - Procedurally fair.
- Generic as well as minimum separation distances should be developed
- Methodology that describes the process through which a distance should be developed (the outcomes) together with the expected performance standards through which these outcomes are developed.
- WA EPA 2015 draft is a good place to start, but need to look to other jurisdictions
- Distances are not necessarily critical – a place to start from with a clear methodology to vary them

Summary

- Separation Distances are widely used (but the distances aren't necessarily the important thing)
- Old documentation – needs an overhaul
- Look to other jurisdictions for an approach (e.g. Vic and SA)
- Framework
 - An appropriate level of protection (receptors and sources).
 - Robust approach with consistent and transparent guidance.
 - Minimum separation distances to be included
 - Protection for source and receptor





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