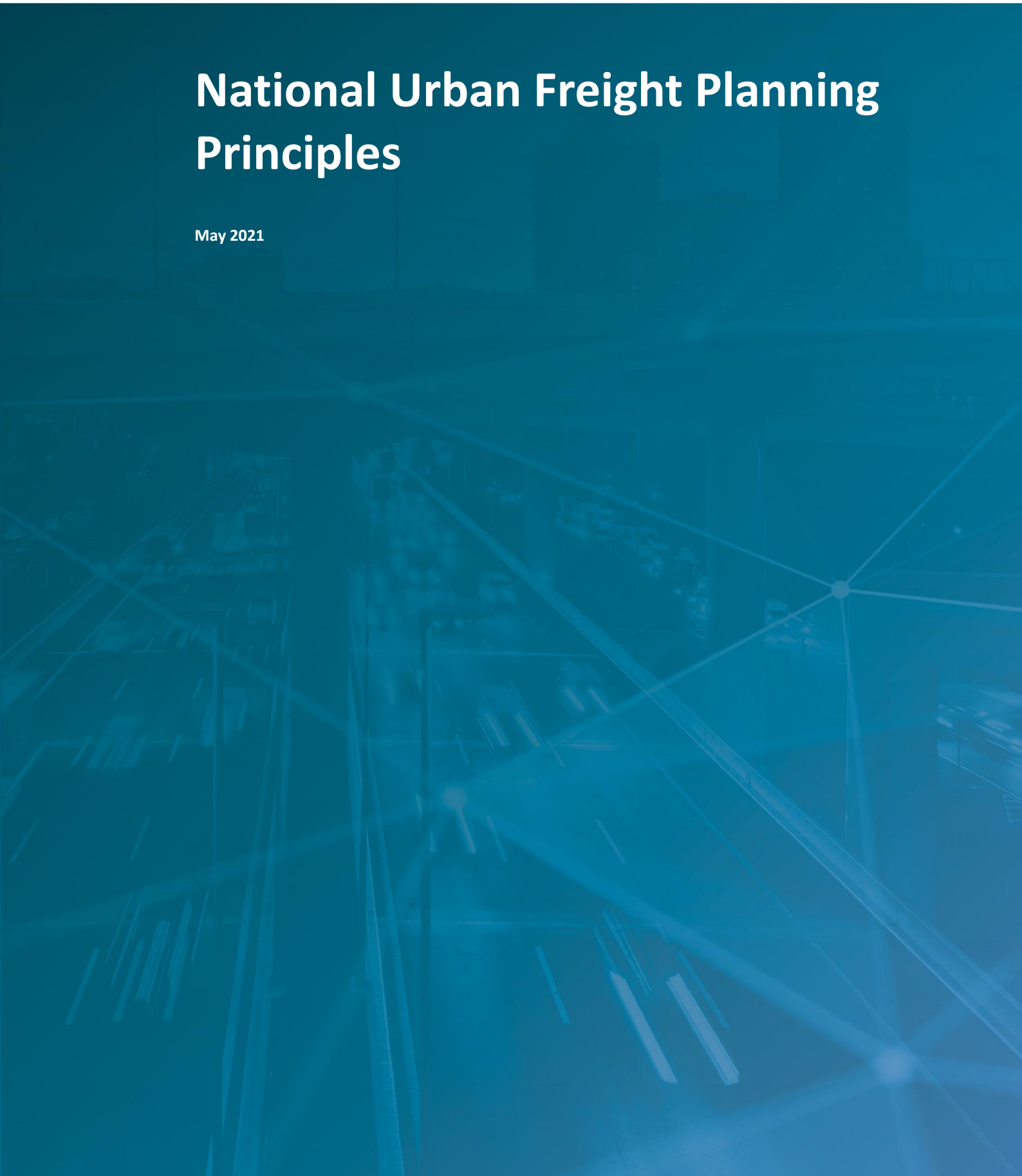
National Freight and Supply Chain Strategy

National Urban Freight Planning Principles

May 2021



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Contact us

Director – Creative Services
Communication Branch
Department of Infrastructure, Transport, Regional Development and Communications
GPO Box 594
Canberra ACT 2601
Australia

Email: publishing@infrastructure.gov.au

Website: www.infrastructure.gov.au

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Introduction

Development of National Urban Freight Planning Principles is an action under the National Freight and Supply Chain Strategy.

The Commonwealth worked with all levels of government and industry to develop the Principles to better balance freight's contribution to our economy and standard of living with social inclusion and environmental protection. To achieve this, the Principles bring together transport and land use planning, and are intended to flow through to strategic planning and detailed planning guidance documents over time.

The Principles recognise:

- The primacy of state, territory and local governments in transport and land use planning.
- That freight and supply chain networks are continuously evolving.
- That industry support and ongoing engagement is crucial to capturing the potential benefits of any urban freight planning reform.

The development of the Principles are a long standing reform called for by industry, including through the 2018 independent *Inquiry into National Freight and Supply Chain Priorities* (Inquiry). They draw on learnings from early actions taken by governments in response to the COVID-19 pandemic to minimise any unnecessary barriers to freight movement, including removing delivery curfews and enabling availability of rest stops and refuelling facilities. These actions ensured Australians received timely and reliable supplies of essential goods.

Principles of Urban Freight Planning

Understand the value, needs and characteristics of freight movement and incorporate in strategic and statutory transport and land use planning.

Safeguard the resilience of all major freight handling facilities and freight corridors within and between neighbouring jurisdictions, including local government areas.

Identify and plan areas for new freight facilities and freight-intensive land uses.

Plan for efficient freight movements and complementary land uses around freight facilities and precincts, including intermodal terminals.

Promote building and precinct design and usage that takes into account freight needs.

Realise the importance of rest and refuelling facilities.

Respond to changes in freight movements, including smaller scale freight movement and emerging technologies.

Freight Flows in Our Cities

Efficient freight movements underpin the delivery of the products we rely on every day. Every product that we buy and sell requires transportation from its place of production to arrive on our shelves and, increasingly, our doorsteps. Our freight systems form a vital link in the supply chains that take our food from farm to supermarket, our fuel from refineries to petrol stations and our online purchases right to our doors. When a product is at the end of its life, its disposal relies on freight movements to transport it from bins to the tip.

What is urban freight?

Urban freight transport describes the movement of goods in urban areas. Urban freight transport consists of the delivery of consumer goods by sectors including retail and manufacturing in city and suburban areas, including the reverse flow of used goods in terms of waste removal. It also consists of goods transport through urban areas including to and from ports, airports and intermodal terminals in urban areas.

Types of common urban freight movements include provision of shops with goods for sale, home deliveries made by professional operators, provision of construction materials to building sites, and movement of goods imported to urban freight facilities and movement of goods to these facilities from their place of production.

Supply chains for urban goods can be categorised into three principal channels, as follows:

These movements are carried out by a variety of different transport modes including:

Shipping: imports and exports, containers, bulk resources

Air: high value, time critical imports/ exports like fruits and seafood

Rail: to/from manufacturing or regional centres to facilities like ports, airports, and warehouses

Heavy vehicle: freight to/from regional areas; deliveries to ports, airports, warehouses, and retail stores

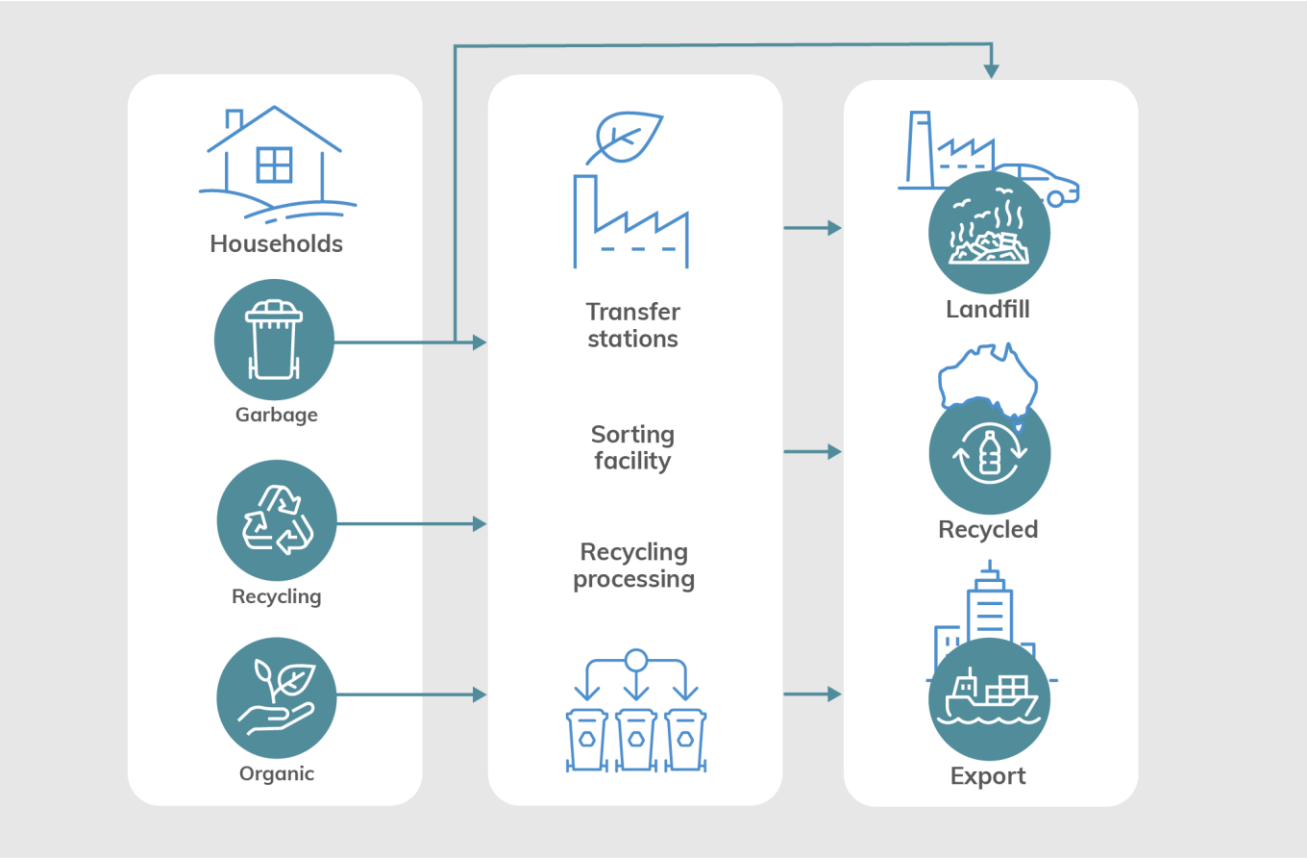
Scooter/motorbikes/e-bikes: on demand food delivery, post, parcels

Vans/small trucks: last mile deliveries, parcel and post deliveries and retail deliveries

We often think of freight and large trucks travelling down regional highways and container ships travelling across oceans. Freight movements are also a vital part of our cities. By looking at the following supply chains, we can see how our urban areas rely on freight, and how they are essential drivers of freight activity.

Simplified online purchase freight supply chain

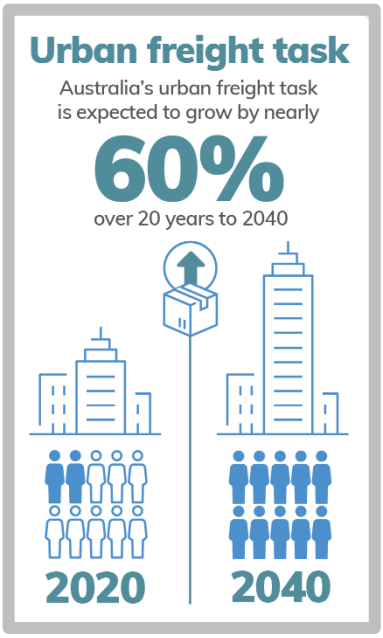
Simplified waste supply chain



Each of these supply chains highlights the vital role urban areas play as origins and destinations of delivery and hosts of the freight facilities that keep commerce in motion. These activities create jobs and contribute to local economies.

Growing Cities, Growing Freight

Our urban areas, and their populations are growing. In 2018-19, people living in our capital cities increased by 1.8%, and capital city growth accounted for 79% of total population growth. Our rising population is increasing demand for residential land, driving competition with industrial land uses.



As residential development is built increasingly close to industrial activity, land use conflicts occur. This is particularly an issue for our urban ports and airports, which handle a majority of freight by value. Desire to avoid amenity impacts on residents can result in operating restrictions on freight movements, cutting the sector's productivity.

Freight movements generally use the same infrastructure as commuters. Growing populations are increasing demand for space on our road and rail corridors, leading to congestion on key routes used by freight vehicles. This is affecting the ability for operators to make predictable and timely deliveries.

At the same time, the amenity impacts of freight, including noise and emissions, need to be considered when planning our urban areas. Proper consideration of how freight integrates within the broader landscape can ensure necessary precautions and controls are put in place to balance freight efficiency and community amenity.

The Role of Land Use Planners

Infrastructure Australia's 2019 Infrastructure Audit highlighted that integrated land-use planning has not been done well in Australian cities in the past and is likely the most significant factor in freight delays and congestion in our fast-growing cities. The Inquiry, and consultation with planners, freight operators, businesses and governments, highlighted how integrating freight into broader decisions about urban planning can help strike a balance ensuring our orders and deliveries are fulfilled and our shelves remain stocked, while maintaining vibrant, liveable cities.

We've heard from planners and industry that freight is often considered as a sub-set of industrial activity, resulting in its unique characteristics and value being inadequately considered in planning, precinct design and development approval. The Inquiry and independent research by Infrastructure Australia and the Productivity Commission all raise the need for governments to better integrate freight needs into strategic land use and transport planning. This includes addressing inconsistencies in how high level strategic planning documents are implemented through all levels of government, resourcing constraints and the level of technical awareness on freight issues.

Land use planning also helps prepare our cities for emerging technology. Online purchases continue to increase. In March 2020, online shopping accounted for 12.3% of total retail spend, compared to 11.3% in 2019. While this growth was encouraged by the COVID-19 pandemic, Australia Post and the Australian Logistics Council expect this will not reverse. Innovations, including electric vehicles, on demand food delivery and automation are some of the ways that our last-mile delivery is changing.

With proactive land use planning, we can position Australia's cities to take advantage of these emerging trends and ensure we are able to have well serviced urban areas with high liveability and amenity.

Urban Freight Planning Principles

The Urban Freight Planning Principles highlight linkages between freight movement and land use planning. They will assist freight operators, planners, engineers, developers, transport regulators, and other practitioners to work together. Ensuring freight movements' impacts on community safety and environmental outcomes are balanced with our need to ensure freight moves efficiently. This will help to maintain liveability of our cities and economic prosperity.

The Principles aim to assist state, territory and local governments (including the planning community) to make land use planning decisions that support the efficiency, effectiveness and competitiveness of the freight and supply chains in a way vital to our urban areas. This includes emphasising key concepts including understanding the value of freight, appropriately planning for and safeguarding freight facilities and movements, and responding to changes and emerging trends in business and delivery.

The application of these Principles occurs in the context of an established urban environment. They are intended to be used by all levels of government when creating, updating or reviewing planning policy documents, reviewing development applications, or developing transportation plans and are applicable to both new development and redevelopment of existing areas. The Principles are encouraged to be incorporated into state and territory level instruments and mirrored in local government planning schemes as appropriate.

The example actions listed under the proposed principles are presented for policy makers and land use and transport planners as examples of how the principles could be applied. The Principles will be implemented by each jurisdiction in a way consistent with their own context and needs.

Principle 1

Understand the value, needs and characteristics of freight movement and incorporate in strategic and statutory transport and land use planning.

Understanding the value and characteristics of urban freight movement, including requirements of vehicles and goods, is the first step towards ensuring the land use requirements of freight are incorporated into strategic and statutory land use planning. This Principle also facilitates awareness of emerging freight trends, encouraging land use planning to remain adaptable to new technologies and business practices.

Desired outcomes

- All aspects of freight are taken into account during strategic planning including economic contribution, vehicle movements and characteristics of transported goods and needs of specific industries or supply chains.
- A more coordinated approach to sharing information and data between governments and industry.
- Implementation of planning decisions is supported by relevant strategic tools.
- Planning frameworks remain sufficiently flexible to adapt to freight industry developments and business trends.

	Example Actions
Capacity Building	• Improve capability of local governments to adequately consider characteristics and impacts of industrial activity and associated freight movements when considering zoning adjustments. • Include model provisions on freight specific issues like setbacks, loading zones, ingress and egress to support local governments to cater to the needs of a robust multimodal freight transportation networks. • Work with and educate local governments on technological advancements in freight vehicles, and encourage updated planning schemes to reflect these developments.
Engagement	• State, territory and local government transport and urban planners work together to understand and incorporate demand parameters in planning considerations. • Encourage coordination, dialogue and data sharing between public sector officials, freight industry representatives and cargo owners and the community to progress toward common goals such as amenity, safety, productivity, economic growth, and energy efficiency. • The freight industry regularly communicates with the community for greater awareness and understanding of respective needs. • Work closely with stakeholders to identify and map location of freight activities, routes, constraints, freight types, and unique needs of specific goods and supply chains. • Structured and transparent sharing of information between governments and industry to support local governments to build capability and understanding of freight and its land use planning requirements.

	Example Actions
Frameworks	• A statement of intent in planning policy frameworks to provide support and direction for specific planning instruments, policies or guidelines on accommodating freight movement into planning activities. • Federal, state, territory and local governments incorporate Urban Freight Planning Principles into land use planning instruments.
Innovation	• Encourage opportunities to manage freight transport demand in urban areas, such as off-peak freight pickups and deliveries, and new freight technologies. • Investigate and encourage use of innovative technologies such as connected and automated vehicle (CAV) technologies in long-term freight movement planning to prepare current infrastructure for future developments. Consider opportunities to harness CAV data for planning purposes.

Link WA

Decisions made today on land use planning, transport governance, policy and infrastructure will determine the future efficiency, productivity and competitiveness of our freight supply chains.

Local governments make such decisions every day, but sometimes it is difficult to see beyond immediate pressures or local boundaries.

Link WA is an example of local governments coming together to take the long term view. Link WA is an alliance between the Cities of Belmont, Canning, Kalamunda and Swan to create a 'best practice' freight and logistics precinct to meet growing freight needs.

Link WA connects the road, rail and air freight logistics industries, communities and government to discuss and develop smart, strategic and integrated planning outcomes that meet the needs and demands of the region and its stakeholders, now and into the future.

Principles in action

Principle 1: Understand the value, needs and characteristics of freight movement and incorporate in strategic and statutory transport and land use planning.

Principle 2: Safeguard the resilience of all major freight handling facilities and corridors within and between neighbouring jurisdictions, including local government areas.

Principle 3: Identify and plan areas for new freight facilities and freight-intensive land uses.

Principle 4: Plan for efficient freight movements and complementary land uses around freight facilities and precincts, including intermodal terminals.

With the four Councils' reputation for driving investment and their established history with air, rail and road freight and logistics, the Link WA member Councils are well placed to develop a thriving freight and logistics hub.

It aims to:

- Close network gaps–identify priorities and source funding
- Standardise and streamline regulation processes and approvals
- Use and embrace new technology – smart cities and automation; and
- Open lines of communication between industry and government.

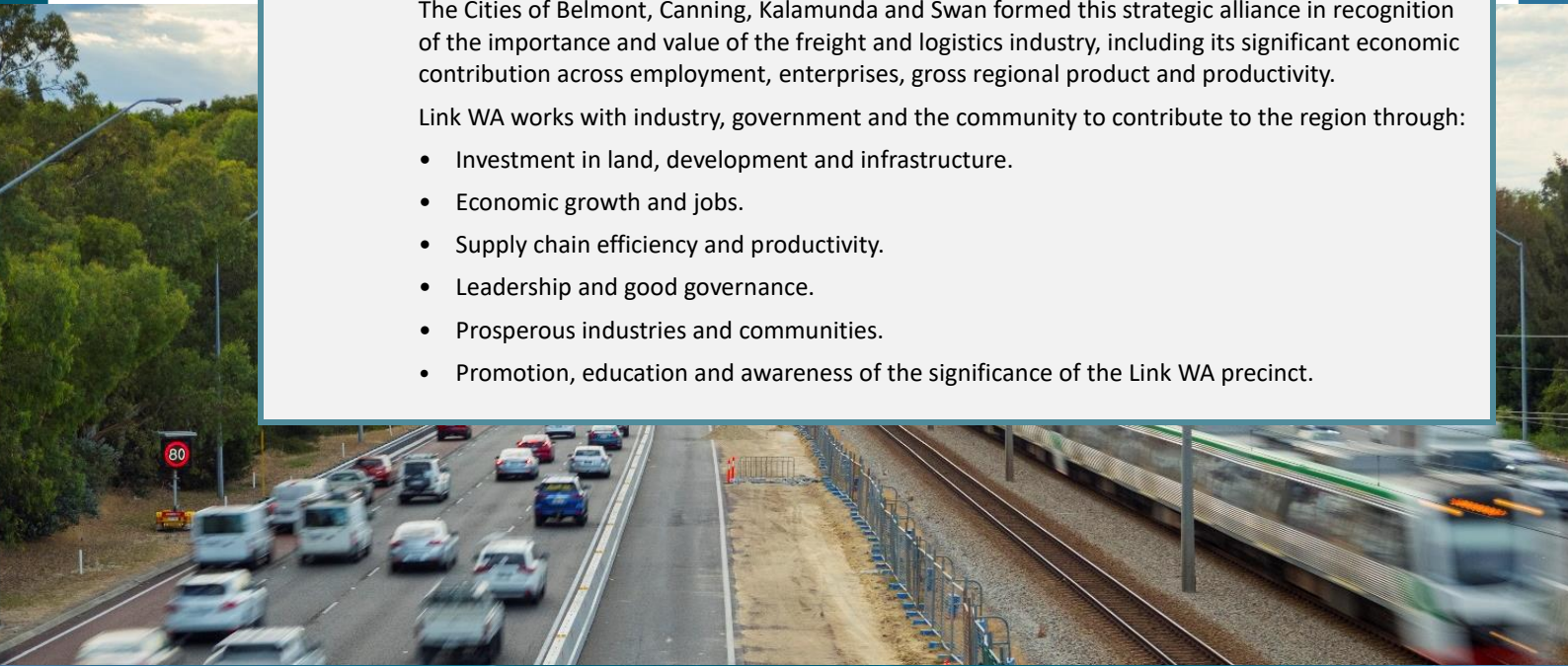
Community and cooperation

Link WA is Western Australia's key freight and logistics hub for local, regional, national and international freight movements. It is a multimodal and multidirectional gateway to air, rail, road and sea transport corridors that play a critical role in Western Australia's economy.

The Cities of Belmont, Canning, Kalamunda and Swan formed this strategic alliance in recognition of the importance and value of the freight and logistics industry, including its significant economic contribution across employment, enterprises, gross regional product and productivity.

Link WA works with industry, government and the community to contribute to the region through:

- Investment in land, development and infrastructure.
- Economic growth and jobs.
- Supply chain efficiency and productivity.
- Leadership and good governance.
- Prosperous industries and communities.
- Promotion, education and awareness of the significance of the Link WA precinct.



Principle 2

Safeguard the resilience of all major freight handling facilities and freight corridors within and between neighbouring jurisdictions, including local government areas.

As more freight is shipped via air, truck and rail transport, it is increasingly important to ensure the operational efficiency of existing infrastructure and plan for future developments. This includes maintaining and enhancing ports, airports, distribution centres and logistics zones and safeguarding already operational facilities and identified transport corridors, flightpaths and adjacent airspace lands against uses that may impede ongoing and continuous operation. This Principle aims to promote consistency in decision-making between jurisdictions.

Desired outcomes

- Land use planning acknowledges the vital role urban freight facilities play in efficient supply chains.
- Freight infrastructure, new and existing corridors are identified and protected consistently across jurisdictions.
- Safeguarding takes into account ability of facilities to adapt to changing business trends.
- Impacts on residential amenity are avoided through appropriate zoning.
- Key freight corridors provide access to rail and High Productivity Freight Vehicle movements.

Example Actions	
Capacity Building	• Develop guidance on addressing dangerous goods transport in land use planning. • Develop planning guidance to support appropriate safeguarding and protection of existing freight facilities. Guidance should give further detail on the need to provide and protect sufficient land/floor space for storage and distribution activities, including for last mile distribution and consolidation centres. • Continue local government education on heavy vehicle access requirements, including for waste, construction, over-size over-mass and emergency vehicles. • Educate industry on the constraints and concerns of local governments and urban planners relating to land use planning for freight.
Engagement	• Establish mechanisms at a regional level to consult with freight stakeholders on how potential changes add value to local freight facilities and corridors and allow for coordinated infrastructure investments where possible. • Encourage use of land near freight corridors, including flightpaths, by compatible industries.
Frameworks	• Corridor protection is a focus of strategic planning and associated strategic planning tools, and is considered in processes including zoning and acquisition liability. • Establish mechanisms to assist industrial lands compete with other pressures including demand for residential development.
Innovation	• Safeguard existing and planned freight corridors and facilities in planning documents to enhance route efficiency and quality. • Avoid new, infill or mixed use developments close to freight facilities where developments will impinge on facilities ability to meet the freight task. • Require new or infill development to mitigate against noise, emissions and vibrations from freight corridors and facilities. • Preservation activities are supported by building design that includes noise attenuation and supports new freight technologies.

Principle 3

Identify and plan areas for new freight facilities and freight-intensive land uses.

Strategic land use plans need to consider potential sources of freight movement, adapt to population growth and workforce accessibility, and consider emerging developments that will change the way facilities operate. Feasibility of efficient and continuous freight activity should be considered when identifying and planning locations for new facilities and related land use. Engaging with industry and freight demand modelling can help identify new or expanded growth areas, opportunities for repurposing of existing sites, new factories, new major commercial areas, potential quarries or landfill sites, or new freight distribution facilities. Planning for new freight facilities should also consider emerging order fulfilment models, and their associated warehousing, distribution and delivery needs.

Desired outcomes

- Land use planning identifies and protects land use needs for freight infrastructure, corridors and industrial activities. Corridor planning takes into account appropriate vehicles for freight task.
- Land use conflicts are avoided, protecting residential needs and amenity without impeding efficient freight movement.
- Identification of land for freight use takes into account emerging business needs.
- Operation of High Productivity Vehicles are considered in developing appropriate corridors connecting freight significant areas.

	Example Actions
Data	• Collect data and map all major planned growth areas, in particular major freight facilities, to ensure future freight corridor needs can be met. • Map priority routes for efficient movement of freight into and out of areas with significant employment, industrial and commercial activity. • Access data from emerging technologies, including connected vehicles and infrastructure, to inform emerging demand patterns.
Engagement	• State, territory and local governments engage with industry to consider how operations can adapt to improve amenity, safety and sustainability impacts when considering land use planning issues.
Preservation	• Identify expansion opportunities for existing facilities and link new freight generators and attractors to networks and future freight facility locations. • Identify and protect areas for new distribution centres and logistics zones/warehouses, or opportunities to repurpose existing sites for logistics purposes. • Planning frameworks remain flexible to adapt to changes in freight facility operation and nature of land use. • Lot size specifications consider land size requirements for consolidation and warehousing activity.

Bayside Council Local Strategic Planning Statement

Communities all across Australia rely on trade gateways like Sydney Airport and Port Botany to send produce to international markets and bring imports and critical supplies from overseas. Often, however, the local impacts of such gateways can be overlooked by those not in the immediate vicinity.

As trade gateways are anticipated to handle significantly more freight over the next decades, it will be important to ensure that land use planning undertaken now doesn't limit future opportunities.

Bayside is one such local area facing a rapidly increasing resident population while experiencing significant traffic as people journey to the area for work each day.

Bayside Council is responsible for balancing community and industry needs. In its Local Strategic Planning Statement (the Statement), the Council sets a vision for land use to 2036, prioritising infrastructure and collaboration, liveability, productivity and sustainability.

Principles in action

Principle 1: Understand the value, needs and characteristics of freight movement and incorporate in strategic and statutory transport and land use planning.

Principle 2: Safeguard the resilience of all major freight handling facilities and corridors within and between neighbouring jurisdictions, including local government areas.

Principle 4: Plan for efficient freight movements and complementary land uses around freight facilities and precincts, including intermodal terminals.

Principle 5: Promote building and precinct design and usage that takes into account freight needs.

The Statement acknowledges that the trade gateways help drive the region's economy, while recognising that residential opportunities in Bayside will face land use limitations, including land use conflict from:

- Incompatible neighbouring uses.
- Environmental risks.
- Environmental factors (such as aircraft noise and height limitations due to proximity to the airport).

Bayside Council is preparing a Local Housing Strategy that will provide direction as to where future growth can occur and the housing diversity required.

Planning ahead

The Bayside Council Local Strategic Planning Statement includes actions that will directly support the Urban Freight Planning Principles. These include:

- Planning for urban development that is integrated with existing transport infrastructure and proposed transport projects.
- Managing potential land use conflict by preventing residential and commercial encroachment on the industrial and urban services areas and along freight corridors through land use controls.
- Ensuring airport and aviation-related requirements are recognised in strategic land use planning policies and processes by giving effect to the National Airports Safeguarding Framework and its guidelines.
- Reviewing land use planning controls to prevent high traffic generating developments, such as large scale retail and high density residential, on roads that service Sydney Airport and Port Botany to reduce conflicts with dangerous goods vehicles.

Principle 4

Plan for efficient freight movements and complementary land uses around freight facilities and precincts, including intermodal terminals.

An efficient multimodal freight network is essential to service complex supply chains. Demand for residential and mixed use developments will likely continue encroachment on existing intermodal freight facilities and industrial activity, particularly ports. Consideration of the interaction between freight operations and other land uses must be given to impacts on ongoing functionality and intensity of operations when planning for land use changes.

Desired outcomes

- Zoning decisions balance different needs of freight operations, and residential and mixed-use developments. Requirements for efficient freight movements are incorporated in land use planning decisions.
- Long term freight outcomes are incorporated into strategic and statutory land use planning.
- Continuous freight activity is protected and restrictions avoided.
- Land use conflicts are avoided, protecting residential needs and amenity and enabling continuous freight activity where practical.

Example Actions	
Capacity Building	• Continue local government education on heavy vehicle access requirements, including for waste, construction, over-size over-mass and emergency vehicles.
Engagement	• State and local governments engage with industry to consider how operations can adapt to improve amenity, safety and sustainability impacts when considering land use planning issues. • Communities are educated about the benefits of freight activity and industry action to deliver improved environmental and amenity outcomes.
Preservation	• Safeguard new and existing freight oriented land uses and corridors surrounding intermodal facilities at ports, airports and rail yards. • Designate and zone land to allow for the expansion of existing freight operations around ports, airports and rail yards to provide greater capacity for the future. • Plan for future operations, freight flows and volumes to preserve or grow intermodal facilities, including clustering freight facilities to achieve economies of scale.

Principle 5

Promote building and precinct design and usage that take into account freight needs.

Residents and businesses rely on efficient, timely deliveries. Building design that accounts for accessibility for the freight vehicles that make these deliveries will ensure online purchases, groceries, and supplies arrive at their final destination as safely and efficiently as possible. Buildings and precincts need to also consider waste collection, and access for these and other service vehicles. Planning controls for new residential and commercial developments that do not consider freight delivery and waste management can lead to an over reliance on the kerbside space and create congestion and safety hazards. Appropriate building and precinct design can facilitate adoption of emerging freight technologies, such as providing electric vehicle charging and delivery innovations such as parcel lockers and alternative pick-up points.

Desired outcomes

- Planning controls and building design consider freight demands and potential interaction with kerbside space and traffic flows, and safety needs of road users.
- Precinct and building design takes into account needs and facilitates benefits of emerging electric, connected and automated vehicle technology.

	Example Actions
Capacity Building	• Develop more robust evaluation of loading dock proposals for new developments. • Education of planners to better consider vehicle dimensions and turning in planning controls. • Require freight consolidation facilities for new developments. • Develop guidance on how to consider last-mile delivery needs in kerb side planning.
Frameworks	• Planning controls for new developments incorporate delivery and service vehicle access.
Innovation	• Incorporate infrastructure requirements to support freight innovations in building design, such as electric vehicle charging facilities. • Consider initiatives to reduce overall passenger traffic loads through behaviour modification including shared cycling paths and public transport options.
Preservation	• Precinct planning supports adequate lot sizing for warehousing and distribution activities.

Principle 6

Realise the importance of rest and refuelling facilities.

The importance of facilities to ensure compliance with fatigue and broader safety regulation – such as rest stops – was made very clear during Australia's response to the COVID-19 pandemic. These facilities contribute to the safety and efficiency of freight operations and provide necessary amenities for the health and wellbeing of operators. While rest and fuel facilities are mostly associated with regional, long-haul freight movements, they also play a vital role in supporting urban freight activity. We have heard that heavy vehicle drivers have difficulty finding appropriate locations to rest in urban settings, often as a result of parking restrictions in urban settings. This places significant pressure on drivers to meet fatigue regulations, and undermines their health and safety. We have also heard that fuel facilities in urban areas have limited heavy vehicle accessibility. Considering location of compliance and enforcement facilities in strategic land use and transport planning is also necessary, including egress into and out of these facilities.

Desired outcomes

- Land use planning incorporates consideration of fatigue regulation, safety and operational needs alongside health and wellbeing of people moving freight.
- Interaction between freight vehicles and other infrastructure users are considered in transport corridor planning, including in design of high-quality facilities to meet safety and operational requirements.

Example Actions	
Data	• Data is used to identify network gaps and deficiencies in rest facilities.
Engagement	• Industry is engaged to understand land use needs surrounding specific transport corridors, including wellbeing, fuelling and regulatory needs.
Preservation	• Identify and safeguard locations along freight corridors for the provision of quality rest area services and compliance facilities. • Plan for and work to establish rest and fuel facilities where existing deficiencies are noted, including in urban areas.

Case study

Tasmanian Heavy Vehicle Driver Rest Area Strategy

People are life blood of our local and national supply chains – from dock workers to truck drivers. A large number of these workers don't have a traditional office and can be without support facilities for hours at a time. Providing facilities for these workers is critical to helping these workers meet current and projected increased road transport demands.

Tasmania recognises this, which is why it has developed the Heavy Vehicle Driver Rest Area Strategy (the Strategy). The Strategy aims to provide appropriate heavy vehicle driver rest areas and parking areas on key Tasmanian freight routes

This Strategy supports:

- Effective fatigue management by drivers and road transport operators.
- Legal compliance with fatigue regulations by drivers, transport operators and parties to the transport supply chain.
- Driver health, safety and wellbeing.
- Heavy vehicle operations and load checks.
- A safe working environment that supports industry recruitment and driver retention.

The Strategy was developed through a collaborative, industry led approach and aims to manage heavy vehicle safety and productivity by:

- Establishing a network of facilities along key Tasmanian freight routes that are suitable for heavy vehicle drivers to take rest breaks and undertake load and vehicle operations checks.
- Supporting drivers to comply with fatigue regulations.
- Providing guidance in the planning and design for heavy vehicle driver rest areas.

Principles in action

Principle 1: Understand the value, needs and characteristics of freight movement and incorporate in strategic and statutory transport and land use planning.

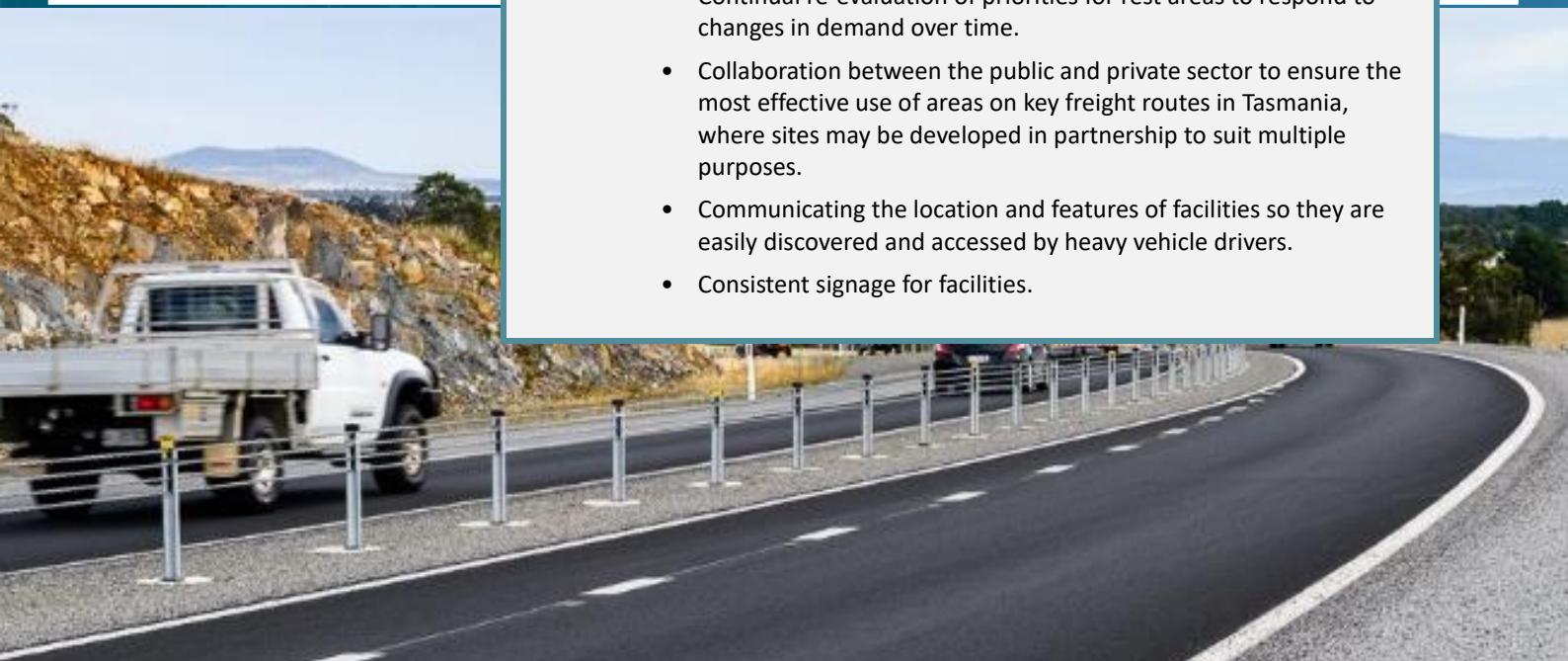
Principle 3: Identify and plan areas for new freight facilities and freight-intensive land uses.

Principle 6: Realise the importance of rest and refuelling facilities.

Principle 7: Respond to changes in freight movements, including smaller scale freight movement and emerging technologies.

Key principles for rest areas include:

- Regular and frequently spaced rest areas and parking bays.
- Continual re-evaluation of priorities for rest areas to respond to changes in demand over time.
- Collaboration between the public and private sector to ensure the most effective use of areas on key freight routes in Tasmania, where sites may be developed in partnership to suit multiple purposes.
- Communicating the location and features of facilities so they are easily discovered and accessed by heavy vehicle drivers.
- Consistent signage for facilities.



Principle 7

Respond to changes in freight movements, including smaller scale freight movement and emerging technologies.

Strategic plans should recognise and have sufficient adaptability to meet the changing nature of freight movements, particularly in the urban focused last-mile context. This includes adapting to widespread adoption of emerging freight technologies, changes in consumer patterns and new trends in distribution. Kerb side space for commercial and consumer deliveries need to be integrated into active transport corridors and beautification. Planning documents should consider infrastructure and other needs of emerging technologies in precinct and building design.

Desired outcomes

- Strategic plans takes into account changes in the nature of freight and resulting effects on planning, including connected, automated and electric vehicle requirements.
- Facilities and infrastructure to support smaller scale, last-mile freight operations are considered in planning urban spaces and their contribution to liveability and business needs.
- Strategic plans incorporate long-term freight outcomes. Land use planning aligns with actions to facilitate improved delivery efficiency, including expanded access for High Productivity Vehicles.

	Example Actions
Engagement	• Engage freight industry to identify how technology advancements can improve amenity, safety and sustainability outcomes when considering land use planning issues. • Planners and transport agencies engage with industry to better understand changes in logistics and supply chain, including those driven by customer demand. • Local governments engage with freight industry to consider alternative ways to move freight through residential areas, including off-peak delivery.
Innovation	• Initiatives to improve the efficiency of urban freight, including by encouraging innovative approaches to using space for freight and servicing in the CBD and other key urban centres through concepts such as delivery service plans for individual buildings, precinct delivery models and shared loading docks. • Plan and support the use of electric freight vehicles for deliveries in built-up areas to reduce the noise and emissions impact of freight. • Consider opportunities to encourage adoption of new vehicle technologies including guaranteed road access and graduated curfews. • Outcomes focused regulation is reflected in planning decisions and frameworks to increase uptake of freight innovations that improve amenity and safety outcomes in urban areas.
Preservation	• Plan for the size and number of trucks and delivery vehicles that will need to negotiate the core area when reviewing standards for roads, private developments and infrastructure within urban centres. • Kerb side planning takes into account last-mile delivery and provides adequate space for light commercial vehicles and on-demand delivery services.