# Cumulative Impact Assessment Guidelines for State Significant Projects

NSW GOVERNMENT

October 2022

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Title: Cumulative Impact Assessment Guidelines for State Significant Projects

First published: July 2021

**Acknowledgements**

Cover image: Basin for anionic polymerisation at Prospect Water Treatment Plant. Prospect, Sydney.



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# Contents

# 1. Introduction

The *Environmental Planning and Assessment Act 1979* (EP&A Act) plays a central role in the NSW Government's statutory framework for managing cumulative impacts across NSW.

Facilitating ecologically sustainable development and promoting the social and economic welfare of the community are key objectives of the EP&A Act, and integral components of strategic planning and development assessment.

This requires the effective integration of environmental, social and economic considerations into decision-making to promote sustainable development in NSW that meets the needs of the present generation without compromising the ability of future generations to meet their own needs.

These obligations apply both to setting the strategic planning framework for development and to assessing the merits of individual development proposals within that framework.

Environmental impact assessment (EIA) is a method of identifying, predicting, evaluating and mitigating the environmental, social, economic and other impacts of development proposals. Assessment can also be undertaken at the strategic-level by examining the effects of multiple activities across larger geographical areas and over longer timeframes.

A key component of strategic assessment and project-level EIA is the consideration of cumulative impacts.

Cumulative impacts are a result of incremental, sustained and combined effects of human action and natural variations over time and can be both positive and negative. They can be caused by the compounding effects of a single project or multiple projects in an area, and by the accumulation of effects from past, current and future activities as they arise.

The assessment of cumulative impacts at the strategic-level and site-specific level (or project-level) is termed cumulative impact assessment (CIA).

## 1.1 Strategic-level CIA

The NSW Government has a comprehensive framework in place for assessing and managing cumulative impacts at the strategic-level. The framework includes a range of government legislation, strategies, plans, policies and guidelines (see examples at Appendix A) that have been developed over time to anticipate and respond to environmental, social and economic changes.

Strategic-level CIA supports planning and development decisions at regional and local scales and is inter-related with project-level CIA. Actions at the strategic-level can affect actions at the project-level; and actions at the project-level can inform changes at the strategic-level, particularly if there is a concentration of projects in a particular area (see Dust Stop Program case study overleaf).

The feedback between both strategic-level and project-level CIA is reflective of the complex nature of cumulative impacts and is essential to ensuring the effective management of cumulative impacts across NSW.

Further, the effective assessment and management of cumulative impacts is critical to protecting the things that matter to the community in NSW and ensuring ecologically sustainable development.

## Case study

**NSW Environment Protection Authority (EPA) Dust Stop Program**

Clustering of particular industries or activities in one area over time can lead to a concentration of certain impacts affecting nearby communities and the environment and may require a regional or strategic response by government to best manage those impacts.

For example, the EPA operates the Dust Stop Program to assist in managing air quality impacts from coal mines. The program requires mine operators to assess and report on suitable measures to control dust, and to manage mining activities using best practice measures to reduce dust levels.

The Dust Stop Program has been reported to have reduced dust emissions by 22,000 tonnes a year, or 19%, and efforts to further reduce dust are continuing. The management practices developed through the program are now part of standard operations for each mine.

For further information on regional and industry-wide initiatives to tackle dust impacts visit https://www.epa.nsw.gov.au/your-environment/air/regional-air-quality/tackling-coal-mine-dust

# 1.2 Project-level CIA

These guidelines aim to strengthen project-level CIA in the assessment of State significant projects[1] in NSW. Better information on cumulative impacts will encourage improved project design to reduce impacts, support informed and appropriate decision-making, and achieve better on-ground planning outcomes.

Standard EIA practice considers the impact of a proposed project on the existing environment, including past changes to the environment and the combined effects of other developments currently in operation.

Project-level CIA builds on the findings of EIA to consider impacts from a proposed project in combination with other future projects that are anticipated or reasonably foreseeable. CIA is therefore the assessment of environmental, social, economic and other impacts which result from a project when added to other past, present and reasonably foreseeable future projects.

State significant projects require approval under the EP&A Act from either the Independent Planning Commission or the Minister (or delegate) before they may proceed.

Prior to determination they are subject to comprehensive assessment and extensive community engagement. The Department co-ordinates this whole-of-government assessment, which includes evaluating the project against all relevant government legislation, plans, policies and guidelines.

Following assessment, State significant projects are determined on their merits, having regard to the environmental, social and economic impacts of the project and the principles of ecologically sustainable development.

1 State significant projects include State significant development (SSD) projects that require development consent under division 4.7 of the EP&A Act (see the Department's State Significant Development Guidelines) and State significant infrastructure (SSI) projects that require infrastructure approval under division 5.2 of the EP&A Act (see the Department's State Significant Infrastructure Guidelines).

This includes consideration of the specific impacts of the project on the existing condition of the environment in the area of the project (referred to as the baseline condition) as well as assessing the impacts of the project combined with the impacts of other relevant future projects (see section 3.4 below).

Information on the baseline condition of the environment is established through data gathering, surveys, site inspections and stakeholder engagement. The assessment considers the changes to the baseline condition as a result of the project and how those changes compare to relevant assessment criteria set out in government policies, legislation and guidance. Assessment criteria are developed over time in response to changing environmental conditions, new scientific evidence and community expectations. For example, see NEPM case study opposite.

Establishing the baseline condition allows the assessment to fully consider existing environmental conditions (including social and economic conditions), taking into account the current and ongoing impacts associated with past and currently operating projects.

Project-level CIA then builds upon the baseline information to factor in the potential impacts of the proposed project, along with other future projects and their potential for compounding those impacts.

Project-level CIA can inform decision-making on the merits of the project and assist in setting conditions of approval if the project is approved.

For setting conditions, the proponent[2] may be required to implement mitigation measures to minimise the project's contribution to any cumulative impacts. They may also require the proponent to work with government, the proponents of other relevant projects, and the community to minimise cumulative impacts at the strategic-level (e.g. joint monitoring, data sharing, undertaking research, combined actions). For example, see Botany Industrial Park case study overleaf.

## Case study

### National Environment Protection Mechanism (NEPM) for Ambient Air Quality

The National Environment Protection Council (NEPC) makes National Environment Protection Measures (NEPMs) and assesses and reports on the implementation and effectiveness of NEPMs in participating jurisdictions.

NEPMs are a special set of national objectives designed to assist in protecting or managing particular aspects of the environment, such as ambient air qualityw.

The Ambient Air Quality NEPM establishes national ambient air quality standards and a national framework for the monitoring and reporting of six common air pollutants. The NEPM is reviewed and updated from time to time taking into account new evidence about the health effects of these air pollutants, which may lead to revised air quality standards.

Between 2012 and 2015 the NSW EPA led a review of the Ambient Air Quality NEPM leading to the adoption of the most stringent national standards for fine particles in the world (https://www.epa.nsw.gov.au/your-environment/air/air-nsw-overview/managing-air-quality). These standards are adopted as impact assessment criteria in relevant State legislation and must be used in the assessment of projects including State significant projects, providing a strategic approach to the management of cumulative impacts across the State.

2 The word proponent in these guidelines refers to the proponent of an SSI project and the applicant of an SSD project.

## Case study

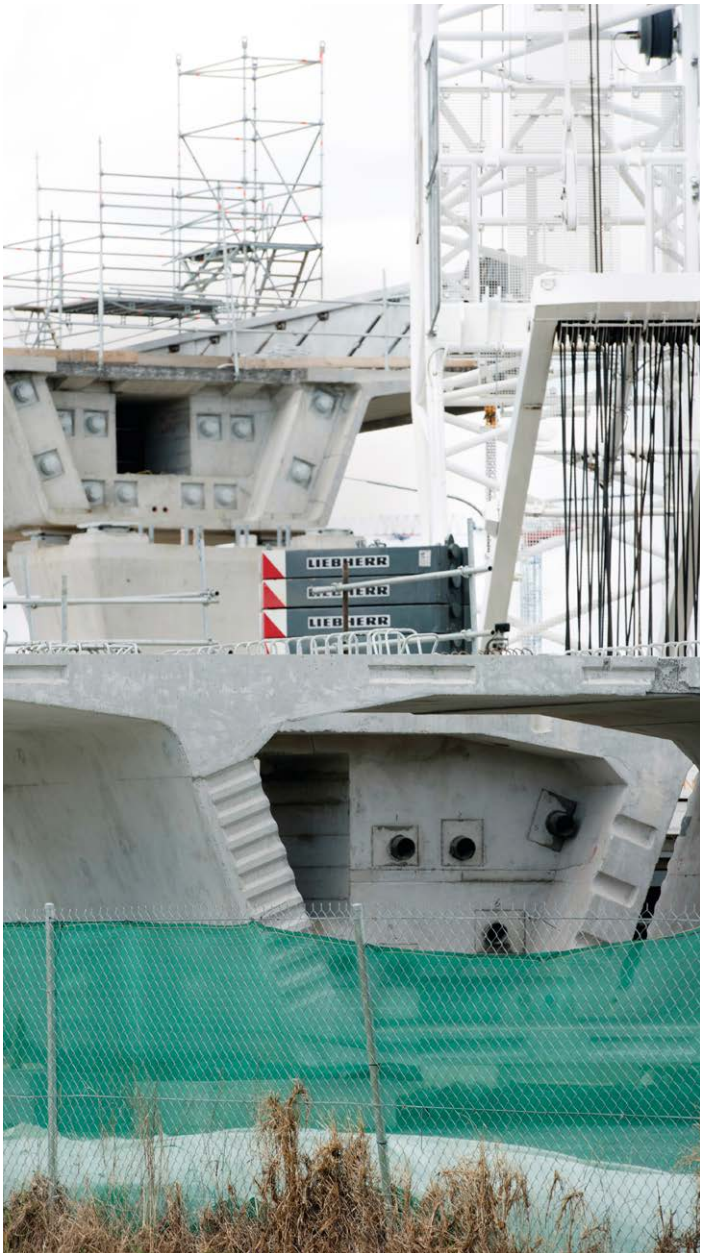
### Botany Industrial Park Quantitative Risk Assessment

The Botany Industrial Park (BIP) is a 73ha integrated petrochemical and chemical manufacturing complex located at Banksmeadow, in south-east Sydney. Major industrial uses have been operating at the site since the 1940s. Four companies currently operate within the site. A residential area sits immediately to the east of the BIP, while industrial and commercial land uses surround the remainder of the site.

In 1998, the site was subdivided which allowed three companies to run separate operations. As part of the approval conditions for the subdivision, the NSW Government required the companies on site to work together to assess the potential cumulative risks of the entire site to the surrounding area.

Over the years, the companies have produced a cumulative impact assessment report known as a quantitative risk assessment (QRA). The QRA looks at the potential impacts of major hazard incidents at the site, such as gas leaks, fires or explosions.

The Department, Council and the BIP operators continue to work together to ensure appropriate controls are developed in a timely and co-ordinated manner to manage risks.




A secondary purpose of CIA is to inform government decision-making at the strategic-level and to strengthen decisions on what actions can be taken to avoid or minimise any adverse cumulative impacts from occurring in the wider area and over the long term.

# 1.3 Application and purpose of these guidelines

These guidelines form part of the relevant government plans, policies and guidelines that are to be taken into consideration during the assessment of State significant projects.

It is also referenced in the Department's State Significant Development Guidelines and State Significant Infrastructure Guidelines in relation to preparing environmental impact statements (EISs).

The purpose of these guidelines is to set clear expectations and requirements for assessing project-level cumulative impacts related to State significant projects. As many cumulative impact matters are addressed through strategic planning, assessment and management, project-level CIA can be tailored to focus on the impacts that may arise due to the interactions between the project and relevant future projects in the same area and over similar timeframes.

Project-level CIA seeks to ensure the assessment:

- integrates decision-making on projects with decision-making on the broader strategic planning framework
- focuses on the things that matter (e.g. key natural and built features, health, wellbeing and social welfare)
- is proportionate to the impacts of the project and any material cumulative impacts that may result in the wider area from the project operating in conjunction with other relevant future projects
- is technically robust and deals effectively with the inevitable uncertainties associated with assessing the cumulative impacts of multiple projects over long periods of time
- leads to practical action to minimise adverse impacts of the project
- informs further action at the strategic-level to reduce adverse cumulative impacts of other development over time.

The guidelines also seek to encourage greater collaboration between the proponent of the project and any other people or groups that are interested in seeking to minimise the cumulative impacts of development in the wider area over time, including government agencies, councils, the proponents of other relevant projects and the community.

By doing this, the guidelines will assist in reducing the inherent uncertainties, costs and delays currently associated with cumulative impact assessment of State significant projects. It will also help to build community confidence in the planning system and encourage ecologically sustainable development in NSW.

# 2. Cumulative impact assessment

## 2.1 Introduction

State significant projects are subject to a comprehensive assessment with extensive community participation under the EP&A Act. This involves evaluating the merits of projects as a whole, having regard to the environmental, social and economic impacts of the project and the principles of ecologically sustainable development.

The assessment considers the changes to the baseline condition as a result of the project and how those changes compare to relevant assessment criteria set out in government policies, legislation and guidance.

Assessment criteria are developed over time in response to changing environmental conditions, new scientific evidence and community expectations.

The approach to assessment also includes assessing the specific impacts of the project in the context of the existing baseline condition, including the impacts of past and present projects, as well as the combined impacts of the project with other relevant future projects.

During this assessment, there are four types of assessment approaches to consider (see Table 1 below).

**Table 1: Types of assessment approaches**

| | Type of assessment | Example |
|---|---|---|
| | Incremental types* | |
| 1 | **Incremental assessment:** this involves adding the incremental impacts of the project to the baseline condition+ of each relevant matter | An increase in traffic on existing traffic levels as a result of the project |
| 2 | **Combined incremental assessment:** this is the combined effect of the different impacts of the project, normally on a sensitive area or receiver | An increase in traffic, dust and noise in an area as a result of the project |
| | **Cumulative types^** | |
| 3 | **Issue-specific CIA:** the cumulative impacts of the project on key matters with other relevant future projects | An increase in traffic on existing traffic levels as a result of the project together with other relevant future projects |
| 4 | **Combined CIA:** the combined effect of the different cumulative impacts of the project on key matters, sensitive receptors or important features with other relevant future projects | An increase in traffic, dust and noise in an area as a result of the project with other relevant future projects |

* Incremental assessment (including combined incremental) is incorporated into all standard project-level EIA.

+ Baseline condition includes the existing impacts caused by past projects/actions and currently operating projects/actions within the area of the proposed project.

^ Cumulative types of assessment (issue-specific and combined CIA) are effective where there is potential for material cumulative impacts with other relevant future projects.

## 1. Incremental assessment

While different terminology is used, the incremental assessment approach involves adding the incremental impacts of the proposed project to the existing baseline condition of each relevant assessment matter (e.g. air quality, noise, water, biodiversity, heritage, traffic, employment). This allows the existing impacts of other projects to be considered in the assessment of the project and highlights the likely change to the baseline condition of each matter as a result of the project.

The incremental assessment approach is standard practice for the assessment of all State significant projects, and the approach reflected in most government plans, policies and guidelines governing the assessment of these matters (see https://www.planningportal.nsw.gov.au/major-projects/assessment/policies-and-guidelines).

## 2. Combined incremental assessment

The combined incremental assessment approach involves considering the combined effect of the different impacts of the project on an area or sensitive receiver. For example, the combined effect of dust, noise, visual and social impacts of the project on people or communities living close to the site. This involves integrating the findings of the detailed assessment of each matter in the EIS and determining whether the combined effect of these different impacts will be acceptable.

This is commonly done in a qualitative way during the evaluation of the project as a whole and summarised in the final section of the main report of the EIS.

## 3. Issue-specific CIA

The issue-specific CIA approach involves considering the impacts of the project together with the impacts of other relevant future projects on specific issues (key matters) within an identified area (e.g. the regional airshed, water sources, ambient noise levels in certain locations, threatened species and communities, regional housing availability and affordability).

This approach seeks to extend the standard assessment of the impacts of a given project (see the first two approaches explained above) beyond the existing baseline condition of each relevant matter. It incorporates the additional impacts that may occur over time as a result of changes to existing projects (e.g. closures and expansions, increases or decreases to the intensity of operations) or the commencement of new projects.

This type of assessment is often more complex than incremental assessment approaches due to the uncertain nature of future projects, limitations on data availability and technical challenges with adding impact data from one project to another.

It can also involve matters that are beyond the control of the proponent and there may be greater uncertainties in predicting any cumulative impacts (e.g. obtaining sufficient information and data about other projects and developing realistic scenarios about the likely sequencing of future projects).

Consequently, it is likely to require a combination of quantitative assessment (where there is sufficient information available) and qualitative assessment (where there is insufficient information available).

As issue-specific CIA assumes that the impacts of other relevant future projects (see Section 3.4) will materialise in the environment, it may be appropriate to undertake robust sensitivity testing of the assumptions used in any predictions to address key uncertainties and consider the implications of potentially over or under-estimating the cumulative impacts of the project combined with other relevant future projects. This may include consideration of future projects that are approved but have not yet proceeded or are unlikely to proceed, for example, due to changed economic conditions.

## 4. Combined CIA

The combined CIA approach involves considering the combined effect of the different cumulative impacts of the project with other relevant future projects on key matters in an identified area. This may involve integrating the findings of issue-specific CIA on each relevant matter or extending the combined incremental assessment approach to include the additional impacts of other relevant future projects.

Given the complexity involved in combining the impacts of different matters, this can generally only be done in a qualitative way. The results of combined CIA can be considered in the evaluation of the project as a whole and summarised in the final section of the main report of the EIS.

## 5. Focus on issue-specific CIA and combined CIA

For State significant projects, the first two assessment approaches (incremental assessment and combined incremental assessment) are incorporated into standard EIA practice.

These guidelines however are focused on and provides additional information for the other two types of assessment approaches – issue-specific CIA and combined CIA. These approaches are also incorporated into EIA practice for State significant projects, in particular where there is potential for material cumulative impacts as a result of other relevant future projects.

## 2.2 Integrated assessment

Cumulative impact assessment (including issue-specific CIA and combined CIA) plays an important role in the assessment of State significant projects where there is potential for material cumulative impacts with other relevant future projects.

The cumulative impact assessment of State significant projects should be integrated with the standard assessment of these projects under the EP&A Act (see the Department's State Significant Development Guidelines and State Significant Infrastructure Guidelines[3]). The results of the cumulative impact assessment are to be included in the main report of the EIS (e.g. sections on Assessment of Impacts and Justification of the Project), as well as in any relevant technical reports.

There are six key steps in this cumulative impact assessment (see Figure 1).

The proponent must first scope the cumulative impact assessment and provide justification for why certain matters are included and excluded from the assessment. This is often undertaken as part of a proponent's application for environmental assessment requirements (known as SEARs) and outlined in a scoping report.

The scoping exercise should include identifying key matters that will be subject to issue-specific CIA and combined CIA. The scoping stage will also involve determining the approach to assessing cumulative impacts of each of the identified key matters.

Where industry-specific SEARs[4] apply to a project (and therefore a scoping report has not been prepared), the EIS should outline the need for and scoping of the cumulative impact assessment, having regard to the guidance provided in Section 3.

Once the SEARs have been issued, the proponent will prepare the EIS for the project and undertake the cumulative impact assessment in accordance with the SEARs and these guidelines. This will involve:

- assessing the scale and nature of the cumulative impacts of the project and other relevant future projects on each of the key matters
- developing a strategy to minimise the impacts of the project on these matters
- evaluating the project as a whole, having regard to:
  - the findings of the detailed cumulative impact assessment on each of the key matters (issue-specific CIA); and
  - the combined effect of these cumulative impacts on features of the identified area (such as a nearby population centre and/or important natural or built features) (combined CIA).

Once completed, the Department will exhibit the EIS for at least 28 days. This will give the community the opportunity to consider the EIS and make submissions on the project.

Following the Department's detailed assessment of the project, including consideration of the potential cumulative impacts of the project , the decision-maker will evaluate the merits of the project as a whole, having regard to the environmental, social and economic impacts of the project and the principles of ecologically sustainable development.

This will include considering the strategic implications of allowing the project to proceed and the impacts it may have on the identified area with any other relevant future projects.

If the project has merit, the decision-maker will set the conditions of approval for the project.

These conditions will require the proponent to implement mitigation measures to minimise the impacts of the project. They may also require the proponent to participate in other strategic action being taken in the identified area to reduce cumulative impacts.

Following approval, the proponent will need to carry out the project in accordance with the conditions of approval.

The government will also consider how the findings of the cumulative impact assessment can be integrated into broader strategic planning and decision-making in the wider area. This may include:

- assessing and evaluating the merits of other relevant future projects; and
- deciding if strategic action can be taken to reduce cumulative impacts to an acceptable level.

3 The EP&A Regulation requires certain SSD and SSI documents (such as EISs) to have been prepared having regard to the State Significant Development Guidelines or State Significant Infrastructure Guidelines.

4 If an SSD project is wholly permissible on the site, would not meet the criteria for designated development (if it was not SSD), and is not a concept DA, then it will be eligible for 'Industry-specific SEARs' and a scoping report will not be required to inform the preparation of the SEARs.

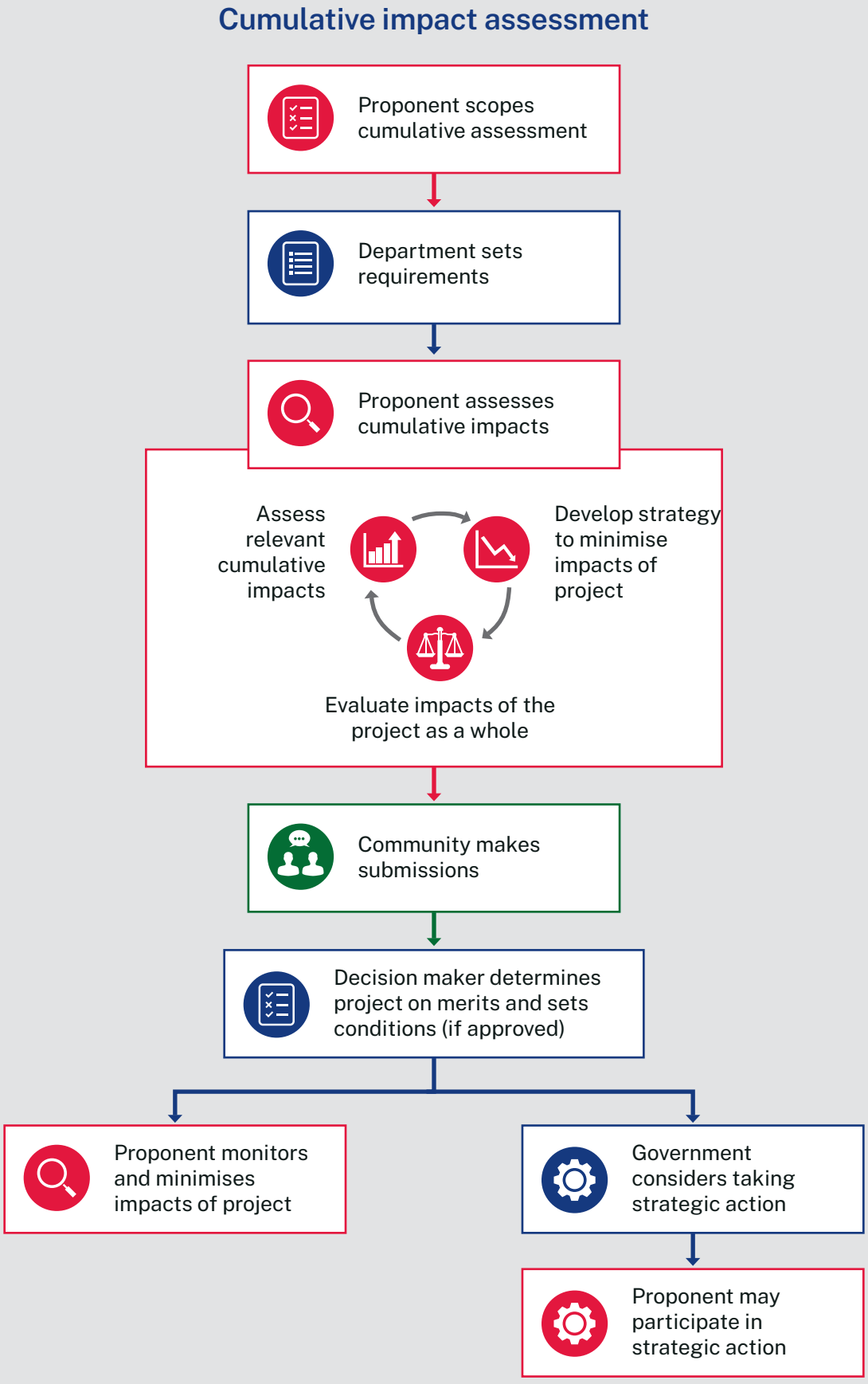



**Figure 1: Key steps in cumulative impact assessment**

## 2.3 CIA is to be proportionate

The cumulative impact assessment undertaken for a particular State significant project is to be proportionate to the scale and potential significance of the cumulative impacts of the project combined with the impacts of other relevant future projects.

This assessment is to focus on the key matters that could be materially affected by the cumulative impacts of the project and other relevant future projects – not on every conceivable cumulative impact on every matter.

A matter may be considered a key matter because of the potential for a project to impact on features of the economy, environment or society that are valued because of their rarity or importance, including the critical role they play in supporting systems which are essential for people, the environment and the economy. Examples include National Parks, World Heritage Sites, population centres, strategic agricultural land, air sheds and industry or employment clusters.

This assessment need only focus on the key matters that are within the immediate geographical area of influence of the project (i.e. within proximity to the project site) and within the relevant strategic context. It is not practical or reasonable to require proponents to assess cumulative impacts for all matters or across large areas. The cumulative impacts of development at broader scales are more effectively assessed and managed at the strategic-level (see section 1.1 and Appendix A).

The assessment should also be future-orientated and focus on the difference between the expected future condition of a key matter or feature with and without the project under consideration.

It is critical to strike the right balance between pragmatism (or what is practical and reasonable) and precaution, and to remember that the cumulative impact assessment is not an end in itself: its primary purpose is to inform decision-making on the project and to ensure that the implications of approving the project are properly understood.

## 2.4 Collaboration

Managing cumulative impacts is a shared responsibility and requires collaboration between government, industry and the community.

In undertaking the cumulative impact assessment, the proponent will need to engage with the Department, other government agencies, councils, the proponents of other projects and the community.

This engagement may involve:

- identifying the key matters requiring cumulative impact assessment
- collecting and sharing data
- undertaking investigations and research
- using common methods to predict impacts
- agreeing on the assumptions to use in any assessment
- collaborating on the analysis of results
- identifying what actions can be taken to minimise cumulative impacts.

The Department's e-planning program including the spatial viewer and major projects website are a valuable resource to identify information about projects and planning and environmental matters that may be useful in undertaking the cumulative impact assessment.

# 3. Scoping the assessment

Not every State significant project requires issue-specific CIA or combined CIA to be undertaken. In some cases, standard EIA will be sufficient (e.g. when the project is located in an area with no other relevant future projects).

In other cases, the impacts on important areas, features and aspects of the environment (what is termed here as key matters) may not be material or worth considering in any detail (e.g. when the expected impacts will be negligible or when the receiving environment is not particularly sensitive).

Consequently, the process of *scoping* plays an important part in any cumulative impact assessment.

As outlined in section 2.2, proponents must scope the cumulative impact assessment and document the findings. Proponents are to address six key questions about the potential cumulative impacts of the project with other relevant future projects (see Figure 2) and provide the answers in the relevant scoping document[5].

The scoping document should identify the general assessment matters or issues that will be subject to standard assessment, and the key matters that may require more detailed issue-specific CIA and combined CIA, in particular where there may be material impacts. The scoping process will also assist in determining the approach to assessing cumulative impacts of each of the identified key matters.

The need for more detailed cumulative impact assessment will depend on the situation in each case, such as the nature and scale of the proposed development and other relevant future projects, and the sensitivity of the surrounding environment to the compounding effects of other development.

For further guidance on undertaking scoping for State significant projects see the Department's State Significant Development Guidelines and State Significant Infrastructure Guidelines – Preparing a Scoping Report.

## 3.1 What to assess?

To determine the assessment matters or issues requiring cumulative impact assessment in the EIS, the proponent is to undertake a review of:

- the government's strategic planning framework for the area, having regard to any relevant legislation, plans, policies or guidelines
- the project and other potentially relevant future projects (see section 3.4 below) that may be developed over the same time period or similar timeframes as the project
- potential material impacts on features including National Parks and other protected areas, environmentally sensitive areas, threatened species and ecological communities, important natural resources, culturally significant resources, key infrastructure and industries, sensitive land use zones, population centres, settlements and residential areas (key matters)
- the likely scale and nature of the cumulative impacts of these projects.

This review will be iterative and require judgement based on expert advice, past experience and the information available at the scoping stage.

The review will also benefit from consultation with the Department, key government agencies, councils, the proponents of other potentially relevant future projects in the identified area and the community.

If the proponent is uncertain about whether a matter requires cumulative impact assessment in the EIS, it is to adopt a cautious approach and identify the matter for further assessment. This will ensure the potential cumulative impacts on this matter are investigated further during the preparation of the EIS, even though these investigations may ultimately determine that the cumulative impacts on the matter will not be material.

5 *Scoping document* refers to the scoping report that is submitted with an application for SEARs or, in the case of projects that receive Industry-specific SEARs, the EIS for the project.

The Department's State Significant Development Guidelines and State Significant Infrastructure Guidelines provide advice on the categories of assessment matters that should be considered when assessing the impacts of a project (see Appendix B "Categories of assessment matters" in the State Significant Development Guidelines and State Significant Infrastructure Guidelines –Preparing a Scoping Report). The proponent should use these categories to scope the assessment of the impacts of the project.

Following the review, the proponent must identify the key matters requiring detailed cumulative impact assessment for the project and document the reasons for selecting these matters in the scoping document.

Note: A standard assessment will be undertaken on the identified assessment matters or issues. More detailed assessment of cumulative impacts (issue-specific CIA and combined CIA) will be required for matters identified as key matters during scoping (see section 4.1).

## 3.2 What study area?

The study area selected for the cumulative impact assessment of each matter will vary depending on the specific characteristics of the assessment matter and the scale and nature of the potential impacts on the matter resulting from the project with other relevant future projects.

For example, the study area selected for the cumulative impact assessment on biodiversity may be based on the range and distribution of the listed threatened species within the relevant bioregion and only focus on those species that are at risk of serious or irreversible harm[6] due to the cumulative impacts of the project with other relevant future projects.

As another example, the study area selected for the cumulative impact assessment on ambient noise levels may only include the specific locations where the noise impacts of the project may overlap with the noise impacts of other relevant future projects and result in material noise impacts on certain sensitive receivers[7].

While the study area chosen for each matter must be broad enough to capture all relevant cumulative impacts, it should not be unnecessarily large or include areas where the cumulative impacts are likely to be negligible relative to the baseline condition of the relevant matter.

This will improve the focus of the cumulative impact assessment and reduce the complexity of the assessment. It will also help to inform decision-making on the project.

Once the proponent has selected the study area for each matter requiring cumulative assessment in the EIS, it must clearly define the study area in the scoping document for the project and explain why the boundaries were selected.

During the preparation of the EIS, the proponent may need to adjust the boundaries of the study area to accommodate the findings of any further investigations or assessment. If this occurs, the proponent must explain the reasons why the boundaries were adjusted in the EIS.

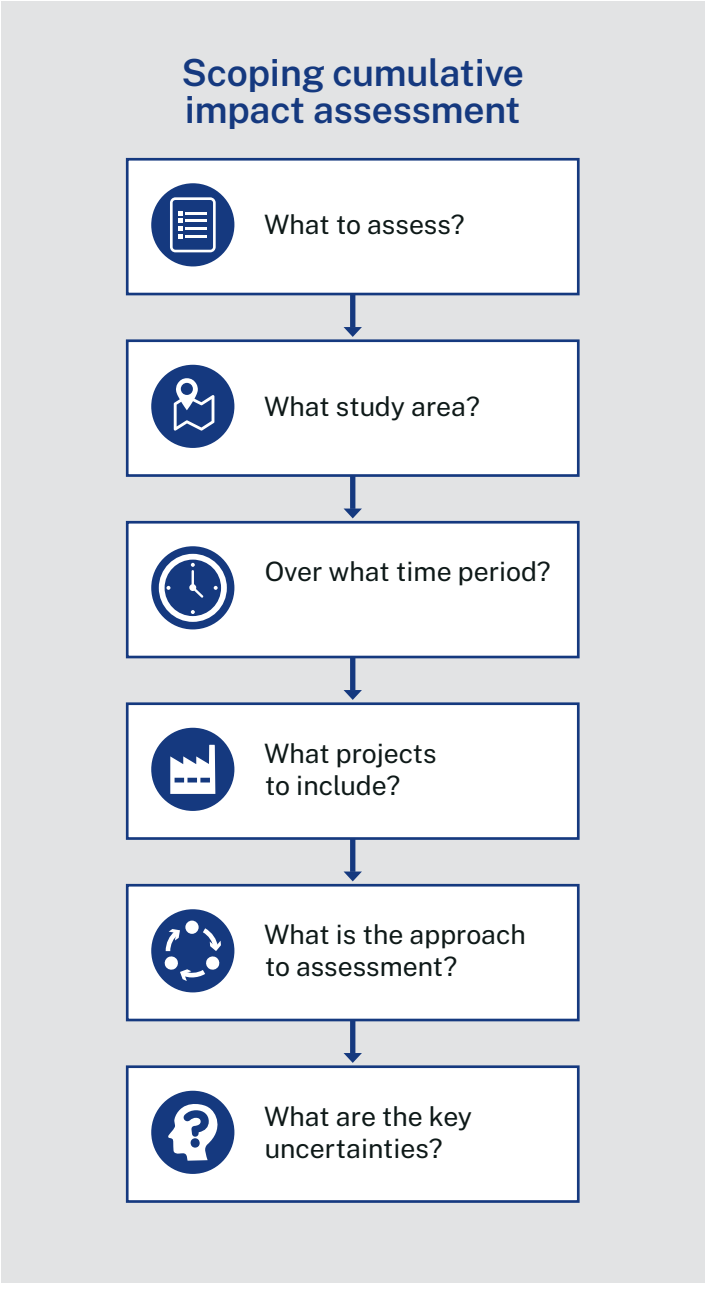



**Figure 2: Key questions to answer in scoping the cumulative impact assessment**

6 See section 7.16 of the Biodiversity Conservation Act 2016, the Biodiversity Assessment Method and associated Guidance to assist a decision-maker determine a serious and irreversible impact.

7 See the NSW Noise Policy for Industry 2017.

## 3.3 Over what time period?

Like the study area, the time period selected for the cumulative impact assessment on each matter will vary depending on the characteristics of the matter and the scale and nature of the potential impacts on the matter.

In most cases, the period selected is likely to match the life of the project (e.g. 25 years). However, in some cases the period selected may be much shorter than this and cover a single phase of the project (e.g. traffic impacts on the local and regional road network during construction), or much longer periods extending hundreds of years beyond the life of the project reflecting the life of the impact (e.g. the recovery of ground water levels in a water source following extensive mining).

The proponent must clearly document the proposed time period selected for the cumulative impact assessment of each relevant matter in the scoping document. Where relevant, the proposed time period may be amended or clarified by the SEARs.

## 3.4 What other projects to include?

As outlined in section 2.1 above, the effects of past developments and actions, as well as currently operating projects are captured in the baseline environmental studies that inform standard EIA (including incremental and combined incremental assessment).

The focus of issue-specific CIA and combined CIA is to further build on these assessments by considering the cumulative impacts of the proposed project on key matters when other future proposed projects are included in the assessment.

Table 2 provides an indication of what other future projects should be considered in the cumulative impact assessment of each matter in the EIS (referred to as 'relevant future projects').

**Table 2: Relevant future projects for cumulative impact assessment**

| Projects | Definition | Example |
|---|---|---|
| **Relevant future projects** | Changes to existing projects | • The approval for the project is due to run out and the operations are likely to cease<br>• The proponent of the project has announced the operation will close<br>• The intensity of the project's operations may change over time (e.g. the project is currently operating below its approved capacity, the project is currently under construction and will only start operating in two years)<br>• The proponent has announced it will seek approval for a major expansion of the project. |
| | Approved projects | • The project has been approved under the EP&A Act but has not started yet. |
| | Projects under assessment | • The application for the project has been exhibited and is currently under assessment. |
| | Related development to the project | • Development that is required for the project but will be subject to a separate assessment (e.g. upgrades to ancillary infrastructure, provision of electricity to the project). |

To ensure the assessment focusses on the key matters that could be materially affected by the cumulative impacts of the project and other relevant future projects, only the following types of development need to be identified for inclusion as 'relevant future projects':

- other State significant development (SSD) and State significant infrastructure (SSI) projects
- projects that are classified as designated development[8] and require an EIS
- projects that require assessment under division 5.1 of the EP&A Act that are likely to significantly affect the environment and require an EIS
- projects that have been declared to be controlled actions under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
- any major greenfield and urban renewal developments that are scheduled for the area (e.g. new areas zoned for urban development).

These types of projects are generally large in scale and would be of relevance in terms of potentially contributing to or compounding material impacts in the project area. They are also generally publicly notified and should therefore be known or reasonably foreseeable.

Where a relevant future project is a staged application, the assessment should consider the cumulative impacts of each stage.

Where a relevant future project includes a change to an existing project (e.g. proposed expansion) that is subject to an environmental protection licence (EPL), this should be identified to assist government in the ongoing monitoring and review of surrounding development.

The proponent must document the relevant future projects for each matter requiring cumulative impact assessment in the scoping document and explain why these projects were selected. The report should also explain why other reasonably foreseeable projects have not been included in the assessment.

In some instances, relevant future projects may not need to be included in the CIA. For example, where the proponent of an approved project has made a public statement that the project is no longer proceeding. The proposed approach to assessment in these instances should be outlined in the scoping document.

A CIA scoping summary table (see the example in Appendix B) should also be included in the documentation where an issue-specific CIA is proposed or has been undertaken.

In addition to identifying 'relevant future projects' (as per Table 2), proponents should also keep track of any emerging development proposals that may become a 'relevant future project' during the process of preparing the EIS. This includes:

- projects that have received SEARs but have not yet been submitted for assessment
- projects undergoing pre-SEARs consultation with the Department
- projects where there is market interest and the project has been publicly announced, but no formal application steps have been taken
- projects identified in a government plan or strategy (e.g. project identified in the State Infrastructure Strategy).

If these emerging development proposals become a 'relevant future project' (as outlined in Table 2) during the preparation of the EIS, the proponent is to update the CIA in the EIS to incorporate the additional future project. If this change occurs shortly before the proponent is ready to submit the EIS to the Department or following the exhibition of the EIS, the Department will determine whether the CIA in the EIS should be updated prior to the determination of the project.

For example, if the EISs for a number of State significant projects in close proximity to each other are submitted to the Department around the same time, and these projects all progress from being emerging development proposals to 'relevant future projects', the Department may require the proponents of these projects to take into consideration the impacts of the other proposed projects, and may request those proponents to work together to prepare a joint assessment of the potential cumulative impacts.

8 Development may be declared designated development by an environmental planning instrument or the EP&A Regulation. For examples of designated development see section 2.7 of the Resilience and Hazards SEPP, sections 5.28 and 5.40 of the Precincts — Central River City SEPP, and Division 3 of Part 2.5 of the Primary Production SEPP. and Schedule 3 of the EP&A Regulation. For development being declared designated development by the EP& A Regulation, see schedule 3.

## 3.5 What is the proposed approach to assessment?

For each of the matters requiring cumulative impact assessment in the EIS, the proponent must identify the proposed approach to assessing the cumulative impacts on the matter having regard to the following key factors:

- data, including:
  - the availability of relevant data for other relevant future projects
  - the quality of the available data
  - whether further investigations or research are required to secure additional data
  - any key constraints to securing additional data (e.g. data may be commercial in confidence; other proponents may be unwilling to share data that is not publicly available)
- the ability to avoid or mitigate the impacts of the project on the key matter, including:
  - using alternative project designs
  - using tested mitigation measures
  - investigating the potential use of untested mitigation measures
  - investigating the scope for adaptive management
- the ability to predict the cumulative impacts, and the limitations of any proposed methods, having regard to approved assessment methods for relevant matters (e.g. the Approved Methods in relation to Air Quality, Noise Policy for Industry, and the Biodiversity Assessment Method)
- key assumptions that will be used in the assessment:
  - identifying realistic development scenarios with the relevant future projects over the time period
  - identifying what external factors to include in the assessment (e.g. weather patterns, climate change)
  - identifying what sensitivity testing will be undertaken
- any relevant criteria that will be used to evaluate the acceptability of the cumulative impacts.

The proponent must also ensure the proposed approach to the cumulative impact assessment of each matter is proportionate to the scale and nature of the potential cumulative impacts on the matter and is fit-for-purpose.

For example, if the cumulative impacts of the project and several other relevant future projects are likely to result in significant impacts on a particular threatened species (for example, impact that are likely to result in serious and irreversible harm) and trigger the precautionary principle, then the cumulative impact assessment will need to be comprehensive.

However, if the cumulative impacts of the project with one other project are only likely to result in significant traffic impacts on a local road for a short period during the construction of both projects, then the cumulative impact assessment should be targeted and only focus on addressing the significant impacts.

When there is clear government guidance on how to undertake the cumulative impact assessment on a relevant matter, the proponent must rely on the relevant government legislation, plans, policies and guidelines. Nothing in these guidelines removes the requirement to undertake impact assessments in accordance with approved methods and guidelines, some of which include approaches to cumulative impact assessment (for example, the Approved Methods for the Modelling and Assessment of Air Pollutants in NSW and the Noise Policy for Industry).

Where possible, the proponent should apply quantitative methods to assessing the relevant cumulative impacts. However, when this is not possible qualitative assessment methods may be applied or suitable sensitivity testing may be carried out for the potential cumulative impacts.

For example, if the project combined with several other relevant future projects will have a material impact on water levels in a certain groundwater source over a long period of time, and the take of water from this source is subject to detailed rules under the relevant water sharing plan, then the proponent must explain how these rules will be taken into account in the cumulative impact assessment of these projects on the water source.

## 3.6 What are the key uncertainties?

Given the technical challenges associated with assessing the cumulative impacts of multiple projects on a particular matter, the proponent must document any key uncertainties to undertaking the cumulative impact assessment.

These uncertainties may relate to each of the key factors identified in section 3.5 above, including challenges obtaining information and data about other projects, the certainty, timing and sequencing of other projects and the implications for over or underestimating impacts.

The proponent must also outline the proposed approach to addressing these key uncertainties which may include a high-level assessment of scenarios or use of sensitivity testing.

# 4. Assessing and evaluating cumulative impacts

## 4.1 CIA overview

During the preparation of the EIS, the proponent must undertake the cumulative impact assessment in accordance with the requirements in the SEARs.

This will involve:

- assessing the scale and nature of the cumulative impacts, and undertaking standard assessment on each of the assessment matters or issues
- identifying and undertaking more detailed assessment of cumulative impacts on key matters (issue-specific CIA and combined CIA)
- developing strategies to minimise the project's contribution to any cumulative impacts
- evaluating the project as a whole, having regard to:
  - the findings of the standard assessment on each of the assessment matters or issues
  - the findings of the detailed cumulative impact assessment on each of the key matters (issue-specific CIA)
  - the combined effect of these cumulative impacts on key matters (combined CIA).

In cases when the cumulative impacts of the project with other relevant future projects is likely to be significant, or when the cumulative impact assessment is likely to be complex, the proponent may need to collaborate with the proponents of the other relevant future projects during the preparation of the EIS.

If this is necessary, the proponents of these projects should assist one another as far as is reasonably practicable. Alternatively, the Department may co-ordinate discussions between the parties.

## 4.2 Assessing cumulative impacts

While assessing cumulative impacts, the proponent must identify the scale and nature of the cumulative impacts as well as the project's contribution to these impacts.

This may involve:

- collecting additional data and information, including:
  - commissioning further studies and investigations
  - securing data from the proponents of other relevant future projects
  - the government providing or facilitating the provision of data
  - using data from similar projects as a proxy where there is insufficient data
- investigating mitigation measures for the project, including:
  - refining the project design to reduce impacts
  - adopting reasonable and feasible measures
  - investigating the feasibility of additional mitigation measures
  - investigating the scope to use adaptive management
  - working with the proponents of other relevant future projects to reduce any potentially significant cumulative impacts (e.g. by using staging or adaptive management)
- agreeing on common methods and assumptions for predicting cumulative impacts with the proponents of other relevant future projects
- determining the scale and nature of the cumulative impacts in accordance with any relevant government standards or performance measures; or alternatively, with appropriate standards from other jurisdictions or alternative standards proposed by the proponent.

The proponent must identify any key uncertainties encountered during the cumulative impact assessment in the EIS and explain what action was taken to address these uncertainties.

For further guidance on how to incorporate the detailed findings of the cumulative impact assessment into the EIS, see the Department's State Significant Development Guidelines and State Significant Infrastructure Guidelines – Preparing an Environmental Impact Statement.

## 4.3 Minimising the impacts of the project

The EIS should include mitigation and management measures for minimising the project's contribution to any relevant cumulative impacts on key matters within the identified area.

Measures may include:

- key aspects of the project design aimed at reducing cumulative impacts
- the mitigation measures that will be used to reduce cumulative impacts on key matters including any proposed adaptive management strategies
- any measures to offset the residual impacts of the project where this is appropriate and supported by government policy (e.g. preparing a Voluntary Planning Agreement; providing biodiversity offsets under the Biodiversity Offset Scheme; entering into negotiated agreements with landowners under the Department's Voluntary Land Acquisition and Mitigation Policy)
- key monitoring to be undertaken
- any actions that the proponent will implement in collaboration with government, the proponents of other relevant future projects or the community to support strategic actions within the identified area and to reduce cumulative impacts on key matters (e.g. joint monitoring and data collection, contributing to further investigation and research, staging the implementation of projects, joint management of impacts).

## 4.4 Justifying the project

The proponent must integrate the findings of the cumulative impact assessment into the justification section of the EIS.

The justification section should include an evaluation of the project as a whole, having regard to the environmental, social and economic impacts of the project and the principles of ecologically sustainable development.

In particular, it should consider:

- the findings of the detailed cumulative impact assessment on each of the key matters (issue-specific CIA); and
- the combined effect of these cumulative impacts on key matters (combined CIA).

This evaluation must objectively weigh up the positive and negative cumulative impacts of the project with other relevant future projects on these matters. It must also have regard to any relevant standards and performance measures in government legislation, plans, policies and guidelines.

### Case study

**Wind Energy Cumulative Visual Impact Assessment**

The Department's Visual Assessment Bulletin was developed to guide the appropriate location of wind energy development in NSW and to establish a framework for the assessment of visual impacts associated with wind energy.

The framework includes a methodology for assessing cumulative visual impacts from multiple wind energy developments. This requires the proponent to consider the visual impacts of proposed turbines with any existing or approved turbines within 8km of a viewpoint, with the visual field broken up into 6 sectors of 60 degrees each. The application of the cumulative tool (to a distance of 8km from a dwelling or public viewpoint) is based on visibility research which found turbines and objects recede into the background in terms of visibility at 8km.

The application of this method at the design stage provides an opportunity for alternative design solutions to be considered that do not involve the same level of cumulative impact. Where turbines are located in 3 or more sectors, proponents are required to give detailed consideration to the potential cumulative impacts of multiple turbines.

# 5. Determining the application

## 5.1 Evaluating the merits of the project

When evaluating the merits of the project as a whole, the decision-maker will consider the assessment of cumulative impacts having regard to:

- whether the assessment is proportionate to the scale and potential significance of cumulative impacts
- the proximity of the other future projects considered in the cumulative impact assessment, including their closeness to environmentally sensitive areas, population centres and other sensitive receptors
- whether the approach to the assessment is reasonable considering the significance of impacts, the availability of data and the level of certainty regarding impacts
- proposed approaches to mitigating potential cumulative impacts.

## 5.2 Setting conditions

Where a decision is made to approve a State significant project, the consent or approval will be granted subject to conditions. In setting conditions to address cumulative impacts, the decision-maker is likely to require the proponent to minimise the project's contribution to any cumulative impacts.

This may include:

- setting standards and performance measures for the project
- requiring the proponent to implement mitigation measures
- using adaptive management to adjust the operations on site if monitoring shows the impacts of the project are close to the relevant standards and performance measures
- carrying out regular monitoring and public reporting on performance and compliance.

The decision-maker is also likely to include conditions requiring the proponent to undertake regular community engagement on the project and to investigate any concerns raised by the community.

This may include:

- establishing a Community Consultative Committee for the project in accordance with the Department's Community Consultative Committee Guideline
- appointing community representatives to technical advisory panels – set up under the conditions of approval – to provide advice to the proponent on key management plans to minimise the project's contribution to cumulative impacts on key matters
- setting up an effective complaints-handling system
- maintaining a website for the project and providing regular updates to the community on the performance and compliance of the project.

In cases where there may be significant cumulative impacts on key matters, or where there is likely to be some benefit in managing cumulative impacts collaboratively, the decision-maker may also require the proponent to work with the proponents of other relevant projects in the wider area to minimise cumulative impacts. This may include data sharing, carrying out joint monitoring, funding further investigation and research, undertaking joint community engagement and coordinating management actions.

## Case study

### Conditions requiring collaboration to reduce cumulative impacts

The Wilpinjong Extension Project in the Western Coalfields is located around 5km from the Moolarben Coal Complex to the west, and 11km from Ulan Mine Complex to the north west. At the time of the Wilpinjong Extension Project application, Stage 1 of the Moolarben Coal Complex was operating with Stage 2 under assessment, and the Ulan Mine Complex was in operation.

The Wilpinjong Extension Project was approved in April 2017 subject to conditions, including a number of conditions designed to manage cumulative impacts, including requirements to:

- coordinate shift changes on site with shift changes at the nearby Moolarben and Ulan mines to minimise potential cumulative traffic impacts of shift changes of the three mines;
- coordinate the timing of blasting on site with the timing of blasting at the nearby mines; and
- coordinate noise and air quality management at the site with management at the nearby mines to minimise cumulative impacts.

# 6. Glossary

| Term | Meaning |
|---|---|
| **Assessment matters** | Parameters or elements of the environment that can be assessed to determine the potential effects and impacts of development. Examples include land and water resources, air quality, habitat and biodiversity, noise and odour, traffic and parking, build form and design, hazards and risks, Aboriginal and other historic heritage, social and economic factors. See the Department's State Significant Development Guidelines – Preparing a Scoping Report (Appendix B) "Categories of assessment matters" for a list of categories of assessment matters. |
| **Cumulative impact assessment** | Issue-specific CIA or combined CIA for a State significant project – see section 2.1 of these guidelines. |
| **Decision-maker** | The consent authority for a State significant development application, the approval authority for a State significant infrastructure project application, or the approval authority for a Transitional Part 3A application. This may include the Minister or the Independent Planning Commission. |
| **Department** | Department of Planning and Environment. |
| **Designated development** | Development declared to be designated development by an environmental planning instrument or the EP&A Regulation. In general, it is development that could result in significant environmental impacts. In particular, see schedule 3 of the EP&A Regulation. |
| **Determination** | A final decision on a State significant project under division 4.7 or division 5.2 of the EP&A Act. |
| **Direct impacts** | The direct impacts of a project. They usually occur at the same time as the project and in the vicinity of the site. |
| **Environment protection licence (EPL)** | Environment protection licence issued under the Protection of the Environment Operations Act 1997. |
| **Environmental impact statement (EIS)** | An environmental impact statement prepared by or on behalf of the proponent for a State significant project (see the State Significant Development Guidelines and State Significant Infrastructure Guidelines – Preparing an Environmental Impact Statement). |
| **EP&A Act** | *Environmental Planning and Assessment Act 1979*. |
| **EP&A Regulation** | Environmental Planning and Assessment Regulation 2021. |
| **Indirect impacts** | The impacts that occur as a consequence of the project or the direct impacts of a project. They may be delayed and happen further away from the site. |
| **Key matters** | Aspects or features of the environment, society or economy that are valued because of their importance or rarity, including their role in supporting systems which are essential for people, the environment or the economy. Examples include National Parks and other protected areas, World Heritage Sites, environmentally sensitive areas, threatened species and ecological communities, important natural or built features, matters of significant heritage, population centres, settlements and residential areas, sensitive land use zones, strategic agricultural land, air sheds, industry or employment clusters. |
| **Major projects website** | www.planningportal.nsw.gov.au/major-projects |
| **Minister** | The Minister for Planning. |
| **Mitigation** | Actions or measures to reduce the impacts of a project. |
| **Planning Secretary** | The Secretary of the Department (or his/her delegate). |

| Term | Meaning |
|---|---|
| **Proponent** | The applicant seeking development consent for a State significant development project or to modify an approved State significant development project under Part 4 of the EP&A Act, the proponent seeking approval for a State significant infrastructure project or to modify an approved State significant infrastructure project under Division 5.2 of the EP&A Act, or the proponent seeking to modify an approved concept plan for a Transitional Part 3A project with an approved concept plan under the former section 75W of the EP&A Act. |
| **Relevant future projects** | Projects that may cause cumulative impacts with a project because they impact on the same matters, in the same area over the same or similar time period and meet the criteria in Section 3.4 of these guidelines. |
| **Scoping** | The process of identifying the matters that require detailed assessment in an EIS. |
| **Scoping document** | A scoping report prepared by the proponent to inform the setting of project-specific SEARs for a State significant project (see the State Significant Development Guidelines and State Significant Infrastructure Guidelines – Preparing a Scoping Report).<br><br>For state significant projects that receive industry-specific SEARs (and no scoping report is prepared), the scoping document is a reference to the EIS for the project. |
| **SEARs** | The Planning Secretary's environmental assessment requirements for the preparation of an EIS for a State significant project. |
| **SEPP** | State Environmental Planning Policy. |
| **State significant development (SSD)** | Development that is declared to be State significant development under section 4.36 of the EP&A Act. |
| **State significant infrastructure (SSI)** | Infrastructure that is declared to be State significant infrastructure under section 5.12 of the EP&A Act. |
| **State significant project (project)** | Refers to both State significant development (SSD) and State significant infrastructure (SSI) projects. For the purposes of these guidelines, a reference to SSI includes critical State significant infrastructure (CSSI). |
| **Submission** | A written response from an individual or organisation, which is submitted to the Department during the public exhibition of an EIS, amendment report, preferred infrastructure report or modification report for a State significant project. |

# Appendix A – NSW Strategic Planning Framework

Managing cumulative impacts is a shared responsibility – involving all three levels of government working closely with industry and the community – and is a major factor in all government decision-making.

The NSW Government has a comprehensive framework in place to manage cumulative impacts at the strategic-level. The framework includes a range of government legislation, strategies, plans, policies and guidelines that have been developed over time to anticipate and respond to economic, environmental and social changes (see table overleaf).

The framework includes:

- strategic and land use planning to:
  - direct development to the most suitable places and minimise land use conflicts
  - integrate the provision of infrastructure and services with the development of land (e.g. roads, railways, ports, airports, electricity; water, sewerage and drainage)
  - encourage economic development (urban development, manufacturing and warehouses, primary industry, mining)
- the protection of the environment (e.g. land, water, air, biodiversity) through statutory designations, performance measures and impact assessment criteria
- the protection of important natural and cultural resources (e.g. National Parks, Marine Parks, estuaries, heritage places and items, and threatened species and ecological communities)
- the delivery of infrastructure and industry strategies to support employment generation and economic growth
- sustaining communities and culture to improve peoples' quality of life (e.g. health, education, community services, recreation and open space, arts, diversity)
- protecting people from major hazards and risks (e.g. climate change, bush fire, flooding, mine subsidence, hazardous waste).

Within this framework, there are two kinds of strategic work:

- strategic assessment to identify and assess impacts, including cumulative impacts and how environmental, social and economic conditions change over time
- strategic plans or actions to mitigate and monitor these impacts and encourage continuous improvement in the mitigation of these impacts over time.

This includes:

- taking regulatory action, including to:
  - protect important natural and cultural resources
  - set standards and performance measures to protect the environment (e.g. ambient air quality goals, cumulative trigger noise levels, water quality standards)
  - promote the sustainable use of the State's important natural resources (e.g. water sharing plans, strategic allocation of mineral resources, protecting prime agricultural land and critical industry clusters)
  - control and regulate development and activities across NSW (e.g. land use zoning, development consents, environment protection licences, mining and petroleum production leases)
- holding inquiries and reviews to investigate matters of concern and receive expert advice on how best to address these matters (e.g. Chief Scientist and Engineer's review of coal seam gas development in NSW, independent panel on mining in Sydney's drinking water catchment)
- using market-based incentives and schemes (e.g. water sharing plans, the Hunter Salinity Trading Scheme, load-based licensing, the Biodiversity Offsets Scheme)
- taking direct action, including to:
  - provide infrastructure and services
  - support the community
  - gather information and undertake research
- collaborating with industry and the community.

While the government is consistently managing cumulative impacts across NSW, the specific focus of this management tends to change over time.

Management of cumulative impacts often results in broad-based strategic action by government, working closely with industry and the community. Responses may also be initiated by incremental decisions at the project-level over time and changing community expectations.

**Table 3: Examples of strategic-level planning, mapping, policy and assessment applied in NSW**

| Categories | Examples |
|---|---|
| **Strategic and Land use Planning** | |
| Regional plans<br><br>District plans<br><br>LSPSs<br><br>LEPs<br><br>Precinct plans<br><br>Community strategic plans | **Strategic and land use plans** are intended to facilitate ecologically sustainable development by integrating economic, environmental and social considerations at the strategic-level.<br><br>**Regional plans** identify the basis for strategic planning in a region, and inform district plans, local strategic planning statements (LSPSs) and local environmental plans (LEPs). For example, Greater Sydney Region Plan – A Metropolis of Three Cities aims to deliver housing, jobs, infrastructure and services for a growing and changing population.<br><br>**LEPs** indicate suitable land uses based on local environmental studies. LEP zone objectives provide a further check on project-level suitability and compatibility with surrounding uses.<br><br>**Special Activation Precincts** (SAPs) – Areas in regional locations designed to attract investment and employment through strategic land use and infrastructure planning, with development tailored to suit the environmental, social and economic aspects of each region.<br><br>**Community strategic plans** – Council plans describing the community's vision, priorities and aspirations, addressing social, environmental, economic and civic leadership issues, and giving due consideration to the NSW State Plan and other strategic plans. |
| **Communities and Culture** | |
| Housing<br><br>Cultural heritage<br><br>Aboriginal lands<br><br>Regional economies<br><br>Design & Place<br><br>Recreational & Open space | **Housing strategies** – State and local level strategies to address needs in housing supply, diversity and affordability, to increase access to the right type of housing at the right time.<br><br>**Heritage recognition** – UNESCO World Heritage, Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), NSW Heritage Act 1977 and LEPs provide protection for natural, cultural and built heritage to limit damage to protected items or places.<br><br>**Aboriginal Land Planning Framework** – Planning measures to assist Local Aboriginal Land Councils (LALC) achieve better economic outcomes from their land and strengthen the economic self-determination of Aboriginal communities. Framework includes Development Delivery Plans which set out development objectives and aspirations for LALC owned land (e.g. Interim Darkinjung Development Delivery Plan).<br><br>**Connecting with Country** framework to inform planning, design and delivery of built environment projects and incorporating Aboriginal cultural elements in future planning decisions.<br><br>**20 Year Economic Vision for Regional NSW** – Strategies to support sustainable, thriving regional communities and to take advantage of future opportunities for growth. |
| **Communities and Culture (continued)** | |
| | **Better Placed – An integrated design policy for the built environment of NSW** establishes a baseline of what is expected to achieve good design across projects in NSW, in order to create useable, user-friendly, enjoyable and attractive places and spaces.<br><br>**Greener Places – An urban green infrastructure design framework for NSW** encourages strategically planned, designed and managed networks of green spaces, natural systems and semi-natural systems to create a healthier, more liveable and sustainable urban environment. |

| Categories | Examples |
|---|---|
| **Infrastructure and industry** | |
| Transport<br><br>Utilities<br><br>Energy<br><br>Resources<br><br>Industry & employment | **State Infrastructure Strategy** (SIS) – 20-year investment plan that applies strategic fit and economic merit to identify projects, policies and strategies to meet NSW's infrastructure needs.<br><br>**Future Transport 2056** – 40-year vision, directions and outcomes framework for customer mobility, to guide transport investment over the long term.<br><br>**Renewable Energy Zones** – Identified areas for delivering affordable, reliable and clean energy generation by combining multiple renewal energy generators and storage facilities in the same location, along with connections to high voltage poles and wires.<br><br>**Strategic Release Framework** allows controlled, strategic release and competitive allocation of coal and petroleum prospecting titles. Preliminary Regional Issues Assessment (PRIA) provides initial assessment of social, environmental and economic matters (issues, opportunities, risks and constraints) associated with releasing areas for resource exploration.<br><br>**Resources for Regions program** provides funding to support the ongoing prosperity of mining communities in regional NSW by providing economic opportunities, improved local amenity and positive social outcomes.<br><br>**Sector strategies** provide strategic assessment and planning to support industries e.g. NSW Freight and Ports Plan and Sustainable Aquaculture Strategies.<br><br>Precinct planning such as Western Sydney Employment Area links regional industry and employment with access to transport and utility services. |
| **Natural Resources** | |
| Land and soil<br><br>Primary production<br><br>Biosecurity<br><br>Forestry resources<br><br>Fishery resources<br><br>Water resources<br><br>Air quality | **Biophysical Strategic Agricultural Land (BSAL)** – Mapped land with high quality soil and water resources capable of sustaining high levels of productivity.<br><br>**Critical industry clusters (CICs)** – Concentrations of highly productive industries within a region that relate to each other, contribute to the identity of a region and provide significant employment opportunities.<br><br>**Managing Biosecurity Risks in Land Use Planning and Development Guide** – Steps to be considered to ensure biosecurity is appropriately addressed, particularly for agricultural enterprises and proposals that may impact on agricultural enterprises or industries.<br><br>**Regional Forest Agreements** – State/Commonwealth agreements on sustainable management and conservation of native forests, to provide resource access and supply certainty, ecologically sustainable forest management, and enhanced and permanent forest conservation estate.<br><br>**Fishery Management Strategies** enable strategic environmental assessment of fishing activities, including cumulative impact assessment (CIA) of fisheries approvals issued in NSW.<br><br>**Hunter River Salinity Trading Scheme** – Tradeable credit scheme that controls when industry licence holders can release salt discharges (based on monitoring and modelling).<br><br>**Water sharing plans** – Set water allocations for human use (drinking, agriculture and industry) and the environment, regulated through the trading of rights in the water market.<br><br>**Special Areas** identified within drinking water catchments around water storages and infrastructure to protect water quality.<br><br>**Regional air quality monitoring** e.g. Hunter Valley Regional air quality monitoring network provides real-time data on regional air quality; Dust Stop Program requires mining companies to reduce dust emissions via Pollution Reduction Programs.<br><br>**National Environment Protection Measures** (NEPMs) – National objectives designed to assist in protecting or managing particular aspects of the environment, such as ambient air quality. Standards are adopted in relevant State legislation and used in project assessment. |

| Categories | Examples |
|---|---|
| **Environment** | |
| Habitat protection<br><br>Biodiversity conservation<br><br>Landscape values | **Protected lands** through government land tenure including National Parks, State Conservation Areas, Crown lands and council reserves.<br><br>**Registered sites** offer additional habitat and ecosystem protection such as Ramsar wetlands, World-heritage listed properties and the IUCN Green list of protected and conserved areas.<br><br>**Biodiversity Offsets Scheme** – Market-based scheme for assessing and offsetting biodiversity for development likely to significantly impact on biodiversity.<br><br>**Biodiversity certification** – Biodiversity assessment of proposed development areas to support strategic land use planning at a landscape scale (e.g. Cumberland Plain Conservation Plan).<br><br>**Strategic assessments** under EPBC Act – Landscape scale assessments that consider broad sets of actions rather than individual projects e.g. strategic assessment of proposed urban development near Western Sydney Airport; assessment of road and traffic management works.<br><br>**Environmental Protection Zones** in LEPs to protect, manage and restore areas of high ecological, scientific, cultural or aesthetic value, and to limit development within those areas.<br><br>**Chapter 2 of the *State Environmental Planning Policy (Resilience and Hazards) 2021*** mapping and protection of coastal wetland and littoral rainforest. |
| **Hazards and Risks** | |
| Bushfire<br><br>Flooding<br><br>Coastal hazards<br><br>Climate change & GHG emissions<br><br>Mine subsidence<br><br>Contaminated lands<br><br>Hazardous industries | **Planning for Bush Fire Protection** – Framework for development located on bushfire prone land. Bushfire prone land maps are prepared by councils and identify land that can support a bush fire or is subject to bush fire attack.<br><br>**Flood Prone Land Policy** – To reduce impact of flooding and flood liability on owners and occupiers of flood-prone property and reduce public and private losses. Floodplain Development Manual guides councils' floodplain risk management process.<br><br>**Chapter 2 of the *State Environmental Planning Policy (Resilience and Hazards) 2021*** – Mapping of coastal zone into four specific management areas: Coastal wetlands and littoral rainforests; coastal vulnerability areas (subject to coastal hazards such as coastal erosion and tidal inundation); coastal environment areas; and coastal use areas.<br><br>**Mine subsidence districts** – land zoning tool under the *Coal Mine Subsidence Compensation Act 2017* to help protect homes and structures from potential mine subsidence damage. Districts are proclaimed where there are potential subsidence risks from underground coal mining.<br><br>**Strategic policies on climate change** – UN Framework Convention on Climate Change and the Paris Agreement, Australia's international climate change commitments, NSW Climate Change Policy Framework and NSW Net Zero Plan Stage 1:2020-2030.<br><br>Contaminated lands managed under the *Contaminated Land Management Act 1997* for significant contamination. Other contamination dealt with under **chapter 4 of the State Environmental Planning Policy (Resilience and Hazards) 2021** and the M**anaging Land Contamination – Planning Guidelines.**<br><br>Management of hazardous industries under **chapter 3 of the State Environmental Planning Policy (Resilience and Hazards) 2021, Land Use Safety Planning Framework** and **Hazardous Industry Advisory Papers (HIPAPs).** |

# Appendix B – Cumulative impact assessment scoping summary example

| Future Projects (add rows as needed) | Approx. distance to project (refer to map) | Project Status/Indicative timing/overlap | Potential overlap between impact of project on assessment matter and impact of other project on the same assessment matter | | | |
|---|---|---|---|---|---|---|
| | | | Relevant assessment matters (add others as relevant) | | | |
| | | | Access | Air | Amenity | Hazard & risk |
| A | 0.3 km | • Project approved – construction to commence within 6 months<br>• Construction overlap for approximately 3 months including noisiest construction activities (piling/rock breaking)<br>• Operations overlap; peak operations is 10 years after opening | | | | |
| Project A study area: describe the key features of the study area for Project A, specific to each assessment matter | | | • 1km from the site<br>• Arterial roads X, Y, X<br>• Local roads, A, B, C<br>• Generally, in suburbs 1, 2, 3 | • 3km from the site<br>• Generally, suburbs 1, 2, 3 | • 500 m from the site<br>• Generally, suburbs 1, 2, 3 | • 1km from site<br>• Generally, suburbs 1, 2, 3 |
| B | 0.5 km | • Project approved – construction commenced<br>• Construction overlap for approximately 6 months including noisiest construction activities (piling/rock breaking)<br>• Operations overlap; Peak operations is 5 years after opening | | | | |
| Project B study area: describe the key features of the study area for Project A, specific to each assessment matter | | | | | | |
| C | 1 km | • Project under assessment<br>• No information on timing or phasing and staging | | | | |
| Project C study area: describe the key features of the study area for Project A, specific to each assessment matter | | | | | | |

| Future Projects (add rows as needed) | Approx. distance to project (refer to map) | Project Status/Indicative timing/overlap | Potential overlap between impact of project on assessment matter and impact of other project on the same assessment matter | | | |
|---|---|---|---|---|---|---|
| | | | Relevant assessment matters (add others as relevant) | | | |
| | | | Access | Air | Amenity | Hazard & risk |
| D | 2 km | • Project under assessment<br>• No information on timing or phasing and staging | | | | |
| Project D study area: describe the key features of the study area for Project A, specific to each assessment matter | | | | | | |
| E | 6km | • Proposed change to existing operations<br>• No information on timing or phasing and staging | | | | |
| Project E study area: describe the key features of the study area for Project A, specific to each assessment matter | | | | | | |
| F | 4 km | • Proposed change to existing operations<br>• No information on timing or phasing and staging | | | | |
| Project F study area: describe the key features of the study area for Project A, specific to each assessment matter | | | | | | |

**KEY**

| | |
|---|---|
| Detailed Assessment | The project may result in significant impacts on the matter, including cumulative impacts. Detailed assessment is characterised by:<br>• Potential overlap in impacts between a future project (e.g. Project A) and the proposed project<br>• Potential for significant cumulative impacts as a result of the overlap, requiring detailed technical studies to assess the impacts<br>• Sufficient data is available on the future project to allow a detailed assessment of cumulative impacts with the proposed project for the relevant matter<br>• Uncertainties exist with respect to data, mitigation, assessment methods and criteria |
| Standard Assessment | The project is unlikely to result in significant impacts on the matter, including cumulative impacts. Standard assessments are characterised by:<br>• Impacts are well understood<br>• Impacts are relatively easy to predict using standard methods<br>• Impacts are capable of being mitigated to comply with relevant standards or performance measures<br>• the assessment is unlikely to involve any significant uncertainties or require any detailed cumulative impact assessment. |
| N/A | • No potential overlap in impacts between a future project (e.g. Project A) and the proposed project that would warrant any consideration in the cumulative impact assessment |

**Assumptions:**

For the purposes of the above example, the following assumptions have been applied:

- the proposed project the subject of the EIS is an industrial process project with air and noise emissions, generates significant traffic, and is potentially hazardous
- located in an industrial area with residential areas 1 km away
- future projects A and B are both approved projects that are yet to commence or be completed and are similar types of development to the proposed project
- future projects C, D, E and F are at earlier stages in the planning process (either under assessment or pre-assessment) and are warehouse/logistics projects.

**Notes:**

**Project** means the proposed project for which approval is sought by the proponent.

**Future projects** are projects that may cause cumulative impacts with a project because they impact on the same matters, in the same area over similar timeframes and meet the criteria of a relevant future project in Section 3.4 of these guidelines.

**Potential overlap of impacts** means the project and one or more future projects have the potential for impacts on the same matters, in the same area over similar timeframes.

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