

SHIRE OF MORAWA

LOCAL PLANNING STRATEGY

Part Two Background Information and Analysis

SHIRE OF MORAWA

LOCAL PLANNING STRATEGY

May 2019

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1 Introduction

This Local Planning Strategy for the Shire of Morawa (hereon in referred to as the Strategy) has been prepared to set out the long term planning directions for the Shire and to guide land use planning within the Shire over the next ten to fifteen years.

The Local Planning Strategy therefore comprises three parts, being:

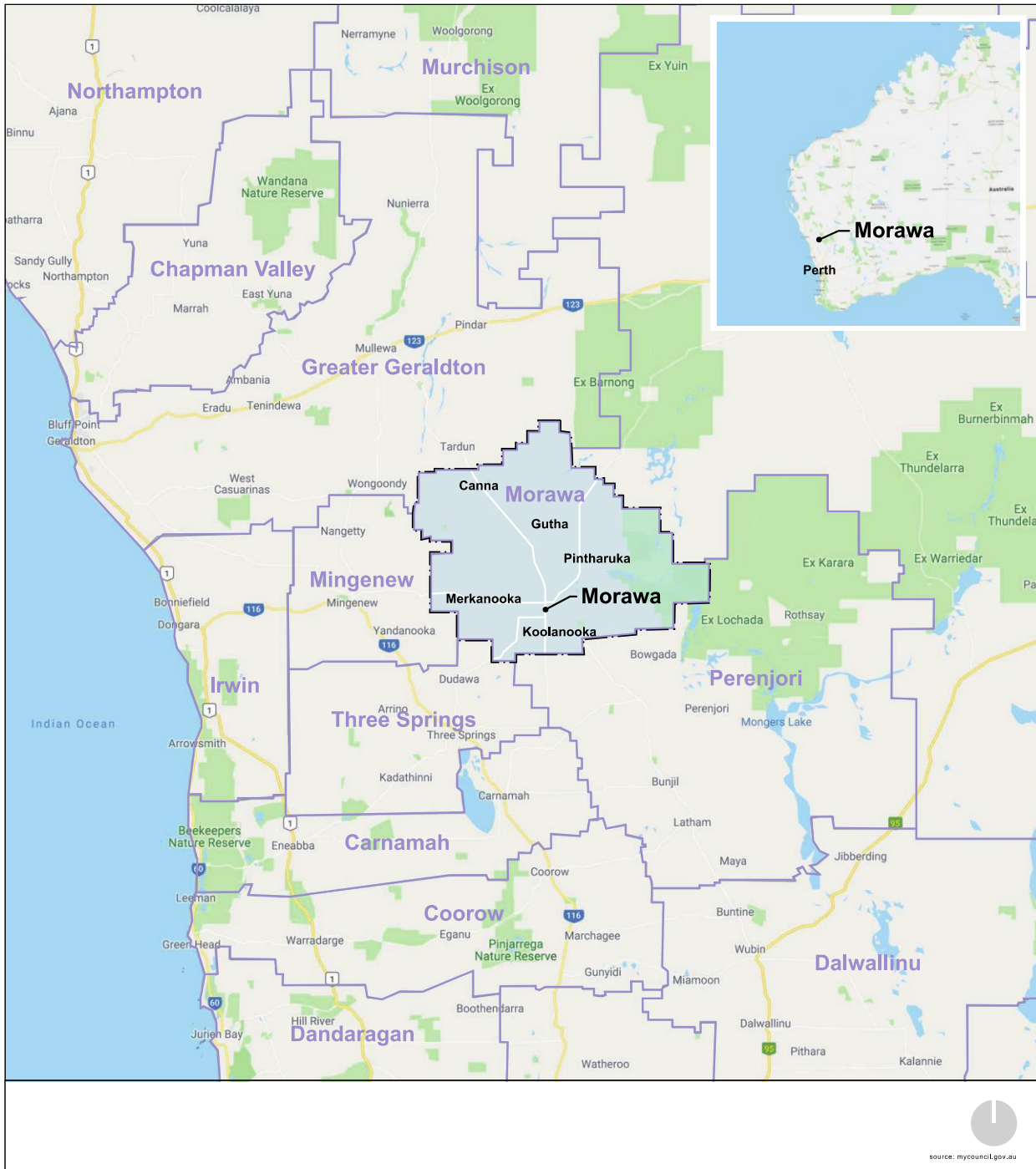
- Part 1, the Strategy, which provides a summary of the major characteristics and issues relevant to the future planning and development of the Shire and also establishes the vision, objectives, strategic plan and actions required to implement the Strategy; and
- Part 2, being this document, which provides relevant background and justification to strategies and actions relating to the land use planning and development for the Shire. The document in particular focuses on the following:
 - Land use planning and development within the Morawa townsite;
 - Agricultural and Rural land use planning;
 - Mining tenements and resources;
 - Wider environmental issues within the Morawa district;
 - Heritage planning and recommendations for the district; and
 - Land use planning in relation to the localities of Canna, Gutha, Koolanooka, Pintharuka and Merkanooka.

1.1 Location and Context

The Shire of Morawa is located approximately 370 kilometres north of Perth and 160 kilometres east of the regional city of Geraldton. The Shire covers 3,517 square kilometres and is surrounded by five neighbouring shires. The Shire is part of the North Midlands Sub-region, which forms part of the broader Mid-West Region. The region covers approximately 478,000 square kilometres and accounts for almost one fifth of the State's land mass. The Mid-West economy is one of WA's most diverse and is built around mining, agriculture, fishing and tourism.

Morawa is a sub-regional centre which is intended to provide services to those living in surrounding settlements within the Mid West region. Figure 1 shows the location of Morawa within the wider context of Western Australia.

Figure 1 – Shire of Morawa location



1.2 Statutory Context

Regulation 11 of the *Planning and Development (Local Planning Schemes) Regulations 2015* (the Regulations) requires that where a local planning scheme envisages the zoning or classification of land, a scheme report is to be produced in the form of a local planning strategy, which shall:

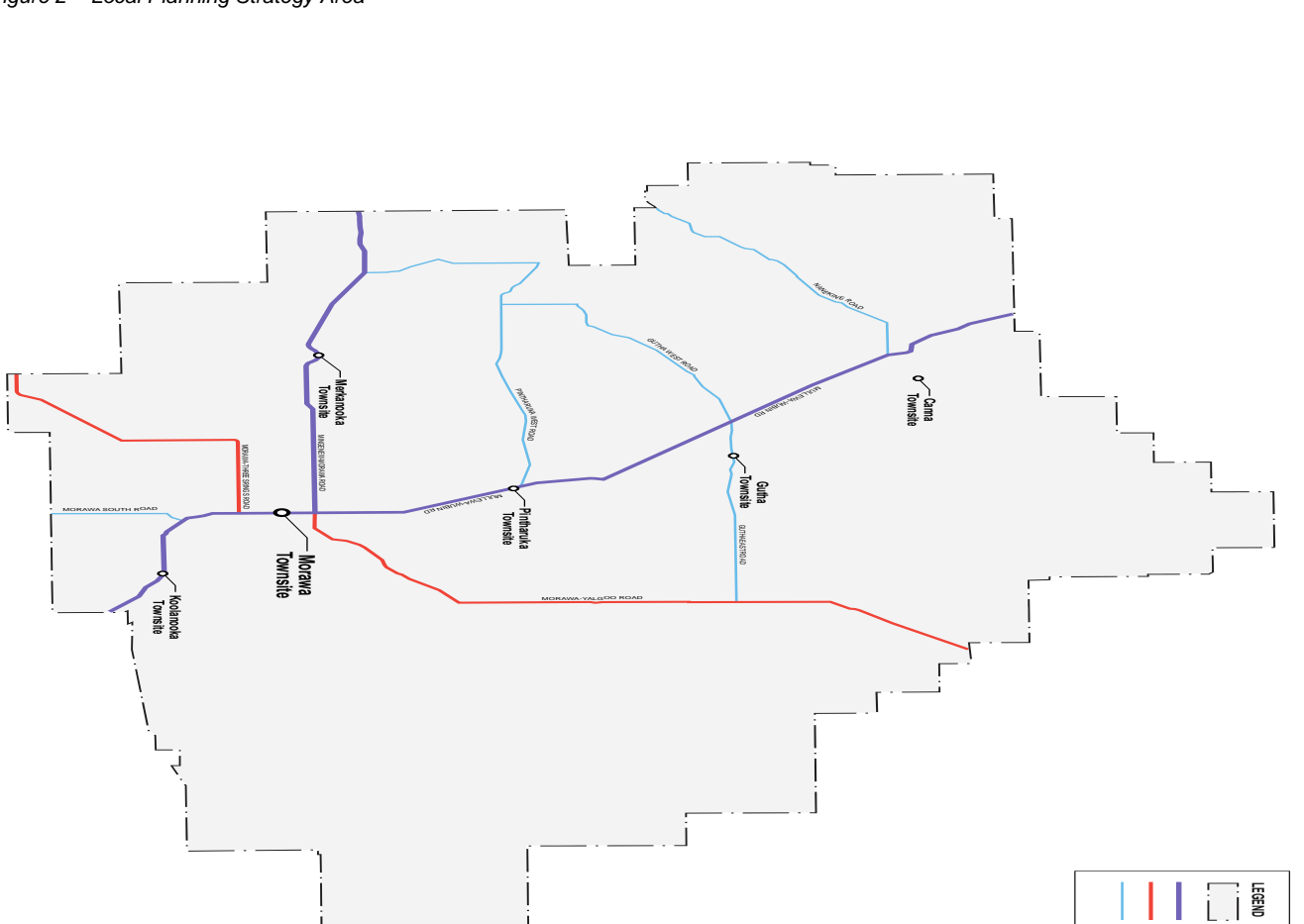
- Set out the long term planning directions for the local government;
- Apply State and regional planning policies; and
- Provide the rationale for the zones or the provisions of the town planning scheme.

The Strategy expresses the strategic vision, policies and proposals of a local government that are relevant to the implementation of a scheme. It provides a means to interpret State and regional policies at the local level allowing the implementation of broader objectives relating to urban form and development. On this basis, the new Shire of Morawa Local Planning Scheme No. 3 (LPS3) will be the principal statutory land use planning document for expressing and achieving the local governments objectives, policies and proposals in conjunction with the Strategy.

1.3 Role and Purpose

The Strategy sets out the long term planning direction for the Shire of Morawa over the next ten to fifteen years and establishes strategies and actions in the context of the State, regional and local planning framework. The Strategy applies to all land contained within the Shire of Morawa, which is identified in Figure 2 below.

Figure 2 – Local Planning Strategy Area



The Strategy establishes the rationale for land use, planning and development controls to be included within proposed LPS3. It is intended that this Strategy will be read in conjunction with LPS3 and vice versa.

The Strategy holistically looks at long term planning directions and assists in establishing the overall objectives and vision for the Shire. However, the application of the planning initiatives in the Strategy and subsequent local planning scheme will not, in isolation, deliver the wider objectives and the vision for the district. This will need to be achieved through the application of the Shire's broader Strategic Community Plan using all available mechanisms for delivery across the broad spectrum of local government services and activities, including but not necessarily limited to delivering vital community, Shire of Morawa Local Planning Strategy

economic, recreation, infrastructure and other development initiatives through a capital works program linked to the strategic community plan and also via a supporting local planning policy framework.

1.4 Key Stakeholder Engagement Outcomes

In preparing the Local Planning Strategy, letters were sent out to key stakeholders, service authorities and government agencies, requesting any preliminary issues or strategies be identified to inform the preparation of the document. A list of key issues that were identified through the preparation of the Growth Plan was attached to these letters in order to prompt further feedback. Follow up conversations were made to obtain a greater understanding of issues, where necessary.

A summary of the outcomes of the stakeholder engagement process is provided at Appendix A.

2 State and Regional Planning Context

2.1 State Planning Context

2.1.1 Planning and Development (Local Planning Schemes) Regulations 2015

The Planning and Development (Local Planning Schemes) Regulations 2015 (the Regulations) introduce a set of deemed provisions that form part of planning framework into local planning strategies, schemes and amendments. Part 3 of the Regulations states that a local government must prepare a local planning scheme that is approved for land within the district. As mentioned, a local planning strategy must:

Set out long-term planning directions for the local government; and

- Apply any State or regional planning policy that is relevant to the strategy; and
- Provide the rationale for any zoning or classification of land under the local planning scheme.

Once a local planning strategy has been prepared, it is sent to the Western Australian Planning Commission (WAPC) whom if satisfied, provides certification to the local government for the purpose of proceeding to advertise. The local government must then advertise the strategy and consider submissions upon consultation completion. Once endorsed by the WAPC, the local planning strategy will set out the long-term planning directions of the Scheme area.

2.1.2 State Planning Strategy 2050

The State Planning Strategy 2050 (the Strategy) is the Government's strategic planning response to the challenges Western Australia is likely to face. The Strategy takes into account what is known about the future and the expectations of Western Australians to provide a guide for future land use planning and development. Importantly, the Strategy can be used to guide, inform and unite the preparation of local planning schemes and strategies. The Strategy outlines six interrelated and interdependent principles including:

- Community – enabling diverse, affordable, accessible and safe communities;
- Economy – facilitating trade, investment, innovation, employment and community betterment;
- Environment – conserving the State's natural assets through sustainable development;
- Infrastructure – ensuring infrastructure supports development;
- Regional development – building the competitive and collaborative advantages of the regions; and
- Governance – building community confidence in development processes and practices.

Pursuant to the Strategy, Morawa is located within the Central Sector of the State, which is identified as having a growing and diverse economy underpinned by mining, agriculture, fisheries and tourism and is poised to become a significant contributor to the nation's mining, scientific, technological, research and innovation industries by 2050. Further, the Strategy identifies five strategic directions including:

- Economic Development
- Physical Infrastructure
- Social Infrastructure
- The Environment
- Security

The objectives of each strategic direction and content of the Strategy has been considered in the preparation of the Morawa Local Planning Strategy. The Local Planning Strategy addresses Morawa's assets including land availability, the movement of people, resources and information and outlines key planning considerations including tourism planning and health and well-being.

2.1.3 State Planning Framework

State Planning Policy 2 – Environmental and Natural Resources Policy

State Planning Policy No. 2 – Environmental and Natural Resources Policy (SPP 2) defines the principles and considerations that represent good and responsible planning in terms of environment and natural resource issues within the framework. Policy objectives include:

- To integrate environment and natural resource management with broader land use planning and decision making;
- To protect, conserve and enhance the natural environment; and
- To promote and assist in the wise and sustainable use and management of natural resources.

Relevant to Morawa, Local Planning Schemes and decision making should consider the following:

- Avoid development that may result in unacceptable environmental damage and actively seek opportunities for improved environmental outcomes including support for development which provides for environmental restoration;
- Protect significant natural, indigenous and cultural features, including sites and features significant as habitats and for their floral, cultural, built, archaeological, ethnographic, geological, geomorphological, visual and wilderness values;
- Take into account the availability and condition of natural resources and the potential for economic, environmental and social effects on natural resources;
- Take into account the potential for impacts from changes in climate and weather on human activities and cultural heritage including urban communities, natural systems and water resources; and
- Consider any relevant accredited Natural Resource Management Regional Strategy, or catchment management strategies prepared by catchment groups and endorsed by State government agencies, with a view to integrating implementation of appropriate and relevant parts from town planning schemes and assessment of developments.

The above considerations have been integrated into this strategy accordingly.

State Planning Policy 2.5 – Rural Planning

The purpose of State Planning Policy 2.5 (SPP 2.5) is to protect and preserve Western Australia's rural land assets due to the importance of their economic, natural resource, food production, environmental and landscape values. Ensuring broad compatibility between land uses is essential to delivering this outcome. The objectives of SPP 2.5 are to:

- Support existing, expanded and future primary production through the protection of rural land;
- Provide investment security for existing, expanded and future primary production and promote economic growth and regional development on rural land for rural land uses;
- Secure significant basic raw material resources and provide for their extraction;
- Provide a planning framework that comprehensively considers rural land and land uses, and facilitates consistent and timely decision-making;
- Avoid and minimise land use conflicts;
- Promote sustainable settlements in, and adjacent to, existing urban areas; and
- Protect and sustainably manage environmental, landscape and water resource assets.

The policy recommends that rural land uses are the most appropriate use of rural zoned land. The policy also recognises that the most productive and flexible agricultural land should be identified under a strategy or scheme as priority agricultural land.

Within the provisions of the policy, there is generally a presumption against the subdivision of rural zoned land through ad hoc or un-planned subdivision.

The overarching requirements of this policy include:

- Land use change from rural to all other uses is to be planned and provided for in a local planning strategy or scheme;
- Land identified as priority agricultural land in a planning strategy or scheme is to be retained for that purpose;
- The retention and protection of rural land is required for biodiversity protection, natural resource management and protection of landscapes and views;

- Protecting land, resources and/or primary production activities through the State's land use planning framework;
- Creating new rural lots only in accordance with the circumstances under which rural subdivision is intended in Development Control Policy 3.4: Subdivision of rural land;
- Preventing the creation of new or smaller rural lots on an unplanned or ad-hoc basis, particularly for intensive or emerging primary production land uses;
- Comprehensively planning for the introduction of sensitive land uses that may compromise existing, future and potential primary production on rural land; and
- Accepting the impacts of well-managed primary production on rural amenity.

Tree farming is considered an acceptable use on rural land generally, however is not supported on identified priority agricultural land. The establishment of tree farms however does not warrant the creation of smaller lots. Local Planning Strategies should manage the location, extent and application requirements applicable to tree farming.

The policy also seeks to avoid land use conflicts arising in rural areas through the introduction of incompatible land uses such as more intense provision of housing and other potentially sensitive land uses. With respect to this, the pattern of agricultural land use and settlement is already established within the Shire, with the Morawa townsite being contained within a gazetted townsite boundary. Similarly, the localities of Koolanooka, Pintharuka, Gutha and Canna are also contained within gazetted townsite boundaries, although remain largely unsettled. Land is zoned 'Rural' beyond the gazetted townsite boundaries and a variety of agricultural lot sizes is evident. Larger lots are located in the eastern extent of the Shire. The policy states that a separation distance between incompatible land uses should be identified on local planning strategy maps.

Other potential for land use conflict includes mining activities in the district. A number of mining leases exist within the Shire relating to the prospecting and extraction of precious minerals. These interests are already protected under the Mining Act 1978. However, strategic sites for basic raw material extraction such as hard rock and gravel to extract materials associated with the construction of Council road infrastructure should be recognised.

In particular, the Mount Marvel Quarry is an important source of materials for the district and therefore should be recognised and a 1,000m buffer maintained around the quarry site in order to protect the operations from sensitive land uses.

State Planning Policy 2.9 – Water Resources

State Planning Policy No. 2.9 – Water Resources (SPP 2.9) provides clarification and additional guidance to planning decision-makers for consideration of water resources in land use planning and strategy. The objectives of the policy are to:

- Protect, conserve and enhance water resources that are identified as having significant economic, social, cultural and/or environmental values;
- Assist in ensuring the availability of suitable water resources to maintain essential requirements for human and all other biological life with attention to maintaining or improving the quality and quantity of water resources; and
- Promote and assist in the management and sustainable use of water resources.

The policy indicates that water resource issues should be a key consideration when developing a local planning strategy, including:

- Mapping water resources within the area and applying an appropriate hierarchy;
- Aim to prevent or, where appropriate ameliorate any adverse effects on water quality and quantity and, as a minimum, proposed development should aim to maintain water quality and ensure water quantity is compatible with the receiving waters;
- Determining the type and intensity of land uses permissible within a public drinking water source area, as well as applying appropriate setbacks, buffers, development restrictions and subdivision control; and
- Identifying a public open space network inclusive of drainage lines and multiple-use controls.

State Planning Policy 7.3 – Residential Design Codes

The purpose of the State Planning Policy No. 7.3 (SPP 7.3) Residential Design Codes (R-Codes) is to provide a comprehensive basis for the control of residential development throughout the State by listing a number of design principles and deemed-to-comply criteria. The general objectives of the R-Codes are to:

- provide appropriate design for the intended residential purpose, density, context of place and local scheme objectives;
- encourage sustainable design initiatives for new housing;
- encourage design which respects heritage and local culture;
- facilitate housing diversity, choice and affordability; and
- ensure certainty in timely assessment and determination of proposals applied consistently across State and local government.

It is noted that the subsequent Local Planning Scheme No. 3 will respond to the requirements outlined in the R-Codes. Parcels of land identified for residential purposes are to be allocated a density coding (R-Code), appropriate to the location and context of that land. The shire of Morawa is to assess any application for residential development against the R-Codes, giving due regard to the above objectives and design principles contained therein.

State Planning Policy 3.4 – Natural Hazards and Disasters

The purpose of State Planning Policy No. 3.4 - Natural Hazards and Disasters (SPP 3.4) is to inform and guide the Western Australian Planning Commission (WAPC) in the undertaking of its planning responsibilities, and in integrating and coordinating the activities of State agencies that influence the use and development of land that may be affected. Consistent with the purpose of the policy, the objectives are to:

- include planning for natural disasters as a fundamental element in the preparation of all statutory and non-statutory planning documents, specifically town planning schemes and amendments, and local planning strategies; and
- through the use of these planning instruments, to minimise the adverse impacts of natural disasters on communities, the economy and the environment.

In preparing the local planning strategy for the Shire, consideration has been given to addressing the impact of these potential hazards on community, the built environment and infrastructure pertinent to the Shire of Morawa will be the need to plan for bushfires and stormwater inundation (flooding).

State Planning Policy 3.5 – Historical Heritage Conservation

State Planning Policy 3.5 - Historic Heritage Conservation Policy (SPP 3.5) sets out the principles of sound and responsible planning for the conservation and protection of Western Australia's historic heritage. The objectives of this policy are:

- to conserve places and areas of historic heritage significance;
- to ensure that development does not adversely affect the significance of heritage places and areas;
- to ensure that heritage significance at both the State and local levels is given due weight in planning decision-making; and
- to provide improved certainty to landowners and the community about the planning processes for heritage identification, conservation and protection.

The policy applies to any areas of State or local significance throughout Western Australia. Local planning strategies are required to have regard to the designation of heritage areas and should seek to minimise the extent to which land use zoning and other planning controls conflict, or undermine, heritage conservation values.

The local planning strategy has addressed historic heritage conservation and proposes strategies and actions to ensure appropriate heritage conservation measures are incorporated into the Shire's local planning scheme.

State Planning Policy 3.6 – Development Contributions for Infrastructure

State Planning Policy 3.6 - Development Contributions for Infrastructure (SPP 3.6) establishes principles and policy considerations relating to the application of development contributions for the provision of infrastructure in new and established urban areas. The objectives of this policy are:

- to promote the efficient and effective provision of public infrastructure and facilities to meet the demands arising from new growth and development;
- to ensure that development contributions are necessary and relevant to the development to be permitted and are charged equitably among those benefiting from the infrastructure and facilities to be provided;
- to ensure consistency and transparency in the system for apportioning, collecting and spending development contributions; and
- to ensure the social well-being of communities arising from, or affected by, development.

The Policy outlines that development contributions can be sought for items of infrastructure that are required to support the orderly development of an area, which includes standard infrastructure items as well as community infrastructure, which is defined as:

"the structures and facilities which help communities and neighbourhoods to function effectively, including -

- *Sporting and recreational facilities;*
- *Community centres;*
- *Child care and after school centres;*
- *Libraries and cultural facilities; and*
- *Such other services and facilities for which development contributions may reasonably be requested, having regard to the objectives, scope and provisions of this policy."*

SPP 3.6 establishes that development contributions can be sought for -

- *a new item of infrastructure;*
- *land for infrastructure;*
- *an upgrade in the standard of provision of an existing item of infrastructure;*
- *an extension to existing infrastructure;*
- *the total replacement of infrastructure once it has reached the end of its economic life;*
- *other costs reasonably associated with the preparation, implementation and administration of a development contribution plan.*

The requirement to apply development contributions for infrastructure has not been identified for any specific area or item of infrastructure within the Shire, however a development contribution plan may be prepared at some point in the future to coordinate the delivery of infrastructure as the need arises.

State Planning Policy 3.7 - Planning in bushfire prone areas

State Planning Policy 3.7 – Planning in Bushfire Prone Areas (SPP 3.7) establishes a State-wide framework to address bushfire risk throughout Western Australia. The objectives of SPP 3.7 are outlined below:

- Avoid any increase in the threat of bushfire to people, property and infrastructure. The preservation of life and the management of bushfire impact are paramount;
- Reduce vulnerability to bushfire through the identification and consideration of bushfire risks in decision-making at all stages of the planning and development process;
- Ensure that higher order strategic planning documents, strategic planning proposals, subdivision and development applications take into account bushfire protection requirements and include specified bushfire protection measures; and
- Achieve an appropriate balance between bushfire risk management measures and, biodiversity conservation values, environmental protection and biodiversity management and landscape amenity, with consideration of the potential impacts of climate change.

The policy stipulates that higher order strategic planning documents should give high level consideration of relevant bushfire hazards when identifying or investigating land for future development.

SPP 3.7 is supported by the Guidelines for Planning in Bushfire Prone Areas (the Guidelines) which provides guidance in determining appropriate land use planning in relation to bushfire prone areas, specifies the requirements to be met at each

stage of the planning process and outlines the necessary bushfire protection measures that are to be incorporated into development.

The guidelines specifically mention the role of Local Planning Strategies in assessing bushfire risk. When preparing or reviewing a local planning strategy, local government should refer to the Map of Bush Fire Prone Areas to help determine any areas of land use conflict. Broad objectives for bushfire risk management should be identified with recommendations and actions. In summary, a local planning strategy should address the following:

- The location of bushfire prone areas and the need for further assessment of hazard in such areas;
- The avoidance of land use and development intensification in any areas likely to maintain or generate a hazard level of extreme;
- Firefighting infrastructure;
- The existing and proposed road network, and its likely effectiveness in a bushfire emergency;
- Biodiversity issues, their interrelationships with bushfire prone areas and means of protection for areas with high conservation values; and
- The location of any vulnerable or high-risk land uses within identified bushfire prone areas and whether such uses may require management strategies prepared.

In response to these conditions, the local government will ensure that any future subdivision and development application on land identified as being bushfire prone, will be subject to the requirements of SPP 3.7 and be required to provide the following level of assessment (as required):

- a BAL Contour Map to determine the indicative acceptable BAL ratings across the subject site, in accordance with the Guidelines.
- the identification of any bushfire hazard issues arising from the BAL Contour Map; and
- an assessment against the bushfire protection criteria requirements contained within the Guidelines.

This information can be provided in the form of a Bushfire Management Plan.

Further to the above, the Shire will ensure that any future subdivision and development applications on land identified as being bushfire prone, will be subject to the requirements of SPP 3.7.

State Planning Policy 4.1 – Industrial Interface

State Planning Policy 4.1 - Industrial Interface (SPP 4.1) was introduced in November 2017 and seeks to protect industry and infrastructure facilities from the encroachment of incompatible land uses and to ensure that planning decisions consider the locational constraints of these land uses. The policy also seeks to prevent land use conflict between industry/infrastructure facilities and sensitive land uses. The objectives of this policy are to:

- protect existing and proposed industry, and infrastructure facilities from encroachment by incompatible land uses that would adversely affect efficient operations;
- avoid land use conflict between existing and proposed industry/infrastructure facilities and sensitive land uses; and
- promote compatible land uses in areas impacted by existing and proposed industry and infrastructure facilities.

SPP 4.1 specifically applies to the following situations:

- Industrial zones in region and local planning schemes;
- Industrial land uses, including land uses that may be permitted on land that is not zoned for industrial purposes;
- Infrastructure facilities; and
- Land that may be impacted by existing and proposed industrial land uses and/or infrastructure facilities. This includes land impacted by industrial or related activity exempt from planning approval, such as mining operations.

The Shire of Morawa has an existing industrial area and also has an additional planned industrial area at the northern end of the Morawa townsite. The future industrial estate to the north is located in close proximity to the Morawa aerodrome and in an area surrounding by public purpose reserves so as not to be at risk of encroachment from sensitive land uses.

Additionally, the Shire contains the Mt Marvel quarry. This quarry is identified on the strategy maps and is allocated a buffer to avoid conflict with other land uses.

State Planning Policy 5.2 – Telecommunications Infrastructure

State Planning Policy No. 5.2 – Telecommunications Infrastructure (SPP 5.2) aims to balance the need for effective telecommunications services and effective roll-out of networks, with the community interest in protecting the visual character of local areas. Using a set of land use planning policy measures, the policy intends to provide clear guidance pertaining to the siting, location and design of telecommunications infrastructure. The objectives of this policy are to:

- facilitate the provision of telecommunications infrastructure in an efficient and environmentally responsible manner to meet community needs;
- manage the environmental, cultural heritage, visual and social impacts of telecommunications infrastructure;
- ensure that telecommunications infrastructure is included in relevant planning processes as essential infrastructure for business, personal and emergency reasons; and
- promote a consistent approach in the preparation, assessment and determination of planning decisions for telecommunications infrastructure.

The Policy applies to the zoning, subdivision and development of land throughout Western Australia in respect to all telecommunications infrastructure other than those facilities exempted under the *Telecommunications Act 1997*.

State Planning Policy 5.4 – Road and Rail Noise

State Planning Policy 5.4 - Road and Rail Noise (SPP 5.4) was released in September 2017 to minimise the adverse impact on road and rail noise on noise-sensitive land use and development and also seeks to protect the functionality of the State's transport corridors by protecting them from encroaching incompatible development. The objectives of the policy are to:

- protect the community from unreasonable levels of transport noise;
- protect major transport corridors from incompatible urban encroachment;
- ensure that noise impacts are addressed as early as possible in the planning processes; and
- encourage best practice noise mitigation design and construction standards for noise-sensitive land use and/or development and/or major road or railway proposals.

SPP 5.4 specifically applies where the following is proposed:

- Noise-sensitive land use within the Policy's trigger distance of a transport corridor;
- New or major upgrades of existing primary and secondary roads; or
- New railways or upgrades of existing railways or any other works that increase capacity for rail vehicle storage or movement.

SPP 5.4 seeks to apply a precautionary approach by avoiding the placement of proposed noise-sensitive land use and development in proximity to major transport infrastructure and establishes noise criteria that are to be achieved by proposals the subject of the policy.

While it is noted that the Mullewa-Wubin Road which traverses through the middle of the Morawa townsite is identified as a Primary Road and the parallel Freight railway is also identified by SPP 5.4, it is noted that the policy does not apply retrospectively to noise from existing railways or roads to an existing noise-sensitive land use.

Development Control Policy 3.4 – Subdivision of Rural Land

Development Control Policy 3.4 (DC 3.4) has been prepared to guide the subdivision of rural land to ensure the objectives of State Planning Policy 2.5 are achieved.

Water for rural-residential development

DC 3.4 requires that rural-residential subdivision (1 to 4 ha) be connected to a reticulated water supply or suitable alternative water supply. Those areas identified for the Rural-Residential zone within the Shire's future LPS 3 will have the ability to be connected to the towns reticulated water supply.

Policy measures for more intensive agricultural uses

It is a position of the policy that there is an existing supply of suitable sized and located rural lots to cater for intensive and emerging primary production uses. Generally, there is a presumption against closer subdivision, however where local circumstances warrant subdivision of rural land, it should be recognised within a local planning strategy or scheme.

Retention of rural character and agricultural landholdings

DC 3.4 provides that in the absence of the planned provision for closer settlement and more intensive agricultural uses, existing large rural lots be retained for broad acre and traditional forms of farming.

Subdivision of rural land may be supported in exceptional circumstances, including but not limited to:

- To realign lot boundaries for farming purposes and/or for access to landlocked lots, with no increase in the number of lots;
- To reduce the area of large land parcels which are two or more times the area of typical lots used for farming in the district;
- To protect and actively conserve places of cultural and natural heritage;
- To allow for the continued occupation of existing houses when they are no longer used in a farming operation.

It is considered that there is sufficient guidance relating to the subdivision of rural land within the existing policy framework. Any future applications for subdivision of rural land within Morawa would be subject to the recommendations of this policy.

Liveable Neighbourhoods

Liveable Neighbourhoods is an operational policy that guides the design and assessment of structure plans (regional, district and local) and subdivision for new urban (predominately residential) areas in Perth and Peel as well as regional centres (relevant to Morawa). Liveable Neighbourhoods has the following aims:

- to provide for an urban structure of walkable neighbourhoods clustering to form towns of compatible mixed uses in order to reduce car dependence for access to employment, retail and community facilities;
- to ensure that walkable neighbourhoods and access to services and facilities are designed for all users, including those with disabilities;
- to foster a sense of community and strong local identity and sense of place in neighbourhoods and towns;
- to provide for access generally by way of an interconnected network of streets which facilitate safe, efficient and pleasant walking, cycling and driving;
- to ensure street-land use interfaces, with building frontages to streets to improve personal safety through increased surveillance and activity;
- to facilitate new development which supports the efficiency of public transport systems where available, and provide safe, direct access to the system for residents;
- to facilitate mixed use urban development which provides for a wide range of living, employment and leisure opportunities, capable of adapting over time as the community changes and which reflects appropriate community standards of health, safety and amenity;
- to provide a variety of lot sizes and housing types to cater for the diverse housing needs of the community at a density that can ultimately support the provision of local services;
- to ensure the avoidance of key environmental areas and the incorporation of significant cultural and environmental features of a site into the design of an area;
- to provide for a more integrated approach to the design of open space and urban water management;
- to ensure cost-effective and resource efficient development to promote affordable housing; and
- to maximise land efficiency wherever possible.

To achieve these aims, the policy sets out the design elements for good neighbourhoods, which should be followed in the development of structure plans and subdivision plans. Advice on site and context analysis, the design process for district structure plans and consequent subdivision, the walkable catchment techniques, cash in lieu of public open space and guidance on school site layouts is also provided. The application of Liveable Neighbourhoods will be necessary for any future structure planning or subdivision planning of new urban areas in the Shire.

Government Sewerage Policy

The Government Sewerage Policy establishes the WAPC's position on the provision of reticulated sewerage in the State for the rezoning, structure planning, subdivision and development of land. The policy has been prepared to:

- require the provision of the reticulated sewerage to all new subdivision and development in Western Australia unless the exemptions of this policy apply;
- provide guidance for the consideration of subdivision and development proposals where the provision of reticulated sewerage cannot be achieved;
- adopt a best practice approach to the provision of unsewered development in accordance with Australia/ New Zealand Standard 1547 On-Site domestic wastewater management; and
- provide guidance on how sewerage servicing is to be addressed in planning and development decisions.

The policy identifies the requirement for local planning strategies to identify factors including:

- Public drinking water source areas.
- Sensitive receiving environments including:
- Sewerage sensitive areas;
- Wetlands that are classified as resource enhancement
- Marine reserves;
- Karst systems;
- Sewerage servicing options for future growth areas;
- Major infrastructure requirements; and
- Opportunities for recycled and alternative water supplies and fit-for-purpose use and management, particularly in areas where supply for public open space irrigation is limited.

Lots within the Morawa townsite have connection to reticulated sewerage. Land outside the Morawa townsite will be dependent on on-site septic treatment systems.

Planning Bulletin 49/2014 – Caravan Parks

Planning Bulletin 49 – Caravan Parks (PB 49) seeks to establish greater flexibility within the planning framework to support the provision of caravan parks within Western Australia. The key objectives of PB 49 are:

- to ensure the development and long-term retention of caravan parks as a form of short-stay (affordable) accommodation primarily for leisure tourists;
- to recognise that the commercial sustainability of caravan parks requires some flexibility in product mix, site design and risk mitigation approaches;
- to plan for and facilitate growth in the caravan park industry;
- to ensure the compatibility of short-stay and long-stay uses of caravan parks through appropriate separation;
- to encourage the development and redevelopment of caravan parks in a manner that responds appropriately to the environment, economy and context, and maintains a minimum standard; and
- to ensure any new caravan parks are located appropriately to their intended market, function and context.

PB 49 recommends that local planning schemes should include zones that allow for caravan park developments and which identify suitable permissibility of land uses within these zones. The preference is for new caravan park sites to be zoned 'Special Use – Caravan Park', as opposed to a generic 'Tourist' zone to provide long term security of use of the site as a caravan park.

In order to promote a more standardised approach to zoning, a local planning scheme may provide for caravan parks (intended for short-stay and long-stay) in the following manner:

- by zoning Caravan Parks as 'Tourist' or 'Special Use – Caravan Park';
- by the zoning table, identifying Caravan Parks as a permitted use (P) in the 'Tourist' zone and a discretionary use (D or A) in the 'Residential' or 'Rural' zones; and
- by the zoning table identifying Park Home Parks as not permitted use (X) in the 'Tourist' or 'Special Use – Caravan Park' zones.

In utilising 'Special Use' zones, additional scheme provisions may be appropriate for inclusion in the local planning schemes Special Use Schedule. These site specific provisions may be used to restrict length of stay within the caravan park.

Caravan parks primarily intended for long-stay or non-tourism purposes (e.g. residential parks, park home parks, lifestyle villages or transient workforce accommodation parks) should be defined as Park Home Parks and zoned 'Special Use – Park Home Park'.

Planning Bulletin 49 also provides guidance for assessing new and/or the redevelopment of existing caravan parks, including site suitability, internal design and capability.

2.2 Regional Planning Context

2.2.1 Mid West – Regional Planning and Infrastructure Framework

The Mid West – Regional Planning and Infrastructure Framework (the framework) was developed to ensure that the Mid West region of WA continues to grow as a diverse, liveable, connected and collaborative area. The key objectives outlined in the Policy are to:

- Provide the regional context for land-use planning in the Mid West;
- Provide an overview of major regional issues facing the Mid West including economic, social, cultural and environmental matters;
- Identify the priority actions required to enable comprehensive regional and sub-regional planning; and
- Indicate regional infrastructure projects that are considered significant from the region's perspective to facilitate further economic and population growth in the Mid West.

It is noted that the objectives of this framework will be taken into account by the Commission when preparing and reviewing strategies and policies that apply to the Mid West region and will inform local governments in the development of local planning strategies. Pursuant to the framework, Morawa is identified as a Sub-regional Centre within the North Midlands region. The framework identifies three key drivers in the Mid West region, including economy and employment, transport and infrastructure and natural and cultural environment. The framework identifies several regional planning initiatives categorised into the following themes: Planning and Governance, Economy and Employment, Transport and Infrastructure and Natural and Cultural Environment. These initiatives are to be incorporated into strategic documents, such as local planning schemes. For example, according to the framework, it is important that townsites have sufficient industrial land to cater for ancillary service industries that support primary industries, including mining and agriculture (as outlined in Clause 2.1.2). In response, the Morawa Local Planning Strategy identifies zones suitable for industrial land uses. The themes have been sufficiently incorporated into the relevant sections of this Strategy.

2.2.2 Mid West Regional Blueprint

The Mid West Regional Blueprint (the Blueprint) was developed by the Mid West Development Commission in collaboration with Regional Development Australia and officially launched in August 2015. The Blueprint identifies five key pillars which are essential for the successful growth of the region. These pillars are:

- Physical infrastructure;
- Digital and communications;
- Economic development;
- Highly desirable communities; and
- Knowledge and learning.

The Blueprint establishes a high level vision to deliver each of these five pillars and key elements of the vision. From these, the document identifies regional goals and priority actions to deliver the vision. The applicability of the regional goals and priority actions for the Shire are identified in the following table:

Table 1 – Mid West Regional Blueprint Regional Goals and Priority Actions

Pillar	Element	Regional Goals	Priority Actions
Physical Infrastructure	Movement of people and resources	Optimal transport linkages to facilitate movement of people and product to domestic and international markets	<ul style="list-style-type: none"> • Develop Oakajee port and associated infrastructure. • Optimise rail networks to meet industry and community demands • Pursue strategic investment in road infrastructure

			<ul style="list-style-type: none"> • Enhance Geraldton airport and regional aerodrome networks / services • Implement effective public transport solutions throughout the region
	Water	Sustainable regional water supply that enables the intensification of agriculture, establishment of new industries and supply communities with quality water	<ul style="list-style-type: none"> • Pursue economic and community development through reuse of mine dewater • Utilise and promote waste water as a valuable resource • Develop water projects for agricultural diversification and expansion • Ensure sufficient water supply for socioeconomic growth in all communities
	Energy	Energy infrastructure is in place to supply the growth needs of Mid West communities and industry for development of renewable energy as a key industry	<ul style="list-style-type: none"> • Develop priority strategic energy infrastructure • Pursue alternate energy solutions
	Waste	Optimal diversion of regional waste from landfill and inherent emissions by 2025 including strategies to maximise the use of regional waste (water, agricultural, industrial and domestic) as a resource	<ul style="list-style-type: none"> • Develop waste solutions at a regional or sub-regional level
	Communications infrastructure	Internationally competitive communications networks exist throughout the region to enable high business productivity and community safety and amenity.	<ul style="list-style-type: none"> • Develop reliable high speed digital communications infrastructure throughout the Mid West • Ensure cost effective access to technology across the region
	Connected communities	Mid West communities are highly connected and the region is digitally empowered	<ul style="list-style-type: none"> • Develop highly connected communities in a digitally empowered region
Economic Development	Resource Economy	To realise the growth and development potential of the region's minerals and energy resources and extract maximum regional value from resource sector activity	<ul style="list-style-type: none"> • Ensure sufficient serviced industrial land to meet future sector demands • Create a region of choice for FIFO / DIDO workers to be based
	Tourism	The Mid West attracts one million visitors each year that stay in and enjoy the region for longer	<ul style="list-style-type: none"> • Develop a world renowned tourism region with iconic attractions and destinations • Develop accessible tourism destinations and events with unique / quality experiences • Ensure diversity and niche subregional tourism opportunities
	Agriculture and food	A region built on a diverse, innovative, profitable and productive agriculture and food sector that services local and global markets	<ul style="list-style-type: none"> • Reinvigorate a competitive and profitable pastoral industry • Ensure sustainable practices with strong research and development focus
	Land availability	Sustainable (available and affordable) supply of zoned land for future growth and development	<ul style="list-style-type: none"> • Ensure sufficient employment land to support strong industry growth
	Business and industry development	An economically diverse and dynamic business sector that captures the productive capacity of the region and	<ul style="list-style-type: none"> • Drive new and existing industry development • Support diverse and competitive Aboriginal enterprise

		converts opportunity into employment	development
Highly Desirable Communities	Spaces and places	Infrastructure and services that help create exciting, healthy and vibrant local communities with a strong sense of belonging	<ul style="list-style-type: none"> • Build highly liveable communities that attract and retain populations • Develop vibrant communities that celebrate their unique culture, arts and heritage
	Regional housing	Sufficient regional housing stock of suitable configuration to meet growth and development needs of each local community	<ul style="list-style-type: none"> • Ensure student accommodation for all people choosing local education • Ensure adequate and appropriate housing stock for the region's workforce • Support ageing in place through provision of aged care accommodation in communities as appropriate • Ensure appropriate Aboriginal housing throughout the region with home ownership rates matching the broader community
	Health and wellbeing	Sophisticated health services and infrastructure provision to support improved health and quality of life within communities	<ul style="list-style-type: none"> • Enable health infrastructure that enables the highest standard of healthcare • Attract and retain high quality healthcare workers in all communities
	Environment	The region's diverse natural assets are protected and managed for current and future use	<ul style="list-style-type: none"> • Protect the region's unique biodiversity as a regional asset
Knowledge and learning	Education and training	Equitable and accessible high quality education and training is available to all Mid West residents	<ul style="list-style-type: none"> • Support higher education and training systems that build the region's tertiary outcomes • Attract and retain high quality education workers in all communities
	Workforce development	A dynamic and skilled workforce that matches regional economic growth and development	<ul style="list-style-type: none"> • Maximise transition of FIFO / DIDO workforces into permanent residents

2.2.3 Mid West Investment Plan 2011-2021

The Midwest Investment Plan was developed following the 'Leaving a Legacy' Workshop held in Perenjori in April 2010. The purpose of the Midwest Investment Plan is to clearly define the region's strategic priorities over the next ten years to 2021.

An estimated \$19 billion worth of projects are planned or currently in development in the Mid West over the next 5-7 years. Of these, Oakajee Port is the biggest single infrastructure project and when constructed, will trigger major flow on investment throughout the region. The Midwest Investment Plan establishes the following objectives for the Midwest region:

Table 2 – Mid West Investment Plan Objectives

Sustainable increase in population	Positive outcomes for Aboriginal people
A refreshed and revitalised Midwest	Improved regional infrastructure to facilitate coastal and inland development
Enhanced regional unity and promotion	Prosperous and diverse primary industries
Balanced urban and coastal development	Diversified and enhanced minerals and energy industries
Improved government services	Continued expansion of the tourism industry
Effective health service delivery	Establishment of new and innovative industries and services
A skilled and educated Mid West community	A valued and protected natural and built environment

Specific to Morawa, the Mid West Investment Plan notes that a key concern for Morawa is power reliability as it is located on the edge of the power grid. Other key drivers relating to Morawa are:

- Increasing mining operation.
- Need to maximise opportunities from local mining.
- High indigenous youth population (55.3% under 18 years of age).
- 5% in public housing.

The Mid West Investment Plan identifies a number of flagship projects directly relating to Morawa. These, along with an estimated cost, are identified below:

- Upgrade of Morawa and Perenjori Regional Airports (\$5.0m).
- Upgrade of Wubin to Mullewa Road(\$123m).
- Child-care facilities in the Shire's of Morawa and Perenjori (\$1.5m).
- Industry Training Centre in Morawa (\$10m).
- Upgrade of Perenjori and Morawa Feeder (\$7.0m).
- Morawa Solar Thermal Project (\$21.5m).

2.3 Other Relevant Legislation

2.3.1 Mining Act 1978

Section 120 of the *Mining Act 1978* states that local planning schemes and local laws are to be considered but do not derogate decisions made pursuant to the *Mining Act 1978*. Therefore, planning schemes cannot prohibit or affect the granting of mining tenements (mining leases and exploration licenses) or carrying out of any mining operation authorised by the *Mining Act 1978*. Recent State law has resolved that mining operations include accommodation camps and other associated infrastructure proposed to be located within mining tenements affecting Crown land.

Consequently, the Shire of Morawa local planning scheme will have limited application to the control of land use in relation to mining activities undertaken on Crown land within the Shire. Rather, any decision made under the *Mining Act 1978* will be required to have due regard and consider the requirements of the Shire's local planning scheme.

On Crown land, construction materials are defined as 'mineral' and therefore there is need for a mining lease under the *Mining Act 1978* for construction material extraction. On private property, commercial construction material extraction is authorised by the Shire through the grant of an Extractive Industry Licence. It is very likely that mining of construction materials will be required for all new infrastructure (roads, bridges, telecommunications etc) to be built within the Shire.

3 Local Planning Context

3.1 Shire of Morawa Town Planning Scheme No. 2

The Shire's Town Planning Scheme No. 2 (TPS 2) is a land use based statutory scheme, originally gazetted in May 2007 and last amended in April 2011. The principal functions of the scheme are to reserve and zone land and control development on reserved and zoned land.

The objectives of TPS 2 are:

- to zone the Scheme Area for the purposes described in the Scheme;
- to secure the amenity, health and convenience of the Scheme Area and the residents thereof;
- to make provisions as to the nature and location of buildings and the size of lots when used for certain purposes;
- the preservation of places and objects of natural beauty, cultural and Indigenous heritage significance, or other scientific interest;
- to make provision for other matters necessary or incidental to Local Planning and housing.

TPS 2 establishes a number of zones, some of which are inconsistent with the zone classifications contained within Schedule 1 of the *Planning and Development (Local Planning Schemes) Regulations 2015*:

- Commercial
- Industrial
- Residential
- Rural-Residential
- Rural
- Urban
- Special Use
- Mixed Use
- Urban Development Zone

The structure of LPS 2, along with development standards, land use classifications and land use permissibility all need to be reviewed and brought up to date with the format and standards as set out in Schedule 1 and 2 of the *Planning and Development (Local Planning Schemes) Regulations 2015*.

3.2 Strategic Community Plan 2018 to 2028

The Shire's Strategic Community Plan 2018 to 2028 establishes the long term vision, values, aspirations and objectives for the Shire's community and represents the highest level of strategic corporate planning for the Shire that will inform the preparation of the Shire's Corporate Business Plan and annual reporting and expenditure. The Strategic Community Plan therefore has a direct role in informing the preparation of the Shire's Local Planning Strategy and is a key consideration in this document.

The plan establishes four pillars which represent the areas of community interest and which inform the preparation of strategic objectives and desired outcomes for the community. These pillars, objectives and outcomes are identified in the following table:

Table 3 – Strategic Community Plan Framework

Pillars	Objectives	Outcomes
Economic	Objective 1 A diverse, resilient and innovative economy.	1.1 Maintain and increase population. 1.2 Maximise business, industry and investment opportunities. 1.3 Responsive to innovation and new technologies. 1.4 Provide essential services and infrastructure to support population growth. 1.5 Planned and balanced growth. 1.6 The main street is the civic and retail heart connecting the town.

		<p>1.7 Attractive and well-maintained buildings and streetscapes.</p> <p>1.8 Well maintained local roads and ancillary infrastructure.</p> <p>1.9 Affordable, diverse and quality accommodation options for both residential and business.</p> <p>1.10 Increased investment in transport networks.</p>
Environment	Objective 2 Protect and enhance the natural environment.	<p>2.1 Ensure natural resources are used efficiently and effectively.</p> <p>2.2 Enhance and promote rehabilitation of our native vegetation.</p> <p>2.3 Regional waste management solution(s) to achieve zero landfill.</p>
Social Connection	Objective 3 A community that is friendly, healthy and inclusive.	<p>3.1 Services and facilities that meet the needs of the community.</p> <p>3.2 Respect our cultural, indigenous and heritage assets.</p> <p>3.3 Retain a safe environment.</p> <p>3.4 A wide range of regional events.</p> <p>3.5 Improved and well-maintained community, recreational and civic infrastructure.</p> <p>3.6 Promote and support a healthy community.</p> <p>3.7 Support an inclusive community.</p>
Leadership & Governance	Objective 4 A connected community with strong leadership.	<p>4.1 A well informed, connected and engaged community that actively participates.</p> <p>4.2 Existing strong community and spirit and pride is fostered and encouraged.</p> <p>4.3 A local government that is respected, professional and accountable.</p> <p>4.4 Strong regional partnerships with government and industry.</p> <p>4.5 Long term financial viability.</p> <p>4.6 Attract and retain quality staff.</p>

The strategic objectives and desired outcomes have informed the preparation of this local planning strategy.

3.3 Corporate Business Plan 2018 – 2022

The Shire's Corporate Business Plan forms part of the Shire's integrated strategic planning framework and provides an operational basis in which to deliver the Strategic Community Plan. The Corporate Business Plan establishes the strategic priorities for the delivery of services and infrastructure projects, along with resource requirements, over a four year period. From this plan, the Shire can prepare its annual budget to deliver the strategic projects of the Shire. Key strategies that are proposed to be delivered within the Corporate Business Plan that are relevant to this local planning strategy include:

- Make land available for commercial and industrial uses, including progression of stage 1 industrial;
- Develop an Industry Training Centre;
- Advocate and partner with Water Corp for the provision of adequate water capacity, quality and supply.
- Investigate and promote Morawa as ideal location to partner to explore green technologies to become independent of grid for power supplies.
- Town Centre revitalisation strategies as contained in the Morawa Growth Plan.
- Continue to implement and fund Façade Enhancement and Policy 2.3.
- Explore the concept, including the costs and benefits of establishing a tourism, community and cultural precinct at the old Shire Council chambers and Town Hall.

3.4 Morawa Growth and Implementation Plan

In 2011, the Regional Centres Development Plan (SuperTowns) was established through the State Government's Royalties for Regions initiative. The SuperTowns Program encourages regional communities to accelerate planning by developing clear and consolidated plans to harness the opportunities afforded by imminent population growth. Morawa was amongst nine (9) regional towns identified, warranting the preparation of a SuperTowns Growth and Implementation Plan (Growth Plan).

In 2012, the Shire of Morawa, in conjunction with the Department of Regional Development and Lands (DRDL) and LandCorp prepared the Morawa SuperTown Growth Plan (the Growth Plan), which provides strategic direction for the growth and development within the Shire over the next 30 to 40 years.

Key components of the Growth Plan included the spatial growth plan for the Morawa townsite and a plan for Morawa's Town Centre, which are displayed in Figures 3 and 4 below.

Since 2012, significant structural changes have transpired which effectively removed the SuperTowns program and its associated funding. As a result, it has necessitated a recasting of the next ten years priorities and resultant strategies as detailed in the Shire's Strategic Community Plan.

Figure 3 – Morawa Townsite Spatial Growth Plan

TOWN SITE GROWTH PLAN

- 01** Morawa Wildflower Bush Trails. [ISP14]
 - 02** Potential northern roadside truck cleaning station.
 - 03** Area for potential caravan park extension. [ISP95]
 - 04** Potential to adapt / re-use workers' camp. [ISP97]
 - 05** Approved new future residential development. [ISP91]
 - 06** Potential sculptural light beacon (alt. in civic square). [ISP12+74]
 - 07** Industry training centre. [ISP11]
 - 08** New Civic Plaza Space and Prater Street streetscape works (kerb widening, alfresco areas, street trees). [ISP74]
 - 09** Potential site for additional aged persons housing. [ISP93]
 - 10** Adapt & re-use old hospital building. [ISP2]
 - 11** Grow the education precinct, including additional student accommodation.
 - 12** Separation of freight road and main street. [ISP74]
 - 13** In-line truck layover lanes. [ISP74]
 - 14** Trade training centre. [ISP10]
 - 15** Potential southern roadside truck cleaning station and truck parking.
 - 16** Solar Power Projects. [ISP57]
 - 17** Relocated Industrial uses from east side of rail lines. [ISP96]
 - 18** Proposed future Industrial Development. [ISP90]
 - 19** Potential re-located Council depot.
 - 20** Potential 'Greening' of the golf course with recycled water. [ISP61]
 - 21** Potential new amenity outlook residential development. [ISP92]
 - 22** Recycled water 'Greening' and planting regime to existing park. [ISP61]
 - 23** Recycled water 'Greening' and planting regime to grand Median Streets. [ISP61]
 - 24** Retain as rural living.
 - 25** Opportunity to retain / integrate remnant bushland as open space. [ISP62+63]
 - 26** Potential new residential development. [ISP92]
 - 27** Potential to redevelop for residential purpose. [ISP92]
 - 28** Airport upgrade.
- Note:**
ISP = Implementation Schedule Project

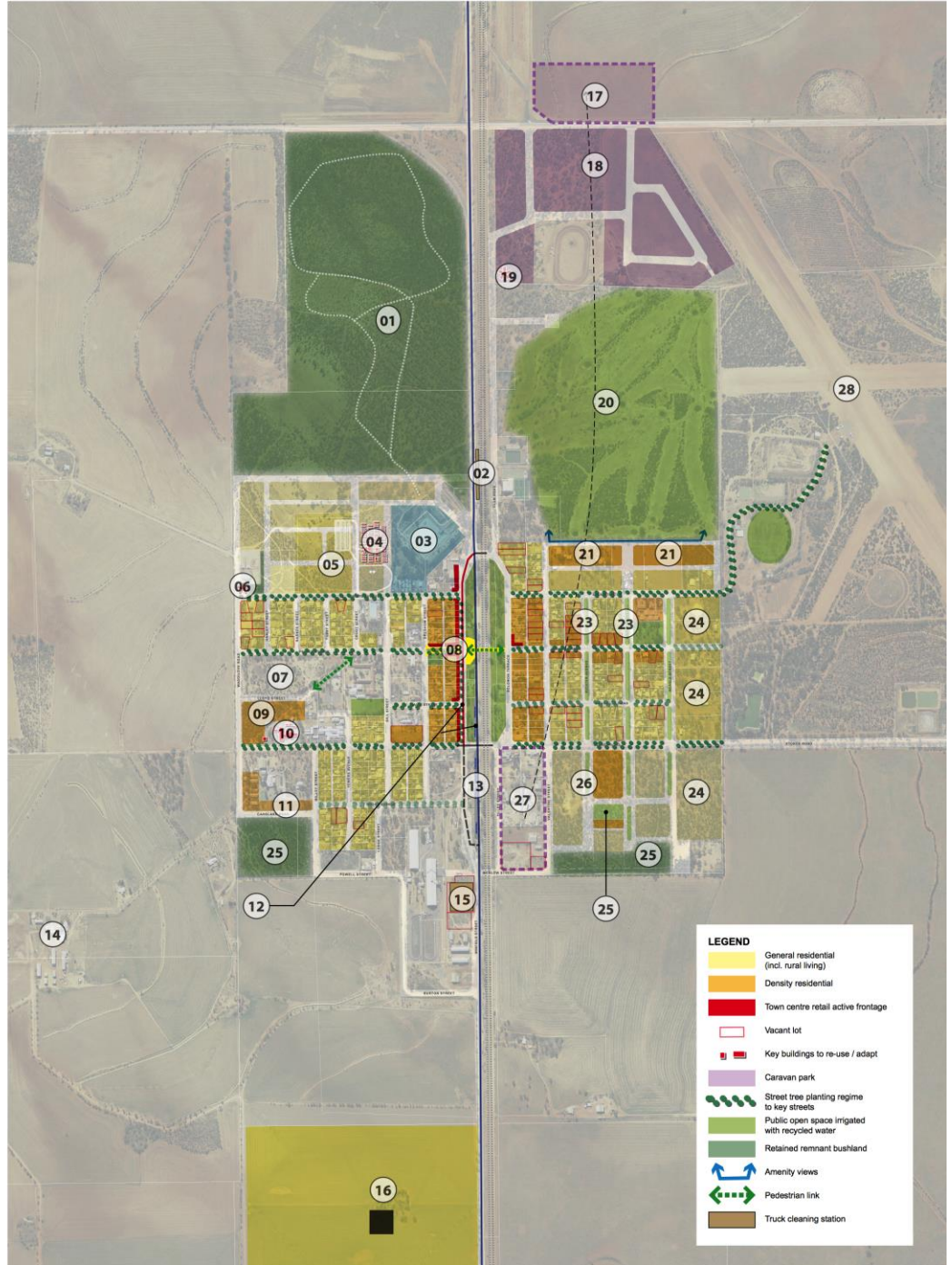


Figure 4 – Morawa Town Centre Plan



Town Centre Principles (West)

- Remodified facades
- Zero front setbacks
- Rear loaded parking
- Shared parking with key activity nodes
- Laneway to be sealed and activated
- Active uses to the street front
- Potential residential uses over commercial / retail
- Encourage existing commercial / retail buildings to re-configure

Town Centre Principles (East)

- Live/work building typologies
- Small 3m setback for building frontages
- Encourage 2 storey development
- Increased residential densities
- Prescribed commercial activity not to compete with main street
- Rear loaded parking

- 01** Separate carriageway for freight traffic.
- 02** Winfield Street improvement plan - to create a calmer, more walkable place.
- 03** Prater Street streetscape enhancements.
- 04** Alfresco dining / cafe opportunity.
- 05** Facade Enhancement Strategy.
- 06** In-line truck parking facilities associated with new carriageway.
- 07** Potential 'greening' of central open space areas using recycled water.
- 08** E-W link across rail line.
- 09** Manning Road streetscape enhancements.
- 10** Residential density opportunity lots.
- Town Centre (West) - Core Retail / Commercial Areas.
- Town Centre (East) - Recommended Mixed Use Areas.

3.5 Local Planning Policies

The Shire currently has a suite of 17 local planning policies which form an Appendix to the Shire of Morawa Local Planning Scheme No. 2 Scheme Report (June 2006). The numerous policy objectives are principally directed towards consolidating the town centre and ensuring commercial, civic and tourist developments are encouraged and directed to be located there. These policies relate to the following:

General

- 1.0 Town centre consolidation
- 2.0 New commercial development – General
- 3.0 Enhancement of public buildings
- 4.0 Colour schemes for commercial buildings, public buildings and street furniture
- 5.0 Guidance for alterations to heritage buildings
- 6.0 Control of fencing
- 7.0 Public street furniture
- 8.0 Public area tree planting
- 9.0 Retention of remnant native vegetation
- 10.0 Roadway, carpark and footpath paving materials
- 11.0 Town centre carparking
- 12.0 Public information signage
- 13.0 Advertising signage
- 14.0 The installation of television satellite dishes on residential and commercial buildings

Specific Sites and Precincts

- 15.0 New development on Town entries and main streets
- 16.0 Railway land within the Town Centre

Heritage Matters

- 17.0 Financial and non-financial incentives for appropriate development

Other

- 18.0 Shipping container policy

3.6 Local Laws

Local Laws are made pursuant to the *Local Government Act 1995* and establish specific laws for local government districts. The Shire has a number of existing adopted local laws and is currently progressing the following draft Local Laws for consideration by the Council:

- Draft Waste Local Law;
- Draft Amenity Local Law;
- Draft Cemeteries Local Law;
- Draft Public Places and Local Government Property local law; and
- Proposed Extractive Industry Local Law.

These Local Laws will assist in delivering the objectives, strategies and actions as set out in this Local Planning Strategy.

4 Local Profile

4.1 History

4.1.1 Aboriginal Heritage

The land comprising the Shire of Morawa is referred as *Yamaji* country meaning 'man' or 'human being'. *Yamaji* is in the Mid-West region and stretches as north to Carnarvon, east to Meekatharra, and south to Jurien. The *Yamaji* region is home to many groups of Aboriginal groups with the *Amangu* people occupying the land which contains the Shire of Morawa.

The *Aboriginal Heritage Act 1972* provides automatic protection for all places and objects in Western Australia that are important to Aboriginal people because of connections to their culture. These places and objects are referred to as Aboriginal sites. The Shire of Morawa contains 14 sites listed on the Department of Planning, Lands and Heritage.

Under section 17 of the *Aboriginal Heritage Act 1972* it is an offence to knowingly disturb or destroy an Aboriginal site without the expressed consent of the Minister of Indigenous Affairs, which can be applied for under section 18 of the *Aboriginal Heritage Act 1972*. Disturbance commonly arises through development processes that impact the land on which a site is located.

4.1.2 Native Title

The *Native Title Act 1993* recognises the traditional rights and interests to land and waters of Aboriginal and Torres Strait Islander people. Native title may exist on Unallocated Crown Land, reserve land or water bodies that are not privately owned. Native title rights are not recognised on residential freehold, farms held in freehold, residential, commercial, or community purpose leases, and public works such as roads.

There is one registered native title claim for the Shire of Morawa area, being a claim for the Amangu people (WAD6002/04).

4.1.3 European Heritage

The first European occupation of the Morawa district was by pastoralists, shepherds, sandal wood cutters and miners in the latter part of the 19th century.

The Assistant Surveyor A. C. Gregory travelled through the Morawa area in 1846. Later, in 1869, Sir John Forrest (later Lord Forrest) and E. Giles in 1876 carried out exploratory trips in and around the present district of Morawa.

In 1870 alluvial gold was found at Peterwangey, and a small deposit of copper was mined at Wooltana.

Agriculture was established the district in the early 1900's when the Stokes family settled and grew oats and wheat. The family lived in Greenough and John Stokes used to shepherd sheep from there to Merkanooka.

Morawa was declared a townsite in 1912 and the railway came through in 1913. The Upper Irwin Road Board, created in 1901, administered the town but in 1916 the Perenjori-Morawa Road Board was formed.

In 1948 the Premier, Sir Duncan Ross McLarty, opened Prater Airport which accommodated Dove and DC3 aircraft and is currently used by light aircraft. A fully illuminated strip allows for night landing of flying doctor and courier planes.

For eight years following 1966, iron ore was mined by Western Mining Corporation at the Koolanooka Hills and exported through the Port of Geraldton to Japan. A total of 5.1 million tons was extracted and was the first iron ore shipment to be exported from Australia. Significantly, mining of Koolanooka Hills recommenced in 2006, this time by Midwest Corporation Limited.

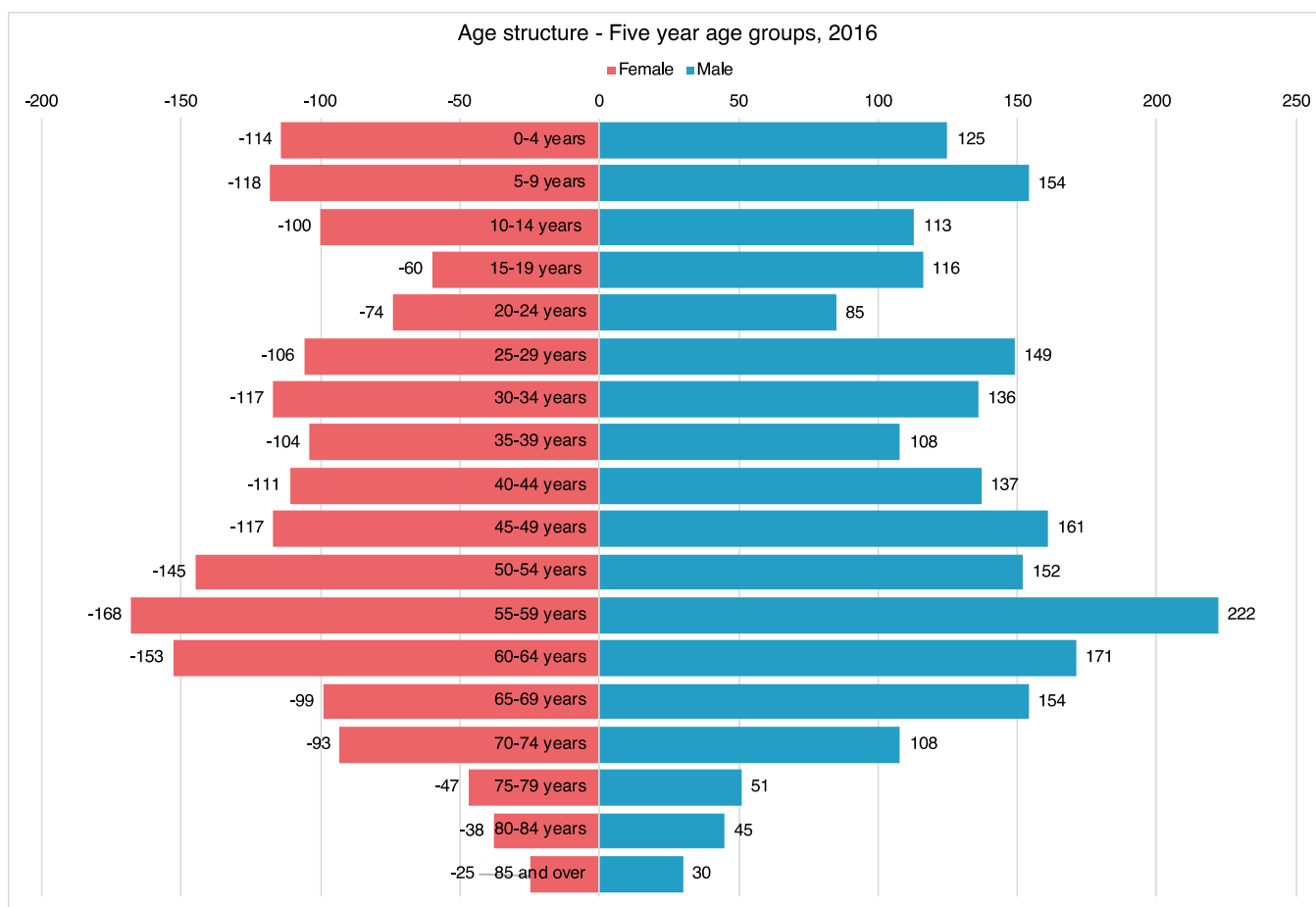
4.2 Population

4.2.1 Age and Sex

An analysis of the five year age groups of the Shire of Morawa in 2016 compared to Regional WA shows that there was a similar proportion of people in the younger age groups (under 15) as well as a similar proportion of people in the older age groups (65+). In summary, 20.7% of the population was aged between 0 and 15, and 14.7% were aged 65 years and over, compared with 20.2% and 14.6% respectively for Regional WA. As shown in the following graph, the major differences between the age structure of the Shire and Regional WA were:

- A larger percentage of persons aged 15 to 19 (10.3% compared to 5.7%);
- A larger percentage of persons aged 55 to 59 (8.7% compared to 6.9%);
- A smaller percentage of persons aged 55 to 95 (4.1% compared to 6.7%); and
- A smaller percentage of persons aged 65 to 69 (2.7% compared to 5.3%).

Figure 5 – Five year age groups



(Source: Australian Bureau of Statistics 2016)

Age characteristics have significant implications for local planning for infrastructure and services. The Shire is seeking to attract and sustain a growing population. Key planning implications include:

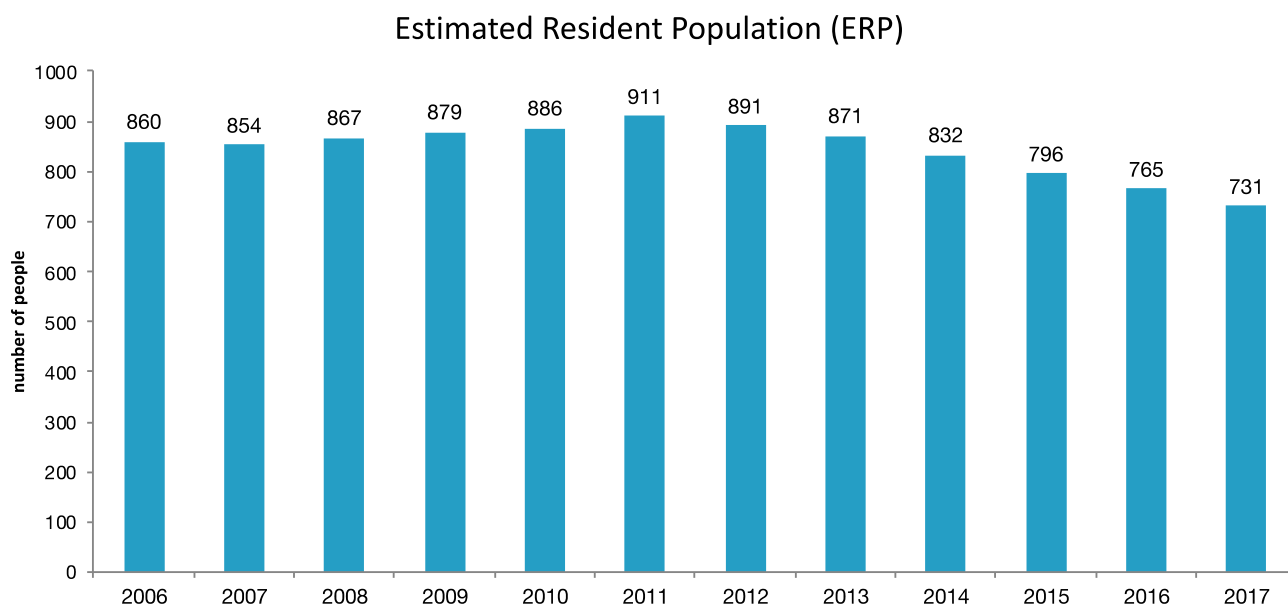
- Supporting the ageing population: Provision of health and aged care services and residential aged care supply. The attraction of skilled workers and infrastructure is required to do so.
- Attraction of Youth: Diversification of the economy and creation of a variety of sustainable job opportunities in important for retaining the youth.

Of the 742 residents; (53%) were male and (47%) were female, which shows a slight male bias beyond the roughly 50:50 balance in WA. Morawa has a median age of 38 years.

4.2.2 Predicting Population Change

This Strategy has been informed by demographic data and associated growth scenarios for the Shire of Morawa. According to official population statistics, in 2017 the Shire of Morawa had an Estimate Resident Population of 742 (Australian Bureau of Statistics (ABS) 2017). Population data shows that from 2011 to 2016, Shire of Morawa's population decreased by 158 people (17.7%), representing an average annual change of -3.8% per year. While this is an overall decrease in the Shire's population in the past decade, in more recent years these variations have been minor, as evidenced in the following table and graph, particularly compared with the steady decline in many Mid West shires. Morawa's relative population stability also runs counter to the substantial growth in the broader Western Australian population.

Figure 6 – Morawa Estimate Residential Population



(Source: Australian Bureau of Statistics, 2016)

Western Australia Tomorrow (2015) is a set of forecasts representing the best estimate of Western Australia's future population size based on current fertility, mortality and migration rates. These trend forecasts are used to identify potential preferred future scenarios that can be built upon; as well as less favourable possibilities for which mitigating action can be taken. Population growth for local governments within WA including Morawa have been predicted based on acquired information and identified factors.

WA Tomorrow uses a forecast range referred to as 'bands'. Bands A and B contain lower forecasts, Band C represents the median forecast and Bands D and E represent the higher forecasts. The forecasts for the Shire of Morawa predict the following percentage change in population across the bands between the years 2021 and 2031:

- Band A: -31.1% (-170 people)
- Band B: -14.6% (-105 people)
- Band C: -9.7% (-80 people)
- Band D: -10.4% (-95 people)
- Band E: -0.4% (-5 people)

The following table outlines future growth predictions for Morawa.

Table 4 - Shire of Morawa Population and Growth Scenarios (Source: DPLH, WA Tomorrow 2015)

Year	Band				
	A	B	C	D	E
2021	430	620	680	770	970
2026	340	545	630	725	960
2031	305	485	600	675	935

4.2.3 Capacity to accommodate growth scenarios

The Department of Planning, Lands and Heritage regularly undertakes a review of residential, commercial and industrial land capacity to accommodate existing and forecast growth in regional areas. The most recent analysis for the Shire of Morawa was completed in 2016 and is documented in the Department's document titled Central Regions Land Capacity Analysis (2016).

The analysis suggests that there is sufficient zoned vacant land to cater for the population growth anticipated in Western Australia Tomorrow 2026 population forecasts for the Shire of Morawa. Additionally, it is noted that there is sufficient zoned residential land and/or future residential land capable of being developed to accommodate a target population of 2,500 people within the townsite of Morawa within a medium density scenario of R20 residential density.

The following table identifies existing developed land versus land available for development within the Morawa townsite.

Table 5 – Morawa development status of land

	Total	Developed (ha)	Capable of substantial further development (ha)
Residential	55	40	15
Future residential	31	0	31
Residential and future residential	86	40	46
Rural residential	29	16	13
Future rural residential	5	0	5
Rural residential and future rural residential	34	16	18
Rural smallholdings	0	0	0
Future rural smallholdings	0	0	0
Rural smallholdings and future rural smallholdings	0	0	0
Commercial	5	5	0
Future commercial	0	0	0
Commercial and future commercial	5	5	0
Industrial	47	10	37
Future industrial	10	0	10
Industrial and future industrial	57	10	47

Table 6 - Shire of Morawa – estimated potential population capacity

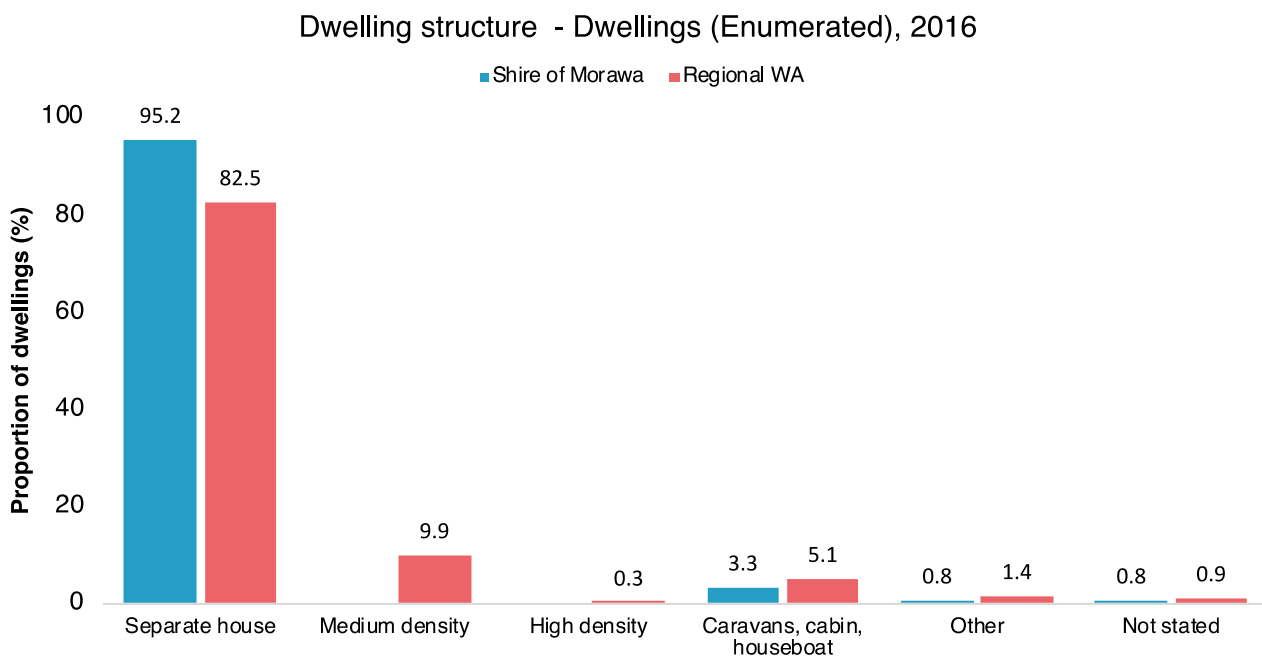
Scenario		Current population	Estimated potential population yield from additional lots	Estimated total population
1. Low density scenario (R10 / 4 ha / 40 ha)	1A	889	250	1,139
	1B	889	758	1,647

2. Medium density scenario (R20 / 2 ha / 20 ha)	2A	889	501	1,390
	2B	889	1,514	2,403
3. High density scenario (R30 / 1 ha / 8 ha)	3A	889	758	1,647
	3B	889	2,281	3,170

4.3 Housing

According to the 2016 Census, there are 405 dwellings in Morawa. None of these are medium or high density compared to an average of 10% in Regional WA, as shown in Figure 7 – Morawa Dwelling Structure. 20.5% of households are couples with children in comparison to 25.8% being the Regional WA average. Accordingly, 29.5% were lone persons compared to the lower regional rate of 22%. Refer to Figure 8 – Morawa Household Type In regard to ownership, 53% of households were purchasing or fully owned their home, 22.1% were renting and 10% were in social housing as displayed in Figure 9 – Morawa Housing Tenure. A majority of the available housing product within the Shire is single detached dwellings, with 3 bedroom dwellings being the most common in the Shire.

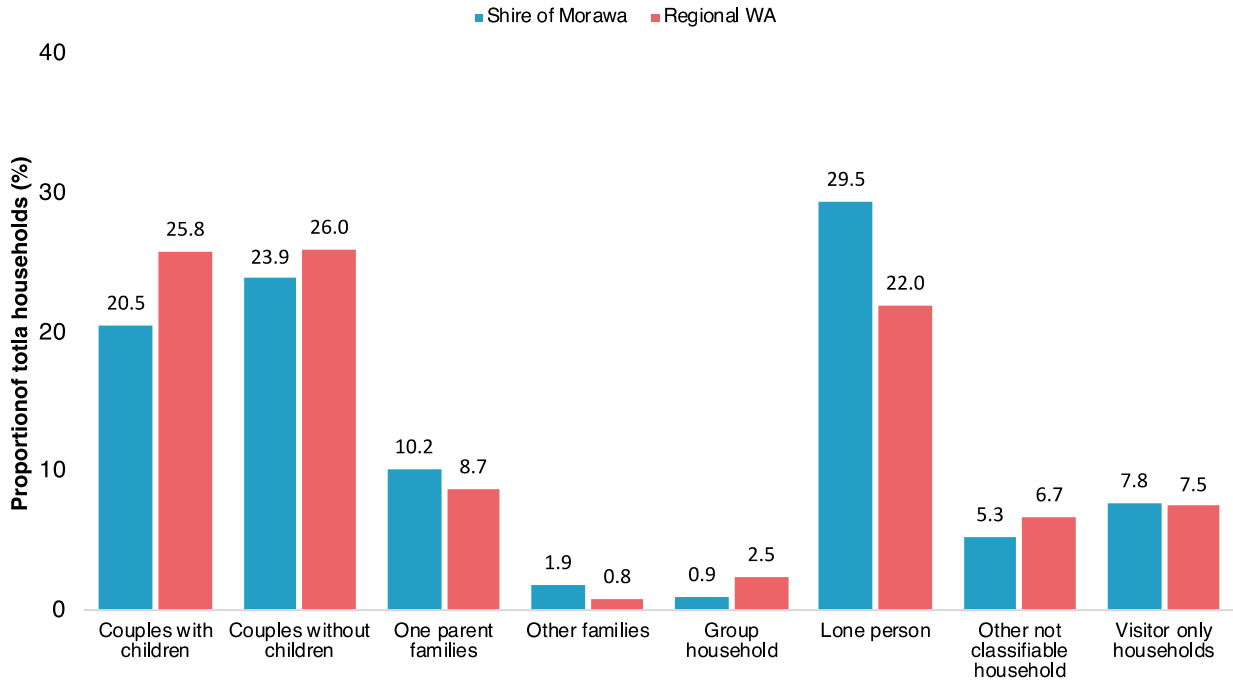
Figure 7 – Morawa Dwelling Structure



(Source: Australian Bureau of Statistics, 2016)

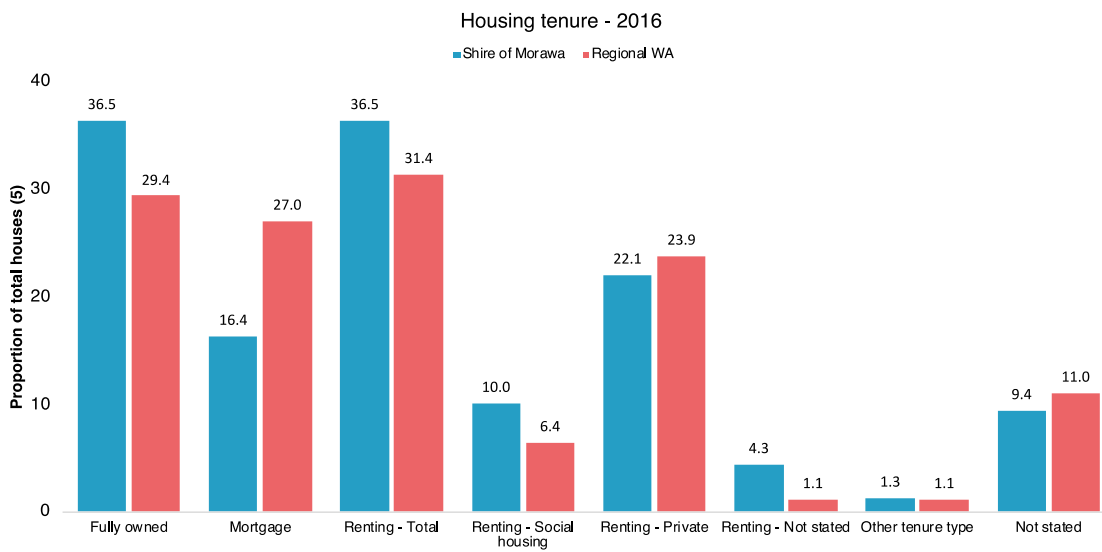
Figure 8 – Morawa Household Type

Household type - Shire of Morawa - Total households (Enumerated)



(Source: Australian Bureau of Statistics, 2016)

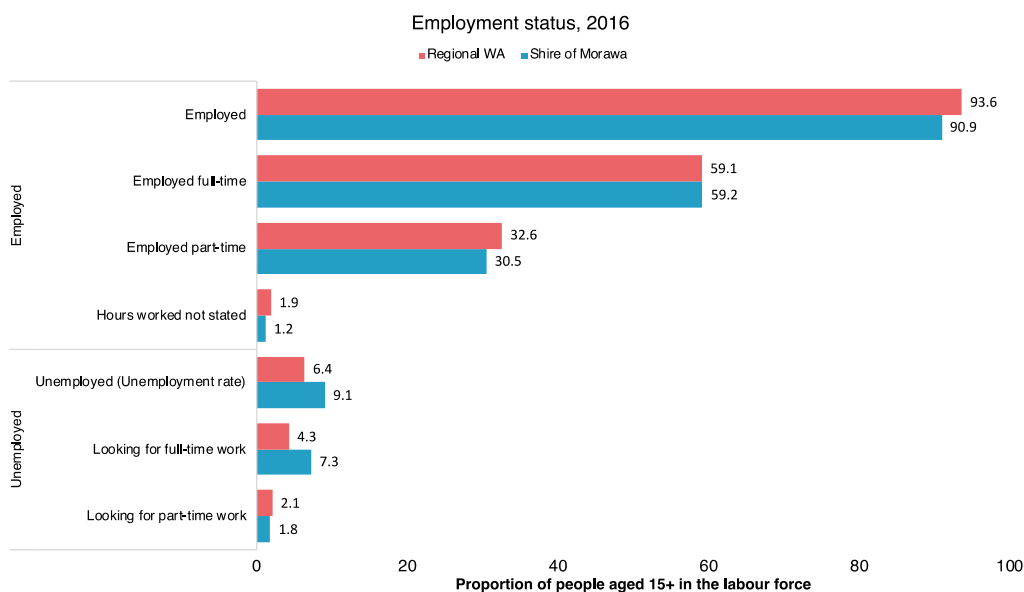
Figure 9 – Morawa Housing Tenure



4.4 Economy

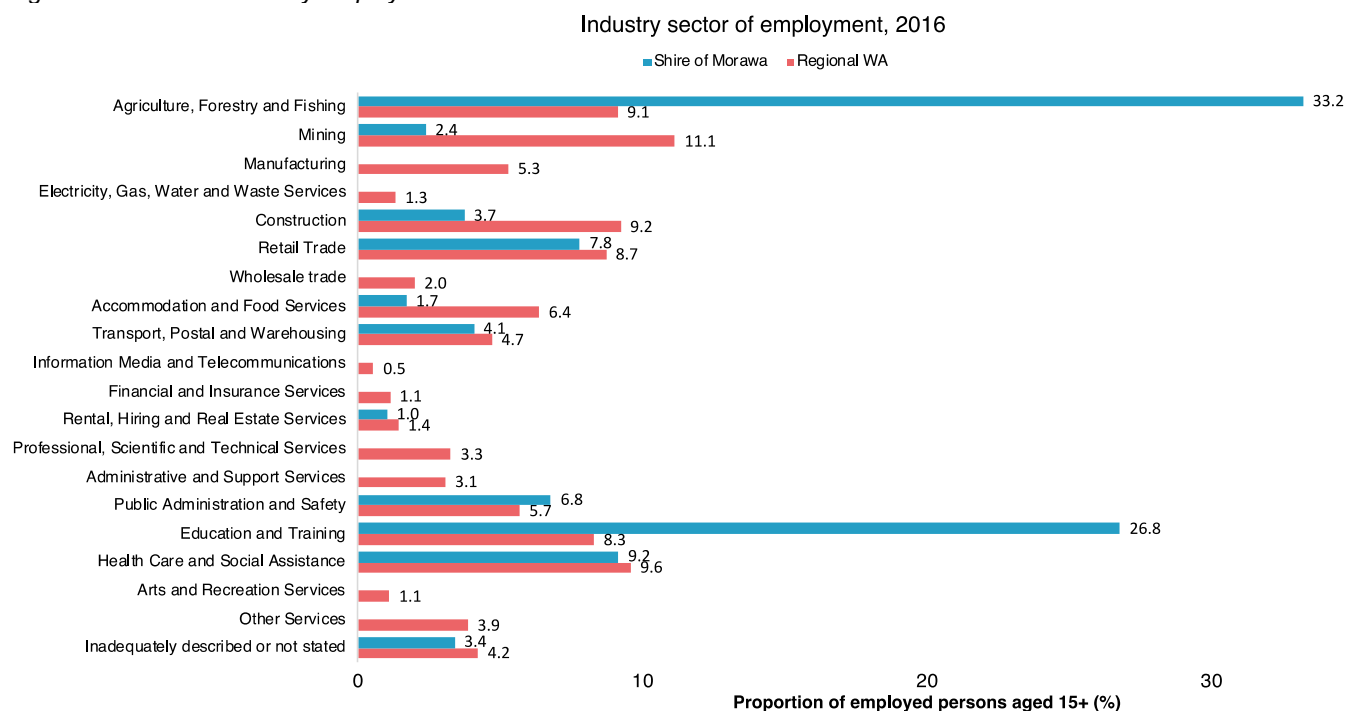
In the 2016 census, 90.9% of the population was employed. This is slightly lower than the 93.6% average of Regional WA. Refer to Figure 10 – Morawa Employment Status. As displayed in Figure 11 – Industry Employment, the highest employing industry was Agriculture, Forestry and Fishing, which employs 33.2% of the population. This is significantly higher than the 9.1% Regional WA average, emphasising Morawa’s rural based economy. Education and Training was the next highest employer at 26.8%, significantly higher than the 8.3% average. This is reflective of the Town’s role in supplying higher order facilities such as a kindergarten to Year 12 school to the surrounding districts and the WA College of Agriculture to the wider region.

Figure 10 – Morawa Employment Status



(Source: Australian Bureau of Statistics, 2016)

Figure 11 – Morawa Industry Employment



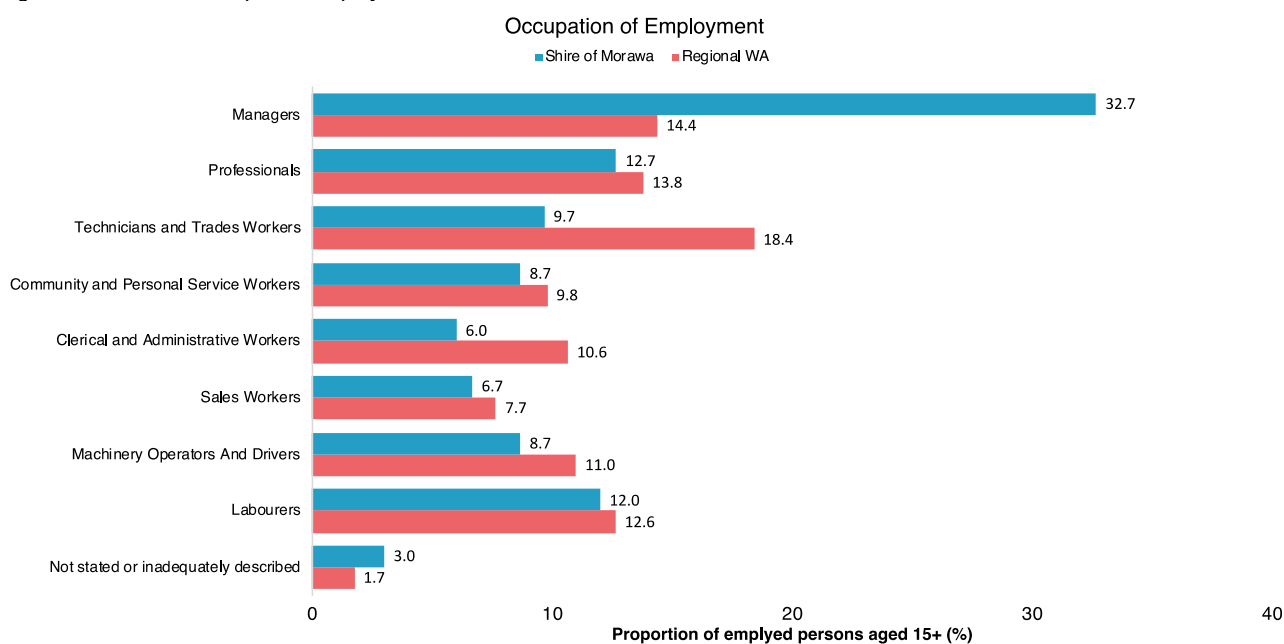
(Source: Australian Bureau of Statistics, 2016)

Managers (32.7%), professionals (12.7%) and labourers (12%) were the three highest occupations. The rate of managers was significantly higher than the Region average of 14.4%, while professionals (13.8%) and labourers (12.6%) were marginally lower, as displayed in Figure 12 – Morawa Occupation Employment.

Analysis of household income levels in the Shire compared to Regional WA shows that there was a smaller proportion of high income households (those earning \$2,500 per week or more) and a higher proportion of low income households (those earning less than \$650 per week). Overall, 10% of the households earned a high income and 25.4% were low income households, compared with 19.2% and 18.2% respectively for Regional WA. The major differences between the household incomes of the Shire of Morawa and Regional WA were:

- A larger percentage of households who earned \$1,000 - \$1,249 (11.8% compared to 7.6%);
- A larger percentage of households who earned \$150 - \$299 (4.3% compared to 2.2%); and
- A smaller percentage of households who earned \$3,000 - \$3,499 (1.4% compared to 3.9%).

Figure 12 – Morawa Occupation Employment



(Source: Australian Bureau of Statistics, 2016)

4.5 Environmental Profile

4.5.1 Climate

Morawa experiences a Mediterranean climate with hot, dry summers (November to April) and mild, wet winters (May to October). The average daily minimum and maximum temperatures during summer are 13 °C and 38 °C respectively, while the average daily minimum and maximum temperatures during winter are 5 °C and 18 °C respectively.

Annual average rainfall for the Morawa area is 333 millimetres a year, with the wettest month generally July. However, rainfall patterns have changed over the last ten years, with a decrease in rainfall of approximately 20 per cent, with an annual average of 266 millimetres of rainfall observed between 2000 and 2008 (Paul 2009). Overall evaporation within the area generally exceeds rainfall, however evaporation is highest during summer, when the least rainfall occurs, and lowest during winter when rainfall is greatest.

From October to February (spring and summer), the prevailing wind pattern is generally from the south, while from March to May (autumn) the prevailing wind pattern is generally from the east, south-east and from June to September (winter/spring) the prevailing wind pattern is generally from the west, north-west.

4.5.2 Topography

The topography within Morawa ranges from 260m Australian Height Datum (AHD) in the east to 290 AHD in the west, with the town generally sloping gently to the south-east, towards the extensive salt lake system located south and east of the townsite.

4.5.3 Geology and Soils

Morawa is located on the western side of the Archaean Yilgarn craton with extensive granitoid rocks to the north-west, south-west and east of Morawa.

The basement rock below Morawa is predominantly medium even grained adamellite-granodiorite, which has been strongly deformed and recrystallized in Morawa and is intruded by dolerite dykes and quartz veins.

Regional soil landscape mapping undertaken by the Department of Primary Industries and Regional Development indicates that Morawa contains five primary soil landscape units: the undulating country of the 'Morawa' (Mw) unit; alluvial plains of the 'Noolagabbi' (Ng) unit; sandplains of the Pindar (Pi) unit; the dissected country of the Peterwangy (Pe) unit in the west; and broad valley flats of the 'Saline Drainage' (Sd) unit, dominantly to the south-east of Morawa.

4.5.4 Surface Water and Groundwater

Morawa is located within the Yarra Yarra Catchment basin, which is a large system of ephemeral salt lakes (Yarra Yarra Lakes System), approximately 300 kilometres long and 250,000 hectares in area. These lakes are located approximately two kilometres south-east of the town centre. Generally surface water does not flow through the lake system but instead ponds in waterlogged depressions or the poorly defined drainage lines, and eventually recharges to the underlying groundwater system.

The natural drainage pattern through Morawa has been modified by the road and stormwater system, so that surface flow through the townsite is intercepted and stored within the town dam. As previously outlined, drainage overflow moves east along Stokes Road, towards the Yarra Yarra Lakes System when this dam reaches capacity. The south-west portion of Morawa is prone to flooding, while regular ponding of surface water is observed on the corner of Solomon Terrace and Manning Road.

Morawa is found within the Gascoyne groundwater area and the Mullewa/Byro sub area, which is described as generally unconfined in the east and flows toward the west where the aquifers then become confined by overlying low permeability units. A recent groundwater investigation (Paul 2009) indicates that groundwater within Morawa varies between one and four metres below ground surface, with the groundwater closest to the ground surface in the central portion of the town. In recent years, there has been a noticeable decrease in groundwater levels within Morawa, with a drop of approximately 0.2 metres per year since 2001 (Paul 2009).

4.5.5 Salinity

Within Morawa, the risk of salinity from groundwater is considered low given that groundwater levels have declined over the last ten years. However, it should be noted that there is still a risk of salinity in Morawa from:

- Groundwater levels rising, either locally within the town where ponding occurs, or if regional groundwater trends change (i.e. if rainfall increases, or if remnant vegetation is cleared); or
- Surface water that flows through Morawa from the surrounding agricultural areas, which is saline in nature or surface water which can pond within areas of town.

4.5.6 Flora

Morawa is found within the Avon Wheatbelt Interim Biogeographic Regionalisation for Australia (IBRA) region and within the Ancient Drainage subregion. This area is broadly described as "Proteaceous scrub-heaths rich in endemics on lateritic uplands and sandplains with mixed eucalypt, *Allocasuarina huegeliana* and Jam-York Gum woodlands on alluvials and eluvials" (Beecham 2001).

Beard (1976) undertook regional scale mapping and indicated that Morawa formed part of the Perenjori vegetation system, which is broadly described as Casuarina thicket, Eucalyptus woodland and salt country complex on yellow sandy soils, red loams and saline grey sands respectively.

The Morawa region is also known for its variety of wildflowers with tourists encouraged to visit and explore the area to observe wildflowers. These wildflower values are known within the town as well as within the cleared agricultural areas and areas of remnant vegetation surrounding the town.

The majority of the Avon Wheatbelt IRBA area has been extensively cleared with an estimated 13 per cent of the original remnant vegetation remaining. All remnant vegetation is considered important for biodiversity and landscape integrity (i.e. minimising the impacts of salinity).

A large proportion of the town appears to contain remnant vegetation. Limited site-specific investigations have been undertaken to date, however a search of state databases indicates that 51 flora species of significance may potentially occur within Morawa, seven Declared Rare Flora and 44 Priority Flora species. In addition, eight flora species have been listed at the federal level as potentially occurring within Morawa.

Previous investigations indicate that one species of conservation significance, *Eucalyptus synandra*, has been observed within the remnant vegetation surrounding the airport.

A search of state and federal databases indicates that ten conservation significant species may occur within Morawa and include bird, mammal and reptile species. Recently, evidence of the Western Spiny-tailed Skink (*Egerina stokesii badia*), which is a state and federally listed conservation significant species, was observed in the northern portion of remnant vegetation within the townsite.

4.6 Infrastructure

4.6.1 Water Supply

Morawa is supplied from the Arrowsmith Regional scheme along with several other towns in the area. The Morawa townsite is equipped with a 2 Million litre capacity tank and booster pump station, which are at about 50% capacity currently.

Morawa accounts for over half of the demand from the Arrowsmith Scheme, which is currently at about 80% of its annual abstraction Licence.

4.6.2 Sewer Infrastructure

The Morawa Waste Water Treatment Plant (WWTP) consists of a primary, secondary and tertiary treatment pond system with an ingress splitter chamber and gravity overflow connections between the ponds. The ponds have a total storage capacity of more than 58,000 cubic metres (m³). All ponds are clay / Medium Density Polyethylene (MDPE) lined with stone pitching around the surface splash zone.

Once the required retention time (approximately 65 days) has been achieved, treated wastewater from the tertiary pond is pumped to a nearby off-site stormwater catchment dam situated approximately 450 metres west of the WWTP.

Wastewater (approximately 2100m³) sent to the catchment dam is pumped to a water reuse holding tank, and used for irrigation on the town oval (1.9 hectares) and hockey fields (0.7 hectares) of approximately 5695m³. Water samples are collected monthly from the reuse holding tanks to ensure the quality meets requirements as detailed in the Department of Health (DoH) Guidelines for the Non-potable Uses of Recycled Water In Western Australia (DoH, August 2011).

Wastewater stored in the catchment dam is likely to be diluted to some extent throughout wet periods of the year depending on the level of stormwater inputs to the catchment dam.

The stormwater dam does not have sufficient capacity to store all winter flows in combination with collected stormwater. As a result, the treated wastewater (TWW) overflows during the winter months to the salt lake system to the south east of the Morawa townsite, which is in breach of the current Operating Licence Conditions. The existing WWTP is at or slightly below the required capacity for the existing population.

The WWTP is located within a secured fenced area approximately 120 metres wide by 120 metres long and is located east of the Morawa town centre on Reserve 37310. A large buffer of remnant vegetation surrounds the WWTP with the nearest sensitive receptor approximately 1km away.

4.6.3 Power Supply

Power to Morawa is supplied via a 33kV feeder from the Western Power Three Springs sub-station. This feeder continues on to supply Perenjori and therefore any capacity issues need to consider both towns together.

Currently Morawa and Perenjori uses in the order of 3.5-4.0 MVA. Western Power advised that they have existing capacity in the Region in the order of 5 MVA. Therefore based on the current loads, this would allow for a substantial increase over the current usage for the two Shires and assuming it is a gradual increase, Western Power would deal with this as organic growth and continue to develop the network to support that growth. This does not however account for larger one-off loads such as rail construction or the proposed light industrial subdivision north of town and any significant expansion to the townsite.

There are major issues with the reliability of power supply, with regular brown outs and black outs occurring due to the condition and age of existing infrastructure and the Shire being located at the edge of the grid.

Western Power do not have any plans for a new transmission connection into Morawa. Western Power advised that to provide such a connection from the new 330kv transmission line being constructed to supply Karara Mining, it would require a new power substation.

4.6.4 Telecommunications

A Telstra cable network currently exists throughout the Morawa townsite with an exchange also being located within the town, providing telephone services. With regard to internet services, Morawa's exchange is connected to ADSL2+ and also has business grade BDSL capability, but due to prohibitive operation costs the Shire provide access to BDSL.

Areas in the North Midlands and parts of Morawa experience black spots, with poor coverage being of concern to residents.

Given that Morawa's population is below 1,000 people, residents within the townsite and the wider Shire are able to access the internet through the National Broadband Network (NBN) satellite services through SkyMuster.

4.6.5 Gas

The Morawa Townsite is not currently connected to a gas network and there are no proposals to connect the Morawa Townsite in the short or long term.

The future establishment of a gas hub at Three Springs could provide an opportunity for Morawa to branch into a gas supply.

4.6.6 Drainage

Stormwater is directed from the roofs of properties to either the surrounding ground or directed via small pipes to the road network. The whole road catchment is then conveyed to the Town Dam located on Stokes Road, which is then used for irrigation purposes. The Town Dam has a capacity of approximately 30ML. There is an additional small collection basin of about 3ML capacity that collects water from the recreational grounds north of Evans Street.

There are three main drainage crossings from the western side of the Townsite under the railway. These are piped drainage sections.

Due to the size of the drainage catchments, the gutter flows on the eastern side of the town are very large with the whole road widths acting as conduits for stormwater in larger storm events. This is likely to present road safety issues and also localised flooding issues to properties at the downstream end of the catchment.

4.7 Traffic and Transport

4.7.1 Road Network

Regional Roads

The Mid West Region is well serviced with a network of major sealed roads connecting Geraldton to Perth, the North West and the hinterland, which provides extensive use by double and triple road trains.

The Morawa townsite is directly accessible from the Wubin-Mullewa Road. This road is under the jurisdiction of Main Roads Western Australia (MRWA). This road provides an inter-town link between Wubin, Perenjori, Morawa and Mullewa and acts as a feeder for traffic into Geraldton, via Geraldton-Mt Magnet Road, and into Perth via Great Northern Highway. This road caters for heavy seasonal grain and fertilizer cartage as well as tourists during the wildflower season. As this road passed through the centre of town, it is known as Winfield Street. MRWA is a key stakeholder and appropriate consultation is to be undertaken for any development proposed adjacent to primary distributor road such as Wubin-Mullewa Road.

The Mingenew-Morawa Road approaches the town from the west and the Morawa-Yalgoo Road from the east. These roads form part of an east-west link from the agricultural and pastoral regions to the Geraldton Port, various recreation areas and the major grain receival point at Mingenew.

Being the easternmost town in the region, Morawa can be considered to be off the main traffic routes. To reach the town a detour from the Perth - Geraldton roads is required. This indicates that traffic growth would be led by the internal growth of the town. The development of other towns in the State would not be expected to have a significant impact on traffic movements in Morawa. The regional road hierarchy is shown on the plan contained at Appendix B.

Local Roads

Traffic movement through Morawa is considered relatively easy at the present time with no one street passing more than 1,000 vehicles per day. The following is a list of key roads forming part of the local road network:

- Winfield Street: forms the main street, running through the centre of the townsite;
- Caulfield Street: provides an important east-west link between the district hospital/medical centre;
- Prater Street: provides an east-west connection through the central core of the western town precinct to the town hall, high school and museum; and
- Solomon Terrace: runs parallel to the rail line on the eastern side of the tracks, providing a north-south connection between Stokes Road, Evan Street and crosses the rail line to Winfield Street.

4.7.2 Pedestrian and Cycling Network

There is an existing network of footpaths throughout the town, in particular in the main street and linking through to the recreation grounds and sports club, high school, swimming pool and caravan park.

Through the works associated with the town centre improvement scheme, grade crossings have been improved to provide better connectivity across the rail line in the centre of Morawa linking the western and eastern sides of the town.

Apart from the footpaths, there are no designated cycle facilities in the town, however the roads are wide, traffic volumes are low and grades are flat making it excellent cycling conditions.

There is a detailed trail master plan that is being implemented with walk trails through native bush land and wildflower areas to the north of town. However, the Shire does not have a programme to provide footpaths throughout the remaining residential streets.

4.7.3 Rail

The Perenjori Rail Line, which runs through the centre of town, was once used for passenger services as evidenced by the old railway station. The rail line is now however used for freight services, including for transporting of iron ore. Whilst initially only transporting 5 trips per week of grain during season, recent approvals for use of iron ore transport will increase the use of this railway.

4.7.4 Bus

A TransWa bus service provided between East Perth and Geraldton passes through Morawa. The service operates on Monday and Thursday to Geraldton and Tuesday and Friday to Perth and must be booked in advance.

There are no public bus services operating in Morawa.

A single fare to Perth is comparable to the cost of fuel if opting to travel via car. Given the long journey time of 6 hours, this service is expected to be predominantly utilised by those unable to drive (children, the elderly or disabled).

Given the current and potential for growth within the townsite of Morawa it is unlikely that a town bus service will ever be viable.

4.7.5 Airport

The existing aerodrome is located on the north-eastern outskirts of the Townsite. It is owned and operated by the Shire and has recently been upgraded to achieve the CASA Aerodrome category of Registered.

The airport is accessed through the sports field grounds and has a single lane access to the airstrip. The two airstrips are gravel and there is a bitumen apron to allow planes to turn and park. Currently the Registered certification allows for landings of up to a 30 seater plane and also Royal Flying Doctor Service (RFDS) emergency landings during the night.

The airport is suited to small aircraft and has in the past been used by the local mining companies. The Shire reports that there continues to be an increase in use of the airfield as mining and mining related activities grow. Morawa has also been identified as a sub-regional location of choice for Royal Flying Doctor and other health needs.

There are plans to seal the airstrip and there are no scheduled passenger services from Morawa. The closest scheduled passenger services are in Geraldton.

5 Analysis of Key Issues

5.1 Community Issues

5.1.1 Cultural Heritage

Heritage is what we inherit from previous generations and recognise as something that we want to pass on to future generations. Heritage can encompass tangible and intangible elements as outlined below:

1. Tangible cultural heritage includes artefacts, buildings, records and cultural landscapes.
2. Intangible cultural heritage includes, oral history, language, traditions, skills and stories.

Shaped by the environment, availability of resources, pastoral and agricultural industries and mining, Morawa has a rich and diverse heritage. Aboriginal heritage within Morawa includes mythological sites, artefact/scatter, quarries and modified trees. It also includes a number of traditional ceremonial sites.

After the establishment of the Swan River colony, colonial exploration of Morawa was recorded as early as 1846 and by the end of the 19th century, pastoralists, shepherds, sandalwood cutters and miners had settled in the area. The Shire's historic built form stands testament to the expansion and prosperity of Shire at the turn of the last century as it became one of the great wheat growing areas of the State. Its built form also includes the work of the distinguished ecclesiastical architect Monsignor John Hawes, whose buildings remain as iconic elements in the landscape.

This heritage is an important asset as it contributes to the richness of the environment, helps provide a sense of place and connection to the past and as it is a significant tourist attractor. It is important that the Shire has a clear heritage-planning framework, which identifies, protects and conserves this heritage for future generations.

Existing historic Heritage Framework

This section provides detail of the existing legislation/mechanisms in place to protect the Shire's historic heritage:

A) Heritage of Western Australia Act 1990

I. State Register

The State Register of Heritage Places is established by the *Heritage of Western Australia Act 1990* (Heritage Act) to ensure that places of value and importance to the State are protected and conserved. Entry in the State Register means that any changes or works proposed for the place need to be referred, usually by the responsible local government, to the State Heritage Office for advice.

The following places in Morawa are on the State Register:

- Morawa Shire Office
- Morawa Town Hall and Lesser Hall
- Church of the Holy Cross & Priest's Cell

II. Municipal Heritage Inventory

The provisions of the Heritage Act also requires local governments to compile and maintain an inventory of buildings (Local Government Inventory or LGI) within its district which in its opinion are, or may become, of cultural heritage significance. The Heritage Act specifies that the LGI should be updated annually; and reviewed every four (4) years after compilation. The inventory has no statutory implications unless it is adopted under the Local Planning Scheme as the 'Heritage List' (as is the case in the Shire of Morawa).

The Shire undertook a review of its Municipal Inventory of Heritage Places in 1996 and identified 44 places of cultural heritage significance, one of which is the Winfield Precinct. It contains conservations strategies, which specifically recommends that 28 places on the Municipal Inventory be protected through the Local Planning Scheme.

Recommendations for the remaining 16 places include:

1. Consider recognition on-site with a plaque
2. No action required for preservation
3. Photographically record building prior to any modifications or demolition

Given the requirements of the Heritage Act for an LGI to be reviewed every 4 years the Shires LGI is due for a review.

B) Shire of Morawa Town Planning Scheme No. 2 (TPS2)

Section 5 of the Shire's existing TPS2 includes special controls to facilitate the conservation of places of heritage values. These special controls primarily relate to the inclusion of a place on a Heritage List or within a designated Heritage Precinct.

A Heritage List is defined in the Shire's existing TPS2 as follows:

'means the Municipal Inventory, as amended from time to time, prepared by the Council pursuant to Section 45 of the Heritage of Western Australia Act 1990 (as amended), or such parts thereof as described in the Heritage List.'

As per clause 5.1.2.2 of TPS2, the Shire has adopted its LGI as its Heritage List. Therefore all 44 places on the LGI are afforded statutory heritage protection under the current TPS2.

A Heritage Precinct is defined in the Shire's existing TPS2 as follows:

'means a precinct of heritage value having a distinctive nature, which may contain elements of only minor individual significance but heightened collective significance, and within whose boundaries controls may be necessary to retain and enhance its character.'

In addition, the Shire's existing TPS2 also contains provisions for requiring and assessing Development Applications for heritage places. It also includes provisions for varying scheme provision to facilitate the conservation of a heritage place.

Aboriginal heritage

A review of the Department of Planning, Lands and Heritage Aboriginal Heritage Inquiry System has identified that there are 13 Registered Aboriginal Sites within the Shire and 134 Other Heritage Places. In accordance with the *Aboriginal Heritage Act 1972*, development proponents are expected to liaise with the Department when preparing proposals to ensure that these sites are protected and that impact on Aboriginal communities and their cultural heritage can be evaluated and taken into account prior to development.

Proposed historic heritage protection in LPS3

The deemed provisions of the *Planning and Development (Local planning Schemes) Regulations 2015*, automatically apply and prevail over the Shire's existing TPS2. Hence the historic heritage provisions described above are now superseded by the deemed provisions. The deemed provisions address the broad heritage related provisions set out in the Shire's TPS2. However, they provide more detail/guidance to assist in the preparation of Heritage Lists and the designation of Heritage Areas. Specifically, the Regulations provide further detail on the requirements for owner consultation and minimum reporting standards for listed places. In addition, the Regulations also include provisions to enable the Local Government to issue a Conservation Notice to an owner to maintain a heritage place.

Clause 5.1.2.2 of the existing TPS2 sets out that the LGI is the TPS2 Heritage List and hence afforded statutory heritage protection. This approach doesn't align with heritage best practice, as not all places on an LGI necessarily require statutory protection. It is evident, through an analysis of the recommendations, that not necessarily all 44 places on the LGI should be afforded statutory protection, as some no longer retain physical traces of the event or activity purported to be of significance. Such places are often referred to as 'Historic Sites'. Specifically, a review of the LGI documentation suggests the following are Historic Sites:

1. Drive in Theatre - Valentine Street, Morawa
2. Morawa Tennis Club site - Dreghorn Street, Morawa
3. Gutha-Canna CWA site - Simpson Street, Gutha
4. Open Air Picture Garden Site - Corner Prater and Dreghorn Street, Morawa

As part of this LPS review it is recommended that the existing places on the Heritage List be carried over under the new LPS3, with the exception of the above four Historic Sites. As a long-term strategy, when timing and funding allow, we recommend that a heritage review is undertaken of the remaining 40 places on the Heritage List to ensure they all places are appropriately managed (i.e. retained on the heritage list or removed).

A copy of the proposed Heritage List as part of LPS3 is contained at Appendix C.

Policies and incentives should also be developed to manage and support the conservation of those places on the Heritage List.

Recommendations

To adopt the following strategy and recommendations in relation to heritage.

Heritage Strategy

To identify, protect and promote places and areas of cultural heritage significance throughout the Shire.

Actions

1. Supersede the Shire's existing TPS2 Heritage Provisions with those contained within the deemed provisions of the *Planning and Development (Local Planning Schemes) Regulations 2015*.
2. Include the following aim/objective in Local Planning Scheme No. 3 to recognise the importance and the need to protect the district's rich and diverse heritage:
"to promote and safeguard the cultural heritage of the Shire by –
 - I. identifying, protecting and conserving those places which are of significance to Morawa's cultural heritage;*
 - II. encouraging development that is in harmony with the cultural heritage value of heritage place or area; and*
 - III. promoting public awareness of cultural heritage generally."*
3. Carry over the existing Heritage List into the new LPS3 with the exception of the following Historic Sites:
 - I. Drive in Theatre – Valentine Street, Morawa;
 - II. Morawa Tennis Club site – Simpson Street, Gutha;
 - III. Gutha-Canna CWA site – Simpson Street, Gutha; and
 - IV. Open Air Picture Garden Site – Corner Prater and Dreghorn Street, Morawa
4. In line with the requirements of the deemed provisions of the *Planning and Development (Local Planning Schemes) Regulations 2015*, the documentation detailing the places of the Heritage List is to include:
 - I. A description of each place listed;
 - II. The reason for its entry on the heritage list;
 - III. Detail as to whether the interior of the place is considered to be of cultural heritage significance (ref to clause 61 (1) (b) (iii) of the *Planning and Development (Local Planning Schemes) Regulations 2015*;
 - IV. After the adoption of the new LPS, undertake a detailed review of the remaining 40 places on the Heritage List to clearly establish whether they are all worthy of conservation under the provisions of the Scheme. Places are to be removed and new places added accordingly;
 - V. Prepare and implement planning policies to ensure that development does not adversely affect the significance of heritage places and areas; and
 - VI. Take into account Aboriginal heritage in the preparation of Structure Plans and Local Development Plans and in the consideration of subdivision and development proposals.

5.1.2 Community Development Considerations

As Morawa has aspirations to develop into a SuperTown to better service surrounding communities in the region, population retention and growth is a major factor in the ability of Morawa to increase the level of services and facilities to these communities.

Key considerations relating to the provision of community facilities to support community growth and development within the Shire are summarised below.

1. Support for community organisations is critical to building social capital, rather than that provision of services that replaces community activity. For example, the provision of youth services is more effective by developing youth leadership skills within the community than bringing in a youth services provider.
2. A key implication for Morawa's future will be the ability for Morawa to develop into a recognised 'Centre of Excellence' for education and training. Morawa has a real opportunity to leverage off its existing education and training assets and move forward to position itself in the region as a competitive place to seek education and training opportunities.
3. The creation of a town square or civic place offering festive activity and display spaces, a playground and shaded rest amenities (completed);
4. The inclusion of a palliative care unit within a future enhancement of the recently constructed hospital;
5. The provision of ante and post-natal services at the new hospital;
6. The establishment of an industry training centre; and
7. A further expansion (moving beyond 86 towards 120 beds) of the boarding hostel for out of town students attending either the agricultural college, the district high school or the trade training centre.

5.2 Economic Issues

5.2.1 Agricultural and Rural Land Use

Industry Profile

The agricultural industry within the Shire of Morawa is made up of the following:

Table 7 - Morawa Agricultural Industry (ABS and DAFWA statistics)

CATEGORY	GROSS VALUE (\$M)
Wheat	32
Barley	3
Other cereal (oats, hay, triticale etc.)	1
Canola	1
Lupins	1
Broadacre crop total	38
Wool	3
Sheep sales	2
Cattle sales	1
Livestock total	5
Horticulture	0.1
Total	44

Longer term trends in population decline for agricultural regions such as the North Midlands region, have been attributed to the aggregation of farms, modern farming methods and prolonged periods of drought. However, agriculture still remains the largest employer in the region and provides a significant export industry from which the local economy can build upon and further develop.

Agricultural Land Areas

The Department of Primary Industries and Regional Development was in the process of preparing the 'Draft Interim Agricultural Land Areas of the North Midlands Sub-region' at the time of preparing this Strategy. This document, once finalised, aims to identify high quality agricultural land using a methodology that overlays soil and water qualities valuable to the agricultural industry. Table 8 below provides a brief description of the different agricultural land areas (ALA) present within the Shire of Morawa to date.

Table 8 - Soil Typology

ALA NO.	ALA NAME	BROADACRE AGRICULTURAL RANKING*	AREA OF ALA IN LGA (HA)	PROPORTION OF LGA
34	Nanekine	3	76,423	22%
16	Pindar	4	66,832	19%
53	Morawa-Parkwood	3	52,536	15%
97	Moonagin	5	42,218	12%
46	Billeranga	1	19,102	6%
47	Yarramonger	6	18,850	5%
98	Koolanooka Hills	5	11,882	3%
96	Karrathawalla	2	6,702	2%
15	Mullewa	4	5,614	2%

* The rankings have been sorted into three groupings for broadacre productivity: ALAs ranked 1 or 2 have higher productivity, ALA's with ranking of 3 or 4 have average or moderate productivity; and ALA's ranked 5 or 6 have lowest productivity.

According to the Department of Primary Industries and Regional Development, approximately 9% of the freehold agricultural land area in the Shire of Morawa is ranked as being highly productive for broadacre agriculture, about two thirds of the Shire (67%) is ranked as having average productivity, with almost a quarter (24%) of the Shire area ranked as having low agricultural productivity.

Policy Framework

Biosecurity

Department of Primary Industries and Regional Development (DPIRD) has advised that there are no major biosecurity issues for the Shire, but awareness of the impact of feral animals, emus and weeds is still important as they can have an impact on the agricultural industry, as summarised below.

Feral Animals

Feral animals, such as wild dogs, foxes and other species have a limited impact on the Morawa farming community at this point in time as the majority of farming is restricted to crops. However, if farming enterprises evolve to include grazing and rearing of animals such as sheep, then introduced species would become a significant issue for Morawa.

A vermin proof fence is currently being constructed approximately 50 kilometres east of the Shire of Morawa district boundaries.

Maintenance of control programs such as rabbit and fox baiting should also be observed.

Emus

Emus are a specific threat to the cropping industries in Morawa as emus migrate from adjacent bushland and trample wheat and other crops which can cause significant damage and cost to farming operations.

The Department of Biodiversity, Conservation and Attractions (DBCA) are responsible for managing emu population numbers and farmers can also apply for a damage licence to have animals removed from certain problem areas.

However, emus are also a protected species and can only be killed with an approved licence.

Weeds

The Shire needs to maintain an awareness of and program for control of declared weeds and introduced species of vegetation that could have an impact on farming practices. This includes the requirement to maintain kerbside road spraying.

Opportunities for Industry

Wheat, pulses and legumes will continue to remain the dominant crops in the Morawa region. However, with changing rainfall patterns (less rainfall) farms in some instances are having to diversify their crops in order to maintain a resilient business structure.

Generally, wheat, pulse and legume crops will remain on productive agricultural land with less viable land being utilised for alternative crops such as carbon crops and sandalwood.

Opportunities for alternative land uses in areas of poorly performing soils where rainfall is becoming unreliable may include carbon, biodiversity or sandalwood plantings.

DPIRD however does not support whole farm plantations for the above alternative solutions, but would be supportive of targeting land which is no longer productive or profitable for conventional farming activities. One solution previously examined is the possibility of subdivision of poorer land from more productive land to reduce the risk to farmers and provide security for investors. However, current planning policy (refer State Planning Policy 2.5) is likely to be a barrier to this option at this time.

Other opportunities for an expanded agricultural industry within the Morawa District include the emerging agriculture industry and potential intensive horticultural uses utilising the water by products from the aquaculture. A new definition and use class should be included in the new Local Planning Scheme relating to aquaculture and this should be listed as a 'D' use within the 'Rural Zone'.

Agricultural Support Services

As agriculture is still the largest employer in Morawa and is a significant export industry for the region, there is opportunity to build upon the industry with additional support services.

"Potential exists for developing and utilising saline agriculture methods in the Shire to boost productivity, as well as transferring livestock and feed based operations from struggling regions to underutilised agricultural land in Morawa and other areas in the North Midlands." (Pracsys, 2014)

The Shire of Morawa is also actively pursuing opportunities for support services, such as the Industry Training Centre and has an established WA College of Agriculture based in Morawa. Therefore significant opportunity exists to promote and support services associated with the agricultural industry in Morawa.

Infrastructure

DPIRD has outlined the importance of the maintenance of essential infrastructure to support the agricultural industry, particularly road transport infrastructure for grain and stock.

Recommendations

- Include an objective within the 'Rural' zone of LPS3 which states that broad acre farming is the principal land use for land zoned 'Rural' within LPS3.
- Include an objective within the 'Rural' zone of LPS3 which promotes the use of less versatile agricultural land for carbon, biodiversity and sandalwood crops.
- Include 'Tree farm' as a use class within LPS3 and list it as a 'D' use within the 'Rural' zone.
- Maintain a general presumption against the subdivision of rural zoned land except in relation to circumstances outlined in State Planning Policy 2.5 and Development Control Policy 3.4.

5.2.2 Mineral Resources Planning

Geomorphology

A greater part of the Shire of Morawa consists of rocks at least 2,500 million years old, including mainly granite and gneiss, with lesser mafic volcanic rocks, amphibolite, sedimentary rocks, felsic volcanic rocks, and gabbro of the Yilgarn Craton. The rocks of the Moora Group (between 1600 and 1000 million years old) occur in the south-western part of the Shire and consist of metamorphosed sedimentary rocks, basalt, and syenite, whereas still younger sedimentary rocks of the Perth Basin (between 299 and 251 million years old) occupy a small area also at the south-western part of the Shire.

Significant resources of iron ore exist at Koolanooka South. There is potential for gold in the Yilgarn Craton and potash and silica in the Moora Group within the Shire. The older rocks are partially covered by surficial deposits, consisting mainly of colluvium, lacustrine sediments, laterite, alluvium, and calcrete. Lake systems in the area also have potential for gypsum. Alluvium and colluvium have potential for basic raw materials such as gravel and sand.

There is one operating quarry (Mt Marvel) for rock aggregate and one proposed major project for iron ore within the Shire (Koolanooka South). In addition to this, there are a total of five former mines and three prospects within the Shire for gold, iron, potash, and construction material.

Refer to Appendix D for mineral and tenement information.

GeoHeritage

There is one GeoHeritage site located within the Shire. GeoHeritage sites are defined as *“Geological features considered to be unique and of outstanding value within Western Australia and to have significant scientific and educational values for the good of the community.”*

The GeoHeritage site identified within the Shire is:

- Moora Group fluvial sandstone in erosional channels in Archean basement.

Please refer to Appendix D - Mineral and Tenement Mapping.

Mineral and Petroleum Tenements

There are currently 46 granted mining tenements and one tenement application located wholly or partially within the Shire. There are two petroleum permits but no geothermal permits within the Shire.

Refer to Appendix D – Mineral and Tenement Mapping.

Mining Act 1978

Section 120 of the *Mining Act 1978* (the Mining Act) states that town planning schemes and local laws are to be considered but do not derogate from the Mining Act. This means that planning schemes cannot prohibit or affect the granting of mining tenements (mining leases and exploration licences) or carrying out of any mining operation authorised by the Mining Act.

Mining of Construction Materials

On Crown Land, construction materials are defined as 'mineral' and hence there is a requirement to obtain mining leases pursuant to the *Mining Act 1978* for construction and material extraction. However, on private property, commercial construction material extraction is authorised by the Shire through the grant of Extractive Industry Licences.

In addition to the Mt Marvel quarry, three Crown reserves (CR nos. 17882, 36783 and 38003) warrant consideration for future long term use for gravel and sand extraction.

Mt Marvel Quarry Buffer

There is a requirement to provide a 1,000 metre buffer around the Mt Marvel quarry pit to provide separation between the operations and any sensitive land uses. Protection of construction material sites, such as Mt Marvel, is important because these quarries provide developments with cost-effective and high quality resources integral to maintaining development within the Shire.

This buffer area associated with the Mt Marvel Quarry is illustrated on the maps contained at Appendix D.

Recommendations

1. Seek to minimise conflicts between mining activity and conservation values.
2. Seek to minimise conflicts between mining activity, rural land uses and the gazetted townships.
3. Ensure planning determinations do not compromise access to resources and in this regard undertake decision making based on the mineral resources mapping contained in Appendix D.
4. Include 'mining operations' in Table 1 – Zoning Table of LPS3 and list it as a 'D*' use within the 'Rural' zone with the '**' indicating the following footnote:
5. Include the following footnote to Table 1 – Zoning Table:
'Mining operations' covered by the *Mining Act 1978* is exempt from the requirement for development approval and will be determined in accordance with the *Mining Act 1978*.
6. Insert the following clause into Part 4 – General Development Requirements:

"8.5 Requirement for consultation to commence mining

In considering proposals to commercially extract minerals, Council may exercise its discretion to inform the Minister for Mines and the Minister for Planning in writing that the granting of a mining lease or general purpose lease is contrary to the provisions of the Scheme and the Local Planning Strategy."

7. Seek to protect the Mt Marvel quarry pit as an important local resource and identify a 1,000 metre land use separation buffer on the Local Planning Scheme No. 3 maps.
8. Recognise and protect other quarry pits within the District so that future planning decisions have regard to these important resources.
9. Include the following objective within the 'Rural' zone of LPS3:

"To recognise the economic and social importance of the mining industry by protecting and promoting sustainable relationships between the mining industries and the town."

5.2.3 Tourism

The Shire's Strategic Community Plan identified one of the many roles of the Council is to develop a tourism and promotion management strategy incorporating the following:

1. Promotion of proximity within Wildflower Country;
2. A register of natural attractions within the shire and promotion of these to tour operators;
3. Promoting the Wildflower Country Highway project, including the Morawa / Perenjori Trails.

Partly in response to this, the Shire has partnered with local regional Council's to promote the Wildflower region to prepare 'A Plan to Guide the Direction of Wildflower Country Tourism'. The key elements of this plan is summarised below.

In addition to wildflower trails, the below document notes that the region is also known for the following tourism activities:

1. "Nature based" – including bushwalking, bird watching, photography, camping, wind surfing etc.
2. Culture and heritage – including historic towns, Aboriginal heritage sites, museums.
3. Festivals and events – including Agricultural Expos, Country Race Days, Wind Surfing Carnivals, Arts and Crafts Expos, Individual iconic town events.
4. Diverse range of industry in the area.
5. A unique rural way of life.

A Plan to Guide the Direction of Wildflower Country Tourism (2012-2017)

The Shire's of Carnamah, Coorow, Dalwallinu, Mingenew, Moora, Morawa, Mullewa, Perenjori and Three Springs have formed a consortium to promote the wildflower country of the region.

This plan has been adopted by the Shire and provides a strategic focus to promotion of tourism in the region.

Each of the Council's within the Wildflower Consortium supports tourism growth and development pursuant to this plan through the following:

1. Employing staff to promote and market tourism initiatives in the region;
2. Operating a Visitor Information Centre;
3. Operating local discovery tours; and
4. Providing a range of hard copy and electronic resources.

The Strategic Objectives of the plan is to be delivered through a five year tourism development plan that seeks to:

1. Further develop the Wildflower Country brand;
2. Successfully market and promote the Wildflower Country region as a top tourism destination;
3. Initiate innovative tourism products;
4. Incorporate a series of signature tourism routes to link regional destinations and support industry growth and prosperity;
5. Promote the bush trail north of the existing caravan park old Water Corporation dam; and
6. Stimulate economic growth through tourism during the off-peak Wildflower months between November to July.

The strategic direction of the plan is provided at Table 9.

Table 9 - Wildflower Strategic Tourism Direction

KEY FOCUS	STRATEGIC DIRECTION
Further Development of Tourism Products and Services	To further develop quality tourism products and services to encourage greater visitor yield and high levels of visitor satisfaction during the Wildflower Season period.
Customer Service	To provide high levels of customer service to visitors to the region.
Marketing and Promotion	To effectively market WFC tourism products and services to the target market utilising a range of different tools.
Partnerships	To maximise resources by developing cooperative alliances with federal, state and regional tourism bodies.
Industry Support	To provide support and encouragement to local tourism initiatives to improve the standard

	of products, services, research and development.
Research	To undertake regular research and evaluation in order to increase knowledge of the target market's needs and demands and to ensure that resources are allocated to achieve maximum impact.

Draft North Midlands Economic Development Strategy

The North Midlands Economic Development Strategy (NMEDS) has been prepared by Pracsys for the Mid West Development Commission and outlines a set of interventions that aligns the efforts and resources of stakeholders towards a common set of economic development goals for the North Midlands sub region.

Amongst other areas of economic interest, the NMEDS also investigates the tourism potential for the sub region and identifies a number of strategies to develop the potential of this sector further.

The NMEDS acknowledges the difficulty in establishing a tourism market in a sub-region that lacks a major attractor or targeted large-scale investment in the industry over a long timeframe. The document further acknowledges that the successful growth of the sub-region will rely on one or more of the following occurring:

1. the number of visitors to the sub-region increases;
2. the level of expenditure per visitor per day to the sub-region increases; and/or
3. the length of stay in the sub-region increases.

Visitors to the region who may contribute to the tourism economy may consist of the following:

1. travellers passing through the sub-region on their way to another destination;
2. workers based elsewhere who are visiting the region for short-term business; or
3. residents of adjacent localities visiting the area to access services, experiences and goods not on offer at home.

The relevant tourism strategies, interventions and resourcing considerations proposed by the document are summarised in the following table.

Table 10 - Tourism strategies, interventions and resourcing

STRATEGIES	INTERVENTIONS	RESOURCING
Support the Wildflower Country Five Year Development Plan's initiative to "identify and facilitate the establishment of one specific event that complements the Wildflower Country brand that is likely to generate incremental revenue and possible repeat visitation by participants".	Support the ongoing development of 20 focussed visitor-related enterprises throughout the sub-region. Development of a targeted sub-regional event to take advantage of seasonal attractions and demand.	Resource a business case for a wildflower branded visitor-oriented event to focus on the attraction of overnight stays and grow the event of the years. Develop a business case for a targeted specialty event. Resources estimated between \$60,000-\$80,000.
Provide training, resources and soft infrastructure to support small and micro-tourism business development.	Work with local enterprises to take support this opportunity, with support from the NMEDS governance structure.	Remaining projects can potentially be coordinated in-house by local government.
Identify opportunities to leverage the Morawa airport expansion and upgrade to attract destination visitors. Such opportunities may also include end-of-trip facilities, transport, overnight accommodation and hospitality.	Identification and engagement of industry champions.	

Astrotourism

Astrotourism is an emerging sector of the tourism industry within regional Western Australia, capitalising on the vast landscape that is free from light and dust pollution typically associated with urban centres. As a concept, Astrotourism is the integration of tourism opportunities with astronomical observation (both scientific and recreational), photography and the environment.

In 2018, the Shire signed up with Astrotourism WA to be a part of the 'Astro-Tourism Town' initiative, which seeks to promote dark sky activities and tourism opportunities across the region. As a niche industry, Astrotourism can facilitate tourism diversification, maximising business, industry and investment opportunities as outlined in the Shire's Strategic Community Plan. It can also support several focus areas of the Wildflower Country Development Plan including the aims to develop quality tourism products and cooperative alliances.

Recommendations

1. Coordinate the preparation of a Local Tourism Strategy to guide tourism development projects in line with overarching strategic goals.
2. Support and implement strategies contained within the Wildflower Country Five Year Development Plan.
3. Coordinate with other North Midlands local governments the establishment of a specific Wildflower Country branded event in the region.
4. Provide training, resources and soft infrastructure to support small and micro-tourism business development.
5. Pursue the upgrade of the Morawa airport and identify opportunities to leverage the Morawa airport expansion and upgrade to attract destination visitor use over time.
6. Construction of an interactive bush trail at the Northern boundary of the Morawa townsite.
7. Construction of an interactive heritage trail through the Morawa townsite linking key historic site.
8. Promote Astrotourism through marketing partnerships, infrastructure, and events.

5.2.4 Other Economic Considerations

Other key economic considerations relating to the Shire of Morawa include:

1. Morawa has an unemployment rate of 9.1%, which is greater than the regional WA average of 6.4%.
2. There are a number of economic themes in the Shire, centering on agriculture, forestry and fishing, education and training, and health services; in short, mainly population driven industries. The exception to this is agriculture, which is primarily a strategic, export-oriented industry.
3. For the Shire of Morawa, high growth industries are both strategic and population driven in nature. The Agricultural, Forestry and Fishing industry employs 33% of the working population, followed by Education and Training (27%) and Health Care and Social Assistance (9.2%). As growth in these education industries will be determined by the population growth of the area, economic development initiatives should focus on developing those industries that are knowledge intensive or export orientated such as services to agriculture and mining.

Key implications for the future planning of the Morawa townsite relating to the above economic considerations are:

1. Existing floor space in the town is adequate for a population of 2,500, however the building footprints and configurations are not meeting contemporary retail and commercial needs.
2. The challenge for Morawa will be balancing productive strategic industries alongside a maturing residential population.
3. Lack of planning for population driven demand for services to support the aspirational population growth.
4. Economic development initiatives should focus on developing those industries that are knowledge intensive or export orientated such as services to agriculture and mining.
5. Lack of consumer and producer services to support the growth of strategic industries meaning benefits are not captured and retained by the Shire.
6. Employment base gradually overtaken by population driven services without adequately increasing strategic jobs thereby weakening long term economic development.

5.3 Environmental Issues

5.3.1 Climate

Morawa experiences a Mediterranean climate. Average annual rainfall for Morawa is 333 millimetres a year. Changing rainfall patterns over the past 10 years has seen a reduction in rainfall of approximately 20%, with an annual rainfall

average of 266 millimetres between 2000 and 2008. The key implications for future planning of Morawa relating to the climate are as follows:

1. Climate change had the potential to increase temperatures and extreme weather events as well as decrease rainfall within the region, which collectively will change the biodiversity in the region, agricultural productivity, water availability, bush fire frequency and place pressures on the human systems currently in place to manage these.
2. There is a need to consider managing the supply, use and efficiency of water within Morawa and to the agricultural and mining industries as rainfall in the region decrease.
3. The consequences of climate change and salinity impacts on the productivity of agricultural areas also need to be considered.

5.3.2 Topography and Soils

1. Morawa is generally sloping towards the south-east and the extensive salt lake system located south and east of the townsite. Morawa contains five primary soil landscape units: the undulating country of the 'Morawa' (Mw) unit; alluvial plains of the 'Noolagabbi' (Ng) unit; sandplains of the Pindar (Pi) unit; the dissected country of the Peterwangy (Pe) unit in the west; and broad valley flats of the 'Saline Drainage' (Sd) unit, dominantly to the south-east of Morawa. Within Morawa the risk of salinity from ground water is considered low given the ground water levels have declined over the last ten years. The key implications for future planning of Morawa relating to the topography and soils of the areas are as follows:
 2. Drainage and control of flooding that is associated with the current and expect more intense future rainfall events.
 3. The potential for salinity to impact on soil, water and infrastructure within Morawa through a rise in groundwater levels, ponding of stormwater in areas of the town and inundation of Morawa during rainfall events.

5.3.3 Flora, Fauna and Vegetation

Morawa is found within the Avon Wheatbelt Interim Biogeographic Regionalisation for Australia (IBRA) region within the ancient drainage subregion. State and federal databases indicate that ten conservation significant species may occur within Morawa and include bird, mammal and reptile species. Recently, evidence of the Western Spiny-tailed skink, which is a state and federally listed conservation significant species, was observed in the northern portion of remnant vegetation within the townsite. The key implications for future planning of Morawa relating to flora, fauna and vegetation are as follows:

1. An increase in population is likely to put pressure on existing remnant vegetation within the town through potential clearing, as well as through the generation of emissions, placing a high level of importance of retaining all remnant vegetation where possible, which contributes to the character and sense of place of the town.
2. Due to the extensively cleared agricultural areas surrounding Morawa and the presence of remnant vegetation within the town, there is the potential that the habitat preferences for some of the conservation significant species may be found.
3. Within the Shire of Morawa, there are currently no local planning policies or strategies associated with the identification, management and protection of environmental values within the town or the wider region.
4. Given the lack of site-specific flora, vegetation and fauna investigations undertaken to date, further investigations and management actions are recommended, including a Level 2 flora and fauna investigation and local and regional surveys to determine presence of conservation significant species that were listed as potentially occurring or have been observed during recent surveys.
5. The importance of making use of Morawa's natural features, history and built environment, with the aim to encourage tourists to visit the area year-round.

5.3.4 Conservation Reserve System

There are 13 areas of conservation tenure/proposed conservation tenure within the Shire. These are listed in the table below:

Table 11 – DBCA managed conservation tenure within the Shire of Morawa

RESERVE NUMBER	RESERVE TENURE	RESERVE NAME
R 36334	Nature Reserve	Pintharuka Nature Reserve

R 13032	Nature Reserve	Pintharuka Well Nature Reserve
R 16070	Nature Reserve	Koolanooka Dam Nature Reserve
R 40161	Nature Reserve	Bowgada Nature Reserve
R 292289	Nature Reserve	Canna Nature Reserve
R 14776	Nature Reserve	Unnamed Reserve
R 16329	Nature Reserve	Koolanooka Nature Reserve
R 12958	Nature Reserve	Mount Nunn Nature Reserve
R 783	Nature Reserve	Unnamed Reserve
R 20644	Nature Reserve	Doutha Soak Nature Reserve
-	UCL – Former leasehold proposed for conservation. Dual tenure with TR 1/10 and 2/10	Ex Kadji Kadji
TR 1/10	Timber Reserve	Unnamed Reserve
TR 2/10	Timber Reserve	Unnamed Reserve

The above reserves are identified on a map contained at Appendix E.

The existing reserves are vested in the Conservation Commission of Western Australia and managed by the Department of Biodiversity Conservation and Attractions (DBCA) under the provisions of the *Conservation and Land Management Act 1984* (CALM Act). The area of former Kadji Kadji Station, is now Unallocated Crown Land (UCL) managed under a Memorandum of Understanding (MoU) between DBCA and Department of Planning, Lands and Heritage (DPLH) that enables the properties to be managed under the provisions of the CALM Act consistent with the objectives of proposed reserve categories.

DBCA also has managed responsibilities for other area of UCL in relation to pest animal or weed control and bush fire mitigation. These responsibilities are also undertaken through a MoU with DPLH.

5.3.5 Native Vegetation

Native vegetation is protected throughout the State by the *Environmental Protection Act 1986* (EP Act) and *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (regulations). Clearing of native vegetation requires a clearing permit or an exemption listed under Schedule 6 of the EP Act or the regulations. There are no clearing exemptions for areas listed as Environmentally Sensitive Areas, including Threatened Ecological Communities (TECs), riparian zones, known habitats of Declared Rare Flora (DRF) and endangered and threatened fauna.

Within the Shire, there are 30 'Beard' vegetation associations (Beard's Vegetation Survey of Western Australia 1976). Table 12 shows the extent of each vegetation associated with the Morawa shire.

Table 12 - Native vegetation associations recorded within the Shire of Morawa and the comparative extent of each

BEARD VEGETATION ASSOCIATION	PRE-EUROPEAN EXTENT T(HA)	CURRENT EXTENT (HA)	% REMAINING	CURRENT EXTENT FOR PROTECTED FOR CONSERVATION * (HA)	% CURRENT EXTENT PROTECTED FOR CONSERVATION * (PROPORTION OF PRE-EUROPEAN EXTENT)
40	2,079.01	1,346.90	64.79		
125	744.40	744.40	100.00		
142	73,567.92	7,292.44	9.91	140.63	0.19

BEARD VEGETATION ASSOCIATION	PRE-EUROPEAN EXTENT T(HA)	CURRENT EXTENT (HA)	% REMAINING	CURRENT EXTENT FOR PROTECTED FOR CONSERVATION * (HA)	% CURRENT EXTENT PROTECTED FOR CONSERVATION * (PROPORTION OF PRE-EUROPEAN EXTENT)
352	28,284.90	8,063.15	28.51	175.83	0.62
354	973.35	306.74	31.51		
355	4,946.56	3,829.42	77.42		
358	273.94	213.47	77.92		
364	6,864.24	6,864.24	100.00		
365	4,037.60	2,213.01	54.81		
374	898.55	757.29	84.28	105.23	11.71
380	1,667.12	191.26	11.47		
385	1,220.93	37.43	3.07		
392	243.68	135.40	55.57		
412	301.11	100.40	33.34		
419	24,928.96	16,556.91	66.42		
420	10,883.92	4,379.17	40.24		
437	13,220.64	4,986.60	37.72	1,026.41	7.76
438	278.91	156.99	56.29		
551	16,154.60	2,861.60	17.71	329.84	2.04
631	18,484.50	10,885.14	58.89		
676	10,177.43	1,357.76	13.34	4.15	0.04
683	3,452.70	3,452.70	100.00		
684	80,152.18	19,883.80	24.81	502.52	0.63
686	1,938.88	148.93	7.68		
692	2,695.43	1,640.15	60.85	73.92	2.74
693	2,774.37	2,284.74	82.35		
988	3,112.62	2,870.45	92.22		
1155	4,033.39	2,158.97	53.53		
1413	20,175.73	3,912.46	19.39	14.58	0.07
2081	12,461.57	2,337.40	18.76		

BEARD VEGETATION ASSOCIATION	PRE-EUROPEAN EXTENT T(HA)	CURRENT EXTENT (HA)	% REMAINING	CURRENT EXTENT FOR PROTECTED FOR CONSERVATION * (HA)	% CURRENT EXTENT PROTECTED FOR CONSERVATION * (PROPORTION OF PRE-EUROPEAN EXTENT)
* Land protected for conservation is defined as Crown reserves having an International Union for Conservation of Nature (IUCN) category of I – IV.					

The National Objectives and Targets for Biodiversity Conservation 2001-2005 (Commonwealth of Australia 2001) suggests that the retention of 30% or more of the pre-clearing extent of each ecological community is necessary if Australia's biological diversity is to be protected. The threshold level which species loss appears to accelerate exponentially is outlined in the above table.

5.3.6 Threatened Species and Communities

In Western Australia, the *Wildlife Conservation Act 1950* provides for species, subspecies and varieties (taxa) of native plants and native animals special protection because they are under identifiable threat of extinction, are rare, or otherwise in need of special protection.

Threatened and Priority Ecological Communities

An Ecological Community is defined as naturally occurring biological assemblage that occurs in a particular type of habitat. The Minister for Environment may list an ecological community as being threatened if it is presumed to be totally destroyed, or is considered to be at risk of becoming totally destroyed. Threatened Ecological Communities (TECs) and Priority Ecological Communities (PECs) located in the Shire are listed in Table 13.

Table 13 - TECs and PECs recorded within the Shire of Morawa

COMMUNITY NAME	TEC/PEC STATUS
Plant assemblages of the Billeranga System	TEC (Vulnerable)
Plant assemblages of the Koolanooka System	TEC (Vulnerable)
Plant assemblages of the Moonagin System	TEC (Vulnerable)
Granite outcrop pools with endemic aquatic fauna	PEC (Priority 3)

Threatened and Priority Flora

Threatened flora are plants which have been assessed as being at risk of extinction. In Western Australia, the term Declared Rare Flora (DRF) is applied to Threatened flora. There are seven species of DRF recorded in the Shire and 34 listed priority species. Table 14 lists these DRF and Priority species.

Table 14 - DRF and priority flora recorded within the Shire of Morawa

SPECIES	CONSERVATION CODE
Androcalva adenothalia	T
Eremophillia nivea	T

SPECIES	CONSERVATION CODE
<i>Eucalyptus synandra</i>	T
<i>Grevillea murex</i>	T
<i>Gyrostemon reticulatus</i>	T
<i>Tecticornia bulbosa</i>	T
<i>Verticordia spicata</i> subsp. <i>squamosa</i>	T
<i>Acacia congesta</i> subsp. <i>cliftoniana</i>	1
<i>Acacia graciiformis</i>	1
<i>Acacia lineolata</i> subsp. <i>multifineata</i>	1
<i>Acacia muriculata</i>	1
<i>Acacia pterocaulon</i>	1
<i>Baeckea</i> sp. Billeranga Hills (M.E. Trudaen 2206)	1
<i>Baeckea</i> sp. Morawa (M.A. Langlev MAL4177)	1
<i>Caesia</i> sp. Koolanooka Hills (R. Meissner & Y Caruso 755)	1
<i>Oodonia scurra</i>	1
<i>Drummondia rubroviridis</i>	1
<i>Enekbatus planifolius</i>	1
<i>Gnephosis setifera</i>	1
<i>Leptospernum exsertum</i>	1
<i>Malleostemon decipiens</i>	1
<i>Malleostemon</i> sp. Yalgoo Road (Morawa Tree Committee 329)	1
<i>Millotia dimorpha</i>	1
<i>Mirbelia</i> sp. Ternata (M.D. Crisp & L.G. Cook MDC 9267) PN	1
<i>Rhodanthe collina</i>	1
<i>Stylidium pendulum</i>	1
<i>Verticordia comosa</i>	1
<i>Acacia lanceolata</i>	2
<i>Fitzwillia axilliflora</i>	2
<i>Acacia nodiflora</i>	3
<i>Angianthus micropodioides</i>	3

SPECIES	CONSERVATION CODE
Cyanicula fragrans	3
Lepidobolus densus	3
Melaleuca barlowii	3
Mirbelia ferricola	3
Persoonia pentasticha	3
Podotheca pritzelii	3
Podotheca uniseta	3
Stenanthemum poicilum	3
Tricoryne sp. Morawa (G.J. Keighery & N. Gibson 6759)	3
Eucalyptus blaxellii	4

Threatened Fauna

The *Wildlife Conservation Act 1950* defines threatened fauna as fauna that is rare or is likely to become extinct. Threatened fauna is listed on the basis that it has been adequately surveyed and is deemed to be rare, in danger of extinction, or otherwise in need of special protection.

Other fauna that are specifically protected under the *Wildlife Conservation Act 1950* include migratory birds protected under the international agreements, presumed extinct species, and other specially protected fauna. Threatened and other specially protected fauna within the Shire are listed in Table 15.

Table 15 - Threatened and other specially protected fauna within the Shire of Morawa

SPECIES	COMMON NAME	CONSERVATION STATUS
Calyptorhynchus latirostris	Carnaby's Cockatoo	T (EN)
Cyclodomorphus branchialis	Gilled Slender Blue-tongue Skink	T (VU)
Egernia stokesii badia	Western Spiny-tailed Skink	T (VU)
Idiosoma nigrum	Shield-backed Trapdoor Spider	T (VU)
Leipoa acellata	Malleefowl	T (VU)
Calidris subminuta	Long-toed Stint	IA
Merops ornatus	Rainbow Bee-eater	IA
Cacatua leadbeateri	Major Mitchell's Cockatoo	S
Falco peregrinus	Peregrine Falcon	S
Ardeotis australis	Australian Bustard	4
Aganippe castellum	Tree-stem Trapdoor Spider	4

5.3.7 Public Drinking Water

There are not any priority drinking water source areas, water reserves or wellhead protection zones located within the Shire.

Potable water supply is provided to the Morawa townsite from the Arrowsmith wellfield, located in the Arrowsmith water reserve, which is situated adjacent to the Arrowsmith River, located 36km north-west of Three Springs in the Shire of Three Springs.

Other towns supplied from the Arrowsmith wellfield include Arrino, Perenjori, Caron, Bunjil and Latham.

The Arrowsmith wellhead reserve is classified as a Priority 1 (P1) Public Drinking Water Source Protection Area. This classification has the fundamental water quality objective of risk avoidance, and recognises the current land use and tenure surrounding the Water Reserve. The risk of contamination from existing and proposed land uses is negligible as a result of the artesian bores, depth and construction of the bores, and the confined nature of the aquifer. Accordingly, a Wellhead Protection zone (WHPZ) is not in place nor proposed.

Recommendations

1. Prioritise and implement the following strategies and actions:

- I. Implementation of a Strategic Waste Management Plan;
- II. Construction of a new landfill site catering for refuse and recyclable waste;
- III. Preparation of a comprehensive Water Strategy;
- IV. Undertake a Flora and Fauna Survey of the District;
- V. Preparation of a Local Biodiversity Strategy;
- VI. Undertake emissions assessments of key uses that generate offsite impacts to determine separation distances to sensitive land uses, as required;
- VII. Preparation of a Climate Change Adaptation and Response Plan.

5.4 Built Form and Infrastructure Issues

5.4.1 Morawa Townsite

Morawa Townsite Structure

The Morawa townsite is relatively compact and is contained within 2.6 km² in area. The compactness is a result of the efficient grid road structure, with the surrounding farming hinterland constraining any outward growth of the Town. Key considerations to accommodate future population growth and development within the townsite are:

1. The compact form of the townsite should be retained where possible. There are considerable redevelopment opportunities within the existing townsite, including vacant residential lots equating to approximately 6.2 ha, large rural residential lots (approximately 15.6 ha) and a large proportion of Crown land (78 ha).
2. The existing road grid structure should be extended into new greenfield development sites within the townsite.
3. Specific roads should be elevated in hierarchy through street tree planting, provision of paths and/or signage to improve legibility.
4. The division between the eastern and western sides of town due to the freight corridor requires ultimate resolution to ensure better functionality of the town. This has in part been addressed via the creation of a new town square and improved rail crossing in the centre of town.

Land Use and Activity

The town's commercial and retail uses are consolidated along Winfield Street, which is the functional Main Street of town. Long term consideration may need to be given to removing the rail freight from passing through the town centre. Land uses are arranged in reasonably structured precincts. These include the existing recreation precinct, the

cultural/civic precinct, the education precinct and two industrial estates. Key considerations relating to land use and activity planning into the future include:

1. TPS2 contains a number of provisions, which have the effect of limiting growth within the existing townsite boundary; including provisions that encourage low-density residential development and two-storey height restrictions within the Commercial zone. These provisions need to be reviewed in light of Morawa being identified as a SuperTown to support the region.
2. The connectivity and interaction between uses within the existing precincts (recreation, cultural/civic, education and the two industrial estates either side of town) needs to be improved.
3. Improved accessibility between the eastern and western side of town is a key consideration to the future viable growth of land use and activity throughout the townsite. It is noted that the hospital is separated from other emergency services, such as FESA, St John Ambulance and Police Services.
4. It is noted up to 40 industrial lots are proposed as part of the future industrial estate at the northern end of town. a key consideration here will be a flexible approach to subdivision to ensure that a variety of lots can be created as determined by interest in the market.

Housing Diversity

Existing housing stock in Morawa consists predominately of 1950's-70's fibro board and iron construction, comprising three bed/one bath / single garage homes on a traditional 1,000sqm lot. There are some more recent examples of brick and tiled houses on similar sized lots, however it is evident there is a lack of dwelling diversity within the townsite and Shire generally.

Key considerations relating to housing diversity in the Shire include:

1. There is a growing need to provide a range of housing in Morawa, including:
 - Quality affordable housing to attract skilled labour, including the potential to attract mining employees to live in Morawa;
 - Aged care housing to cater for the ageing population;
 - Key worker accommodation to cater for the anticipated growth in education and other services in Morawa;
 - Housing for extended families of the local indigenous population; and
 - Generally, smaller, more compact housing to cater for individuals, couples and small families.
2. Current TPS2 provisions discourage housing diversity and promote the retention of single houses as the predominant form of residential development. These provisions will need to be reviewed and replaced with a statutory framework that encourages the provision of a diverse range of dwelling typologies.
3. There is a recognised need to provide affordable and high-quality accommodation to service the non-resource sector workforce, aged persons, students and tourists in the short to medium term.
4. The provision of transient workforce and key worker accommodation should consider the need to be designed and integrated into the urban fabric and in a manner that can be re-used over time.

The Morawa Spatial Growth Plan

The Morawa SuperTown Growth Plan provides an overall framework for the future growth of Morawa over the next 30 to 40 years. The framework aims to align the State Governments strategic interest in addressing predicted population growth and the aspirations of the local and surrounding communities. Three spatial growth scenarios were developed in order to explore a range of different opportunities to accommodate growth within Morawa. Of the three scenarios developed, the 'Compact and Diverse' scenario emerged as the preferred option to accommodate growth. Key characteristics of the 'Compact and Diverse' model are:

1. Growth is contained within the existing town site boundary. Existing vacant land and Crown land will be utilised to accommodate the initial stages of growth.
2. Residential housing product is diversified, including more compact forms of dwellings.
3. Retention of the remnant bush land within the townsite boundary, where possible.
4. Reuse wastewater to introduce amenity by 'greening' the golf course and through street tree planting to encourage private investment and redevelopment.
5. Encourage intensity and activity within the town centre to develop it as the retail and civic heart of the town.
6. Consolidate industrial activity, with industrial growth accommodated at the northern end of town.

The spatial Growth Plan builds upon the preferred growth scenario and identifies the key spatial projects that are required to meet the project vision, aspirational goals and objectives.

A Town Centre Plan

The Town Centre Plan provides a starting point to revitalise and activate the town centre of Morawa. The core elements of the plan include:

1. A civic plaza, which will be designed as a multifunctional space, to accommodate community events (completed).
2. An east-west pedestrian access across the freight rail line to link the eastern side of town with the services located within the town centre (completed).
3. A new freight access road parallel to Winfield Street (Main Street), which will remove on road freight traffic from Winfield Street (completed).
4. Streetscaping works to Winfield Street and Prater Street, linking the town centre with the civic quarter and education precinct.
5. Façade enhancement scheme to beautify Main Street.
6. Introduce opportunities for alfresco dining.
7. Introduce the ability to have residential units above the retail / commercial tenancies.
8. Encourage more compact forms of housing, including 'Live / Work' development opportunities on Solomon Street.

5.4.2 Canna

The locality of Canna is situated to the north of Morawa and located on the Mullewa-Wubin Road. At the 2016 census, Canna had a population of 69.

Canna originated as a railway siding on the Wongan Hills to Mullewa railway line. The townsite was gazetted in 1928. The locality is a CBH grain receival point and the primary industry in the locality is wheat farming.

Other features of note include a residence and a warehouse building used as storage associated with the Landmark business located within the Morawa townsite. The Canna locality also includes a small operation providing coffee to cater for tourists and a church building and separate hall. The Canna campsite also provides additional accommodation options for tourists travelling through the region and this site is located approximately one kilometre from the Canna settlement area.

The locality of Canna is currently zoned 'Urban' pursuant to the Shire's TPS2.

Recommendations

1. There is a need to recognise and protect Canna as a secondary distribution point for CBH operations.
2. Need to recognise and protect the existing commercial and civic uses currently operating within the gazetted townsite boundary as well as the Canna campsite located outside of the settlement area.
3. The current extent of 'Urban' zoned land relating to the Canna locality is extensive and includes substantial areas of remnant vegetation and agricultural farmland. As no additional population growth is envisaged for Canna, it is recommended that the new proposed 'Rural Townsite' zone under LPS 3 be reduced to include only the existing subdivided portion of the locality with the remainder of the locality to be zoned 'Rural'.

5.4.3 Gutha

The locality of Gutha is situated approximately 32 kilometres north of the Morawa townsite. The locality was originally established as a train station on the Wongan Hills to Mullewa railway line, with the Gutha siding being established in 1913. The locality was gazetted as a townsite in 1914.

The locality is a receival site for CBH. The locality of Gutha also includes a residential property and the Gutha hall.

The locality of Gutha is currently zoned 'Urban' pursuant to the Shire's TPS2.

Recommendations

1. There is a need to recognise and protect Gutha as a secondary distribution point for CBH operations.
2. The current extent of 'Urban' zoned land relating to the Gutha locality is extensive and includes substantial areas of remnant vegetation and agricultural farmland. As no additional population growth is envisaged for Gutha, it is recommended that the new proposed 'Rural Townsite' zone under LPS 3 be reduced to include only the existing subdivided portion of the locality with the remainder of the locality to be zoned 'Rural'.

5.4.4 Koolanooka

The locality of Koolanooka is situated between Morawa and Perenjori just off the Mullewa-Wubin Road on the Wongan Hills to Mullewa railway alignment. At the 2016 census, Koolanooka had a population of 16 people.

The locality received two grain elevators installed at the railway siding in 1932.

An iron ore mine was opened in the area in 1965 and was the first iron ore exporting mine in Western Australia. In 2006 this iron ore mine was re-commissioned, this time by Midwest Corporation limited.

The locality of Koolanooka is currently zoned 'Rural' pursuant to the Shire's TPS2.

Recommendations

1. The Koolanooka locality is currently zoned 'Rural' pursuant to the Shire's TPS2. It is proposed to rezone the existing subdivided lots to 'Rural Townsite' to provide some flexibility regarding use of these lots for uses other than rural uses.
2. The existing sustainable agricultural uses within the surrounding hinterland should continue to be protected.

5.4.5 Pintharuka

The locality of Pintharuka is situated to the north of the Morawa townsite on the Mullewa-Wubin Road. The townsite of Pintharuka was gazetted in 1913 and the site was selected due to the location of the Pintharuka rail siding as part of the Wongan Hills to Mullewa railway line.

The locality is a receival site for CBH. Pintharuka also includes a homestead house.

The locality of Pintharuka is currently zoned 'Rural' pursuant to the Shire's TPS2.

Recommendations

1. The Pintharuka locality is currently zoned 'Rural' pursuant to the Shire's TPS2. It is proposed to rezone the existing subdivided lots to 'Rural Townsite' to provide some flexibility regarding use of these lots for uses other than rural uses.
2. The Pintharuka Nature Reserve managed by the Department of Biodiversity, Conservation and Attractions is in close proximity to the townsite and needs to be given appropriate protection.
3. The existing sustainable agricultural uses within the surrounding hinterland should continue to be protected.
4. An existing restaurant and homestay operates from the homestead and this use should be afforded protection under the local planning scheme.

5.4.6 Merkanooka

Merkanooka is a locality situated approximately 9.5 kilometres to the west of the Morawa townsite located on the junction of Boss and Dreghorn Roads. The locality is unoccupied and the surrounding land is used for farming of wheat crops.

The remains of the old sporting grounds that used to service to Merkanooka locality is still visible today.

Merkanooka is zoned 'Rural' pursuant to the Shire's TPS2 and this is not envisaged to change given the predominant use of the land for agricultural purposes.

Recommendations

1. Continue to support agricultural land uses within the Merkanooka locality.

5.5 Infrastructure Considerations

5.5.1 Water Supply

Key water supply considerations relating to the Shire of Morawa include:

1. The Shire of Morawa's expected population increase will have an impact on the Shire's water supply. Morawa accounts for over half the Arrowsmith Scheme, which is currently at 80% of its abstraction license.
2. The current 2 million litre water tank and booster that Morawa is equipped with is currently at 50% capacity. An increase in population would result in extra demand on the tank and booster.

The key implications for future planning of the Morawa townsite relating to the above water supply considerations are:

1. A doubling of the population will leave no spare capacity in the current tank and booster.
2. The provision of the additional storage tank is required to provide for future growth greater than 50% of the existing population.
3. The estimated cost to construct the new tank and associated infrastructure is approximately \$1.5million.
4. Growth of the water supply network would be limited by current Arrowsmith Borefields extraction license restrictions.
5. Subject to resolution of the Arrowsmith Borefield supply and provisions of a second 2 million litre water tank, there would be capacity to cater for up to triple the population.
6. Provision of an additional tank or replacement of the existing tank with a larger tank (4 million litre) would be required to meet the target population water supply requirements.
7. By this point in time it is expected that the existing water tank may be due for replacement due to asset maintenance purposes. The size of the existing reticulation network main distribution line would also require upgrading as part of Water Corporation planning for the town.

Please refer to Appendix F – Water Corporation Reticulation Network

5.5.2 Sewer Infrastructure

Key sewerage considerations relating to the Shire of Morawa include:

1. The current stormwater dam does not have sufficient capacity to store all winter flows in combination with collected stormwater.
2. Treated waste water overflows into salt lake system during winter.
3. The Shire has allocated capital funds to upgrade the Waste Water Treatment Plant (WWTP), to address immediate capacity issues.
4. Proposed upgrade will enable town sewer infrastructure to approximately double.
5. Estimated costs for upgraded works will approximately cost \$2.9 million.
6. The key implications for future planning of the Morawa townsite relating to the above sewerage considerations are:
 - An expansion of the sewer system beyond a doubling of the population would require further extension to all proposed infrastructure upgrades.
 - To cater for the target population of 2,500 people, significant expansion of the current WWTP and dam is required.
 - A long term option would be to install a package type WWTP that treats the waste water to a higher quality. These systems have much higher capital costs and operating costs.
 - The Shire will need to review and update their recent WWTP study to consider long term infrastructure requirements for the target population scenario.

5.5.3 Power Supply

Key power supply considerations relating to the Shire of Morawa include:

1. Currently Morawa uses 3.5-4MVA. Western Power advised that they have existing capacity in the region of approximately 5MVA. There is significant capacity for Morawa to grow if it is at a steady rate.
2. Despite the above, the Shire experiences a number of brown and black outs due to the age and condition of the current infrastructure.

3. Western Power has no plans for a new transmission connection into Morawa. A new substation would be required to upgrade the transmission line.
4. The power requirements for a population and industry supporting a town of 2,500 is likely to warrant the construction of a substation in close proximity to the town.
5. The Shire has been in discussions with Carbon Reduction Ventures Pty Ltd, which is a company that proposes to construct a solar power project that would supply up to 3MW of power into its existing system. This would provide additional power generation to the Morawa system, with an alternative being considered where by a solar power plant could be the sole power supply for short periods of time.

The key implications for future planning of Morawa townsite relating to the above power supply considerations are:

1. Western Power should be required to investigate options for improvements to power supply to the Morawa Region to support this level of growth. If the solar power station does not proceed, the growth of the town is likely to be limited following the construction of the new industrial area for the town, which is an approved subdivision development.
2. The solar project is proposed to be built on stages and can be added to as the demand allows it to and therefore would be able to grow with the population of the area. the system would be designed to be dispatchable within the limits of the installed energy storage, and possibly capable of load profiling.

5.5.4 Telecommunications

Key telecommunication considerations relating to the Shire of Morawa include:

1. A Telstra cable network currently exists throughout the Morawa townsite with an exchange also being located within the town, providing telephone services.
2. Morawa's exchange is connected to ADSL2+ and also has business grade BDSL capability, but due to the cost the Shire has not proceeded access to the BDSL.
3. Areas in the north midlands and parts of Morawa experience black spots, with poor coverage being of concern to residents.
4. NBN is generally not afforded to town sites under 1,000 people, however, if it can be demonstrated that the population of Morawa will reach 1,000 people, it is eligible for NBN.
5. Remaining premises will be connected via a combination of next generation fixed wireless and satellite technologies.

The key implications for future planning of Morawa townsite relating to the above telecommunication considerations are:

1. An upgrade of the Telstra network will be required to provide an NBN compliant network for ant new lots created as part of any subdivision development.
2. Black spots have been encountered and must be rectified as part of any plans to improve Morawa and the sub region.
3. Political support is required to ensure that Morawa is provided with the fibre NBN network as part of the SuperTown development process.

5.5.5 Gas

Key gas considerations relating to the Shire of Morawa include:

1. The Morawa townsite is currently not connected to a gas network and there are no proposals to connect the Morawa townsite in the future.
2. The establishment of a gas hub at Three Springs could provide an opportunity for Morawa to branch into a gas supply.
3. The residential and industrial growth proposed for the town is relatively small and unlikely to necessitate the extension of the Dampier-Bunbury Natural Gas Pipeline (DBNGP) to the townsite. Whilst it is desirable to have gas as an alternative power source, the cost to extend the DBNGP into Morawa for such a small population base would be cost prohibitive unless it is required to be brought past for a major industry.

5.5.6 Drainage

Key Drainage considerations relating to the Shire of Morawa include:

1. Stormwater is directed from the roof of properties to either surrounding ground or directed via small pipes in the road network. The whole road catchment is then conveyed to the Town dam located on Stokes Road, which is then used for irrigation purposes. The town dam has capacity of approximately 30ML. There is an additional

small collection basin of about 3ML capacity that collects water from the recreational grounds north of Evans Street.

2. There are three main drainage crossings from the western side of the townsite under the railway. These are piped drainage sections.
3. Due to the size of the drainage catchment, the gutter flows on the eastern side of the town are very large with the whole road widths acting as conduits for stormwater in large storm events. This is likely to present road safety issues and also localised flooding issues to properties at the downstream end of the catchment.
4. There are flooding issues on the eastern side of the railway along Solomon Terrace between Evans Street and Manning Road, which has caused minor property damage and disruption to access to the business in the vicinity of the Morawa Hotel.

The key implications for future planning of Morawa townsite relating to the above drainage considerations are:

1. It is recommended that significant improvements to the stormwater management system such as piped drainage systems in Solomon Terrace and Evan Street be implemented in the short term subject to funding availability.
2. Any townsite growth, particularly west of the railway, will increase the stormwater catchment and exacerbate the downstream flooding issues and potentially have capacity issues under the railway,
3. Roads such as Stokes Road and Granville Street should also be reviewed to look at providing an improved stormwater conveyance system to reach the town dam.
4. The existing open drains on the east side of Winfield Street should be reviewed as part of any streetscape improvements and main street upgrade, as the large open drain detracts from the amenity of the area and main street environment.

5.5.7 Road Network

The mid west region is well serviced with a network of major sealed roads connecting Geraldton to Perth, the north west and the hinterland, which provides extensive use by double and triple road trains. Being the eastern most town in the region, Morawa can be considered to be off the main traffic routes. To reach the town a detour from the Perth – Geraldton roads is required. This indicates traffic growth would be led by internal growth of the town. The development of other towns in the State would not be expected to have a significant impact on travel movements in Morawa. Traffic movement through Morawa is considered relatively easy at the present time with no one street passing more than 1,000 vehicles per day. The key implications for future planning of Morawa relating to the road network are as follows:

1. Improvements to these Regional Roads will enhance the likelihood of visitors, business and residents accessing Morawa as a destination and home.
2. Previous levels of the road freight through Morawa are having negative impacts upon the main street and amenity of the town centre. This resulted in safety, dust, noise and impacts of general circulation. Subsequently, a parallel freight route has been constructed adjacent to Winfield Street to allow the creation of a more pedestrian friendly Main Street.
3. Truck and trailer parking is currently located east of Davis Road on the eastern side of the main street, considered too close to core town centre activities. Consideration needs to be given to relocating this facility whilst balancing the economic benefits and the reduced amenity issues associated with trucks in the heart of town.
4. Current levels of traffic, both truck and vehicle movements can be accommodated based on forecast population change.
5. The local road network is only in fair condition; with a strong need for a capital works program to be implemented to progressively upgrade the local road network. This is not growth related but should be implemented.

5.5.8 Pedestrian and Cycling Network

Morawa has an existing network of footpaths throughout the town, in particular in the main street and linking through to the recreation grounds and sports club, high school, swimming pool and caravan park. Grade crossing at rail crossings currently do not have pedestrian gates or a good level of connectivity through to the eastern residential area. There are no designated cycling facilities within the town, however, due to wide roads and low traffic volumes the risk to cyclists using these roads is low. The key implications for future planning of Morawa relating to the pedestrian and cycling network are as follows:

1. There is a need to ensure that every street as at least a footpath/cycle way on one side of the road to encourage alternative transport options for Morawa.

2. Better linking the residential areas of the rail line to the western area, that comprise much of the commercial, retail, civic and other townsite uses is important for residential growth to the east and community cohesion.
3. As a minimum at-grade pedestrian access should be improved, linking Prater Street with Manning Road on the eastern side of the rail line. However, in the longer term an at-grade vehicular crossing and/or grade separated pedestrian crossing should be explored. A cost benefit analysis should be undertaken to test all scenarios.

5.5.9 Rail

The rail line was once used for passenger rails, however, is now used for freight services. Whilst initially only transporting 5 trips per week of grain during season, approval for iron ore transport has increased the use of this railway. The key implications for future planning of Morawa relating to the Rail network are as follows:

1. The freight rail line runs through the heart of Morawa which creates a physical barrier between the eastern and western areas of the town site.
2. It is not expected that rail freight will significantly increase through the townsite, with the construction of more direct rail lines north of the townsite that link mining activity with the port of Geraldton.
3. Should rail freight increase with new mining activity then consideration will need to be given to a new rail link south of Morawa that does not go through the townsite.

5.5.10 Bus Network

A TransWA bus service provided between East Perth and Geraldton passes through Morawa. The service operates Monday and Thursday to Geraldton and Tuesday and Friday to Perth and must be booked in advance.

5.5.11 Morawa Airfield

The existing aerodrome is located on the north-eastern outskirts of the townsite. It is owned and operated by the Shire and has recently been upgraded to achieve the CASA Aerodrome category of Registered. The airport is suited to small aircraft and in the past has been used by local mining companies. There are plans to seal the airstrip and there are no scheduled passenger services from Morawa. The closest scheduled passenger services are in Geraldton. The key implications for future planning of Morawa relating to the airfield are as follows:

1. Given Morawa's status as a SuperTown, air transport is an important enabler that will facilitate improved service delivery and access into and out of the region.
2. With mining activities being a key economic driver within the region, the ability to employ air transport will provide additional incentive for employment and population growth within the Morawa townsite.
3. Access to and from the airport will need to be enhanced should the upgrade include sealing of the runway and improved aerodrome facilities.

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Acronyms

- ABS - Australian Bureau of Statistics
ADSL – Asymmetric Digital Subscriber Line
AHD – Australian Height Datum
BDSL – Business-Digital Subscriber Line
CASA - Civil Aviation Safety Authority
CBH – Co-Operative Bulk Handling
DBCAs – Department of Biodiversity, Conservation and Attractions
DFES – Department of Fire and Emergency Services
DPIRD – Department of Primary Industries and Regional Development
DPLH – Department of Planning, Lands and Heritage
DSR – Department of Sport and Recreation
DRDL – Department of Regional Development and Lands
DRF – Declared Rare Flora
DWER – Department of Water and Environmental Regulation
EPA - Environmental Protection Authority
Growth Plan – SuperTowns Growth and Implementation Plan
IBRA – Interim Biogeographic Regionalisation for Australia
kV – Kilovolt
LGI – Local Government Inventory
LPS3 – Local Planning Scheme No. 3
ML – Megalitre
MVA - Mega Volt Amp
NBN – National Broadband Network
NMEDS – North Midlands Economic Development Strategy
PEC – Priority Ecological Communities
RFDS – Royal Flying Doctor Service
Shire – Shire of Morawa
SHO – State Heritage Office
TPS2 – Town Planning Scheme No. 2
TEC – Threatened Ecological Communities
TransWA – Regional public transport provider
TWW – Treated Wastewater
UCL – Unallocated Crown Land
WAPC – Western Australian Planning Commission
WWTP – Wastewater Treatment Plant

Appendix A – Summary of Stakeholder Engagement

Appendix B – Main Roads Hierarchy

Appendix C – Proposed Morawa Heritage List

1. Church of the Holy Cross - Corner Dreghorn and Davis Streets, Morawa
2. Priest's Cell - Davis Street, Morawa
3. CWA - Dreghorn Street, Morawa
4. Masonic Hall - Corner Gill and Caulfield Streets, Morawa
5. RAOB Hall No. 68 - Gill Street, Morawa
6. Morawa Shire Offices - Corner Dreghorn Street and Prater Street, Morawa
7. St David's Anglican Church - Corner Prater and Dreghorn Streets, Morawa
8. Old Police Station - Corner Gill and Prater Streets, Morawa
9. Morawa Town Hall and Lesser Hall - Prater Street, Morawa
10. Morawa Hotel – Corner Solomon Terrace and Manning Street, Morawa
11. Winfield Street Precinct - West side of street between White Avenue and Caulfield Road, Morawa
12. Bank of New South Wales (fmr) Winfield Street, Morawa
13. Church of Christ (now Church of Seventh Day Adventists) - Dreghorn Street, Morawa
14. Marian Convent –Davis Street, Morawa
15. Morawa Sporting Complex – Club Road, Morawa
16. St Paul's Lutheran Church - Caulfield Road, Morawa
17. FH Memorial Gate - End of Evans Street, Morawa
18. Pre School Centre - Prater Street, Morawa
19. Morawa Golf and Bowling Club - Club Road, Morawa
20. Christen Centre Inc - Corner Gill and Prater Streets, Morawa
21. Morawa Co-op (now IGA) - Corner Winfield and Prater Streets, Morawa
22. Old Post Office (now residence) Solomon Terrace, Morawa
23. Police Station and Courthouse - Stokes Road, Morawa
24. State School Site - Prater Street, Morawa
25. Greater Sports Ground - Evans Street, Morawa
26. War Memorial - Prater Street, Morawa
27. Jubilee Park - Dreghorn Street corner Prater Street, Morawa
28. Koolanooka Iron Ore Mine, Koolanooka
29. War Rock Dam Wall - Pintharuka Dam Road, Pintharuka
30. Pintharuka Soak Well – West Pintharuka Road, Pintharuka
31. Gutha Hall - Simpson Street, Gutha
32. Bilya Rock - West Gutha Road, Gutha

33. Canna Lutheran Church, Canna
34. Canna Store, Canna
35. Nanekine Homestead - Nanekin Road, Canna
36. Prater Park - Solomon Terrace, Morawa
37. Prater Airport Gateway - Manning Street, Morawa
38. Harris Park - Corner Lodge Street and Broad Avenue, Morawa
39. Pioneer Park - Winfield Street, Morawa
40. Canna Hall, Canna
41. CWA, Canna

Appendix D – Mining and Mineral Deposit Mapping

Appendix E – DBCA Management Reserves

Appendix F – Water Corporation Reticulation Network