



Industrial Lands Policy Review: Technical analysis status report Greater Sydney Commission

Sensitive – NSW Government

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Project background and scope

One of the key planning policy recommendations from the NSW Productivity Commission's White Paper (*Rebooting the Economy (2021)*) was the need to optimise industrial land-use and better manage the Retain and Manage (R&M) category of industrial and urban services lands in Greater Sydney to maximise welfare and net benefits to the state. Consequently, the Greater Sydney Commission (GSC) is undertaking an evaluation of the Industrial and Urban Services Lands Retain and Manage ('Retain and Manage') policy.

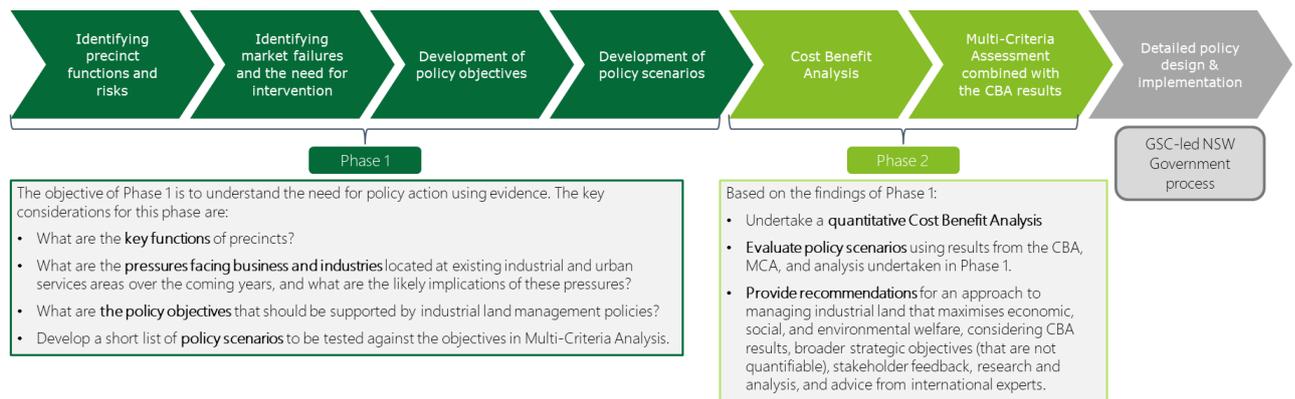
The current policy requires designated industrial and urban services lands in certain areas (as defined in the Greater Sydney Regional Plan (GSRP)) to be safeguarded from competing pressures, especially residential and mixed-use zones. Across Greater Sydney, there is increased demand for industrial lands and progressive encroachment from competing uses. This update summarises the in-depth technical research completed. The more detailed analysis reviewed key trends driving the demand for industrial land, including urban fulfillment centres to support more efficient freight delivery, intensification of use on industrial land driven by innovation, the growing importance of the circular economy, the growing demand for data centres, the transformation of manufacturing, and strong national demand for industrial and logistics real estate.

Deloitte Access Economics has been engaged by the GSC to develop an evidence base to inform the GSC's review of the current Retain and Manage policy. There are two phases of work for this project.

- Phase 1 establishes the rationale for having an industrial lands management policy, articulates the key policy objectives, and develops policy scenarios for testing.
- Phase 2 applied Cost Benefit Analysis (CBA) to the stylised policy scenarios and develops recommendations on the future of the policy based on the CBA, economic analysis, key stakeholder feedback, and input from international subject matter experts.

Figure 1 overleaf summarises the overall approach to the technical review. It should be noted that the scope of this review, as articulated in the NSW Productivity Commission, is focused on applying a CBA framework to test potential changes to current policy settings, which are tested in the form of stylised policy scenarios.

Figure 1: Project approach overview



Functions of Retain and Manage lands

There are 159 Retain and Manage (R&M) lands across Greater Sydney’s five districts (Eastern City, North District, South District, Western City, and Central City). Detailed analysis has been undertaken across all R&M lands¹ to understand the role industrial lands play in supporting local and strategic functions across Greater Sydney, NSW, and Australia more broadly. The analysis looked at each District’s connection to key trade gateways (Port Botany, Sydney Airport, and Inter-Modal Terminals) to understand the freight and supply chain activity, as well as understanding the market performance, and customer and workforce catchments. The analysis also identified the land-uses and capacity of each industrial area as well as the competing uses and current demand pressures. These insights were used to outline **three primary functions of Retain and Manage lands**:

- supporting community needs
- supporting city functionality and supply chains
- supporting economic resilience and future business investment.

The data-driven evidence base and qualitative insights have been used to understand the varied functions of the lands in each district, as well as current and future needs. The table below summarises the varying extent to which R&M industrial lands, within each district, perform a range of functions critical to the functioning of Greater Sydney and NSW.

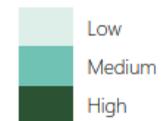
The varying extents to which R&M industrial lands within each District perform the identified functions are summarised in Table 1.

¹ 20 R&M industrial lands were selected for deep dives, which included business interviews and additional data analysis on customers and workforce catchments.

Table 1: The extent to which R&M lands, within each District, perform each function

Retain and Manage precinct functions		North District	Eastern City	South District	Western City	Central City
 Supporting community needs	Providing goods and urban services to the local community	High	Low	High	Medium	Medium
	Providing employment opportunities for the local labour market	Medium	Low	Medium	Low	High
 Supporting city functionality and supply chains	Providing intermediate goods and services to upstream and downstream businesses	Low	High	Low	Medium	High
	Enabling freight and logistics operations (including ports)	Low	High	Low	Medium	Medium
	Supporting the operations of "gateway" locations such as airports and port facilities	Low	High	Low	Low	Medium
	Enabling manufacturing and construction activity for local use or export	Medium	Low	Medium	Medium	High
 Supporting economic resilience and future business investment	Providing diverse spaces (e.g. in terms of costs, lot sizes, flexible operating conditions), that support a wide range of existing and emerging industry uses	Medium	High	Medium	Low	Low
	Providing spaces for existing and emerging low impact light and advanced industrial activity, and creative uses	Medium	Low	Medium	Low	Low
	Protecting and retaining the resilience of supply chains and critical infrastructure	High	Medium	High	Low	Medium

Relative to other Districts for a given function:



Some districts perform specialised regional functions servicing Greater Sydney and NSW, and all districts perform locally significant functions providing employment opportunities, and goods and services to support the local population. Understanding these functions is critical to ensure that the future industrial lands management policy is designed in manner that enhances and supports these functions, with the aim of optimising land-uses across Greater Sydney to maximise the net economic, social, and environmental welfare for NSW.

- The **Eastern City** district precincts perform a variety of functions of both local and regional significance. Proximity to key infrastructure, particularly Port Botany continues to make the Eastern City an important location for NSW supply chains, and freight and logistics with the highest rate of customers (and interactions) from other districts. As a result, wholesale trade, and logistics and warehousing continue to dominate, though residential growth pressures remain strong. Increasing population density has also been a driver of increased urban services, retail, and recreation uses in industrial precincts. Given the proximity to customers, this district is likely to retain a warehouse and logistics focus, with the potential for the development of localised last mile delivery facilities.
- The **Central City** plays a particularly important role in connecting NSW with interstate supply chains with a number of key intermodal terminals strategically located in this district. With strong freight and logistics connectivity, the Central City district supports a variety of local businesses, providing employment opportunities, and servicing the needs of the fastest growing district population. This district has the highest share of intra-regional customer activity, with 84 per cent of customer journeys originating within the district, demonstrating a highly localised service offering.
- The **North district** has limited interaction with key gateway infrastructure, including ports and intermodal terminals. Business mix and customer catchment data suggest that this district has a greater local population servicing function, a finding supported in business interviews undertaken. With exception to some of the lower North District precincts, notably Artarmon and Lane Cove, customers and employees are largely self-contained to the district. The North District also continues to face strong pressures from housing demand and population growth.
- The **Western City** precinct is in a transition period with most of the regional services provided by the Eastern City and Central City districts. However, as infrastructure in the Western City expands (most notably the Western Sydney Airport and aerotropolis), it is expected that this district will perform an increasingly regionally significant NSW-wide function. In particular, it is expected that there will be an increase in freight and logistics activity. The Western City district is currently appealing to capital-intensive businesses that are priced out of, or cannot find suitable sites within inner city areas. Key retailing outlets have large warehousing and distribution centres within this precinct, taking advantage of the relatively greater capacity and space, and lower rents. The high level of investment and growth in this district is likely to facilitate the adoption of advanced manufacturing practices and support access to skilled workers. The rate of population growth in the district is also driving demand for urban services and light industrial uses to service the district population.
- The **South district**, similar to the North, has a strong focus on providing employment opportunities, and goods and services to the district population. Supply chain connectivity within this district is lower, driving lower levels of agglomeration observed in other well connected districts such as Eastern and Central City. The industry and land-use mix in the district reflects this – a lower focus on logistics and wholesale trade, instead greater emphasis on small manufacturing, construction and population-servicing businesses (e.g. mechanics). Surrounded by mostly residential areas, R&M areas are also increasingly home to recreational and hospitality businesses, including gyms and cafes, that are capitalising on a large population base. In the South District, 79 per cent of customers come from within the district.

Key insights from in-depth interviews

As part of this study, consultations were undertaken (by Cred Consulting on behalf of the GSC) with key stakeholders to inform functions and potential risks to Retain and Manage lands. Overall, there was strong support from Local Government, NSW Government agencies, and industry for the existing policy, though there may be benefit in refining it to respond to changing needs. Peak residential developer groups did not support the current approach to safeguarding industrial lands.

As part of Phase 1, in-depth business interviews were undertaken by market research specialists Antenna Insights (part of the Deloitte team) with a cross section of businesses. The business interviews aimed to obtain a better understanding of businesses operating on Retain and Manage industrial sites across Greater Sydney. The interviews focused on developing an understanding each business and their operations, understanding the site history and main motivations for site location, and understanding the changes that have occurred in the area over time. Overall, the businesses interviewed indicated that price and proximity to home are key determinants for the location of the business. Once established, these businesses rely on the surrounding area to source workers and customers. Many businesses stated that encroaching residential development was a significant burden to their operations and moving out of their current location would be costly and may jeopardise business operations and future investments.

Key findings from the business interviews included:

- A significant impact from COVID-19 on supply chain, business costs and client demand has in turn impacted performance and profitability for business - despite an optimism for the future, many struggle with the administrative and rental costs of their businesses right now.
- Once established, a strong sense of 'set and forget' about where they are located - it is clear businesses are not actively thinking about their site and its role in the business with any regularity.
- Location is initially driven by proximity to the founder's home (and customers) - as the business grows, it is cemented to this area by drawing employees and customers from the local area. Employees and the lot size and logistics (building size, heavy transport access) are critical features, while access to customers, building design, and local services (food outlets, retail and services) are seen as nice to have but not essential.
- For many businesses interviewed, increasing residential development in the area comes at a significant burden - a reduction in clients and suppliers in the area (through increasing land costs), fewer alternative sites for their business as it grows, and challenges around noise complaints, limited heavy vehicle access, and on-street parking.
- If they had to move, a significant portion of the businesses reported that they may close, with a significant portion unsure of what they could do - there is a high cost in moving for many, while higher rental costs and the comparative advantage of their current site (low rent, proximity to key employees and customers) would make the business model untenable.

Key risks and countervailing opportunities

The analysis and insights from the stakeholder consultations and business interviews, as well as the detailed data analysis, were used to identify eight potential risks that Greater Sydney and NSW may experience if there is not a suitable industrial lands management policy. Stakeholders identified that the biggest risks include **a potential loss of key freight and logistics lands**, and **a sub-optimal freight network**. Reduced diversity of local goods and services, urban services and industrial land job opportunities were identified as smaller risks. The risks were used to **identify the economic rationale for policy intervention**, which include:

- minimising externalities
- managing community resources
- maximising productivity for Greater Sydney in the medium and long run.

The potential risks and countervailing opportunities for Retain and Manage lands were considered in the absence of an industrial lands management policy for Greater Sydney. The risks to industrial land functions, and the economic rationale for policy intervention are provided in Table 2.

Table 2: Overview of the potential for market failure or strategic policy intent

Potential risks to functioning of Greater Sydney		Economic rationale for policy intervention
 <p>Supporting community needs</p>	<ul style="list-style-type: none"> Optimisation of infrastructure use may be compromised due to potential out of centre developments in industrial areas 30 minute liveable cities could be harder to realise as some local community servicing businesses may not be able to compete and could be displaced Reduced diversity of local goods and services, urban services and industrial lands job opportunities 	<p>Minimise externalities:</p> <ul style="list-style-type: none"> Land use and planning decisions can create extensive negative externalities that aren't managed by the market (noise, light, air quality, carbon emissions, congestion and crowding). Loss of key freight and logistics areas can increase congestion and crowding along major transport routes. Loss of industrial lands in urban centres has the potential to displace businesses and increase last mile inefficiencies. Together these factors will further exacerbate congestion and contribute to increase pollution and emissions from transport. Furthermore, in the absence of policy framework to maintain sufficient buffer zones, local amenity of land uses near industrial areas may be impacted by noise, light, and air pollution. <p>Manage common pool resources:</p> <ul style="list-style-type: none"> Industrial lands are commonly characterised as low value uses. However, they are integral to the efficiency of urban systems. Policies can help mitigate underinvestment in low value industrial uses to optimise land use decision making and infrastructure planning. Policy intervention is needed to minimise potential for loss of public amenity and network inefficiencies as well as to reduce infrastructure costs, and maximise infrastructure use. <p>Maximise productivity for Greater Sydney in the long run:</p> <ul style="list-style-type: none"> Policy intervention can support private markets to maximise productivity gains over a longer time horizon. 'Up-zoning' of industrial lands could result in the loss of future option value for the use of industrial lands to meet Greater Sydney's current and future business needs. A coordination failure could arise if current policies do not consider the future needs of Greater Sydney. Policies can take into consideration the evolving role of industrial lands to serve emerging industries and mounting pressures from a growing population. Thus, minimising present bias which could result in underinvestment in low value industrial uses if the future potential of industrial lands to serve emerging industries and growing populations are not considered. This could exacerbate mis-match supply and demand in the future.
 <p>Supporting city functionality and supply chains</p>	<ul style="list-style-type: none"> Potential loss of key freight and logistics areas, and freight network optimisation could be at risk (including the 30 minute freight cities) Increases in production costs could erode the competitiveness of industries 	
 <p>Supporting economic resilience and current and future business investment</p>	<ul style="list-style-type: none"> Reduced options for suitable land in appropriate locations to support investment in a variety of existing and emerging business needs, which could arise from irreversibility of up-zoning Encroaching competing uses could increase negative externalities (noise, pollution, congestion) between proximate users Greater investment uncertainty for business, and increasing speculative or unproductive land holdings 	

In addition to the potential risks, there are also **countervailing opportunities to consider**. For instance, the absence of an industrial lands policy could support increased residential development in R&M lands, which is associated with a range of costs and benefits. These are considered in the Phase 2 Cost Benefit Analysis.

For instance, additional local housing supply in locations facing a high level of underlying demand for housing could support a range of potential benefits, including:

- Reduced commuting times as residents are able to live closer to work
- Reduced reliance on car use, and increased use of public and active transport
- Access to better amenities.

However, these potential benefits need to be balanced against the risks and costs associated with the irreversible loss of industrial lands. Achieving the best overall net outcomes for Greater Sydney will rely on optimising the mix of land-uses, counterbalancing residential, commercial, retail, and industrial uses across the whole urban system in Greater Sydney.

The importance of industrial lands management policy

A level of regulation may be required to balance the trade-offs and an effective industrial lands management policy could improve economic, social, and environmental welfare by:



Reducing the potential for market failures now and in the future. This includes externalities that may arise from overcrowding, pollution, and congestion if key industrial areas for freight and logistics are lost, particularly for last mile freight. An effective industrial lands management policy supports in achieving an economically efficient outcome, where all costs and benefits (externalities), beyond private value (highest use, as measured by land value), are considered.



Achieving a broader strategic intent. Regulation can help optimise land use and infrastructure planning by minimising the potential for coordination failure and asymmetric information. Even in the absence of market failure, industrial land management policy can support the government in achieving this broader strategic intent.



Helping to secure NSW's future economic potential. Industrial lands management policy can help ensure adequate industrial land is set aside to support the growth of future industries to secure NSW's economic potential in the long run.



Providing certainty to support the growth of current and future secondary industries. A planned approach to industrial land management provides productivity benefits for the urban system, which relies on certainty and strategic planning to support the growth of industries including construction, urban services, advanced manufacturing and food-technologies.

Given the potential risks and market failures associated with not having an industrial lands management policy, and strategic aspirations for a global city such as Sydney, the future industrial lands policy should be one that is best aligned with the vision and multifaceted objectives, while also making the most of countervailing opportunities.

Overarching policy vision

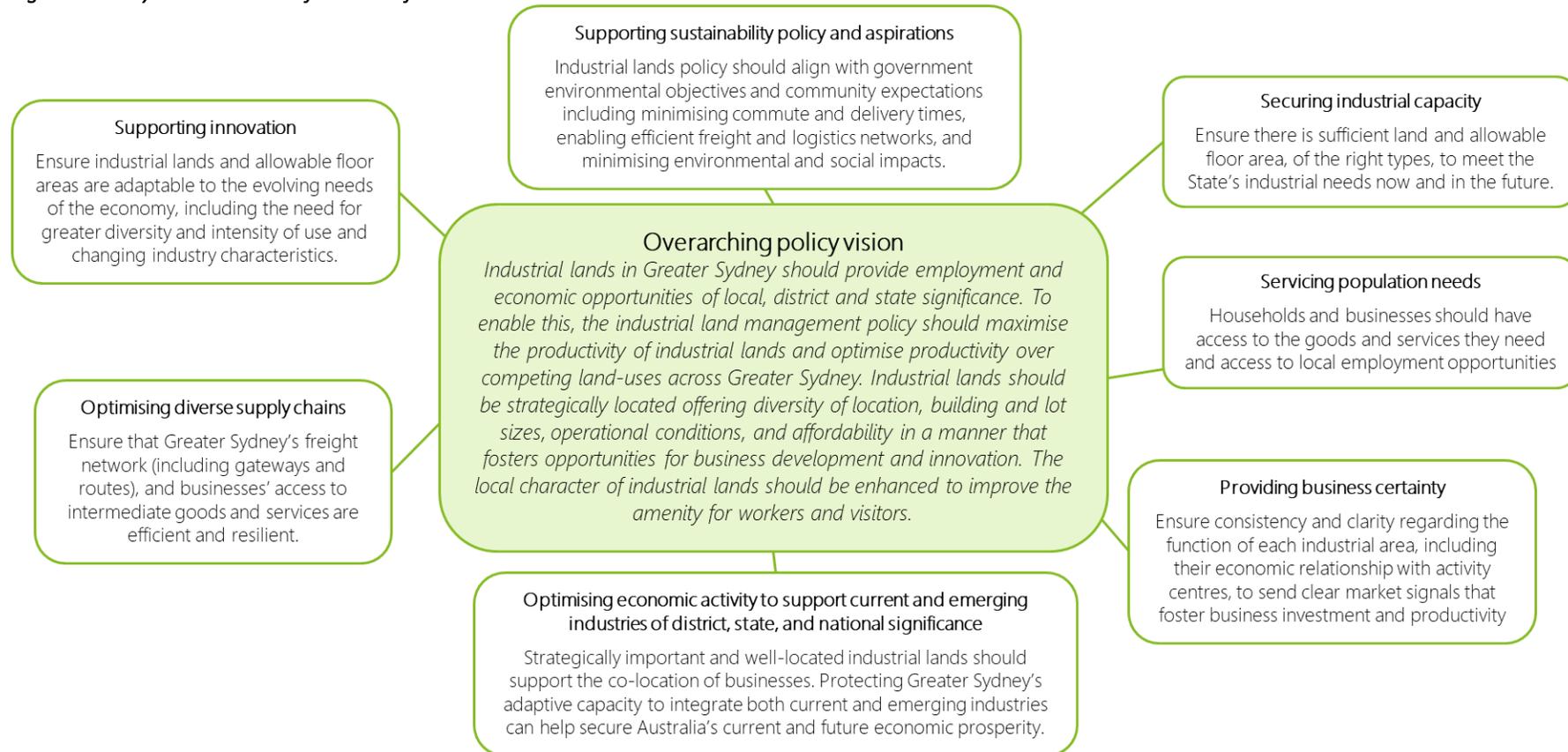
Given the market failures and broader strategic intent of NSW Government, there is a clear need for an industrial management policy for Greater Sydney. Consultation was undertaken with key stakeholders, which included government and industry representatives, and a panel of international experts, to support the research and analysis undertaken to develop the policy vision and objectives. Based on the evidence base and consultation with key stakeholders, an overarching vision statement and multifaceted objectives were developed to inform the future policy.

The overall policy vision states that:

“Industrial lands in Greater Sydney should provide employment and economic opportunities of local, district and state significance. To enable this, the industrial land management policy should maximise the productivity of industrial lands and optimise productivity over competing land-uses across Greater Sydney. Industrial lands should be strategically located offering diversity of location, building and lot sizes, operational conditions, and affordability in a manner that fosters opportunities for business development and innovation. The local character of industrial lands should be enhanced to improve the amenity for workers and visitors.”

Given the potential risks and market failures, and strategic aspirations for a global city such as Sydney, the future industrial lands policy should be one that is best aligned with the vision and multifaceted objectives outlined in Figure 2.

Figure 2: Policy vision and multifaceted objectives



Policy scenarios

Four stylised policy scenarios (including the current policy, which was treated as the base case) were developed in Phase 1 in consultation with key stakeholders after a review of industrial land management policies in other jurisdictions, to explore the costs and benefits associated with different industrial land management strategies. The four scenarios are outlined in Table 3.

Table 3: Policy scenarios for consideration

Policy Scenario	Description
Scenario 1: Current R&M Policy	This scenario is a centralised approach under which the NSW Government designates the Retain and Manage areas at a metropolitan scale. This provides certainty around the allowable activity on industrial land but allows some place-based discretion via Local Environmental Plans. In the CBA, this scenario is treated as the base case.
Scenario 2: Precinct based approach	This scenario identifies State-significant industrial areas for state significant freight and logistics (connectivity to gateways) operations, and state significant utilities. This provides certainty around allowed activity on industrial lands that is crucial to supporting state and national supply chains. This scenario includes District significant industrial areas of District and city-wide economic significance. This provides some local flexibility and supports greater diversity of uses, including residential transitions, in line with employment land strategies. State and District significant industrial areas would be identified and defined in the Greater Sydney Region Plan (GSRP) and District Plans.
Scenario 3: Precinct typology	This scenario defines the primary function and assigns typology or strategic importance for each R&M precinct. There are three designated precinct types considered in this stylised scenario: (i) freight and logistics, (ii) urban services and (iii) industrial and creative uses. This supports higher employment intensity, and the identification of precinct typologies allows local councils to manage strategic priorities across Districts in collaboration with NSW Government. Precincts and their designated typologies will be identified in the GSRP.
Scenario 4: Market-led approach	This scenario allows market forces to determine land use on a case-by-case basis, with local governments making determinations with NSW Government's role limited to Gateway Determinations. It provides significant local flexibility to allow rezoning of R&M lands to residential and commercial office uses. Where land is rezoned, it is assumed that the whole precincts would transition from industrial to commercial office or residential uses.

The following key assumptions were developed to define the scenarios:

- Under **Scenario 1**, all 159 current R&M precincts are retained, and it is assumed that additional residential or commercial uses remain largely prohibited throughout the forecast period.
- Under **Scenario 2**, 25 precincts are designated as state significant based on their contribution to freight and utilities functions in Greater Sydney. These precincts will be protected, rezoning will not be allowed, and land use trajectory will be based on current R&M settings. In addition to state significant precincts, nine district significant precincts are identified as accounting for a high share of economic activity or employment in the district. The remaining precincts are designated as local precincts. While both district and local precincts can be rezoned, district significant precincts are subject to rezoning at a slower rate compared to local precincts.
- Under **Scenario 3**, precincts are designated into three dominant land use typologies based on their current use and strategic importance. They include 25 freight and logistics precincts (as per Scenario 2), 22 industrial and creative uses precincts, and 18 urban services precincts. The remaining precincts will not have a designation in the GSRP and District Plans and continue undefined as diverse uses.
- Under **Scenario 4**, precincts that are protected through existing planning instruments, such as the Three Ports SEPP, will remain unchanged. All other R&M precincts are subject to potential rezoning subject to feasibility and market demand.

It is important to note that these scenarios are stylised. In the event that reform proceeds, it will be crucial for the NSW Government to undertake a rigorous process to categorise precincts and land typologies.

Phase 2 project status

Detailed CBA of the four stylised policy scenarios is currently being conducted. The modelling is expected to be completed in January following the delivery of inputs from the Strategic Travel Model. It will be used alongside the existing body of qualitative and quantitative evidence in determining a set of recommendations and implications for policy design.

Recognising that the CBA will be based on the stylised policy scenarios described above, detailed policy design will be a NSW Government process undertaken after this technical review, as part of updating the GSRP.

A Multi-Criteria Analysis (MCA) was undertaken, as a complement to the CBA, to gather NSW Government stakeholder input on scenarios using a range of criteria that allowed each policy scenario to be assessed on more than just financial metrics. A set of 10 criteria was developed under two key themes were developed (Table 4).

It is important to note that the MCA is only a summary of the NSW Government stakeholder views and is not a substitute for the full cost-benefit analysis which will be delivered.

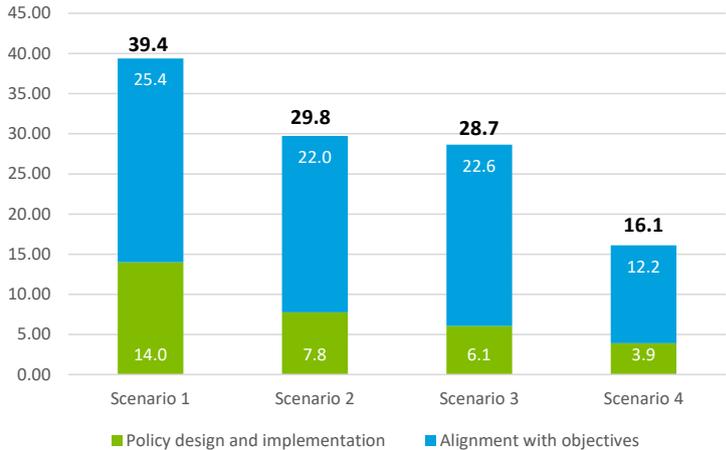
Table 4: Overview of MCA themes and criteria

Theme	No.	Criteria
Design and implementation	1.	Ease of implementation
	2.	Cost effectiveness
	3.	Unintended consequences
	4.	Supporting sustainability outcomes
Alignment with policy objectives	5.	Optimising supply chains
	6.	Servicing population needs
	7.	Securing industrial capacity
	8.	Optimising economic activity
	9.	Supporting innovation
	10.	Providing business certainty

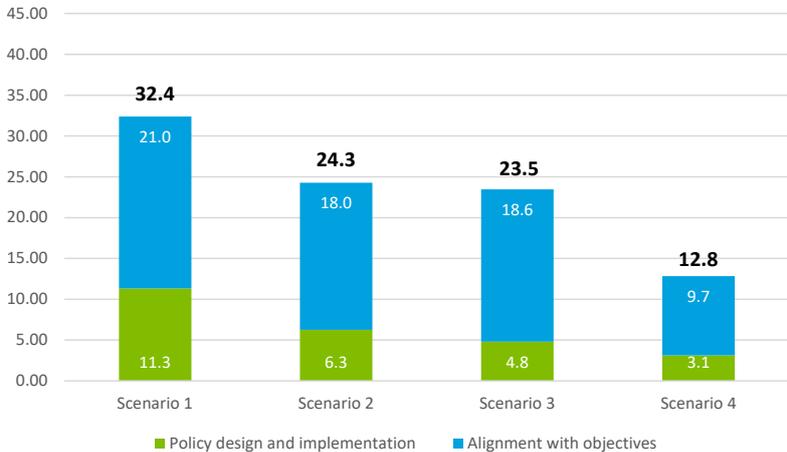
Scenario 1 scored the highest across both criteria themes, making it the highest rated policy. Scenarios 2 and 3 were scored relatively similarly, with Scenario 2 having a slightly higher score. Scenario 4 was rated the lowest.

When applying subjective weights (which represent how important, according NSW Government agency participants, each criterion is in assessing the policy scenarios) to each criterion, the findings remained consistent with the unweighted MCA results.

Chart 1: Ranking of policy scenarios under MCA
Unweighted



Weighted





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