

# Supporting Technical Information

## How to use

This document outlines the information and technical studies that may be required to support a planning proposal. As each planning proposal is different, the information and technical reports outlined will vary depending on the nature, scale and complexity of the proposal and characteristics of the land to which the planning proposal relates.

The information and supporting technical studies that will be required to support the planning proposal will be confirmed at the pre-lodgement stage with input from authorities and government agencies (as relevant) and detailed in the planning proposal requirements issued by council or the Department.

A planning proposal is not a development application (DA) and therefore the technical information, and level of detail, outlined in the planning proposal should be proportionate to the category and scale of the planning proposal. The technical information should lead to the conclusion that the planning proposal can be completed within a reasonable timeframe, identified impacts can be addressed and the site is suitable for the proposal.

The information required to support council-initiated principal planning proposals such as a comprehensive and/or housekeeping LEP amendments may require different information, including more strategic studies such as housing, employment, recreation or open space. For these types of proposals, council should consult with the Department at the pre-lodgement stage, before referral of the planning proposal to the Department for a Gateway determination.

The below table indicates where a particular study or certain information '**may**' or '**is likely to be required**' based on the type of planning proposal and its category. For more guidance see the Planning proposal categories section of this guideline.

This is a guide only and users will need to decide whether a particular study or assessment is required depending on the nature, scale and complexity of the proposal and characteristics of the land to which the planning proposal relates.

Technical Information			
	Basic	Standard	Complex
<b>Urban Design</b>			
An Urban design study may be required for both greenfield and urban renewal planning proposals whether it is in the region or in greater Sydney in order to ensure the proposals is considered in terms of broader locational and site context, and begin to justify strategic merit within the landscape.			
<p><b>Greenfield</b></p> <ul style="list-style-type: none"> <li>• Urban design study with a concept plan that demonstrates the capability of the site to accommodate the vision, objectives or intended outcomes of the proposal. The concept plan may include: <ul style="list-style-type: none"> <li>○ Vision statement</li> <li>○ Opportunities and constraints analysis</li> <li>○ Proposed urban structure / site layout</li> <li>○ Demonstrate connection to Country</li> <li>○ Proposed land uses and distribution</li> <li>○ Existing and proposed transport network - indicate road / streets hierarchy and linkages or streets where public transport/ stations could be provided (indicative)</li> <li>○ Existing and proposed pedestrian and cycle network including linkages to surrounding site/facilities (indicative)</li> <li>○ Proposed open space planning and design principles, envisaged network and high-level landscape concept / strategy (indicative)</li> <li>○ Indicative yield (range) and staging (indicative)</li> <li>○ Distribution of building heights and/or floor space controls (if relevant)</li> </ul> </li> </ul> <p>Note: Detailed design of buildings / other works are not required as part of the planning proposal stage.</p>	Not required	May be required	Likely to be required

Technical Information			
	Basic	Standard	Complex
<p><b>Urban setting /urban renewal sites/ infill site</b></p> <ul style="list-style-type: none"> <li>• Urban design study with a concept plan that demonstrates the capability of the site to accommodate the vision, objectives or intended outcomes of the proposal. The concept plan may include: <ul style="list-style-type: none"> <li>o Vision statement</li> <li>o Opportunities and constraints analysis</li> <li>o Proposed urban structure / site layout</li> <li>o Demonstrate connection to Country</li> <li>o Proposed land uses and distribution</li> <li>o Existing and proposed transport network and connectivity - indicate road / streets hierarchy and linkages or streets where public transport/stations could be provided (indicative)</li> <li>o proposed connectivity with the site and to adjoining points of interest/surrounding context</li> <li>o Existing and proposed pedestrian and cycle network including linkages to surrounding site/facilities (indicative)</li> <li>o Proposed open space planning and design principles, envisaged network and high-level landscape concept / strategy (indicative)</li> <li>o Proposed development footprint (net developable area), indicative yield (range) and staging (indicative)</li> <li>o Distribution of building heights and/or floor space controls (if relevant)</li> </ul> </li> <li>• Development / building envelopes including (as relevant): <ul style="list-style-type: none"> <li>o Envelope massing and envelope comparisons (current vs proposed controls)</li> <li>o Shadow analysis (winter solstice)</li> <li>o Primary views of building envelope from surrounding streets (to assess view impacts, height, bulk and scale) and can include up to five views</li> <li>o Distribution of building heights and/or floor space controls (if relevant)</li> </ul> </li> </ul> <p>Note: Information relating to the detailed design of buildings / other works including materials and finishes and architectural drawings including sections and detailed elevations are not required at the planning proposal stage.</p>	Not required	May be required	Likely to be required

	Basic	Standard	Complex
<b>Ecologically Sustainable Development (ESD)</b>			
An ESD strategy may be required for large proposed developments, whether residential, mixed use, commercial or industrial, to ensure that the proposal achieves sustainability principles and can work to achieve government's sustainability targets and direction.			
<ul style="list-style-type: none"> <li>• A sustainability strategy that address the following (as relevant):               <ul style="list-style-type: none"> <li>○ how the proposal incorporates ESD principles in the design or concept plan including the potential for water sensitive urban design strategies/measures, approach to water re-use, approach to reducing the urban heat island effect, energy efficiency principles and strategy, principles of net zero emission, energy minimisation / generation, approach to social inclusion, principles and approach to circular economy and the like</li> </ul> </li> </ul>	Not required	May be required	May be required
<b>Flood and Risk Assessment (FIRA)</b>			
A flood impact and risk assessment may be required when the land to which the planning proposal relates is affected by flooding, affects the flow of water, is identified in flood prone land or flood liable land or as defined in legislation.			
<ul style="list-style-type: none"> <li>• Flood impact and risk assessment (FIRA) for a complex planning proposal that addresses the following:               <ul style="list-style-type: none"> <li>○ Consideration of the relevant council's LEP, DCP and the NSW Government's Flood Prone Land Policy as set out in the Floodplain Development Manual 2005</li> <li>○ Consideration of existing council flood studies and floodplain risk management studies and plans relevant to the development site</li> <li>○ Provision of a FIRA report which describes the following (subject to council requirements):</li> </ul> </li> </ul> <p><u>Existing conditions</u></p> <ul style="list-style-type: none"> <li>○ Develop hydrologic and hydraulic models that include calibration against existing information including local flood records, downstream and upstream conditions, and floodplain characteristics</li> <li>○ Provide a description for existing conditions of flood behaviour and flood constraints on the site and its surrounding areas for the full range of events, including 5% AEP, 1% AEP, PMF and 0.5% AEP or 0.2% AEP and provide an assessment of the compatibility of the development and its users with flood behaviour</li> <li>○ Identify any existing emergency management strategies for the existing community and associated limitations</li> </ul>	Not required	May be required	Likely to be required

	Basic	Standard	Complex
<p><u>Post developed conditions</u></p> <ul style="list-style-type: none"> <li>o Describe the changes in post development flood behaviour<sup>1</sup>, impacts<sup>2</sup> of flooding on existing community and on the development and its future community for full range of events, 5% AEP, 1% AEP, PMF and 0.5% AEP or 0.2%AEP</li> <li>o Consider impacts of climate change due to sea level rise and increase in rainfall intensities where applicable</li> <li>o Propose and assess the effectiveness of management measures required to minimise the impacts of flooding to the development and to minimise risks on existing and future community. This may include the update of hydrological and hydraulic models to analyse post development conditions</li> <li>o Describes the proposed emergency management strategy and any associated modelling</li> <li>o For critical land uses consider the risk to development and users of the development and identify management measures to allow the development to fulfil its intended function for the full range of flooding</li> <li>o Estimation of flood planning levels and the flood planning area</li> </ul> <p>Note:</p> <ol style="list-style-type: none"> <li>1. Flood behaviour includes flood volume, extent, depth, level, velocity, duration, rate of rise, flood function and hazard</li> <li>2. Impacts include flood behaviour and emergency response management of the site and surrounding areas</li> <li>3. Discussions with the consent or relevant referral authority based on existing flood information or specific council requirements may alter this scope</li> <li>4. Refer also to requirements set out in Direction 4.3 - Flooding issued under section 9.1 of the EP&amp;A Act</li> </ol>	Not required	May be required	Likely to be required
<b>Water Cycle and Stormwater Management</b>			
A water cycle and stormwater management strategy is more likely required for greenfield or large planning proposal sites, or sites located alongside riparian corridors. The planning proposal needs to demonstrate the quantity and quality of water can be managed with the proposed development.			
<ul style="list-style-type: none"> <li>• Water cycle and stormwater management strategy that considers water quantity and water quality issues: <ul style="list-style-type: none"> <li>o water cycle management options on the site</li> <li>o proposed water cycle management strategy, including stormwater and water sensitive urban design (WSUD)</li> <li>o Riparian assessment to define the top of bank and associated riparian zones (if site includes waterfront land)</li> <li>o Water quality analysis</li> <li>o Concept designs</li> <li>o Preliminary cost estimates (riparian corridors, stormwater or water quality basins)</li> </ul> </li> </ul>	Not required	May be required	Likely to be required

	Basic	Standard	Complex
<b>Bushfire Risk Assessment</b>			
A bushfire assessment report is often required when a planning proposal site is impacted or likely to be impacted by bushfire, or as defined in legislation.			
<ul style="list-style-type: none"> <li>• Bushfire constraints assessment, including: <ul style="list-style-type: none"> <li>o Identification of Bush fire prone land on the site (including overlay of bushfire prone land map on the site and/or concept plan)</li> <li>o Extent of any Asset Protections Zone affection on the site or that proposed for the proposal (including an overlay on concept plan)</li> <li>o Requirements of Part 4 of NSW Rural Fire Service, <i>Planning for Bushfire Protection</i> (November 2019) including consideration of the following: <ul style="list-style-type: none"> <li>- Access and egress for fire-fighting operations and emergency evacuation</li> <li>- Water supply for fire-fighting operations</li> </ul> </li> </ul> </li> </ul> <p>Note: The proposed scope and methodology for a bushfire assessment should be confirmed at the pre-lodgement stage, in consultation with council and the Rural Fire Service NSW. Refer also to requirements set out in Direction 4.4 - Planning for Bushfire Protection issued under section 9.1 of the EP&amp;A Act</p>	Not required	May be required	Likely to be required
<b>Traffic and Transport Strategy</b>			
A traffic, mobility and transport strategy may be required for a greenfield site or infill site in regional areas or greater Sydney when the proposal result in a sizeable increase in travel demand, where there is an impact on traffic movement, and to ensure good movement, connection and links to the surrounding context.			
<ul style="list-style-type: none"> <li>• Transport and movement assessment, that addresses the following: <ul style="list-style-type: none"> <li>o Approach, methodology and assumptions</li> <li>o Anticipated traffic and transport implications of the proposal (existing conditions and future planned development)</li> <li>o Details of transport infrastructure improvements (not engineering designs) required to accommodate the proposal, proposed funding and delivery arrangements (if relevant)</li> <li>o Consideration of the following (if relevant): <ul style="list-style-type: none"> <li>- Suitability of the site access arrangements in terms of location and layout</li> <li>- Staging of the development</li> <li>- Hierarchy of streets</li> <li>- Public transport access requirements</li> <li>- Traffic generating aspects of the proposal</li> <li>- Trip containment</li> <li>- The likely future developments in the surrounding area that would impact the transport assessment</li> <li>- Active transport - walking and cycling network</li> <li>- The likely future transport infrastructure that would be generated by the development and link to the surrounding area</li> <li>- Traffic, transport and access impacts of the planning proposal on the surrounding transport network</li> <li>- Approach to parking</li> </ul> </li> </ul> </li> </ul> <p>Note: The proposed scope and methodology for the transport and movement assessment and proposed assumptions (i.e. traffic generation rates, public transport mode shifts, trip containment, directional split etc) should be confirmed at the pre-lodgement stage, in consultation with council and Transport for NSW.</p>	Not required	May be required	Likely to be required

	Basic	Standard	Complex
<p><b>Heritage</b></p> <p>A European heritage assessment and impact study may be needed when a planning proposal may impact on a local or state item, or impact a heritage conservation area, or as defined in heritage legislation.</p> <p>An Aboriginal heritage archaeological and landscape assessment may be required in greenfield or urban infill where there is, or a potential to be, impacts on areas, objects, places or landscapes of heritage significance to Aboriginal culture and landscape.</p>			
<p><b>Non-Indigenous Heritage</b></p> <ul style="list-style-type: none"> <li>• Preliminary Heritage impact statement, which: <ul style="list-style-type: none"> <li>o identifies all local, State, National or World listed heritage items, archaeological sites and/or conservation areas on or within the vicinity of the site (including ground truthing items)</li> <li>o provides a high-level assessment of the potential impacts of the proposal including concept plan, building envelope or use in respect of a heritage item or conservation area on or within the vicinity of the site</li> <li>o provides a justification if new items are proposed to be listed</li> </ul> </li> </ul> <p>Note: A Preliminary Heritage impact statement generally would not be required for a basic proposal unless it impacts a local heritage item. A heritage interpretation strategy is not required at the planning proposal stage.</p>	May be required	May be required	Likely to be required
<p><b>Aboriginal Cultural Heritage</b></p> <ul style="list-style-type: none"> <li>• Aboriginal Heritage Archaeological Assessment including: <ul style="list-style-type: none"> <li>o Identification of potential areas, objects, places or landscapes of heritage significance to Aboriginal culture and people that may potentially constrain future land-use planning</li> <li>o Background research and an archaeological field survey</li> <li>o preliminary consultation with the relevant Local Aboriginal Land Council</li> <li>o assessment of the archaeological potential of the study area</li> <li>o impact assessment (based on indicative concept plan)</li> </ul> </li> <li>• The assessment should be undertaken in accordance with the following: <ul style="list-style-type: none"> <li>o Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (OEH 2010)</li> <li>o Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW 2010)</li> <li>o Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW 2010)</li> </ul> </li> </ul>	Not required	May be required	Likely to be required

	Basic	Standard	Complex
<b>Biodiversity</b>			
A biodiversity assessment report is more likely required in greenfield or urban / rural edge planning proposals, where it may impact biodiversity and biodiversity values.			
<ul style="list-style-type: none"> <li>• Biodiversity assessment, that addresses the following (as relevant):               <ul style="list-style-type: none"> <li>o maps and describe the ecological features and biodiversity value of the site (including ground truthing if relying on existing mapping) including threatened ecological communities, threatened species and their habitat including linkages to corridors beyond the site</li> <li>o discuss the implications of occurrences of native flora and fauna for future development of the site</li> <li>o demonstrate how the proposal has taken appropriate and sufficient steps, as a first step, to avoid or minimise impacts to native vegetation (if relevant)</li> <li>o make recommended mitigation of the ecological impacts of rezoning (if relevant)</li> <li>o make recommendations for biodiversity offsets to address any loss of native vegetation (if relevant)</li> <li>o proposed ownership and management arrangements for residual land such as environmental land, open space and riparian corridors</li> </ul> </li> </ul> <p>Note: A vegetation management plan or conservation management plan is not required at planning proposal stage.</p> <p>The proposed scope and methodology for the biodiversity assessment should be confirmed at the pre-lodgement stage, in consultation with council and NSW Environment, Energy and Science.</p>	Not required	May be required	Likely to be required
<b>Contamination and Acid Sulphate Soils</b>			
A contamination and acid sulphate soil assessment may be required to provide sufficient information that the site is suitable in its current state, or if contaminated that it can be appropriately remediated and made suitable for the proposed land use. This report may be required particularly when the site has been used, or contains, contaminants, like on industrial or highly contaminated agricultural lands.			
<ul style="list-style-type: none"> <li>• Preliminary site investigation and report that:               <ul style="list-style-type: none"> <li>o assesses the potential for widespread contamination and/or acid sulphate soils on the site based on current and historical site activities</li> <li>o considers the suitability of the site for the purpose and/or land use for which the planning proposal envisages will be carried out in the future, based on the potential contamination of the site and extent of acid sulphate soils, and whether the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out)</li> </ul> </li> </ul> <p>Note: A council may require the proponent to carry out, and provide a report on, a detailed investigation (as referred to in the contaminated land planning guidelines) if it considers that the findings of the preliminary investigation warrant such an investigation.</p>	Not required	May be required	Likely to be required

	Basic	Standard	Complex
<b>Social and Community</b>			
A social and community assessment report may be required for planning proposals that result in a significant increase in residents, students or employees who need to be connected to social and community facilities, programs, and open space. A planning proposal that relates to residential development should consider housing diversity and affordability to meet current and future needs of the community.			
<ul style="list-style-type: none"> <li>• Social and community needs assessment, which addresses the following:               <ul style="list-style-type: none"> <li>o Demographic context</li> <li>o Existing social infrastructure (i.e. local facilities including shopping and neighbourhood services, schools, childcare, community facilities, open space and recreation facilities), district and regional facilities need for the proposal (if proposal is responding to a particular need including additional housing, employment, education etc)</li> <li>o housing and population projections (to support the assessment particular if housing is proposed)</li> <li>o demand for social and community facilities</li> <li>o funding approach and delivery arrangements for local, district and regional facilities</li> <li>o requirements for open space and recreation facilities (if relevant) including likely needs, quantum of open space, dual-use of open space, delivery and funding arrangements</li> <li>o housing diversity and affordability (if residential is proposed and/or the proposal results in the displacement of existing residents and businesses)</li> </ul> </li> </ul> <p>Note: An open space study may be required for proposals that seek to classify or reclassify public land and/or also proposes to rezone land which have open space or biodiversity impacts</p>	Not required	May be required	Likely to be required
<b>Utilities and Infrastructure</b>			
Infrastructure servicing strategy are critical to link in with any planning proposal to demonstrate that the planning proposal can provide or is supported by adequate infrastructure and utilities in a feasible manner.			
<ul style="list-style-type: none"> <li>• Utility and infrastructure servicing strategy that addresses the current capacity and future needs of the proposal and strategy, timing and broad feasibility for delivery of the following (as relevant):               <ul style="list-style-type: none"> <li>o potable water</li> <li>o sewerage</li> <li>o stormwater</li> <li>o gas</li> <li>o electricity</li> <li>o telephone and internet / NBN services</li> </ul> </li> </ul>	Not required	Likely to be required	Likely to be required

	Basic	Standard	Complex
<b>Economic and Retail Analysis</b>			
An economic and retail analysis may be required when assessing employment land demand, conversion of employment lands, creation of jobs, and town centres.			
<ul style="list-style-type: none"> <li>• Economic and retail analysis that: <ul style="list-style-type: none"> <li>o examines existing population and employment trends/needs for the area</li> <li>o considers future population, employment and/or other growth potential for the site</li> <li>o assesses employment land demand (lot sizes, floor space ratio, take up rates and employment densities)</li> <li>o examines the proposal's future role and function, trade areas, size and floor space mix, location and scope for additional supporting land uses</li> <li>o identifies and quantifies economic impacts including jobs by sector, multiplier effects associated with the proposal for local, metropolitan, state and national economies (as relevant)</li> </ul> </li> </ul>	Not required	May be required	Likely to be required
<b>Noise</b>			
Acoustic reports would only be required in exceptional circumstances, where a proposal envisages residential or other sensitive uses such as schools, seniors housing and the land to which the planning proposal relates is exposed to significant noise sources.			
<ul style="list-style-type: none"> <li>• High level acoustic report that: <ul style="list-style-type: none"> <li>o identifies the existing noise sources, particularly if the proposed use is to be a more sensitive</li> <li>o considers at a high-level the suitability of the site for the purpose and/or land use from an acoustic perspective</li> </ul> </li> </ul> <p>Note: Refer also to requirements in relation to noise set out in Direction 3,5 – Development Near Regulated Airports and Defence Airfields (if relevant) issued under section 9.1 of the EP&amp;A Act</p>	Not required	May be required	May be required
<b>Agricultural Land Assessment</b>			
An agricultural assessment is likely only to be required where a proposal seeks to rezone rural land currently used or identified as significant agricultural land to an urban zone.			
<ul style="list-style-type: none"> <li>• Agricultural assessment capability report that: <ul style="list-style-type: none"> <li>o addresses the impact of the development on the primary production values of the land to which the planning proposal relates (if the land is currently used for cropping or other intensive horticultural purposes) and practices and of adjoining agricultural land and whether any impacts on regional significant areas of food production may result</li> <li>o Addresses the agricultural suitability of the site</li> </ul> </li> </ul> <p>Note: Information on the agricultural capability of land can be found here: <a href="#">Social Pinpoint   SSAL (mysocialpinpoint.com)</a></p> <p>Land and Soil capability class mapping can be found here: <a href="#">Geocortex Viewer for HTML5 (nsw.gov.au)</a></p> <p>The North Coast mapping can be found here: <a href="#">North Coast Region resources and maps - (nsw.gov.au)</a></p>	Not required	May be required	May be required

	Basic	Standard	Complex
<b>Geotechnical and Mining Resource and Subsidence</b>			
Geotechnical report may be required for planning proposals in infill sites to demonstrate developability of the site, or in greenfield areas where soils are unstable or in mining and subsidence areas. The preliminary report should conclude that the land to which the planning proposal relates is, or can be made suitable, for the intended use.			
<ul style="list-style-type: none"> <li>Preliminary geotechnical assessment report, particularly where soils are unstable or where depth of soils / rock may impact on trenched utility infrastructure or planting regimes</li> <li>Geotechnical investigation and/or desktop assessment only required to support planning proposals which will deliver large infrastructure projects or proposals in active mining areas.</li> <li>Geotechnical studies and subsidence risks in areas of historical mining, mine leases or any other areas where land may be subject to subsidence</li> </ul>	Not required	May be required	May be required
<b>Infrastructure Funding</b>			
A new or amended contributions plan or draft planning agreement may be needed when a planning proposal may result in the increased demand for public amenities and public services.			
<ul style="list-style-type: none"> <li>Provide details on the principles, scope of infrastructure, nexus and cost to cater for development to support an amendment to an existing contribution plan or new contribution plan</li> <li>In cases where works are to be proposed, public benefits provided or proposed planning agreement is agreed by all parties, a letter of offer can be provided</li> </ul> <p>Note: A Draft Contributions Plan is to be prepared in sufficient time to enable the plan to be exhibited at the same time as the planning proposal, or as soon as possible after the planning proposal is placed on exhibition, if the Minister determines that the planning proposal should proceed.</p> <p>High level costing of infrastructure will be required to inform a contributions plan/schedule</p>	Not required	Not required	Likely to be required