Assessing Cumulative Impacts Guide

Guidance for State Significant Projects

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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.

Encouraging ecologically sustainable development is at the heart of the EP&A Act[1].

This requires the effective integration of economic, environmental and social considerations into all 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 projects within that framework.

Cumulative impacts are an inevitable result of the combined effect of human action and natural variations over time and can be both positive and negative.

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.

Cumulative impacts are most effectively assessed and managed at the strategic level, however they can also be assessed and managed at the project level.

This is because the two levels are inter-related to one another: 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.

The constant feedback between both levels 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.

1.1 Strategic Level

At the strategic level, the NSW Government has a comprehensive framework in place to manage cumulative impacts.

This framework is encapsulated in a range of government legislation, strategies, plans, policies and guidelines (see Appendix A) and includes:

- strategic and land use planning to:
    - direct development to the most suitable places and avoid 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)

[1] See the objects in section 1.3 of the EP&A Act, the definition of ecologically sustainable development in part 3 of the *Protection of the Environment Administration Act 1991,* and the content requirements for Environmental Impact Statements in clause 7 of schedule 2 of the *Environmental Planning and Assessment Regulation 2000.*

- the protection of important natural and cultural resources (e.g. National Parks, Marine Parks, estuaries, heritage places and items, threatened species and endangered 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).

This framework is also dynamic and evolves as government anticipates and responds to economic, environmental and social change over time.

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

- strategic assessment to identify and assess cumulative impacts
- strategic plans or actions to mitigate and monitor these impacts.

This includes:

- taking regulatory action, including to:
    - protect significant 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 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.

Key issues addressed in recent years have included:

- responding to climate change – taking action to reduce emissions and mitigate the impacts of climate change
- water use in the Murray Darling Basin
- securing affordable housing in major urban areas
- minimising the impacts of major infrastructure projects in Sydney
- encouraging economic growth and jobs in regional NSW
- managing the cumulative impacts of coal mining and power generation in the Hunter Valley (e.g. dust, noise, water, biodiversity, land use conflicts with other industries - such as the horse studs and vineyards, protecting the health of local communities)
- controlling coal seam gas development across NSW
- protecting Sydney's drinking water catchment from the impacts of coal mining and other industry
- protecting prime agricultural land from mining development, particularly around Gunnedah and Narrabri
- minimising the impacts of wind and solar farms in certain parts of rural NSW as the electricity market transitions towards a greater reliance on renewable energy.

Importantly, these issues have also resulted in broad-based strategic action by government, working closely with industry and the community, to address cumulative impacts. They are also to some extent the product of incremental decisions at the project level over time and changing community expectations.

Consequently, the government is proposing to strengthen the decisions made on projects – particularly State significant projects – by improving the quality of the cumulative impact assessments undertaken for these projects. This will ensure the strategic implications of these projects are examined closely when they are assessed under the EP&A Act.

The government will also use the findings of this assessment to inform the assessment and management of cumulative impacts at the strategic level and promote sustainable development.

1.2 Project Level

At the project level, all State significant projects[2] require approval under the EP&A Act from either the Independent Planning Commission or the Minister for Planning and Public Spaces (Minister) before they may proceed.

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

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

[2] State significant projects includes 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 Guide*) 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 Guide*).

This includes assessing the specific impacts of the project as well as assessing the impacts of the project combined with the impacts of other relevant future projects (see section 3.4 below).

Cumulative impact assessment is relevant to both types of assessment and ensures the strategic implications of the project are fully considered within the wider strategic context.

The main purpose of this cumulative impact assessment is to inform decision-making on the merits of the project, and the setting of conditions of approval if the project is approved.

These conditions will typically require the proponent[3] to implement all reasonable and feasible 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).

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

1.3 Purpose of this Guide

The purpose of this guide is to set clear expectations and requirements for assessing the cumulative impacts of State significant projects.

It seeks to ensure this 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)
- 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 the impacts of the project
- informs further action at the strategic level to reduce the cumulative impacts of other development over time.

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

Finally, it seeks to strengthen the assessment of the cumulative impacts of development in NSW, both at the project level and at the strategic level, and to ensure that the cumulative impact assessment undertaken for projects is meaningful and leads to better decisions on projects and effective strategic action to address cumulative impacts.

By doing this, the guide will reduce the inherent uncertainties, costs and delays currently associated with the cumulative impact assessment of State significant projects. It will also help to

[3] In this guide, the word proponent is used to refer to the proponent of an SSI project and the applicant of an SSD project.

build community confidence in the planning system and encourage ecologically sustainable development in NSW.

1.4 Application of this Guide

This guide will form part of the relevant government plans, policies and guidelines that must be taken into consideration during the assessment of State significant projects. It is also referenced in the Department's *State Significant Development Guide* and *State Significant Infrastructure Guide*.

The proponents of all State significant projects must have regard to the guide when they assess the cumulative impacts of their projects.

2. Cumulative impact assessment

2.1 Introduction

All 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 economic, environmental and social impacts of the project and the principles of ecologically sustainable development.

This includes assessing the specific impacts of the project, as well as the combined impacts of the project with other relevant future projects. During this assessment, there are four types of cumulative impact assessment to consider:

Table 1. Different types of cumulative impact assessment

Type of Cumulative assessment		Example
1	The ***incremental assessment approach:*** 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	The ***combined incremental assessment approach***: 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
3	The ***cumulative impact assessment approach***: 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 with other relevant future projects
4	The ***combined cumulative impact assessment approach***: the combined effect of the different cumulative impacts of the project on ley matters 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

While different terminology is used, the incremental assessment approach involves adding the incremental impacts of the project to the baseline condition of each relevant assessment matter (e.g. air quality, noise, water, biodiversity, heritage, traffic). This ensures the impacts of past and present projects are incorporated into the assessment of the project and highlights the likely change to the baseline condition of each matter as a result of the project.

It 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).

The combined incremental assessment approach involves considering the combined effect of the different impacts of the project. For example, the combined effect of the dust, noise, blasting, 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 environmental impact statement (EIS - see above) 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 detailed findings of this evaluation are summarised in the final section of the main report of the EIS.

The cumulative impact assessment approach involves considering the impacts of the project together with the impacts of other relevant future projects on key matters within the wider area (e.g.

the regional airshed, water sources, ambient noise levels in certain locations, threatened species and communities).

This assessment seeks to extend the regular assessment of the impacts of State significant projects (see the first two approaches explained above) beyond the baseline condition of each relevant matter and to incorporate 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 development of any relevant new projects.

By its very nature, this assessment will be more complex than regular project assessment.

It will also involve several matters that are beyond the control of the proponent and greater uncertainties in predicting any cumulative impacts (e.g. obtaining sufficient information and data about the other projects, developing realistic scenarios about the likely sequencing of these 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 the cumulative impact assessment assumes that the impacts of future projects will materialise in the environment, it is important 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.

The combined cumulative impact assessment approach involves considering the combined effect of the different cumulative impacts of the project with other relevant future projects on key matters in the wider area. This involves integrating the findings of the cumulative impact assessment approach 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, this is only ever done in a qualitative way and is considered in the evaluation of the project as a whole, and the detailed findings of this evaluation are summarised in the final section of the main report of the EIS.

For State significant projects, the first two types of cumulative impact assessment (the incremental assessment approach and combined incremental assessment approach) are incorporated into the regular assessment of the impacts of these projects. Consequently, they do not require any additional specific guidance and do not form part of this guide.

Instead, this guide focuses on the other two types of cumulative impact assessment (the cumulative impact assessment approach and the combined cumulative impact assessment approach).

2.2 Integrated Assessment

The cumulative impact assessment of State significant projects is integrated with the regular assessment of these projects under the EP&A Act (see the Department's *State Significant Development* guide and *State Significant Infrastructure* guide).

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

The proponent must first scope the cumulative impact assessment during the setting of the Planning Secretary's environmental assessment requirements (SEARs) for the EIS for the project. This includes identifying the key matters that will be subject to cumulative impact assessment and determining the approach to assessing the cumulative impacts on each of these matters.

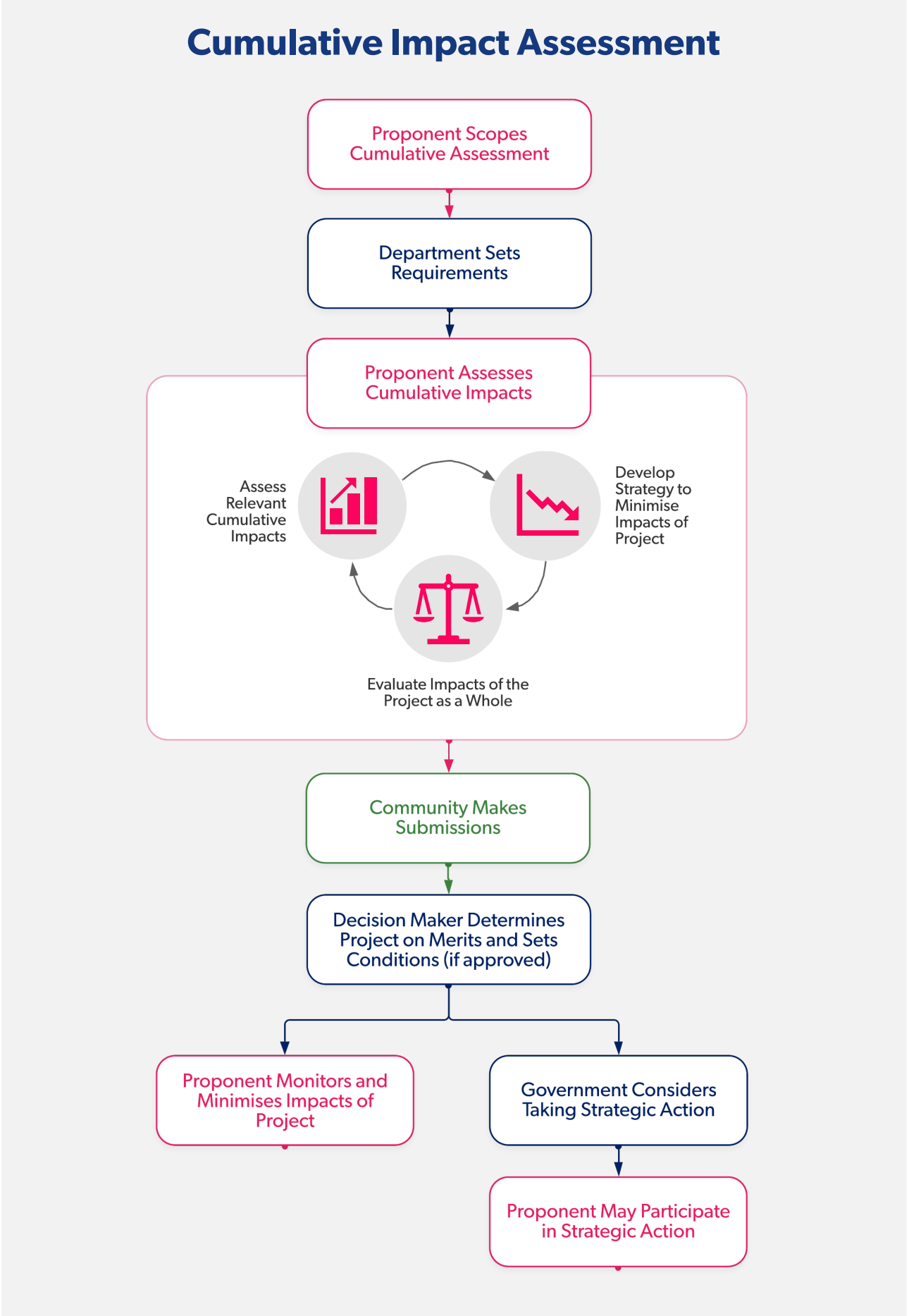

Figure 1 | Key steps in cumulative impact assessment

Once the SEARs have been issued, the proponent must prepare the EIS for the project and undertake the cumulative impact assessment in accordance with the SEARs.

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 (type three cumulative impacts)
    - the combined effect of these cumulative impacts on the wider area (type four cumulative impacts).

Once completed, the Department will exhibit the EIS for at least 28 days. This will give the community a chance to consider the detailed cumulative impact assessment in the EIS and make an informed submission on the project.

Following the Department's detailed assessment of the project, including the potential cumulative impacts of the project with other relevant future projects, the decision-maker will evaluate the merits of the project as a whole, having regard to the economic, environmental and social 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 wider 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 all reasonable 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 wider area to reduce cumulative impacts.

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

Finally, the government will integrate the findings of the cumulative impact assessment into its broader strategic planning and decision-making on the wider area. This may include:

- assessing and evaluating the merits of the other relevant future projects under the EP&A Act
- deciding what (if any) strategic action should be taken to reduce cumulative impacts to an acceptable level.

2.3 Proportionate Cumulative Impact Assessment

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

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

These key matters include features of the economy, environment or society that are valued because of their rarity or their 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 suitably proximate to the project and within the relevant strategic context. It is simply not practical or reasonable to require proponents to assess cumulative impacts over large areas. This should be left to assessing and managing the cumulative impacts of development at the strategic level (see section 1.2 above).

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 strategic 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 agencies, local 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.

3. Scoping the assessment

Not every State significant project requires a cumulative impact assessment.

In some cases, the regular project assessment will be sufficient. For instance, when the project is located in a remote area with no other relevant future projects.

In other cases, the cumulative impacts on key matters may not be material or worth considering in any detail. For instance, when the receiving environment is not particularly sensitive or the cumulative impacts of the relevant future projects will meet all the relevant standards and performance measures.

Consequently, scoping is the most important part of any cumulative impact assessment.

Scoping identifies whether any cumulative impact assessment is necessary for the project. If cumulative impact assessment is required, it then identifies the key matters to assess in the EIS and determines the approach to assessing the cumulative impacts on each of these matters.

During scoping, proponents must ask six key questions about the potential cumulative impacts of the project with other relevant future projects (see Figure 2) and document the answers to these questions in the Scoping Report for the project (see the Department's *Preparing a Scoping Report* guide).

After considering the Scoping Report and consulting with key agencies (including the local council), the Planning Secretary will set the SEARs for the EIS for the project.

The SEARs will identify the key matters requiring cumulative impact assessment in the EIS and ensure that this assessment is proportionate to the scale and nature of any potential cumulative impacts on these matters.

3.1 What to Assess?

To determine the key matters requiring cumulative impact assessment in the EIS, the proponent must undertake a high-level 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 as the project
- the key matters that could be materially affected by the cumulative impacts of these projects, including National Parks and other protected areas, important natural resources, culturally significant resources, key infrastructure and industries, sensitive land use zones, local communities and threatened species
- the likely scale and nature of the cumulative impacts of these projects on the key matters.

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

It should also be informed by consultation with the Department, key agencies, local councils, the proponents of the other potentially relevant future projects in the area and the community.

If the proponent is uncertain about whether a matter requires cumulative impact assessment in the EIS, it must 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.

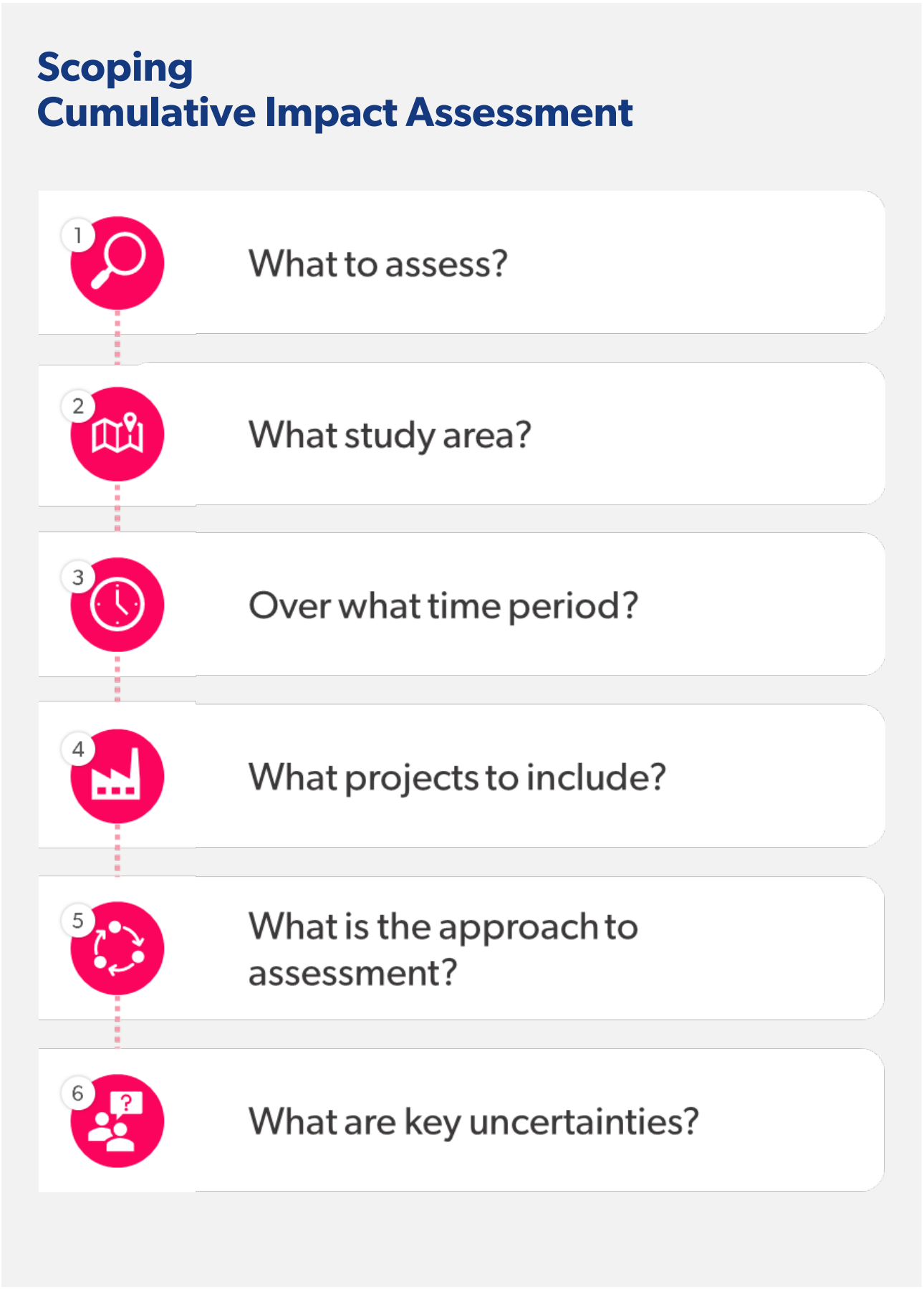

Figure 2 | Key questions to answer in scoping the cumulative impact assessment

Following the high-level review, the proponent must identify the key matters requiring cumulative impact assessment in the EIS for the project and document the reasons for selecting these matters in the Scoping Report.

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 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[4] due to the cumulative impacts of the project with other relevant future projects.

However, the study area selected for the cumulative impact assessment on ambient noise levels within the wider area may only include the specific locations where the noise impacts of the project may overlap with the noise impacts of three other relevant future projects and result in material noise impacts on certain sensitive receivers[5].

While the study area chosen must be broad enough to capture all relevant cumulative impacts, it should not be overly 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 Report 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.

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 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 extending hundreds of years beyond the life of the project (e.g. the recovery of ground water levels in a water source following extensive mining).

The proponent must clearly document the time period selected for the cumulative impact assessment of each relevant matter in the Scoping Report.

[4] 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,*
[5] See the *NSW Noise Policy for Industry.*

3.4 What Other Projects to Include?

To determine what other relevant future projects to include in the cumulative impact assessment of each matter in the EIS, the proponent must consider two factors.

First, the project must meet the criteria for relevant future projects in Table 2.

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 • The proponent of the project has announced the operation will close • 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) • 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).
Potentially relevant future projects	Projects issued with SEARs	• The project has received the SEARs for the EIS for the project.
	Projects subject to pre-SEARs consultation	• The proponent of the project has had preliminary discussions with the Department about the obtaining SEARs for the project.
	Market interest in developing the project	• The proponent of the project has publicly announced that it will seek approval for the project.
	Project is identified in a government plan or strategy	• The project is identified in the State Infrastructure Strategy.

Second the project must be relevant to the cumulative impact assessment of the specific matter: it must make a material contribution to the cumulative impacts on the matter within the selected study area during the selected time period.

Consequently, the proponent is only required to consider the following types of project for inclusion in the cumulative impact assessment in the EIS:

- other SSD and SSI projects
- projects that are classified as designated development[6] 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

[6] Development may be declared designated development by an environmental planning instrument or the EP&A Regulation. For examples of development being declared designated development by an environmental planning instrument, see clause 10 of the *Coastal Management SEPP 2018*, clauses 22 and 30 of the *Kurnell Peninsula SEPP 1989*, and division 3 of the *Primary Production and Rural Development SEPP 2019*. For development being declared designated development by the EP& A Regulation, see schedule 3.

- projects that have been declared to be controlled actions under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
- any major greenfield developments that are scheduled for the area (e.g. new area has been zoned for urban development).

The proponent must document the relevant future projects for each matter requiring cumulative impact assessment in the Scoping Report and explain why these projects were selected. It should also include a cumulative impact assessment scoping summary table (see the example in Appendix B) in the appendices of the Scoping Report.

If a potentially relevant future project becomes a relevant future project during the preparation of the EIS, the proponent must include it in the cumulative impact assessment in the EIS. However, if this change occurs shortly before the proponent is ready to submit the EIS to the Department for public exhibition or following the exhibition of the EIS, then the Department may require the proponent to update the relevant cumulative impact assessment in the EIS prior to the determination of the project.

For example, if the EISs for three State significant projects in close proximity to each other are submitted to the Department at around the same time, and these projects all move from being potentially relevant future projects to relevant future projects, then the Department is likely to require the proponents of these projects to work together and prepare a joint assessment of the relevant cumulative impacts.

Alternatively, the Department may commission an independent expert to prepare the relevant cumulative impact assessment, using the data from the EISs for the projects, and require the proponents to pay for this assessment.

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
- 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 fit-for-purpose.

For example, if the cumulative impacts of the project and several other relevant future projects are likely to result in serious and irreversible harm on a particular threatened species 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.

However, when there is an absence of clear guidance or there are gaps in the existing guidance, the proponent must clearly set out the proposed approach to addressing these constraints the Scoping Report.

Due to the inherent complexity of undertaking most cumulative impact assessment, the proponent must ensure the proposed approach to assessing the cumulative impacts on each matter is reasonable and feasible.

Where possible, the proponent must undertake a detailed approach to assess the relevant cumulative impacts. However, when this is unachievable the proponent must undertake a qualitative assessment or carry out suitable sensitivity testing of the potential cumulative impacts.

Finally, when the government has developed an approach to assessing and managing cumulative impacts at the strategic level for a particular matter, the proponent must adapt the proposed approach for assessing the cumulative impacts on this matter accordingly.

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 incorporated into the cumulative impact assessment of these projects on the water source.

This may involve identifying the issues that are not covered by the relevant strategic planning framework or management scheme and explaining the proposed approach to assessing these issues.

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 in the Scoping Report.

These uncertainties may relate to each of the key factors identified in section 3.5 above.

The proponent must also outline the proposed approach to addressing these key uncertainties.

4. Assessing and evaluating cumulative impacts

4.1 Introduction

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 on key matters
- developing a strategy to minimise the project's contribution to any cumulative impacts on key matters
- evaluating the project as a whole, having regard to:
    - the findings of the detailed cumulative impact assessment on each of the key matters (type three cumulative impacts)
    - the combined effect of these cumulative impacts on the wider area (type four cumulative impacts).

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 need to co-ordinate any discussions between these proponents.

4.2 Assessing Cumulative Impacts

While assessing the relevant 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 all reasonable and feasible mitigation measures for the project, including:
    - refining the project design to reduce impacts
    - adopting all 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.

Importantly, 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 relevant section of the Department's *Preparing an Environmental Impact Statement* guide.

4.3 Minimising the Impacts of the Project

The EIS must include a strategy for minimising the project's contribution to any relevant cumulative impacts on key matters within the wider area.

This strategy must identify:

- key aspects of the project design to reduce cumulative impacts on key matters
- 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. 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 wider area and to reduce cumulative impacts on key matters (e.g. joint data monitoring and data collection, contributing to further investigation and research, staging the implementation of projects, joint management of impacts).

4.4 Evaluating the Project as a Whole

Finally, the proponent must integrate the findings of the cumulative impact assessment into the evaluation of the project as a whole and provide a detailed summary of the findings of this evaluation in the main report of the EIS.

This evaluation must have regard to the economic, environmental and social impacts of the project and the principles of ecologically sustainable development.

In particular, it must consider:

- the findings of the detailed cumulative impact assessment on each of the key matters (type three cumulative impacts)
- the combined effect of these cumulative impacts on the wider area (type four cumulative impacts).

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

5. Determining the application

5.1 Evaluating the Merits of the Project

The decision-maker will evaluate the merits of the project as a whole having regard to:

- the economic, environmental and social impacts of the project
- any material cumulative impacts on key matters
- relevant government legislation, plans, policies and guidelines
- the principles of ecologically sustainable development.

If the project has merit, the decision-maker is likely to set conditions of approval for the project.

However, these conditions can only be imposed on the proponent and must relate to the impacts of the project. They cannot relate to the impacts of the other relevant future projects.

5.2 Setting Conditions

In setting conditions under the EP&A Act 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 all reasonable and feasible 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* guide
- appointing community representative's 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
- maintain a website for the project and providing regular updates to the community on the performance and compliance of the project.

Finally, 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
- coordinating certain management actions.

6. Glossary

Cumulative impact assessment	An assessment of type three and four cumulative impacts for a State significant project - see section 2.1 of this guide.
Department	Department of Planning, Industry and Environment.
Determination	A final decision on a State significant project under division 4.7 or division 5.2 of the EP&A Act.
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.
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.
EIS	An Environmental Impact Statement prepared by or on behalf of the applicant for a State significant project application (see the *Preparing an EIS* guide).
EP&A Act	*Environmental Planning and Assessment Act 1979*.
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*.
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	Features of the environment, society or economy that are valued because of their rarity or their importance, including their critical role in supporting systems which are essential for people, the environment or the economy. Examples include National Parks, World Heritage Sites, population centres, strategic agricultural land, air sheds and industry or employment clusters.
Major Projects website	www.majorprojects.planningportal.nsw.gov.au
Minister	The Minister for Planning and Public Spaces
Mitigation	Actions or measures to reduce the impacts of a project.
Other relevant future projects	Projects that may cause cumulative impacts with a project because they have impacts on the same matters, in the same area over the same time period.
Planning Secretary	The Planning Secretary of the Department
Project	A State significant development or State significant infrastructure, which is the subject of a development/ infrastructure application or modification application.
Scoping	The process of identifying the matters that require further assessment in an EIS.

Scoping Report	A report prepared by the applicant to inform the setting of project-specific SEARs for a State significant project (see the *Preparing a Scoping Report* guide).
SEARs	The Planning Secretary's environmental assessment requirements for the preparation of an EIS for a State significant project.
SEPP	State Environmental Planning Policy.
Submission	A written response from an individual or organisation, which is submitted to the Department during the public exhibition of an EIS, Amendment Report or Modification Report for State significant development.

Appendix A – NSW Strategic Planning Framework

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

Categories	Example
Strategic and land use planning	
Regional plans District plans LSPSs LEPs Precinct plans 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. **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. **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. **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. **Community strategic plans** – Council plans describing the community's vision, priorities and aspirations for the local government area, 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 Cultural heritage Aboriginal lands Regional economies Design & Place 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. **Heritage recognition** - UNESCO World Heritage, Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), NSW *Heritage Act 1977* and council LEPs provide protection for natural, cultural and built heritage to limit damage to protected items or places. **Connecting with Country** framework to inform planning, design and delivery of built environment projects and **Designing with Country** incorporating Aboriginal cultural elements in future planning decisions. **Darkinjung Delivery framework** - Planning measures to assist Local Aboriginal Land Councils achieve better economic outcomes from their land, meet the objectives of state-level planning policy and strengthen economic self-determination of Aboriginal communities. **20 Year Economic Vision for Regional NSW** - Strategies to support sustainable, thriving regional communities and to take advantage of future opportunities for growth. **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.

Categories	Example
	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.
Infrastructure and industry	
Transport Utilities Energy Resources 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. **Future Transport 2056** - 40-year vision, directions and outcomes framework for customer mobility, to guide transport investment over the long term. **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. **NSW Gas Plan** provides a strategic framework for best practice regulation of the gas industry to secure gas supplies through a safe, sustainable industry. **Strategic Statement on Coal Exploration and Mining in NSW** sets out the NSW's Government's approach to coal exploration and mining in NSW and a four-point action plan built around improving certainty about where coal mining should not occur, supporting responsible coal production, reducing the impact of coal mining and supporting diversification of coal-reliant regional economies to assist with the phase-out of thermal coal mining. **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. **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. **Sector strategies** provide strategic assessment and planning to support industries e.g. NSW Freight and Ports Plan, 20-Year Waste Strategy for NSW, and Sustainable Aquaculture Strategies. Precinct planning such as **Western Sydney Employment Area** links regional industry and employment with access to transport and utility services.
Natural Resources	
Land & Soil Primary production Biosecurity Forestry resources Fishery resources Water resources Air quality	**Biophysical Strategic Agricultural Land (BSAL**) – Mapped land with high quality soil and water resources capable of sustaining high levels of productivity. **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. **Managing Biosecurity Risks in Land Use Planning and Development Guide** - Steps to be considered to ensure biosecurity is appropriately addressed, particularly for agricultural

Categories	Example
	enterprises and proposals that may impact on agricultural enterprises or industries. **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. **Fishery Management Strategies** enable strategic environmental assessment of fishing activities, including cumulative impact assessment (CIA) of fisheries approvals issued in NSW. **Hunter River Salinity Trading Scheme** - Tradeable credit scheme that controls when industry licence holders can release salt discharges (based on monitoring and modelling). **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. **Special Areas** identified within drinking water catchments around water storages and infrastructure to protect water quality. **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.
Environment	
Habitat protection Biodiversity conservation Landscape values	**Protected lands** through government land tenure including National Parks, State Conservation Areas, Crown lands and council reserves. **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. **Biodiversity Offsets Scheme** – Market-based scheme for assessing and offsetting biodiversity for development likely to significantly impact on biodiversity. **Biodiversity certification** - Biodiversity assessment of proposed development areas to support strategic land use planning at a landscape scale (e.g. Cumberland Plain Conservation Plan). **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. **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. **Coastal Management SEPP** mapping and protection of coastal wetland and littoral rainforest.
Hazards and risks	
Bushfire Flooding Coastal hazards Climate change & GHG emissions Mine subsidence	**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. **Flood Prone Land Policy** - To reduce impact of flooding and flood liability on owners and occupiers of flood-prone property

Categories	Example
Contaminated lands Hazardous industries	and reduce public and private losses. **Floodplain Development Manual** guides councils' floodplain risk management process. **Coastal Management SEPP** - 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. **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. **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. Contaminated lands managed under the *Contaminated Land Management Act 1997* for significant contamination. Other contamination dealt with under **SEPP 55 Remediation of Land** and the **Managing Land Contamination – Planning Guidelines**. Management of hazardous industries under **SEPP 33 – Hazardous and Offensive Development**, **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 for location)	Indicative timing / overlap	Potential overlap between impact of project on environmental matter and impact of other project on the same environmental matter			
			Relevant environmental matters (add others as relevant)			
			Access	Air	Amenity	Hazard and risk
A	0.3 km	• Construction overlap for approximately 3 months including noisiest construction activities (piling / rock breaking) • Operations overlap however 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 • Arterial roads X, Y, X • Local roads, A, B, C • Generally, in suburbs 1, 2, 3	• 3km from the site • Generally, suburbs 1, 2, 3	• 500 m from the site • Generally, suburbs 1, 2, 3	• 1km from the site • Generally, suburbs 1, 2, 3
B	0.5 km	• Construction overlap for approximately 6 months including noisiest construction activities (piling / rock breaking) • Operations overlap however 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	• 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 for location)	Indicative timing / overlap	Potential overlap between impact of project on environmental matter and impact of other project on the same environmental matter			
			Relevant environmental matters (add others as relevant)			
			Access	Air	Amenity	Hazard and risk
D	2 km	• 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	2.5 km	• 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	• 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	• potential overlap in impacts between a future project (e.g. Project A) and the project, AND • potential for significant cumulative impacts as a result of the overlap, AND • sufficient data is available for the future project to allow a detailed assessment of cumulative impacts with the project for the relevant matter					
Standard	• potential overlap in impacts between a future project (e.g. Project A) and the project, AND • potential for significant cumulative impacts as a result of the overlap, AND • there is insufficient data for the future project to allow a detailed assessment of cumulative impacts with the project for the relevant matter					
	• no potential overall in impacts between a future project (e.g. Project A) and the project that would warrant any consideration in the cumulative impact assessment					

Assumptions

For the purposes of the above example, assume:

- the project 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 on EIS exhibition and similar projects to the project
- projects C, D, E and F are at earlier stages in the planning process and are warehouse / logistics projects

Notes:

Project means the project for which approval is sought by the applicant

Future projects are other projects not yet constructed or operational where there is potential overlap of impacts with the project

Potential overlap of impacts means the project and one or more future projects have the potential for the same type of impact (e.g. air quality) in the same location (receptor x or area x) at the same time.

Shade cells in RED (DETAILED ASSESSMENT) where there is:

- potential overlap in impacts between a future project (e.g. Project A) and the project, AND
- potential for significant cumulative impacts as a result of the overlap, AND
- sufficient data is available for the future project to allow a detailed assessment of cumulative impacts with the project for the relevant matter

Shade cells in BLUE (STANDARD ASSESSMENT) where there is:

- potential overlap in impacts between a future project (e.g. Project A) and the project, AND
- potential for significant cumulative impacts as a result of the overlap, AND
- there is insufficient data for the future project to allow a detailed assessment of cumulative impacts with the project for the relevant matter