

# Planning guidance: Assessing an application for a concrete batching plant

A guide for land use planners

Publication 3001 | October 2023

Development Advisory



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## Purpose of this guideline

### 1.1. Introduction

This guideline applies to concrete batching facilities of all scales, including mini-mix operations. It is generally intended for use by responsible authorities and planning permit applicants, to assist in the preparation and assessment of planning permit applications.

This guideline should be read in conjunction with [Reducing risk in the premixed concrete industry](#) (Environment Protection Authority Victoria (EPA) publication 1806). Publication 1806 supports the operators of concrete batching plants and pre-cast concrete manufacturing plants to manage the risk of harm to human health and the environment through good industry practice. It includes further information about:

- concrete batching processes
- how to assess, manage and control environmental risks at the site and prevent harm to the environment, amenity and human health
- practical performance outcomes
- examples of control measures that can be implemented to help minimise risks of harm to the environment, amenity and human health.

### 1.2. Legal status

EPA guidance does not impose compliance obligations. Guidance is designed to help duty holders understand their obligations under the *Environment Protection Act 2017* and subordinate instruments, including by providing examples of approaches to compliance. In doing so, guidance may refer to, restate, or clarify EPA's approach to statutory obligations in general terms. It does not constitute legal or other professional advice, and should not be relied on as a statement of the law. Because it has broad application, it may contain generalisations that are not applicable to you or your particular circumstances. You should obtain professional advice or contact EPA if you have specific concerns. EPA has made every reasonable effort to provide current and accurate information, but does not make any guarantees regarding the accuracy, currency or completeness of the information.

### 1.3. Intended audience

This guideline has been prepared by EPA generally for responsible authorities who may receive and be required to assess planning permit applications for concrete batching plants. However, it may also be useful for other parties involved in the process, such as planning permit applicants or other planning authorities.

## Concrete batching plant developments and planning

### 2.1. How are concrete batching plants defined in planning schemes?

Concrete batching, although not specifically defined in planning schemes, is the process of producing concrete or concrete products by combining cement, water, sand or aggregate or other similar materials. Concrete batching falls under the 'industry' land use term as defined in the Table to Clause 73.03 Land Use Terms of the Victoria Planning Provisions (VPP).

## 2.2. What are the risks to the environment and human health from concrete batching plants?

If risks are not adequately addressed, a concrete batching facility may cause adverse impacts on the surrounding environment, amenity and human health. Potential risks include:

**Air:** Dust from cement, sand and aggregates is a pollutant. Fine particles in the batching process pose a risk of airborne air emissions, especially during high speed / gale force winds.

**Noise:** Noise is a form of pollution and potential source of conflict between the operators of a concrete batching plant and the surrounding community. Onsite operational activities are likely to create noise impacts for the surrounding land uses.

**Surface water management:** Potential pollutants in batching plant wastewater include cement, sand, aggregates, and petroleum products. Surface waters, when contaminated with these wastes, are a major cause of pollution in rivers, creeks, lakes and bays.

**Chemical storage:** The storage and handling of any liquid associated with the concrete batching process can lead to spills or leaks and the subsequent pollution of water and land.

**Waste management:** The concrete batching process generates waste that may be harmful to the environment and human health if not dealt with appropriately. The main solid waste generated by batching plants is leftover concrete.

## 2.3. Location and siting of concrete batching plants

There are two conflicting aspects to determining the appropriate siting of a concrete batching facility. Facilities are required to be located as close to the market as possible, being close to residential and commercial areas where the concrete, a time perishable product, is used. However, locating concrete batching facilities in these areas can result in the emissions associated with the facility adversely affecting the surrounding environment, amenity and human health.

### Siting from sensitive receptors

A concrete batching plant must be located in an area where it will not pose a hazard to the environment, amenity, or health of the local community. Highly alkaline wastewater, dust emissions and noise are the key potential impacts associated with concrete batching plants. These problems need to be considered when planning a new facility or a major upgrade of an existing site.

To protect amenity, separation distances should be provided between batching plants and sensitive land uses.

### Siting from environmentally sensitive areas

Concrete batching facilities should be located and designed so that contaminated stormwater and process wastewater can be retained on-site. The land should not be flood prone (it should have a flood average recurrence interval less than 100 years) to reduce the risk of wastewater being discharged to waterways.

Planners are encouraged to use Land Subject to Inundation Overlays, Special Building Overlays, Floodway Overlays and Urban Floodway Zone as a basis for identifying high risk flood prone areas.

## 2.4. What separation distances apply to concrete batching plants?

Even when a concrete batching plant is operating in accordance with all relevant statutory obligations, there may still be unintended offsite impacts that must be accounted for. Separation distances are designed to account for such impacts and at the same time minimise the risk of human health and amenity impacts on any nearby sensitive land uses. However, they are not an alternative to controlling offsite impacts or meeting legal obligations.

### Separation distance guidelines (EPA publication 1518 or as amended)

EPA publication 1518 provides advice on recommended separation distances between industrial land uses that emit odour or dust, and incompatible land uses that are likely to experience adverse human health and amenity impacts (such as sensitive land uses). This guideline recommends a separation distance of 100 m (for a concrete plant processing greater than 5000 t/year).

EPA advises that as the state of knowledge on concrete batching plants evolves, EPA Publication 1518 may be amended or superseded by new information.

## 2.5. What threshold distances apply to concrete batching plants?

Clause 53.10 defines those types of industries, which if not appropriately designed and located may cause offence or unacceptable risk to the neighbourhood. It has a much broader scope than EPA publication 1518, as such risks may include dust, noise, light, traffic and other issues that may impact on the local community. For concrete batching facilities it sets a 'threshold' distance of 300 metres. If a proposal does not meet the threshold distance a further assessment of all amenity issues is required through referral to EPA. This is illustrated in Figure 1 below.

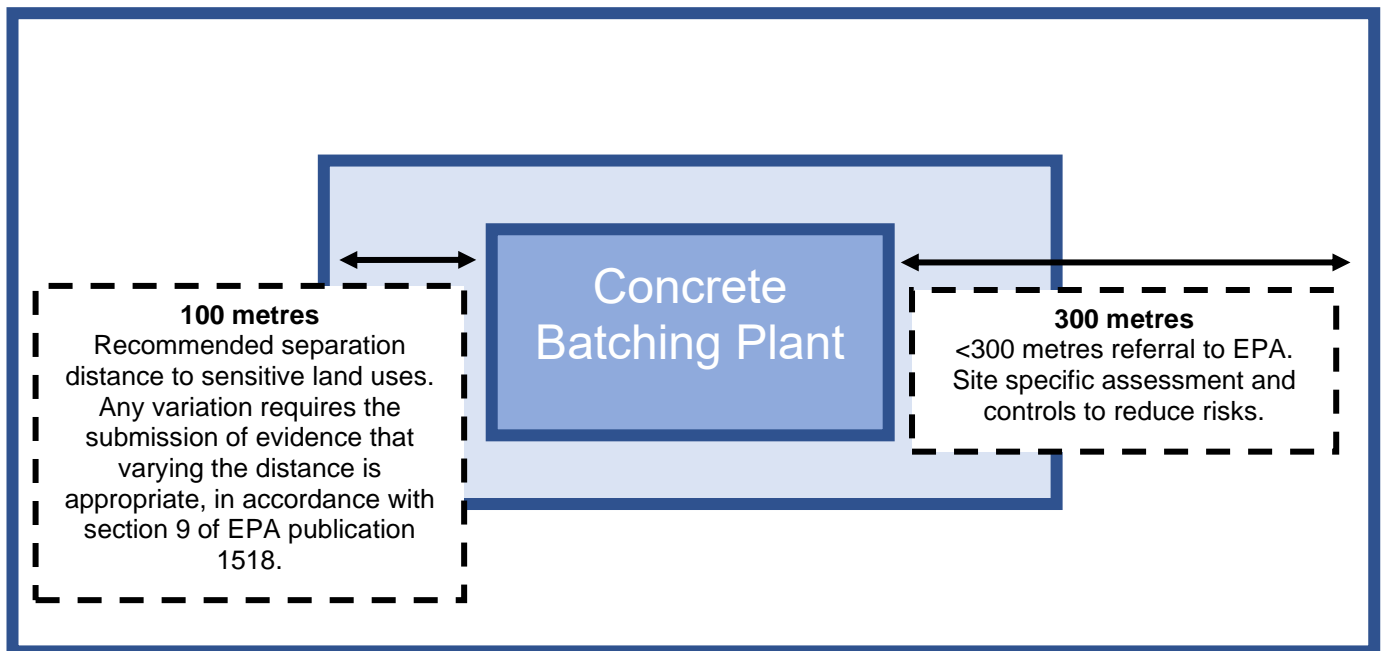


Figure 1. Separation and threshold distances applying to concrete batching.

## Environmental risk management and controls

Appropriate separation distances and siting of facilities do not eliminate the need for effective point source emission control. EPA publication 1806 provides a detailed discussion of the environmental risks, an environmental risk management approach and example control measures for applicants and operators to incorporate into the design and operation of their facility.

Proposals for concrete batching plants should address these environmental and amenity risks and demonstrate the relevant control measures in the planning permit application to determine suitability of the proposal.

## EPA advice and support

EPA provides environmental expertise to assist in understanding environmental risks associated with certain planning and development decisions. EPA can help prevent risk to human health and the environment and improve the quality of land use and development decisions by:

- highlighting significant environmental and human health risks or impacts likely to occur from the proposed use or development
- providing technical advice to support planning authorities to eliminate or otherwise reduce environmental risks
- providing information and guidance related to management techniques for environmental and human health protection
- recommending interventions, such as planning permit conditions, where appropriate.

### 4.1. Environment Protection Act 2017

The *Environment Protection Act 2017* (EP Act) and related sub-legislative instruments came into effect on 1 July 2021 and sets the required approach for environmental management for Victoria. The focus is on preventing pollution impacts rather than managing those impacts after they have occurred. The cornerstone of the EP Act is the general environmental duty (GED), which requires Victorians to understand and minimise their risks of harm to human health and the environment, from pollution and waste.

Under the GED, "a person who is engaging in an activity that may give rise to risks of harm to human health or the environment from pollution or waste must minimise those risks, so far as reasonably practicable". Reasonably practicable means implementing controls that are proportionate to the risk, particularly in the design stage of a new development or when updating an existing development.

The action to minimise a risk is 'reasonably practicable' if:

- it is generally adopted within an industry or should be adopted, based on what is known, or has been experienced in the past
- the actions and measures undertaken are suitable, available and the cost is proportionate to the risk.

More information on how to comply with the GED is available in *Industry guidance: Supporting you to comply with the general environmental duty* (EPA publication 1741.1).

## 4.2. Environment Reference Standard

The Environment Reference Standard (ERS) is a subordinate instrument under the EP Act that sets out the environmental values that are to be achieved or maintained in Victoria. Environmental values describe a use, attribute or function of the environment that Victorians value. As reference standards, environmental values can be identified in relation to objectives for supporting different uses of the environment and through indicators that can be measured to determine whether those objectives are being met.

The ERS contains environmental values, indicators and objectives for:

- Air (Part 2)
- Noise (Part 3)
- Land (Part 4)
- Water (Part 5).

When considering an application for a planning permit, the responsible authority may consider the ERS, where relevant, 'if the circumstances appear to so require it'. The responsible authority must determine whether the circumstances of the application would require the ERS to be considered. Where they do, the relevant environmental values, indicators and objectives should be considered.

For further detail on the ERS, refer to the *Guide to the Environment Reference Standard* (EPA publication 1992).

## 4.3. Environment Protection Regulations 2021

The Environment Protection Regulations 2021 (EP Regulations) set out which activities require an EPA permission to develop and/or operate (licence, permit or registration). The type/level of EPA permission required is dependent on activity type and production capacity threshold limits set out in Schedule 1- Prescribed permission activities, exemptions, and fees. Concrete batching facilities do not require an EPA permission under the EP Regulations.

Part 5.3 of the EP Regulations – Noise, requires that a prescribed Noise Protocol be used to measure and assess noise and stipulates maximum day and night-time noise limits from premises. (Division 3 - *Unreasonable and aggravated noise from commercial, industrial and trade premises*). The *Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues* (EPA publication 1826) provides a protocol for determining noise limits for new and existing industrial premises. Publication 1826 provides the methodology for assessing effective noise levels to determine unreasonable noise per the EP Regulations.

The Environment Protection Regulations 2021 classify certain industrial and domestic wastes as industrial, priority or reportable priority waste. Industrial, priority or reportable priority waste can only be removed from a site by an approved waste transporter. Concrete batching plants may generate industrial, priority or reportable priority waste (for example, waste oil and alkaline sludges). Operators should confirm the status of specific waste streams and their responsibilities with EPA.

## 4.4. Planning and Environment Act 1987

### Section 55 referrals

EPA has specialist expertise to advise responsible authorities on risks to the environment, amenity and human health. EPA provides this expertise as a referral authority under Section 55 of the *Planning and Environment Act 1987* (P&E Act). Section 55 requires that a responsible authority give a copy of an



application to every person or body that the planning scheme specifies as a referral authority for that kind of application.

Pursuant to Clause 66.02-7 of the VPP, EPA is a determining referral authority where an application to use land for a concrete batching plant does not meet the 300-metre threshold distance as defined in the table to Clause 53.10.

EPA may object to the application; in which case the responsible authority must refuse to grant a permit. Alternatively, where EPA specifies conditions, those conditions must be included in any permit granted.

Further information is available in *Planning Practice Note 54: Referral and Notice Provisions*.

EPA considers the potential environmental risks posed by the proposal and assesses the siting and design of the concrete batching plant to respond to the identified risks as part of its assessment and response.

The referral response is informed by the recommended separation distance of 100 metres between a concrete batching plant (processing greater than 5,000 t/per year) and a sensitive use which is specified in EPA publication 1518 (or as amended). Responsible authorities are encouraged to seek the total production output of the facility, if not included in the application documents.

### Section 52 notifications

For applications where the 300-metre threshold distance has been met, a responsible authority may still give notice of the application to EPA under section 52(1)(c) of the P&E Act, for advice on controlling the risks to the environment, amenity and human health. The responsible authority should specifically and clearly outline why notice is being given.

When writing to EPA, it should be specified whether notice is being given under Section 52 or if being referred under Section 55 of the P&E Act.

EPA may object to an application that it has been notified of; however, the responsible authority may choose to grant a permit.

### 4.5. EPA response time

EPA is committed to providing an initial response to both Section 55 referrals and Section 52 notifications within 28 days. Councils may request a faster response time, which will be considered based on the individual merits of the application.

## Application requirements – what information can a responsible authority request?

EPA referral responses may include advice targeting control measures outlined in EPA guidance (with particular regard to EPA publication 1806), and when appropriate, clear and enforceable planning permit conditions that effectively manage risks of harm.

Applications for concrete batching facilities should at minimum consider the likely environmental and human health effects on the locality and surrounding land uses, including expected:

- Noise levels

- Air-borne emissions (including dust)
- Emissions to land or water

In determining the suitability of a site for development and use of a concrete batching plant, the responsible authority may consider requesting the following supporting documentation prepared by a suitably qualified environmental professional. Supporting documentation can assist in the assessment of a planning application, or form the basis for ongoing management of risks to the environment or human health as part of the proposal.

### 5.1. Supporting documentation - assessment

Land use planning proposals must not prevent the applicant from achieving compliance with the GED. Where it is unclear whether risks to the environment or human health can be managed appropriately, it is the obligation of the applicant to demonstrate that risks are acceptable. The responsible authority may request additional assessment documentation, this may include plans or documents for endorsement as part of the planning permit approval. For concrete batching facilities, additional assessments should be proportionate to the risk and may commonly include, but are not limited to:

#### Human health risk assessment (HHRA)

- A HHRA is scalable depending upon the risk to human health from the proposal, it should demonstrate that no unacceptable public health risks are likely from the proposal or proposed operations enabled by the planning permit.

#### Acoustic assessment

- An acoustic risk assessment should follow the methodology outlined in the *Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues* (EPA publication 1826) and demonstrates whether noise emitted from the proposal would be determined unreasonable per the Environment Protection Regulations 2021 (r. 118).

#### Nuisance dust assessment

- Nuisance dust assessments provide a risk assessment to determine the overall risk of nuisance dust impact to the receiving environment and locality.

### 5.2. Supporting documentation – ongoing management

In circumstances where the protection of environmental and human health is dependent upon the ongoing management of risks, the responsible authority should consider requesting that an environmental management plan be prepared.

#### Environmental management plan

- An Environmental Management Plan should,
  - o address each of the environmental and human health risks identified with a proposal and document what control measures will be put in place during the development of, and continued operation of the facility.
- Depending on the scale and nature of risks posed by the proposal, the following components be considered for inclusion in an Environmental Management Plan:

- o **Stormwater Management** – reflecting guidance on best practice site management techniques. EPA publication 1806 provides control and performance options for stormwater management.
- o **Dust Management** – reflecting guidance on best practice site management techniques. EPA publication 1806 presents control and performance measures for dust management.

Even if the Clause 53.10 threshold distance is met, the operator will still have ongoing obligations to control source emissions under the EP Act. See page 5 of EPA publication 1518 for further detail.

Each of the above plans/assessments should demonstrate how compliance will be achieved with the relevant legislation and, where appropriate, make recommendations to control and mitigate environmental risks. EPA aims to work with responsible authorities to review the content of supporting plans/assessments and develop recommendations into planning controls for a site.

The type of information provided with a planning permit application should be proportionate to the anticipated environmental and amenity risk of a proposal.

Appendix A includes a checklist for councils and proponents, which will assist in the application assessment process.

## More information

Additional, relevant planning information and guidance includes:

- *Supporting you to comply with the general environmental duty* (EPA publication 1741)
- *Assessing and controlling risk: A guide for business* (EPA Publication 1695)
- *Reducing risk in the premixed concrete industry* (EPA publication 1806)
- *Guide to the Environment Reference Standard* (EPA Publication 1992)
- *Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues* (EPA publication 1826)
- *Recommended separation distances for industrial residual air emissions* (EPA publication 1518)
- *Urban stormwater management guidance* (EPA publication 1739.1)
- *Best Practice Environmental Management Guidelines, 1999*

More information about planning schemes and the planning permit application process is available online: [planning.vic.gov.au](http://planning.vic.gov.au)

## Appendix A – Concrete batching plant application checklist

<b>APPLICATION #:</b>	
<b>Details of development</b>	
Volume of concrete produced (i.e., > 5000 t/yr.).	
Distance to sensitive receptors.	
Required separation distance as per EPA publication 1518 (or as amended).	
Threshold as per clause 53.10.	

**Concrete batching plants do not require an EPA permission. However, any proposal that does not meet the threshold distances at Clause 53.10 of the VPP's must be referred to EPA in accordance with Clause 66.02-7.**

Details of risks	Potential impacts	Control measures
Dust from cement and, sand and aggregates.	Impact on neighbouring properties.	
Contamination, stormwater, wastewater, leachate, groundwater.	Impact on the land and waterways.	
Noise (e.g., from mobile or fixed machinery, or transport).	Impact on neighbouring properties.	
Other – please list.		

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Authorised and published by the Victorian Government, 1 Treasury Place, Melbourne