

Effective planning today, helps to shape the Kwinana of tomorrow.

INTEGRATED LANDUSE AND TRANSPORT

There is a significant relationship between land use and transport, with each impacting on the other. Major categories of land use within the City of Kwinana include residential, industrial, commercial/retail, and rural residential. Transport includes all combinations of road, rail, and path network, as well as the modes and services which allow for the movement of freight (rail, trucks) and passengers by private vehicle (cars, motorcycles); public transport (rail, bus, or active transport (walking, cycling).

When the relationship between land use and transport is well-integrated, it is effective and efficient and at provides for the needs of the community, the environment, and businesses. Looking ahead, the City of Kwinana seeks to create a balance of transport and land use needs and requirements in alignment with the overall strategy and vision for the City.

Factors for Consideration

The City of Kwinana is home to approximately 47,000 people as of 2019, with the population forecast to reach 85,000 by the year 2036. Growth is also expected in the Industrial sector, with increased port and freight infrastructure expected to be developed.

The following transport, traffic and travel issues have been identified through a desktop study of the City of Kwinana:

- Traffic congestion and safety;
- Public transport connectivity;
- Design for active transport;
- · Parking at train stations; and
- Parking supply.

The following images (Figure 1-1; Figure 1-2) show the current land use zones in the Local Planning Scheme No. 2 (LPS2), and the State-level Metropolitan Region Scheme (MRS).





The City is subject to a range of transport, traffic, travel mode and parking issues. These issues are affected by the surrounding areas, and are likely to be impacted by future development both within the City and in the greater Perth Metropolitan Area. A resident's transport choices both affect and are affected by these issues.

The following is a brief discussion on the issues identified within the City, and questions are raised to encourage discussion and to assist in developing the most appropriate strategy for transport and land development.

1. Traffic Congestion and Safety

There is ongoing conflict between freight and private vehicle transport along routes shared between private vehicles and freight vehicles, such as Anketell Road and Rowley Road.

Wellard Road and Johnson Road are also sites of conflict related to the interaction between heavy vehicles and private vehicles. These conflicts have the potential to create transport network operation and safety issues.

QUESTION: How does traffic congestion affect your daily commute?

Figure 1-1 Local Planning Scheme Land Use Zones

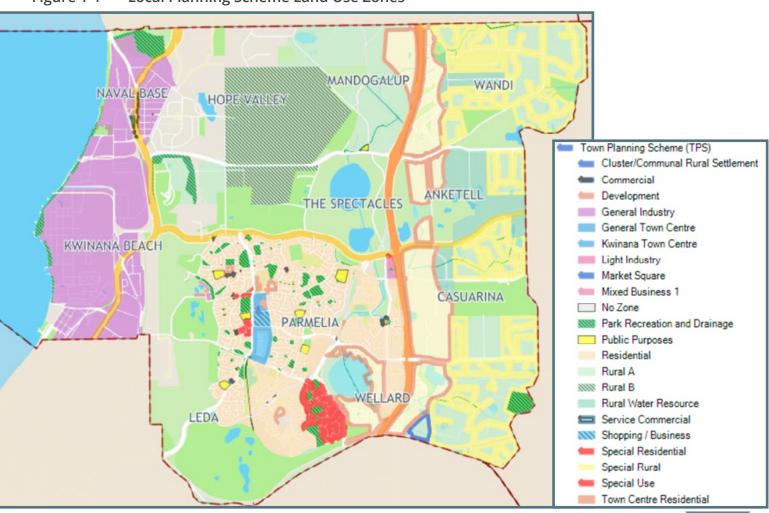
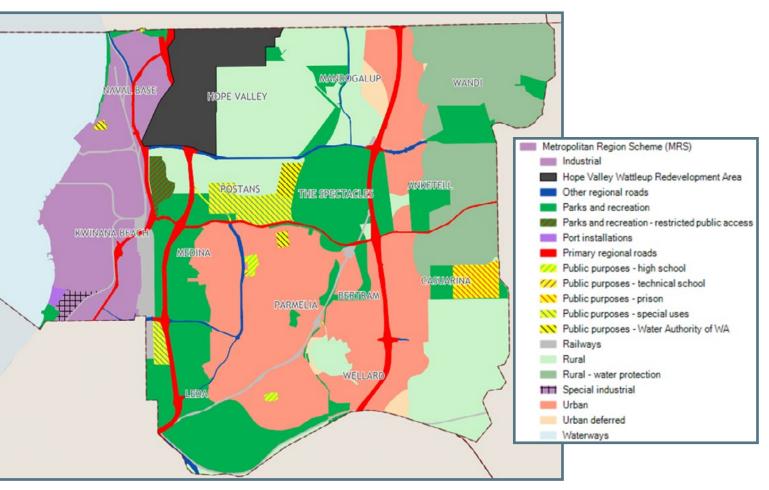






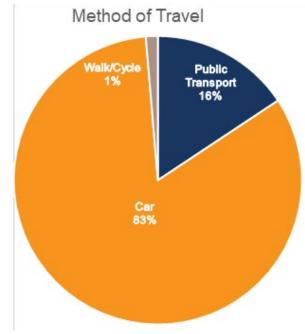
Figure 1-2 Metropolitan Region Scheme Land Use Zones



Freight traffic is expected to increase as a result of an increase in industrial activity and the potential impacts of the proposed Outer Harbour Port and Intermodal Terminal. In particular, Rowley Road has been identified for extension into the Kwinana Industrial Area, and Anketell Road and Thomas Road have been identified for future upgrades.

The City's residents are heavily reliant on private vehicles for access to employment, education, and shopping and entertainment destinations, with 83 per cent of residents electing to use private vehicles as their primary mode of transportation.

With the City's residential population forecast to grow more than double over the next two decades, and the growth of industrial needs, there is a likelihood for increased conflict between private vehicles and freight vehicles.







QUESTION: How might your commute be affected by an increase in population, if the majority of people continue to use private vehicles as their dominant mode of travel?

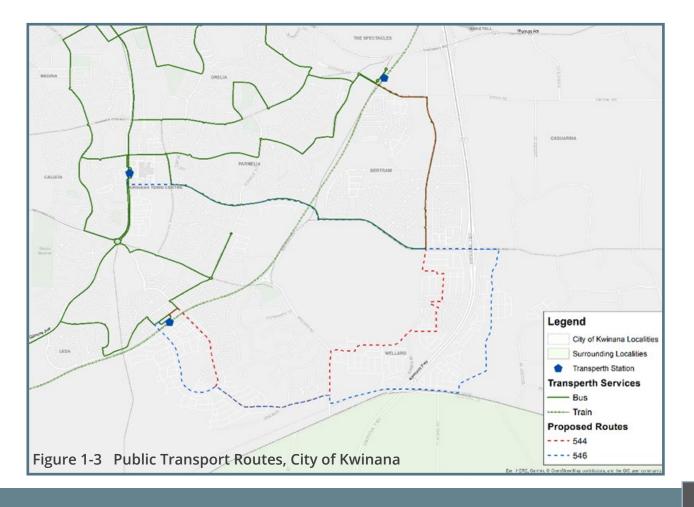
The combination of freight traffic and dependence on private vehicle means that primary distributor roads are currently running close to or at capacity. To address this some corridors can be widened (with associated costs) but many roads have very little scope for increased capacity.

QUESTION: What changes in the City of Kwinana would cause you to reduce your private vehicle use?

2. Public Transport Connectivity

Public transport is the cornerstone of sustainable transport, and buses are one of the most space-efficient modes of transport available, as their routes are unfixed and therefore flexible, requiring less complementary infrastructure. This means that an increase in bus service can reduce congestion and reduce traffic impacts if trips can be made by bus instead of by car. The map on the following page (Fig 1-3) provides an overview of the existing public transport routes within the City.

There are, however, several barriers to uptake of public transport as an option within the City of Kwinana. These issues are sensitive to the type of public transport and so the following discussion is separated into trains and buses.







Trains

The Mandurah Train Line runs through the City and provides an important connection to the broader Perth public transport network. There are currently two stations in the City: Kwinana and Wellard. A future METRONET connection between Cockburn Station and Thornlie Line stations has been planned, which will provide a better connection for residents accessing Perth's south-eastern suburbs for employment, recreation, and entertainment opportunities.

The existing car parking facilities at both City train stations are at capacity during peak periods, reflecting the dependence on private vehicles to access public transport infrastructure. In late 2018, 200 additional secure paid car parking bays were provided at the Kwinana Train Station.

Buses

The City's train stations provide an interchange to bus routes with bus services running between most residential areas, the Kwinana and Wellard Train Stations, and to the Kwinana City Centre – however there is relatively low uptake of these services.

There are opportunities for greater connectivity in the bus network, including connecting Industrial Areas to activity centres, the City Centre, and Kwinana and Wellard Train Stations.

QUESTION: What can the City do to support your use of public transport?

There is a key link between residential density and public transport. A dense population increases the user base for bus services and the feasibility of higher frequency bus services. This service frequency in turn increases the usefulness of public transport.

As noted earlier in this paper, the population of the City is forecast to double over the next two decades, and their residential needs must be accommodated. The map in Figure 1-4 indicates planned areas of future residential development in the City.

QUESTION: In your view, where within the City might increasing residential density be most beneficial for the broader community to support public transport usage and its efficiencies and why?

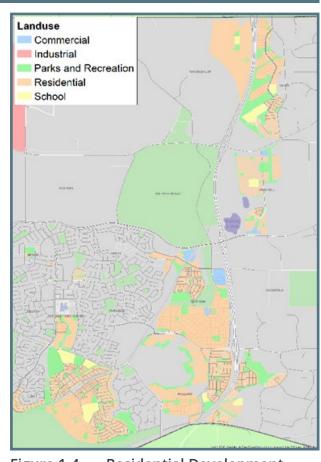


Figure 1-4 Residential Development





3. Active Transport

Active transport includes cycling and walking to directly access services and destinations, either as a sole mode of transportation or in addition to the use of public transport. Generally, active transport is considered 'easy' for healthy, able people up to a distance of 400-800m for walking or 3km for cycling. To encourage the uptake of active transportation, the City of Kwinana has recently developed and adopted a Bike and Walk Plan (2019).

Walking

The City seeks to provide an urban environment which encourages people to use active modes of transport. Urban design principles can be used to create safe and attractive environments for pedestrians, for example by providing lighting and shade along walking routes and reducing gaps in the footpath network. Looking at Kwinana's older residential neighbourhoods demonstrates that suburbs such as Medina and Calista are lacking adequate and safe footpath infrastructure, with some streets having no footpaths.

Pedestrian accessibility is also directly related to the density of activity and the proximity to residential development. One of the many advantages of this is the reduced need for parking.

QUESTION: What are the biggest barriers to walking in the City?

QUESTION: What can the City to do improve pedestrian access?

Cycling

Much of the cycling infrastructure within the City is disconnected, however there are many opportunities to improve the connections to destinations and the broader regional cycling network as outlined in the City's Bike and Walk Plan. The WA bicycle infrastructure network typically provides for high quality shared paths along the Freeways, in the form of a Principal Shared Path (PSP) to emphasise cycling as a transport mode for journeys to work, shopping and entertainment. Recreational Shared Paths (RSPs) are also provided to encourage cycling for recreational purposes.

Providing for safe, accessible cycling infrastructure, which gives appropriate priority to active modes of transportation could contribute to reductions in traffic congestion and parking issues throughout the City, including at train stations and within the City Centre.

The map on the following page (Fig 1-5) illustrates the proposed bicycle network including PSP, RSP, and local routes.

QUESTION: What are the biggest barriers to cycling in the City?

QUESTION: What can the City do to improve cycling access and safety?





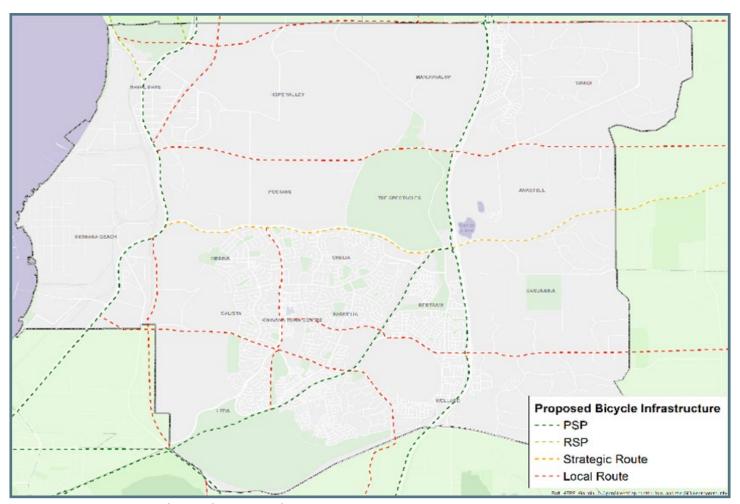


Figure 1-5 Potential Bicycle Network

4. Parking

Parking availability is an important factor for some people and parking concerns need to be solved through the development of the broader transport network and be directly linked to the surrounding land use and development.

Within Activity Centres such as the Kwinana City Centre, the location of car parking can be key to determining both traffic and pedestrian movement. The location of car parking towards the periphery of the Centre limits the impact of parking on land consumption, and requires parkers to travel an additional distance to their destination. The acceptance of peripheral car parking will be significantly improved where attractive pedestrian facilities are provided.

While no detailed parking surveys have been undertaken in the City, desktop studies indicate there are areas of high parking demand, which create localised issues, including around the City's train stations. Informal parking at train stations within the City has created significant issues for surrounding residents.

A change of use within industrial zones can also impact upon parking availability in these areas. The addition of an office-use to previously industrial work necessitates a different requirement for the provision of parking. When this is not controlled informal parking may occur disrupting pedestrians, cyclists, and through traffic.





QUESTION: What challenges do you face when parking your vehicle?

QUESTION: Are there areas where parking is particularly difficult? Does this stop you from driving your vehicle to these areas or from visiting these areas?

Where to from here?

Your feedback and suggestions will be considered when finalising the Integrated Landuse and Transport Study, followed by preparing the Integrated Landuse and Transport Strategy. The strategic directions and actions required for creating a balance between transport and land use needs and requirements for the City will be incorporated in the City's Local Planning Strategy for the consideration and endorsement of the Western Australian Planning Commission.

Information and update on the process will be made available to the community through the City's website at www.kwinana.wa.gov.au/tomorowskwinana.