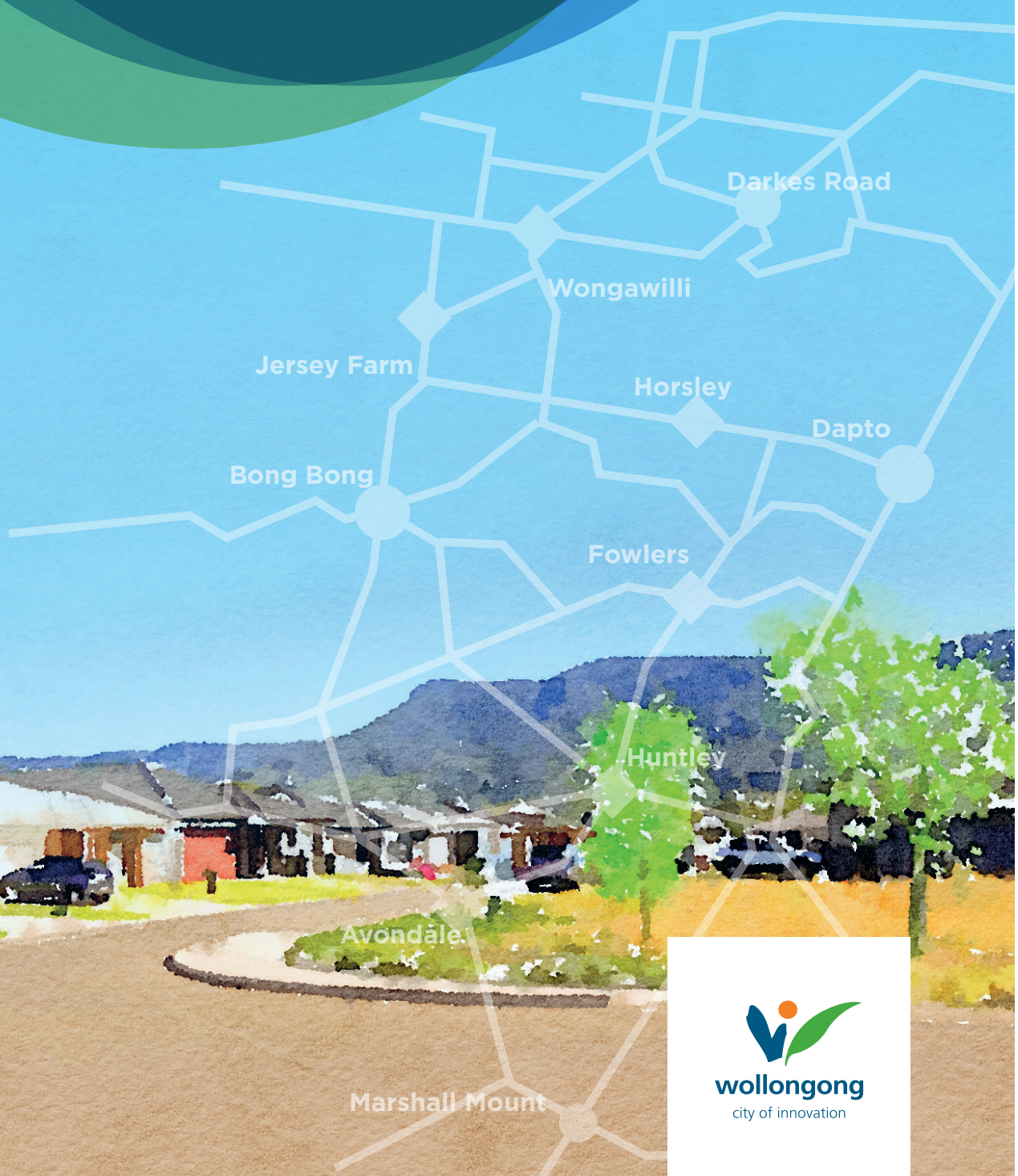


# WEST DAPTO

## VISION 2018







# West Dapto Vision

West Dapto will grow and develop as a series of integrated and connected communities. Set against the spectacular Illawarra Escarpment and a landscape of riparian valleys, these communities will integrate the natural and cultural heritage of the area with the new urban form.

The communities will be healthy, sustainable and resilient with active and passive open space accessible by walkways, cycleways and public transport. To support these new communities, local centres will provide shopping services, community services and jobs while employment lands will facilitate further opportunities for the region.

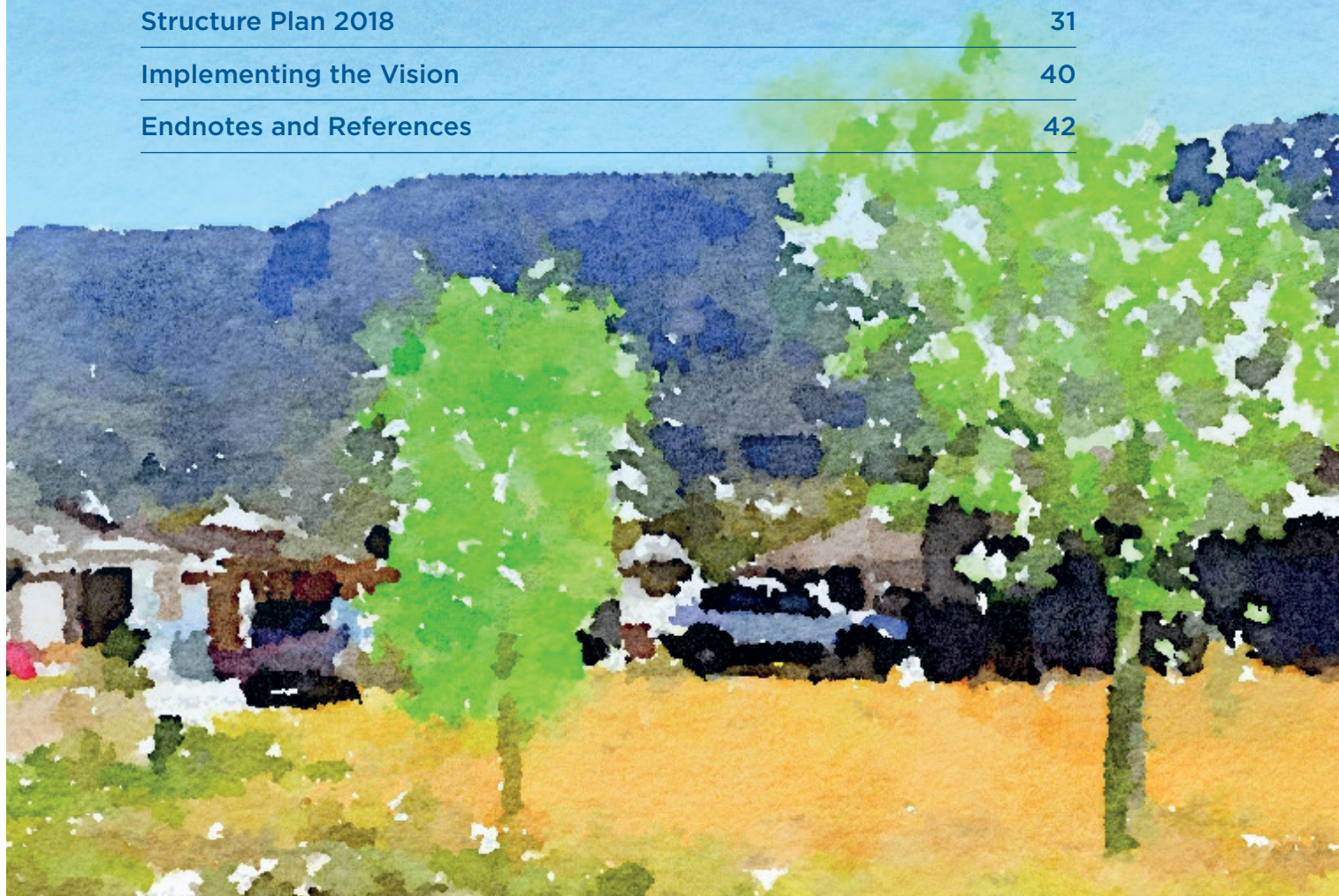
West Dapto will be supported by a long-term strategy to oversee the timely implementation of infrastructure to deliver sustainable and high-quality suburbs with diverse housing choices.





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# Urban Growth at West Dapto

## The role of West Dapto in our Region

The NSW Government's Illawarra-Shoalhaven Regional Plan 2015 (Regional Plan) estimates that by 2050 the Illawarra-Shoalhaven region will have a population of about half a million people. It is expected that much of this population will live in the Wollongong local government area. The region's beachside lifestyle, its stunning natural environment and proximity to Sydney have combined to attract an increasing number of people seeking to make the region their home.

Direction 2.3 of the Regional Plan confirms that the major regional release areas of West Lake Illawarra (which includes West Dapto) and Nowra-Bomaderry will continue to be the long-term focus for greenfield housing in the region. It is therefore crucial that continued attention is given to appropriate structure and infrastructure planning for West Dapto.

Wollongong City Council estimates the West Dapto Urban Release Area will provide about 19,500 dwellings and an additional population of about 56,500 people once fully developed over 50-plus years. Final dwelling numbers may vary over time and will require continuous strategic review to ensure Council's planning caters for the changing nature of housing types, designs and densities that will occur decade to decade. The release area will also provide local employment opportunities, community and recreational facilities and the conservation of sensitive sites.

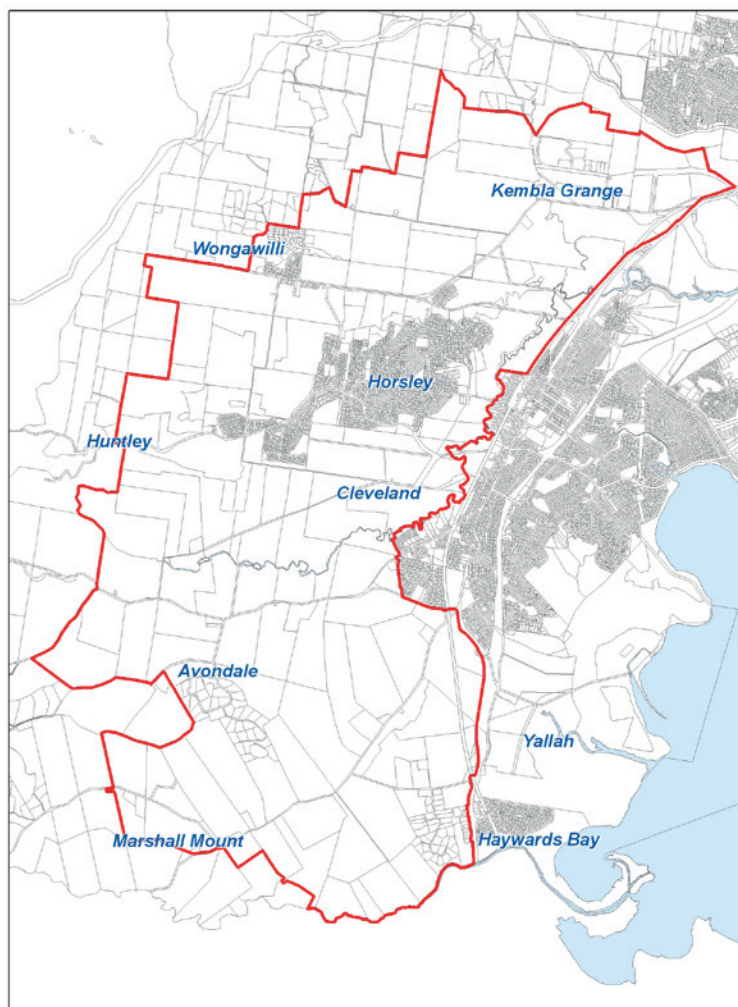
As well as being a key source of new housing for the Illawarra in the coming decades, the West Dapto Urban Release Area will establish designated employment lands and support the growth of Port Kembla. Planning will include measures to conserve and protect the Illawarra Escarpment and the quality of waterways which feed into Lake Illawarra.

The development of the West Dapto Urban Release Area is closely linked to the growth and development of the town centre of Dapto.

Dapto, located between the larger centres of Wollongong to the north and Shellharbour to the south, has evolved to provide a range of services and retailing opportunities. Future urban development west of Dapto will strengthen the Dapto town centre as a regional township and centre for employment. In line with the regional direction to encourage and facilitate "flexible employment lands", businesses and employers will have the option to base themselves within the physical and economic landscape of the release area.

The West Dapto Urban Release Area boundary is shown in **Figure 1** below.

**Figure 1** West Dapto Release Area.



**19,500 new homes  
and the supporting  
public infrastructure**



## The 2008 Structure Plan

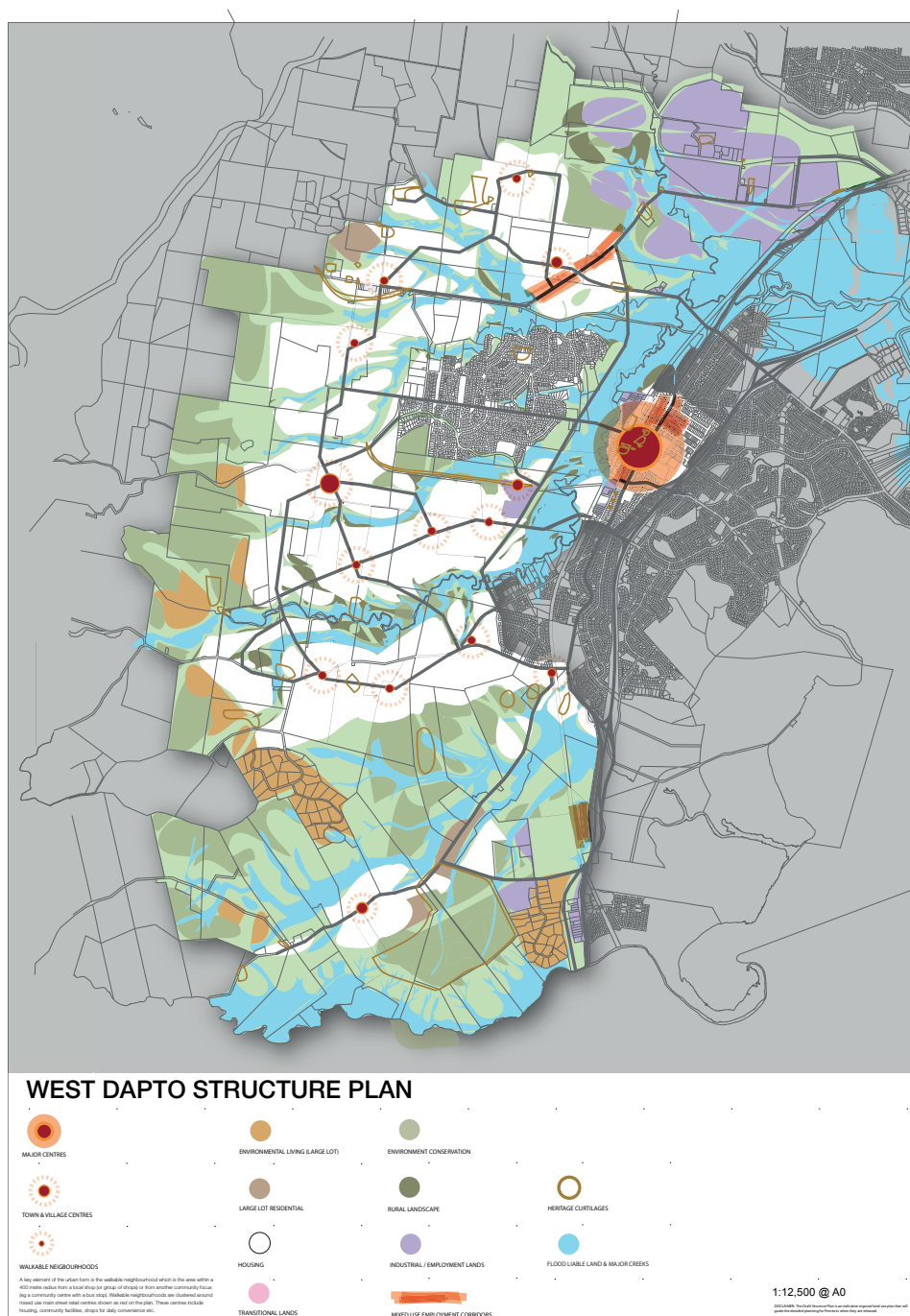
It has been 10 years since the initial Structure Plan for West Dapto was prepared. It is timely to review the Structure Plan and test previous assumptions that informed the plan. It is important to note that the fundamental structure and outcome remains the same. West Dapto is still proposed as the region's largest strategic urban release area. The general urban footprint remains the same with some refinement based on revised and improved data and understanding the area's opportunities and constraints.

## Progress at West Dapto and Implementing the Vision

The establishment of about 19,500 new dwellings and providing the supporting public infrastructure is a major undertaking. To ensure a measured, sustainable development schedule, it will be rolled out in stages over more than 50 years. The existing five stages of the urban release area are reflected in the revised structure.

Stages 1 and 2 were rezoned for urban development in 2010 and include

**West Dapto is still proposed as the regions largest strategic urban release area.**



**Figure 2**  
2008 West Dapto Structure Plan (GCC, 2008). Extract from Wollongong DCP, 2009.



Kembla Grange to Wongawilli and the area west of Horsley. Stage 3 of the urban release area is Cleveland and Avondale is Stage 4. Development has commenced in the north to make use of existing services and promote development of the Kembla Grange employment lands. Development will gradually extend south while also widening east to west. Initial strategic development staging is shown in Figure 3. Stage 5 (Yallah/Marshall Mount) and the Dapto Town Centre precincts will develop separately.

*We've continued to drive change around West Dapto with construction of a four-lane road from Horsley's Fairwater and Daisy Bank Drive to the Fowlers Road/Princes Highway intersection well underway. These exciting projects will continue into this financial year (Wollongong City Council, June 2017, 2017-18 Annual Plan).*

To support the Vision, Council is committed to:

- managing the development program for West Dapto to achieve economic, environmental and socially sustainable urban development for the current and future residents of Wollongong.
- developing vibrant, safe, sustainable and liveable neighbourhoods that provide for community well-being and are supported by essential facilities.
- achieving long-term sustainability through the design and development of our new communities by:
  - meeting housing supply needs through a diversity in housing product.
  - encouraging well integrated and connected neighbourhoods with appropriate land uses.
  - protecting and enhancing ecological and cultural features throughout the release area.
  - maximising the potential for local employment opportunities.
  - developing a long-term strategy to oversee the implementation of infrastructure, and ensuring cost effective and efficient infrastructure provision using a collaborative and transparent approach between Council and the NSW Government.

## Planning progress

Since the rezoning of stages 1 and 2 in 2010, Council has adopted numerous

neighbourhood plans into Chapter D16: West Dapto Urban Release Area of Wollongong Development Control that will facilitate creation of residential lots, the development of Bong Bong and Darkes Town Centre and Reddalls Road Industrial Area. Council continues to consider further draft neighbourhood plans and assess subdivision applications.

Since 2010, numerous subdivision development approvals have been granted leading to the issue of some 1,000 subdivision certificates. Ongoing development assessments will continue and this number will grow. On 8 June 2018, Stage 5 (Yallah / Marshall Mount) was rezoned for urban development.

## Infrastructure delivery progress

*The significant increases in 2018-19 to 2020-21 include amounts for West Dapto Access Strategy projects such as the Fowlers Road extension to Fairwater Drive and other major transport projects (Wollongong City Council, June 2017, Annual Plan).*

Ongoing infrastructure delivery continues at West Dapto. Since 2010 Council has committed significant road infrastructure funding towards projects that have either been constructed or are currently under construction. Projects include:

- Shone Avenue upgrade to road and bridges Stage 1 & 2
- Fairwater Drive extension to Cleveland Road (Daisy Bank Drive)
- Cleveland Road bridge and school drop-off area
- Fowlers Road connection and bridges
- West Dapto Road (Kembla Grange) intersection upgrade
- Bong Bong Road upgrade including Glenlee Drive roundabout upgrade
- Darkes Road safety and alignment upgrades
- Wongawilli Road upgrade

We are continuing to design other key road projects, including:

- Yallah Road and Marshall Mount Road
- Cleveland Road
- Jersey Farm Road
- West Dapto/Sheaffes/Darkes Road
- Avondale/Huntley Road

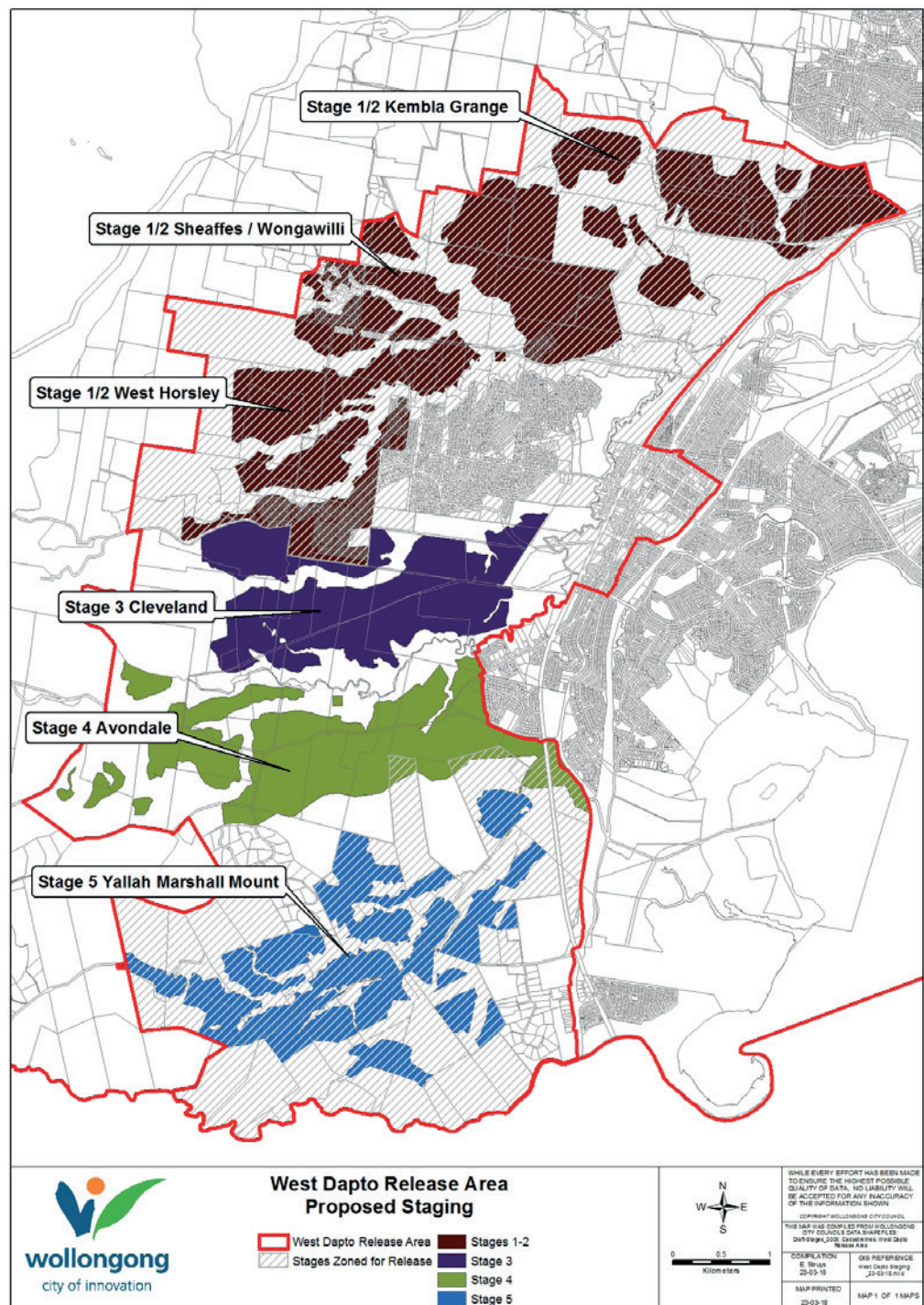
Council's commitment to the vision



is reflected in **planning principles** intended to guide all land use planning decisions associated with the urban release area. The principles are discussed in further detail in the body of this report. The principles have been used to review the 2008 West Dapto Structure Plan shown at Figure 4.1, Chapter D16: West Dapto Urban Release Area of Wollongong Development Control Plan, 2009 (see also **Figure 2** of this document). Structure Plan 2018 is presented at the **Implementing the Vision** section of this report. The planning principles will promote best

practice outcomes without replacing legislative obligations.

Essential infrastructure required to deliver the vision will rely on a coordinated approach to funding and delivery through a combination of development contributions from Council, State stakeholders and, in some cases, additional means such as public-private partnerships.





# Revising the Structure Plan

A structure plan guides the future strategic direction of an urban release area. All spatial planning decisions flow from the strategic guide. As a guiding tool, the plan is high level and relies on subsequent planning decisions and statutory tools under the NSW Environmental Planning and Assessment Act, 1979 to add more detail. These tools include but are not limited to the Wollongong Local Environmental Plan, Wollongong Development Control Plan, neighbourhood planning and ultimately development applications. Implementing a structure plan goes beyond planning tools. Infrastructure planning, design, funding and delivery are essential components. Engagement of all relevant stakeholders when developing the structure is crucial to ensure the strategic vision is understood and has an opportunity to come to life.

Several key inputs and factors have evolved informing the revised Structure Plan, including but not limited to:

- improved understanding of road network requirements and travel behaviour tested through Council's in-house TRACKS model and informed by engineering design.
- demographic changes and changes to social and cultural settings as well as broader changes to living standards shaping trends in housing markets; need for an increase in housing diversity, choice and affordability; and increased demand and pressure on housing supply throughout the region and NSW.
- changing State planning policy setting influencing urban outcomes requiring more rigour during subdivision planning and assessment.
- improved understanding of flood behaviour through the 2018 Mullet Creek Flood Model update.
- rezoning of Stage 1 & 2 and Stage 5 of the initial Structure Plan; progressive preparation of neighbourhood plans within Stage 1 and 2 and subsequent LEP amendments as needs identified; and the ongoing lodgement and approval of development applications and progressive housing construction.
- better understanding of the role of town

and village centres and their strategic location through two key studies (2014, Urbacity report and 2016, SGS, Dapto Town Centre Study).

- more detailed knowledge of biodiversity and environmental setting (updated vegetation map, threatened species survey and Biodiversity Conservation Options, 2013).
- progress in infrastructure planning and delivery.
- changing infrastructure funding environment.

The Structure Plan has also been informed by the West Dapto Principles listed within this document. All feedback Council received during exhibition of the draft plan was considered in the finalisation of the plan.

In summary, the key changes between the 2008 Structure Plan (shown at Figure 2 ) and the 2018 plan (shown at Figure 10) include:

- 2010 urban zoning of Stages 1 and 2 (rezoned as one stage). The revised Structure Plan reflects the rezoned land.
- June 2018 urban zoning of Stage 5 (Yallah/Marshall Mount). The revised Structure Plan reflects the rezoned land.
- Revised road network strategy informed by Council's TRACKS model, progress in infrastructure design and strategic costing.
- Revised flood layer 1% Annual Exceedance Probability (AEP). Informed by the 2018 Mullet Creek Flood Model update.
- Revised biodiversity survey, assessment and conservation initiatives. Council progress in data collection and mapping to formulate a biodiversity strategy with updated development patterns.
- Revised and consolidated town and village centres to more efficiently serve the growing community (eight new centres compared with 14 proposed in 2008).
- Inclusion of the significant access road project at Fowlers Road/Fairwater Drive.
- Important heritage items included in the 2018 Structure Plan to ensure future planning decisions consider the implications. Other heritage values, specific heritage controls and required considerations will be provided in more detail via Council's plans and policies, including the Wollongong Local Environmental Plan, 2009, and the Wollongong Development Control Plan, 2009.



# About West Dapto Planning Principles

The West Dapto Planning Principles are intended to guide land use planning decisions associated with the urban release area.

The principles are guiding review of the existing West Dapto Structure Plan and Master Plan. Changes to the Structure Plan and Master Plan will be implemented via:

1. Council-sequenced and developer-proposed rezoning of land through amendment of Wollongong Local Environmental Plan, 2009.
2. Review and update of the West Dapto chapter D16 of Wollongong Development Control Plan, 2009.
3. Development of new development contributions plans (with both Council Contributions Plan, and Department of Planning and Environment's (DPE) Special Infrastructure Contributions (SIC) supporting the Structure Plan.
4. Continued assessment and determination of development applications within the urban release area.

## What is a strategic planning principle?

A planning principle is a statement of a desirable outcome from a chain of reasoning. Planning principles can guide outcomes and provide a list of appropriate matters to be considered in making a planning decision. While planning principles are stated in general terms, they are applied to promote consistency and diligence around planning and design considerations.

Planning principles are not legally binding and they do not prevail over Council's plans and policies. They inform changes to Council plans and policies and guide changes in process, their application and outcomes. The principles must be considered in conjunction with existing relevant legislation.

Planning principles assist when making a planning decision, especially:

- where there is a void in policy;

- where policies expressed in qualitative terms allow for more than one interpretation;
- where policies lack clarity and consistency; and
- where policies lack detail, are dated against sciences or need improvement as a result of undesirable development outcomes.

## Sustainable and liveable communities

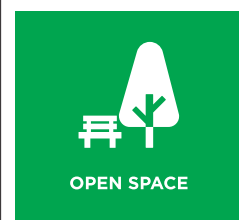
Council's vision for the West Dapto Urban Release Area is reflected in contemporary needs for sustainable and liveable communities. Sustainable development, spatial planning and urban design principles reflect broader approaches to sustainability in state legislation and will inform decisions, processes and guide relevant policy content and reform. Urban design and non-urban land use principles together with the revised Structure Plan and implementation documentation will lead to designs sympathetic to landscape features and unique characteristics.

The West Dapto Urban Release Area has many environmental, social and economic challenges that require careful consideration to ensure efficient and sustainable delivery of urban development. These factors include the unique topography, water management (including flooding), fragmented land ownership, threatened species and ecological communities, Aboriginal and European heritage, accessibility and the cost of infrastructure. Careful consideration needs to be given to understand the release area's full potential for urban development.

It is important to note that promoting sustainable outcomes is intrinsic in all the West Dapto Urban Release Area principles, outlined below, and a key outcome through the collective implementation of all planning principles.

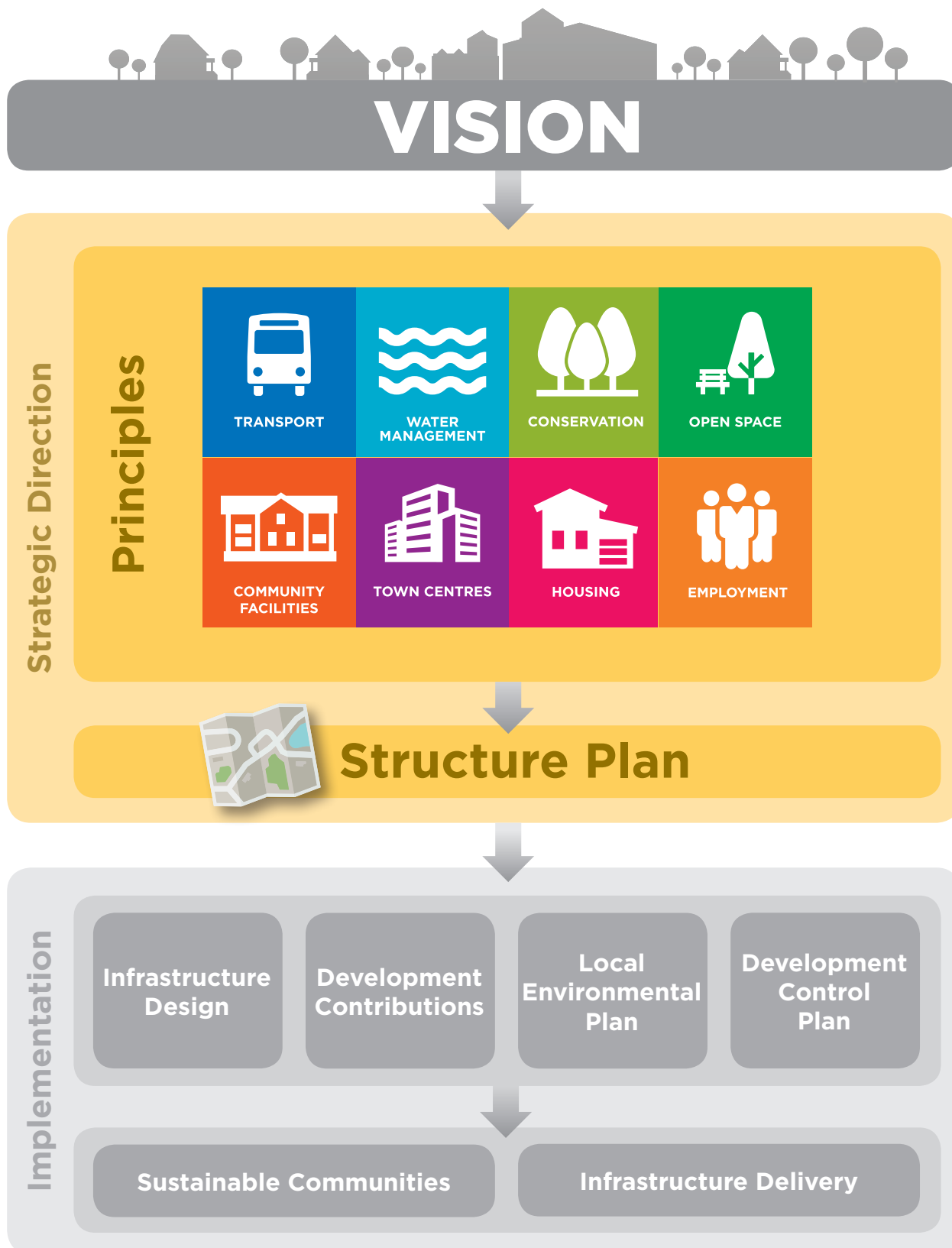
## The West Dapto Urban Release Area principles

The Principles' order of appearance does not denote any form of priority but outlines interrelated land features which require detailed consideration in development proposals. **Figure 4** outlines the principles and their key components. Each principle is detailed in the following sections of this report.



Many of the principles are supported by quantitative measures to ensure the desired outcome can be achieved. The appropriate place for these measures will be explored during implementation (see **Figure 4**).

**Figure 4**  
Structure and relationships of principles to planning tools





# Transport Principles

## 1.1 ROAD NETWORK

The future road network for the West Dapto Urban Release Area will be the 'backbone' of the community, providing for all types of access and movement through the release area. The road network form and provision contribute significantly to achieving the vision of long-term sustainability.

An integrated transport system is proposed that caters for the private car as well as freight, public transport, pedestrians and cyclists. Road types have been developed based on a functional hierarchy, where the road designs support the transport modes in various ways. The road network has been developed to cater for planned land use and deliver a safe, connected and efficient transport framework that compliments the natural environment and facilitates sustainable transport outcomes.

### PRINCIPLE 1

#### Supportive land use patterns

- 1.1 Plan higher residential densities and mixed land use in and adjacent to town and village centres and major public transport nodes to reduce reliance on the private car and reduce overall road network requirements and costs.
- 1.2 Plan the co-location of compatible land uses to reduce reliance on the private car and reduce overall road network requirements and costs.

### PRINCIPLE 2

#### A safe, connected and legible road network for all users

- 2.1 Provide a road network based on the modified grid layout to maximise accessibility and efficiency.
- 2.2 Implement a clear hierarchy of road types that meets relevant transport requirements and road function, creating a highly legible road network for all users.

- 2.3 Ensure the major road network supports the town and village centres hierarchy within West Dapto.
- 2.4 Ensure a balanced and integrated road system, catering not only for the private car but for freight, public transport (buses), pedestrians and cyclists.
- 2.5 Implement driveway access restrictions and manage on-road parking on the higher-order roads (access-denied roads) to improve traffic efficiency and pedestrian/cyclist safety and amenity.
- 2.6 Implement intersection designs appropriate to the road types, surrounding land use and environment.
- 2.7 Ensure built form controls on adjacent properties deliver active frontages to maximise passive surveillance and personal safety in the road environment.
- 2.8 Ensure roads and intersections are designed to meet relevant standards and best practice guidelines.

### PRINCIPLE 3

#### Design roads to compliment the environment

- 3.1 Ensure roads fit with the landform (topography), complement local character/land use and minimise visual, ecological and noise impacts.
- 3.2 Ensure road alignments take advantage of views and visual stimuli for the motorist to enhance legibility, sense of place and create a positive experience in movement.
- 3.3 Consider the role of road networks in structuring precincts, including both transport and community needs to maximise liveability and quality urban outcomes.
- 3.4 Incorporate Water Sensitive Urban Design (WSUD) into transport infrastructure design and consider options to increase permeability of hard surfaces.

### PRINCIPLE 4

#### Quality infrastructure

- 4.1 Use robust and durable materials, quality finishes and ancillary infrastructure with neat, uncomplicated designs that minimise maintenance requirements and discourage vandalism.



TRANSPORT



- 4.2 Consider the use of innovative technologies in road and transport infrastructure design, construction and operation.

#### **PRINCIPLE 5**

### **Road network to support sustainable transport outcomes**

- 5.1 Staging of additional car based infrastructure to encourage public/active transport and maximise use of existing infrastructure.
- 5.2 Use an established 15% transport mode shift target when planning for road network requirements within West Dapto to reduce car dependence.
- 5.3 Ensure that roads are designed to provide a high level of safety, access and amenity for pedestrians, cyclists and public transport (bus) services.

## **1.2 BRIDGE AND CULVERT DESIGN**

#### **PRINCIPLE 1**

### **Good design is context sensitive design**

Design that is sensitive to context is valued by communities. Bridges/culverts that are functional and fit the landscape are good for community pride and local identity.

- 1.1 Consider locational context and functional requirements in the design process.
- 1.2 Bridge/culvert alignment should integrate with environmental and local constraints.
- 1.3 Ensure storm immunity standards are met and design/construction provides longevity to minimise maintenance requirements.
- 1.4 Design and finishes should respond to and incorporate the character of the area.

Detailed objectives, associated outcomes and specific guiding requirements for bridge and culvert delivery will be developed as part of the next steps in implementing the West Dapto Vision Document. The 'next steps' process is shown in Figure 4 of the Vision Document.

## **1.3 PUBLIC TRANSPORT**

The establishment of efficient and attractive public transport options for West Dapto is imperative to achieve sustainable growth outcomes. This importance is echoed in many Council and State Government documents, including the Illawarra Regional Transport Plan and Illawarra – Shoalhaven Regional Plan. The new land release area in West Dapto presents an opportunity to promote 'best practice' in public transport and non-motorised modes, reducing reliance on the private car, contributing to a mode shift target and creating a more resilient, interesting and liveable community.

To this end, high-level principles have been developed that will be used to inform & guide public transport planning for the new growth area, to ultimately ensure that the vision for sustainable transport in West Dapto is achieved. These principles are set out below.

#### **PRINCIPLE 1**

### **Supportive land use patterns**

- 1.1 Plan residential land use and higher residential densities close to town, village centres and major public transport nodes.
- 1.2 Locate major generators of travel demand in, or close to, accessible centres that are well serviced by public transport.
- 1.3 Ensure plans allow for a variety of land uses around public transport nodes and in centres so that services are centralised.

***Ensure that roads are designed to provide a high level of safety, access and amenity for pedestrians, cyclists and public transport (bus services).***





## **PRINCIPLE 2**

### **Effective bus network, service provision & integration**

- 2.1 Provide coordinated, frequent and reliable bus services to destinations within and surrounding West Dapto.
- 2.2 Create an efficient, seamless travel experience through integrated ticketing, minimising transfer times and intuitive and easily accessible service information.
- 2.3 Ensure street networks are interconnected and allow access for bus services.
- 2.4 Ensure the bus network is highly accessible and services the majority of residences, town and village centres, employment areas, sporting facilities and Dapto Railway Station.
- 2.5 Incorporate bus priority measures as necessary to ensure highly efficient, prioritised bus transport.

## **PRINCIPLE 3**

### **Quality infrastructure**

- 3.1 Provide comfortable, attractive, safe and secure buses and bus-related infrastructure with clear timetable/service information, catering for all users, including disabled/elderly.
- 3.2 Ensure pedestrian and cycle links to bus stops are of a high standard (refer also Active Transport Principles).

- 3.3 Encourage the use of innovative and efficient public transport technology.

## **PRINCIPLE 4**

### **Early provision of public transport**

- 4.1 Introduce bus services 'just ahead of time' to gain early community acceptance and set travel behaviour patterns from the start of new land release development.
- 4.2 Encourage staging of development in a contiguous manner with adequate roads and footpaths to make the early provision of bus services feasible and to allow bus networks to be efficiently staged.

## **PRINCIPLE 5**

### **Working with State Government to provide & improve public transport services**

- 5.1 Work with State Government to help plan and deliver improvements to the public transport system in and around West Dapto, including bus networks and service levels that meet or exceed Transport For NSW's Integrated Public Transport Service Planning Guidelines. Complete a major interchange upgrade at Dapto Station that provides the highest level of multi-modal accessibility, efficiency and convenience.

*Dapto High School Bus Interchange (\$2.4 million). Bus stops and drop-off areas, increasing access and safety.*



## PRINCIPLE 6

### Promotion & incentives

- 6.1 Build community awareness and promote benefits of public transport in West Dapto (eg. travel packs, website, branding of buses etc.).
- 6.2 Investigate incentives for use of bus services.
- 6.3 Encourage significant employment-generating developments to implement workplace travel plans.
- 6.4 Use the location, supply and availability of parking to discourage car use and support public transport.

## 1.4 ACTIVE TRANSPORT

Walking and cycling (referred to as Active Transport) will be an important component of the future West Dapto transport system, contributing significantly to achieving the vision of a 'sustainable' community. Design and planning for the West Dapto Urban Release Area has emphasised the notion of walkable communities which enable sustainable healthy living to occur. Walking is also an important factor in the success of public transport.

The future strategy for walking and cycling at West Dapto will require local solutions. Best practice planning for active transport at the local level will deliver convenient and attractive travel options, especially for short trips. This will not only assist in reducing reliance on, and impacts of, private car use but will also contribute to the health and vitality of the community. Principles for active transport are set out below:

### PRINCIPLE 1

#### Supportive land use patterns

- 1.1 Plan residential land use close to town and village centres and major public transport nodes, with higher residential densities adjacent to these locations to maximise walking and cycling catchments.

- 1.2 Encourage careful siting and co-location of land uses to maximise walking and cycling options.
- 1.3 Promote shared parking across uses in town/village centres to encourage walking when undertaking multiple activities. Avoid fragmented parking to maximise use of spaces and improve walkability through more compact town centre layouts and fewer driveway crossings.

### PRINCIPLE 2

#### Connected, functional pedestrian & cycle network

- 2.1 Provide a convenient and legible movement network for pedestrians (including those with disabilities) and cyclists, ensuring excellent connectivity and directness between residences and attractors such as schools, shops, public transport nodes, sports ovals and employment centres.
- 2.2 Include footpaths/shared paths on all roads in the road hierarchy except laneways and minor access streets (refer to Roads Principles).
- 2.3 Take advantage of easements, riparian areas and open spaces to create convenient pedestrian and cycle links (or short-cuts) that maximise accessibility between different precincts /land uses.
- 2.4 Implement a directional (often referred to as way finding) strategy to provide clear and coordinated information for access to facilities and services within the West Dapto Urban Release Area and surrounds.
- 2.5 Provide safe and secure bicycle parking or storage facilities at key destinations in town and village centres, sports ovals, community facilities, transport interchanges and key open space areas.
- 2.6 Encourage bicycle parking and end-of-trip facilities as part of the development of employment and commercial land uses.
- 2.7 Ensure the West Dapto cycleway network integrates with the surrounding regional cycle routes.





### PRINCIPLE 3

## Attractive and safe environment

- 3.1 Design streets using current 'best practice' to provide a high level of pedestrian and cyclist amenity and safety, creating public space where people want to be.
- 3.2 Provide convenient and safe road crossing points, traffic calming (where appropriate) and tree planting to enhance the pedestrian and cycle environment.
- 3.3 Ensure built form controls on adjacent properties deliver active frontages to maximise passive surveillance and accessibility to/ from the path network.
- 3.4 In high pedestrian demand areas such as town and village centres, further increase pedestrian amenity and safety through path widening, driveway access controls and other site-specific actions to improve pedestrian priority.
- 3.5 Incorporate Crime Prevention Through Environmental Design (CPTED) principles in the planning of walking and cycling facilities.

- 3.6 Consider innovative technologies for lighting key off-road paths, including solar lighting and luminescent pathway materials.
- 3.7 Construct pedestrian and cycle infrastructure according to current 'best practice', with attractive and durable materials and well-designed landscaping treatments (refer also to Roads Principles).
- 3.8 Incorporate supporting infrastructure such as seats, bike rails, shade structures, bubblers and viewing/rest areas into the active transport network where appropriate.

### PRINCIPLE 4

## Promotion of active transport

- 4.1 Encourage significant employment-generating developments to implement workplace travel plans.
- 4.2 Prepare household travel information packs for new homebuyers.
- 4.3 Support active transport community events and promotions.
- 4.4 Support the establishment of bike share services.

*Walkable communities which enable sustainable healthy living to occur.*





# Water Management Principles

The water management principles are the integration of common floodplain and stormwater management principles.

In isolation, floodplain management is the consideration of the consequences of flooding as it relates to human occupation of the floodplain and establishing corrective and preventative measures for reducing flood damage and risk to life.

Stormwater management is the practice of collecting, conveying and reusing quality treated stormwater runoff primarily from urban development with minimal nuisance, while also protecting receiving waters and the surrounding environment.

The approach taken is to consider integrated water management principles in order to achieve a better overall 'water management' strategy for the West Dapto Urban Release Area and also provide high level guidance for new development.

## **PRINCIPLE 1**

### **Integration of floodplain and stormwater management**

Integrate floodplain and stormwater management into the urban development process.

## **PRINCIPLE 2**

### **Improved water quantity management**

Improve the management of water quantity relating to urban development inclusive of stormwater, wastewater, water supply and recycled water.

## **PRINCIPLE 3**

### **Sustainable floodplain development**

Create sustainable development around and within the floodplain.

## **PRINCIPLE 4**

### **Preservation of floodplain function and natural corridors**

Preserve the natural function of the floodplain, natural waterways and riparian corridors.





**PRINCIPLE 5**  
**Protection from flooding**

Protect people and property from flooding in a strategic way.

**PRINCIPLE 6**  
**Protect water quality**

Protect water quality of surface and groundwater from urban development and any adverse effects on water quality to downstream watercourses and Lake Illawarra.

**PRINCIPLE 7**  
**Integrate stormwater with the environment**

Integrate stormwater management into the natural and urban land form in an unobtrusive way.

**PRINCIPLE 8**  
**Efficient and sustainable infrastructure**

Provide efficient and sustainable stormwater infrastructure for the urban release area.

**PRINCIPLE 9**  
**Preserve/enhance the environment**

Preserve the natural environment and enhance where possible in keeping with stormwater quantity and quality management objectives and targets.

**PRINCIPLE 10**  
**Promote liveability using water**

Promote liveability and amenity for the community by using water in all environments.

The water management principles are intended to link the overall vision to Council's desired outcome for the West Dapto Urban Release Area. This link will be further achieved by the use of tools including detailed reports and updated statutory policies. The detailed reports and policies will include a Floodplain Risk Management Study and Plan, Water Cycle Management Study and Plan, updated Wollongong Local Environmental Plan, 2009, Wollongong Development Control Plan, 2009 and the Lake Illawarra Coastal Management Program (CMP) to support the implementation of the West Dapto Vision. These documents will be developed as part of the next steps in implementing the West Dapto Vision document. The Lake Illawarra CMP is currently being developed by Wollongong and Shellharbour City Councils with support from the NSW Office of Environment and Heritage. The next steps process is shown on **Figure 4** and described under the section – **Implementing the Vision**.

*Looking east from Wongawilli towards Lake Illawarra.*





# Conservation Principles

## ENVIRONMENT CONSERVATION

In adopting the concept of ecologically sustainable development, regionally significant releases such as the West Dapto Urban Release Area present opportunities to preserve remnant vegetation and enhance ecological connectivity (structural and functional). This section identifies the strategic environmental priorities to guide planning and development of the West Dapto Urban Release Area, integrating conservation priorities with opportunity for a future West Dapto Biodiversity Conservation Strategy (BCS) and Biodiversity Conservation Strategy Structure Plan (BCSSP).

A BCS provides opportunity for Council to achieve biodiversity certification (bio certification) in a coordinated approach for the whole release area, improving the overall conservation outcomes beyond what would be achievable site by site. Council will work closely with the NSW Office of Environment and Heritage and Department of Planning and Environment to achieve this strategic outcome. The principles should also be used to guide site-by-site considerations.

### **PRINCIPLE 1** Prioritise areas that offer high environmental value for conservation

Consider information that identifies areas of threatened ecological communities or stands of habitat greater than 4ha (considered to present high environmental value in terms of habitat size and location) and avoid impacts as a result of land use changes to these areas.

### **PRINCIPLE 2** Connectivity of habitat areas

Connecting patches of habitat that have high biodiversity value will provide opportunity for ecological migration over time as well as opportunity for improvement to habitat quality and values. These are more commonly known as biodiversity corridors providing strategic connection of larger and better condition patches of vegetation either by re-establishing continuous native vegetation cover or designing stepping stones of habitat that traverse local corridors.

### **PRINCIPLE 3** Protect Environmental Values

Provide complimentary land uses alongside conservation sites to assist in improving and protecting the ecological function of the site and enhancing its resilience.

Secure areas that present high environmental value as areas for conservation and long-term management (ideally through a bio certification process).

Figure 5 illustrates key conservation documents and their relationships. The BCS will provide the direction and framework while the BCSSP will outline the actions to guide the implementation of conservation measures. Implementation of these documents and achieving biocertification creates opportunity to improve biodiversity values of the West Dapto Urban Release Area.

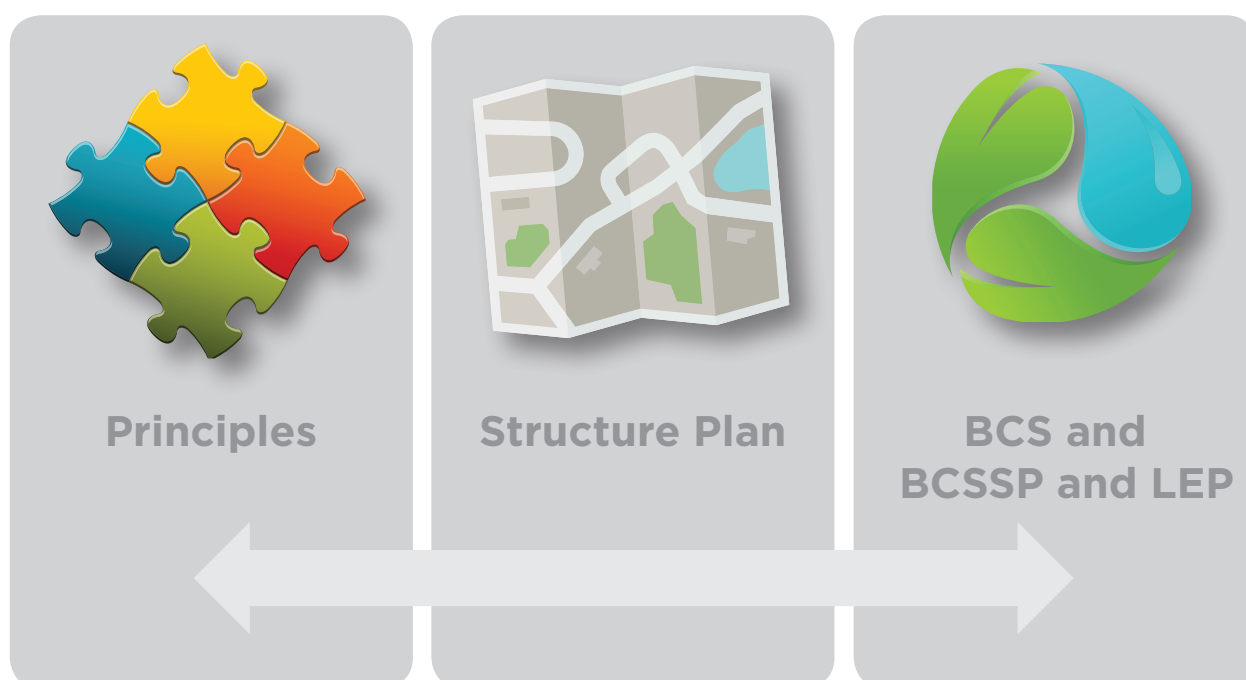
Further detail, including environment and heritage conservation objectives, the role of West Dapto Environmental Principles, bio certification process and conservation priority areas will be developed as part of the next steps in implementing the West Dapto Vision.

## HERITAGE CONSERVATION

Heritage values present great opportunities to enhance cultural understanding and social enrichment of the release area. The Australian Heritage Commission (2000) states the aim of both natural and cultural heritage conservation is to retain the significance of place (Australian Government, Department of Environment and Energy, 2017). Impacts on the heritage







significance of the area are key considerations at each planning stage. Land use changes should retain, promote and integrate heritage values. The principles for West Dapto aim to incorporate heritage conservation and promote consideration of the significance of place to encourage heritage protection.

### **PRINCIPLE 1** **Prioritise the Conservation of Heritage Items and sites of Aboriginal Heritage Significance**

Listed heritage items and sites of Aboriginal, cultural and/or archaeological significance should be retained and conserved within new development areas with appropriate curtilages and visual settings. Development planning should account for the significance of sites and places and consider retention of key sites that contribute to the historic setting of newly developing neighbourhoods.

### **PRINCIPLE 2** **Respect the Cultural Landscape**

The West Dapto Urban Release Area has a rich and diverse history of Aboriginal and non-Aboriginal occupation. The area retains a range of key landscape elements, landforms, natural features such as creeks and ridgelines,

important views and visual connections. It has historic road and transport corridors that are important and unique aspects of the area, contributing to its character and significance by telling the story of development. Proposed development should be guided by an understanding of, and respect for, significant features of the natural landform and the historic setting. New communities should be assisted to understand and appreciate the unique visual and physical connections between places and features within and outside of their development areas.

### **PRINCIPLE 3** **Embed Local History and Character in New Communities**

Developments should strive to feature historic sites and places of significance to provide a unique sense of identity and character for developing neighbourhoods. The adaptation and re-use of historic buildings in an appropriate manner that provides for their conservation and integration into new developments is encouraged. The use of historically relevant street names, integration of interpretation and the celebration of aspects of a site's indigenous and post-settlement history are encouraged to ensure that the rich history of the area is celebrated and recognisable in the identity of developing communities.

**Figure 5**  
*West Dapto's strategic environmental conservation documents*



# Open Space & Recreation Principles

This section establishes the open space principles for the West Dapto Urban Release Area. This section should be read in conjunction with Community Facilities and will contribute to delivering against the Urban Greening Strategy. An overarching framework with **four inter-related principles** is designed to achieve the open space objective for the West Dapto Urban Release Area. Open space need to be considered spaces that are designed responding to principles to ensure they provide for a resilient community.

## PRINCIPLE 1 Functionality

- Appropriate size and flexible footprint for multiple functions and uses (*Hierarchy of facilities*).
- Open space and recreation outcomes are not compromised by other competing functional elements. For example flooding and water management, traffic and road infrastructure, cultural heritage and biodiversity.

## PRINCIPLE 2 Accessibility

- Walkable distances from residential areas, universal design principles used for facilities with a focus on 'play' and diverse experience (*resident catchments*).
- There is a well-distributed network of accessible (in both location and design), attractive and useable public open spaces and natural areas within the existing and future neighbourhoods of West Dapto.

## PRINCIPLE 3 Connectivity, movement and flow

- Connected spaces with shared paths to other facilities, places of interest and centres (open or riparian corridors, heritage sites and urban bushland).

- The open space areas are highly connected to create a network of open space with a range of functions to complement the existing landscape features.

## PRINCIPLE 4 Value and amenity

- Future uses complement and add to existing values (an active play facility may jeopardise a threatened ecological community, water management may restrict active use etc.).
- That public open space and natural areas will provide opportunity for interaction filling a variety of recreational, sporting, play, the physical and social needs of the community.

## HIERARCHY AND CATCHMENTS

Based on the principles of functionality, accessibility, connectivity and community values, there are some guides to provision of open space based on size and characteristics of projected population and its recreational needs.

**Table 1** categorises relevant residential catchments for each level of open space provision (hierarchy) and how it generally relates to size requirements in the future urban and residential areas based on NSW Recreation and Open Space Planning Guidelines for Local Government (2010) (Table 1).

It is important to emphasise that any benchmark standards cannot be used as a 'one size fits all' assessment tool. Through analysis of local context and community needs, these standards can and should be varied if based on sound evidence.

**Figure 6** demonstrates the hierarchy to function and size relationship for the West Dapto Urban Release Area.

The relationship can also be understood in catchments for community populations. **Figure 7** shows proposed open space residential catchments of West Dapto (based on methods established in NSW Guidelines for Local Government, 2010). These catchments will be developed further for Stages 3 and 4 during implementation.

Catchment refers to the area of resident (or future resident) population the open space facility is intended to provide for. As part of the open space network for the West Dapto Urban Release Area, open space will need to be provided at all hierarchy and catchment levels. **Table 1** outlines standards

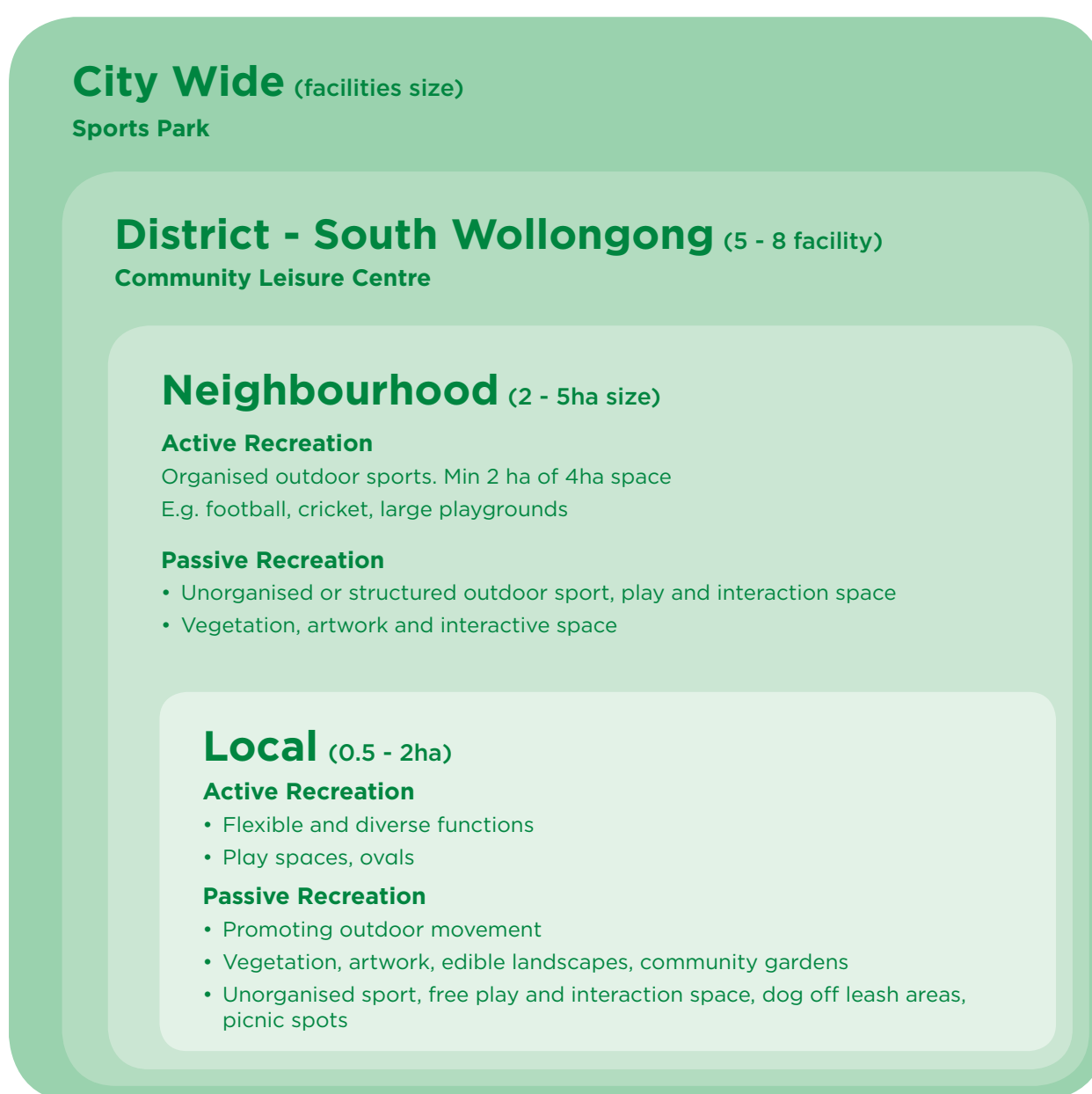




for open space planning around catchment distances in the future urban and residential areas to the open space.

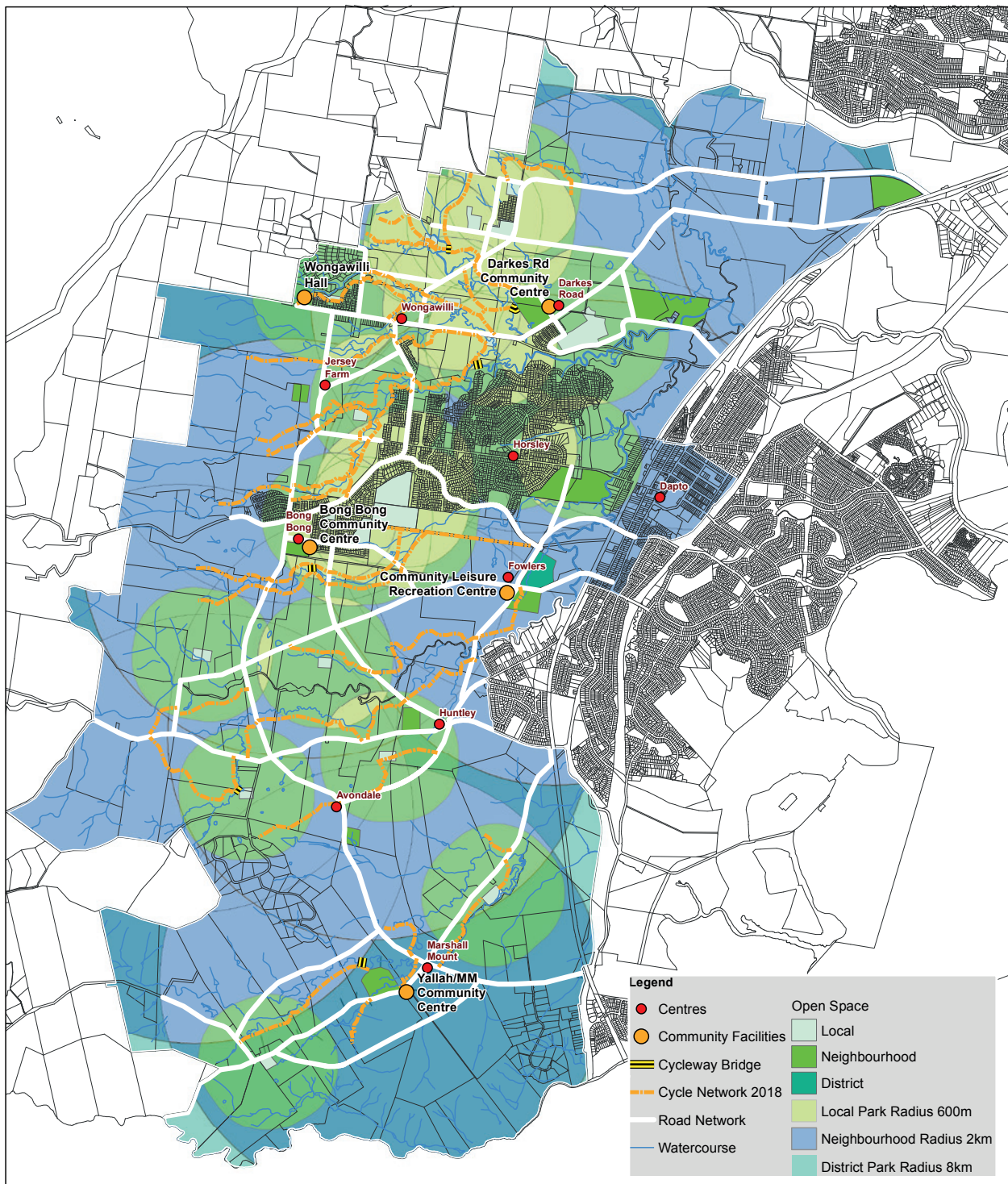
Function and service	Size	Residential Catchment (distance)
Local Passive	0.5-2 ha	400-600m
Local Active	1-2 ha	400-600m
Neighbourhood Passive	2-4 ha	2km
Neighbourhood Active	2-5 ha	2km
District Active	5-8 ha	Southern ward of LGA
City wide Active	8 + ha	Facility to serve the whole LGA

**Table 1** (above) Open space provision standards (based on NSW Recreation and Open Space Planning Guidelines for Local Government (2010) and the Elton Report (2007) recommendations).



**Figure 6** (above) Open space hierarchy and functions





**Figure 7**  
Example of Open  
Space distance  
catchments



# Community & Education Facilities Principles

**Goal 3 of the NSW Government's Illawarra-Shoalhaven Regional Plan promotes:**

***A region with communities that are strong, healthy and well-connected***

Ongoing planning for the West Dapto Urban Release Area aims to achieve this goal. The goal is reflected in our Vision and key principles for Transport (Roads, Public Transport), Open Space & Recreation and Community and educational facilities. This section should also be read in conjunction with Open Space and Recreation. Community facilities are an increasingly important component of local service provision across a range of areas in the public and private sector. For example, there is a clear trend in public health and alternative education to use local community facilities for regular and specialist community services rather than develop individual facilities. Council understands this increases the importance of flexible design, location and efficiencies to be achieved by these facilities for them to make the best contribution to community outcomes.

There are nine principles to be considered in the planning of the West Dapto Urban Release Area community and education facilities.



COMMUNITY  
FACILITIES



**Figure 8**

*Community Hub Concept of co-location and multipurpose, joint use design.*



## **PRINCIPLE 1** **Healthy, diverse and resilient**

Community facilities contribute to quality of life to support healthy, diverse and resilient community.

## **PRINCIPLE 2** **Efficient**

Making efficient use of resources through shared or co-located facilities and multiple use agreements (multi-purpose community hubs) with flexible design that can respond, expand and adapt as needs change.

## **PRINCIPLE 3** **Safety, security and adding to civic identity and sense of place**

Promote safety, security and provide focal points adding to civic identity and sense of place through clustering community facilities.

## **PRINCIPLE 4** **Self-sufficient and resilient community**

Community facilities provide opportunity for self-sufficiency to build capacity and social capital and to actively contribute to community resilience.

## **PRINCIPLE 5** **Vibrant and accessible**

Placing facilities in convenient central locations, adjacent to open space which contribute to the vibrancy of the development, are accessible and allow for overflow activities such as children's play.

## **PRINCIPLE 6** **Equitable**

Provide equitable access for all sections of the population, through the distribution, design and policies of facilities.

## **PRINCIPLE 7** **Diversity**

Community facilities promote diversity and encourage people from culturally and linguistically diverse backgrounds to participate in the social and economic life of the community.

## **PRINCIPLE 8** **Viable and sustainable**

Developing sustainable funding, ownership, governance, management and maintenance arrangements, including private partnership arrangements where community benefit is achieved.

## **PRINCIPLE 9** **Coordination**

Council to work with the state government and non-government schools sector to promote best-practice education outcomes for the community of West Dapto. This will include sharing data and integrating asset solutions, such as opportunity for shared and joint-use facilities.

Planning for the provision of education is important for West Dapto's growing community. In NSW, the Department of Education provides funds and regulates education services for NSW students from early childhood to secondary school. Council will continue to work with the Department to promote best-practice education outcomes for the community of West Dapto.

*Lord Mayor  
Gordon Bradbery AM  
opens the Berkeley  
Community Facility.*





# Town Centres Principles

This section provides town centre principles to be considered during planning for the West Dapto Urban Release Area. As a new release area, there is an opportunity to ensure that the ideal treatments are made to establish sustainable, appealing and functional residential living as well as commercial and light industrial areas providing employment, social and cultural opportunities with sufficient flexibility to cater for the future populations needs. As with other previous principles the town centre principles should not be considered in isolation.

The key objective of the town centre principles is to help identify centre locations, function and existence. The town centres of West Dapto will fill diverse roles, functions and mixed uses. Configurations will reflect the town centre hierarchy with a focus on pedestrian priority. Supported with a decision process (zoning, neighbourhood planning, etc.), appropriate locations will promote the social and economic functions and outcomes sympathetic to character and 'place'.

There are three principles to be considered in planning of town centres to meet the objectives for West Dapto Urban Release Area:

## PRINCIPLE 1 Hierarchy

Hierarchy provides a basis for which to establish functions, order and visions as well as allowing the protection of these. Hierarchy is not the only way to understand or set direction in planning for centres; we understand that the centres are also a connected network, which can support each other in an interlocking way.

Each level of the hierarchy represents the size and general characteristics that reflect the centres' commercial, retail and business roles (see Figure 9). The Hierarchy reinforces role and function, supports the Wollongong City Centre and higher order centres and provides certainty for investment decisions. Hierarchy reinforces character and identity as well as provides direction around appropriate residential density sympathetic to community facilities and service locations.

## Regional Centres

Dapto is a regional centre. The new release, located close to this centre is in addition to an existing urban landscape, an important consideration in the planning of new town and village centres. These lower order centres must be sensitive to this hierarchy to maintain existing functions and minimise any potential negative impacts.

## Town Centres

There are three town centres planned for the urban release area.

The objective of the town centres is to ensure that development in the Darkes Road and Bong Bong (and Marshall Mount) town centres contributes to the creation of retail, business, commercial and community hubs while providing significant local employment opportunities.

## Village Centres

The study, West Dapto further review of release area centres and controls (Urbacity, 2014), noted the role of villages, as a lower order centre, is to "provide a convenient alternative to the supermarket-based town centres for daily goods and services with a focus on amenity for housing density and improved public transport use".

## PRINCIPLE 2 Movement sensitive

The town centres of West Dapto are expected to facilitate social contact, employment and living needs in a sustainable manner. The town centres will be located to promote active transport and healthy lifestyle. Living within 400m-800m of a mix of destinations is consistently associated with higher levels of active transport in adults and older adults (Heart Foundation, 2017).

Movement sensitive means movement (accessibility, location etc.) will be a key consideration for co-location of a mix of destinations (or land uses) within a centre. Centres will provide activities, attractions and services within walking distance. The community hub will create a focal point within the neighbourhood for multiple activities to be undertaken and different daily needs (ie. live, work, play) to be met in the one location.

Centres must also be supported and surrounded by a network of connected streets, paths and cycle ways, providing opportunities for active transport and convenient access to public transport. The network will link centres with open space and recreation areas.



TOWN CENTRES



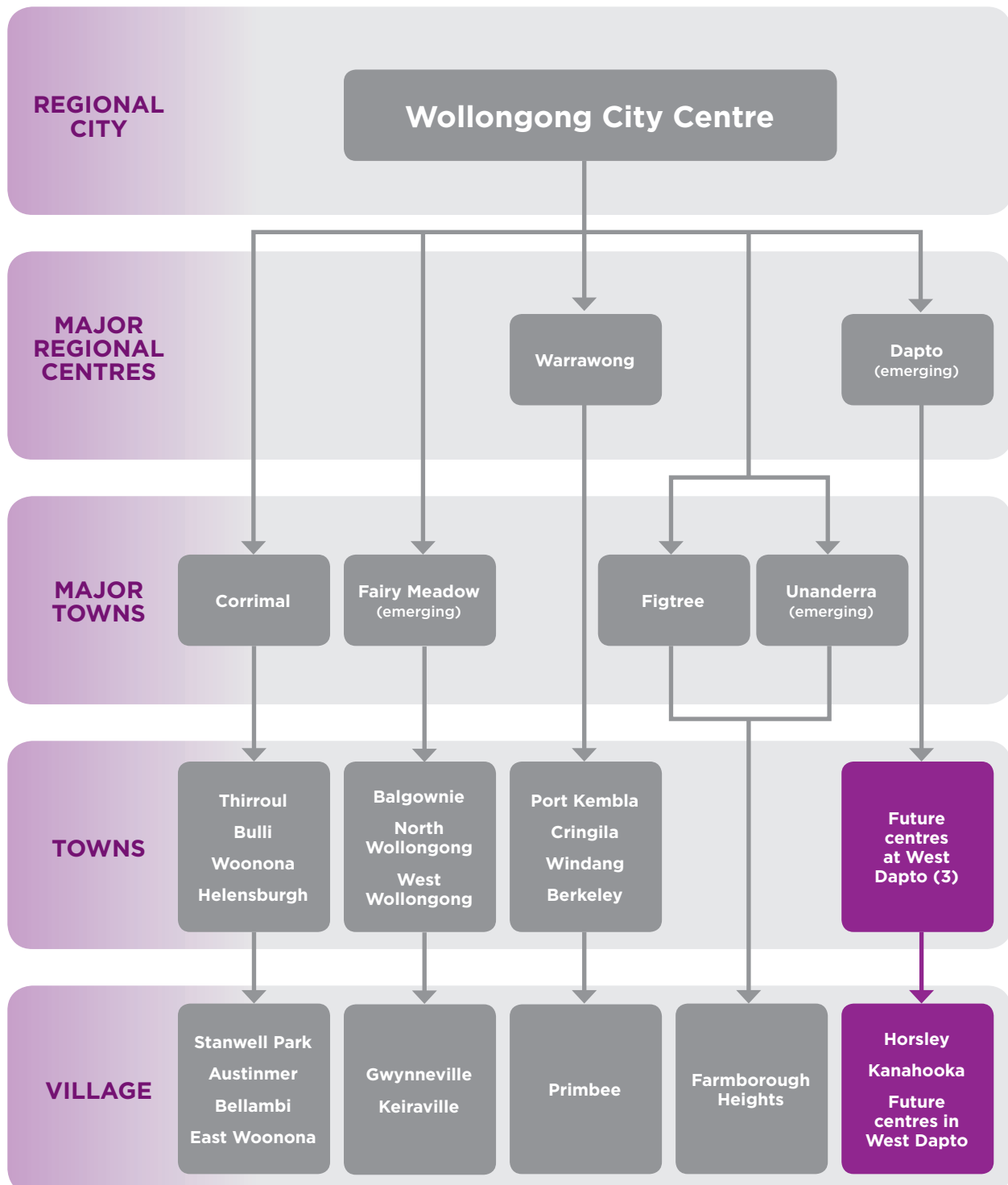
### PRINCIPLE 3 Diversity and identity

Centres will facilitate a diverse range of activities by prioritising spaces for people of all ages that become vital to the social fabric of a neighbourhood where people gather, meet friends and family and engage in social activities.

Especially important for new centres is creating a vision that encourages diversity while shaping and reflecting a centre's character. Centres will be

diverse from each other (through hierarchy, features and visions). The vision capitalises on existing features of heritage, environment (vegetation, topography etc.) and contributes to a new theme expressing the centre's role in the urban residential landscape. A vision and purpose give people the creative foundations, understanding that activity, physical setting and meaning come together to create a 'sense of place'.

**Figure 9**  
*Retail and Business  
Centre Hierarchy  
in the Wollongong  
Local Government  
Area.*





# Housing Principles

This section establishes the Housing Principles for the West Dapto Urban Release Area, providing for ongoing strategic planning decisions. As a new release area, there is an opportunity to establish sustainable, appealing and functional residential living. The principles should also be used to guide site-by-site considerations.

The Housing Principles should be read in conjunction with Council's LGA-wide Housing Policy setting, which is updated from time to time to ensure we are addressing the challenges of a changing housing environment.

These principles should be considered in conjunction with all other planning principles in this document, as they all contribute to achieving the vision for the West Dapto Urban Release Area and ultimately sustainable housing outcomes.

*"The communities will be healthy, sustainable and resilient and will have access to diverse housing choice and active or passive open space accessible by walkways, cycle ways and public transport."*

## **PRINCIPLE 1** Encourage housing diversity

Diversity can be delivered through different products at different stages of planning by promoting and providing a range of density and lot size and shapes to offer a range of choice to better meet changing community needs.

Mixture of density low to high, single dwellings, dual occupancy, town houses and apartments in appropriate locations should all be considered at neighbourhood planning and subdivision design stages.

Promote increased densities and innovative design types close to town and village centres and transport infrastructure where possible.

## **PRINCIPLE 2** Promote housing affordability

Residential neighbourhoods cater for a variety of demographic and socio-economic characteristics. Promoting housing mixture is one tool that provides opportunity for more affordable housing options and reduces housing stress.

## **PRINCIPLE 3** Establish sustainable, energy efficient, appealing and functional residential living

Target an increased use and uptake of renewable energy through housing and neighbourhood design.

Seek to promote best practice design excellence in housing provision and neighbourhood planning.

## **PRINCIPLE 4** Creating local amenity and a sense of place

This principle is about designing safe, healthy and active neighbourhoods with interactive interfaces between residences, the streets and surrounds. It is about ensuring there is connection between housing and the streets, parks and activity areas they adjoin and interface other uses.

Encouraging and supporting housing design that responds to place. Creating site responsive built form and lot layouts that consider existing features and landscape context, natural land form and surrounding land uses.

Manage housing growth to protect and promote the conservation values that contribute to concepts of 'place' in West Dapto.

## **PRINCIPLE 5** Housing transition to the Illawarra Escarpment

Reduce housing density on the fringe of the urban release area to provide delineation to the housed urban areas and a buffer to the Escarpment and important environmental features.





The Housing principles are intended to link the overall vision to Council's desired outcome for the West Dapto Urban Release Area, with the use of tools including standards set by Wollongong Local Environmental Plan, 2009 and controls established within Wollongong Development Control Plan, 2009 which may be reviewed to support the implementation of the West Dapto Vision and principles. These documents will be developed as part of the next steps in implementing the West Dapto Vision document. The next steps process is shown in **Figure 4** and described under the section - Next Steps and Implementing the Vision.

***“Opportunity to establish sustainable, appealing and functional residential living.”***

*Housing development in Horsley.*





# Employment Principles

This section establishes employment principles for the West Dapto Urban Release Area to inform strategic decisions in the release area ensuring employment outcomes are achieved.

The employment principles should be read in conjunction with all other planning principles in this Vision document as the principles applied together will ensure sustainable employment outcomes for the release area.

## **PRINCIPLE 1**

### **Support local sustainable employment**

- Facilitate maximum local employment opportunities.
- Maintain an aspirational target for job creation.
- Support a variety of employment opportunities accessible to the whole community.
- Employment containment to reduce commuting out of the release area and region.

- Encourage high density employment opportunities.
- Local access to higher order (career generating) employment opportunities.

## **PRINCIPLE 2**

### **Attract, facilitate and support industries, enterprises and business to locate in West Dapto**

- Explore planning flexibility to cater for changing employment forms.
- Incentivise employment generating activities.

## **PRINCIPLE 3**

### **Ensure Town & Village centre employment outcomes are prioritised**

- Landuse decisions associated with West Dapto's Town and Village centres are to ensure employment outcomes are a priority consideration.
- Encourage provision of professional services jobs in addition to retail jobs in the release area town and village centres.



EMPLOYMENT



#### **PRINCIPLE 4**

### **Protect existing employment land**

- Maintain existing zoned employment land within the release area to ensure a supply of employment lands is provided over time and is available to take advantage of when employment generating opportunities are presented.
- Create a strategy to enable appropriate interim uses of employment areas that also allows for gradual intensification over time.

#### **PRINCIPLE 5**

### **Take advantage of and encourage employment innovations**

- Planning decisions to anticipate, be responsive to and cater for innovative employment solutions.

#### **PRINCIPLE 6**

### **Improve employment opportunities whilst ensuring development is of a high standard**

- Compatibility with residential and sensitive land-use as well as natural conservation outcomes for the urban release area.
- Apply merit based approach when assessing employment generating activities.
- Encourage development for employment which provides a range of goods and services without adversely affecting the amenity, health or safety of any adjoining area.

#### **PRINCIPLE 7**

### **Ensure a high level of accessibility to employment Hubs**

- To encourage location of high intensity employment areas within walking distance of existing or proposed public transport services.
- To encourage location of appropriate industrial and low intensity non-retail employment areas adjoining major arterial roads to take advantage of accessibility and exposure.





# Structure Plan 2018

A Structure Plan guides the future strategic direction of an urban release area. All subsequent spatial planning decisions can flow from the strategic guide. As a guiding tool, the plan is high level and relies on subsequent planning decisions and statutory tools under the NSW Environmental Planning and Assessment Act, 1979 to add more detail. These tools include but are not limited to the Wollongong Local Environmental Plan, Wollongong Development Control Plan, neighbourhood planning and ultimately development applications. Implementing a Structure Plan goes beyond planning tools. Infrastructure planning, design, funding and delivery are an essential component. Council engaged with all relevant stakeholders during exhibition and when developing the structure to ensure the strategic vision is understood and has an opportunity to come to life.

It has been 10 years since the initial Structure Plan for the West Dapto Urban Release Area was prepared. It is timely to review the Structure Plan and test previous assumptions that informed the plan. It is important to

note that the fundamental structure and outcome remains the same. West Dapto is still proposed as the region's largest strategic urban release area.

The initial five stages of urban release are still reflected in the revised structure. The general urban footprint remains the same with some refinement based on revised and improved data and understanding of the area's opportunities and constraints.

## Structure Plan Layers

The Structure Plan is comprised of a number of layers, as described below.

### Flooding (1% AEP)

This layer represents the extent of flooding up to and including the 1% Annual Exceedance Probability (or 1% AEP). The purpose of this layer is to identify it as a physical constraint for development and also ensure the management of flood risk by restricting future development within this zone at the implementation stage. The layer combines the 1% AEP flood information from the catchments of Mullet Creek, Duck Creek and Marshall Mount Creek. The current layer includes flood information extracted from the corresponding flood studies of each catchment; namely the Mullet Creek Flood Model Update Report (2018), Duck Creek Flood Study (2012) and the Macquarie Rivulet Flood Study (2017).

*Spectacular Illawarra Escarpment and a landscape of riparian valleys.*





The information used from the Duck Creek and Macquarie Rivulet flood studies includes shallow inundation depths, whereas the information from the Mullet Creek report has been filtered to exclude shallow inundation depths of less than 150mm and areas where the velocity depth product is less than 0.05.

The existing flood layer for the Mullet Creek catchment on the 2008 Structure Plan was derived primarily from the draft Mullet and Brooks Creeks Floodplain Risk Management Study and Plan, 2006. The flood layers for the Duck and Marshall Mount Creek catchments were based on preliminary information and modelling commissioned by Council at the time.

## Riparian Corridor

This layer represents the riparian corridors across the urban release area, derived from the Riparian Corridor Management Study (RCMS) which was prepared for Council by the Department of Infrastructure Planning and Natural Resources (DIPNR) in 2004. Note some of the riparian corridors depicted in the 2004 document have been modified over time due to changes in topography through land use activities. These areas have not been updated on the Structure Plan. Similarly, areas of inundation in some locations do not overlay with riparian corridors due to reasoning provided above.

The purpose of this layer is to identify the corridors as a physical constraint for development and also ensure the protection and enhancement of designated riparian corridors by restricting future development within these zones at the implementation stage.

This current layer identifies watercourses across the urban release area and is closely associated with the conservation layer which defines the appropriate buffers according to the designated riparian corridors shown in the RCMS (2004).

The existing 2008 Structure Plan did not delineate watercourses but rather associated watercourses with flooding.

## Land-Use Structure

### • Conservation Areas

Riparian corridors (mapped as blue lines) identify watercourses across the urban release area. This information is closely associated with components of the conservation layer.

The conservation layer includes areas that provide appropriate buffers to riparian corridors to maintain the corridors' function and structure for the health of the broader environmental setting. The designated riparian corridors are dynamic and geomorphologically active. This information was garnered through more analysis than a standardised buffer distance.

Other important information included in the conservation layer relates to the Illawarra Escarpment area of regional importance, ecological studies identifying areas of vegetation with high ecological value and, in particular, the work done towards biocertification of the urban release area in 2013 (Ecological, 2013).

The conservation areas in Stages 1 and 2 of the urban release area are consistent with planning decisions to date. Stages 3-4 are guided by information as outlined above and Stage 5

*As a guiding tool, the plan is high level and relies on subsequent planning decisions.*



*Integrating natural and cultural heritage of the area.*

**Infrastructure  
planning,  
design, funding  
and delivery  
are an essential  
component.**

(Yallah/Marshall Mount) conservation areas are guided by previous planning decisions informed by the Duck Creek Flood Study 2012 (for riparian corridor context) and existing biodiversity information.

- **Transition Areas**

The transition areas shown on the Structure Plan have been identified generally as a reflection of Housing Principle 5 Housing Transition to the Illawarra Escarpment. Council is promoting the need to reduce housing density on the fringe of the urban release area to provide delineation to the housed urban areas and a buffer to the Escarpment and other important environmental features.

- **Development Areas**

The development areas shown on the Structure Plan are those compatible with an urban land use outcome. These include residential and employment lands. The areas are not affected by the key constraints of the urban release area as identified on the draft Structure. However, development within these areas will be subject to the detailed implementation processes summarised at **Figure 4**.

## Road Network

The road network (shown as Road Network Review on the Structure Plan) represents the framework of main collector roads required to service the transport needs of the urban release area. It is worth noting that these roads will not only cater for motorised vehicles but also for active transport (walking and cycling) through provision

of verge footpaths and shared paths. These are higher order roads that are important for traffic function and/or public transport.

The proposed road network provides connectivity to, from and between residential areas and town and village centres. It uses a number of existing roads, as well as new roads and bridges. It is planned to provide efficient and direct access to all development areas, working within the constraints of the urban release area.

Bong Bong Road/Iredell Road and Princes Highway (mapped as black lines) and the M1 Princes Motorway (mapped as a yellow/black line) have been included on the Structure Plan for context, as they are important existing main roads that contribute to access for West Dapto.

The Structure Plan shows indicative road alignments only, which may be modified in some cases as more relevant information becomes available and detailed design work is completed. The Structure Plan is a strategic plan and therefore does not provide detail on the types of roads (eg widths, number of lanes), bridges or intersections.

The proposed road network has been informed by a number of previous transport and land use studies, a Wollongong City Council/State Government Agency Working Group and more recently Council in-house design and modelling work.

## Heritage

The 2018 Structure Plan update shows two heritage layers of information. The LEP 2009 Heritage layer includes items as identified in Schedule 5 and on the Heritage Map of Wollongong Local

*Integrating natural  
and cultural heritage  
of the area.*





Environmental Plan 2009.

The 2018 Structure Plan also shows heritage sites in the urban release area as Other Heritage Curtilages. These sites were identified during a 2006 study to inform the original LES for the urban release area (Non-indigenous Heritage Study, West Dapto – Volume 1, HLA-Envirosciences Pty Ltd 2006). In addition to those sites identified during the study, there is also an identified site protected on the Heritage Map referenced in Part 28 Calderwood Site, Schedule 3, of State Environmental Planning Policy (State Significant Precincts) 2005.

## Town Centres

The 2018 Structure Plan update identifies eight centres of activity to meet the needs of the West Dapto Urban Release Area.

The eight centres are shown on the Structure Plan at **Figure 10**.

The centre locations are indicative only. Location of these centres has been informed by the Town Centres Principles of Hierarchy, Movement Sensitive, Diversity and Identity outlined in Section 6 of this report. Dapto's role as the key regional centre will be maintained and promoted into the future.

Council has developed the strategic direction for these centres based on 2014 Urbacity report (capacity in context of Dapto Regional Centre, Calderwood & Tallawarra) and 2016 SGS Dapto Town Centre Study.

The indicative locations include three town centres referred to as Darkes, Bong Bong and Marshall Mount, which are proposed to service the communities of the north, central and southern residents and visitors to the urban release area. It is important to note that the Town Centres of Darkes and Bong Bong are zoned B2 Local Centre and were zoned for a Town Centre outcome as part of the larger Stage 1 and 2 urban development zoning in 2010. Council resolved to support rezoning of the Marshall Mount town centre to B2 Local Centre. The site was subsequently rezoned by the State on 8 June 2018.

Five village centres are proposed to meet the daily needs of residents. The village centres are proposed at Wongawilli, Jersey Farm, Fowlers, Huntley and Avondale.

Specific detailed planning of each centre will be subject to the implementation steps shown at **Figure 4**.

## Open Space

The indicative location for open space on the Structure Plan relate to the larger (2ha and greater) open space facilities. As outlined in the principles, these are neighbourhood scale and larger. They have been included on the Structure Plan as important provisions for the future communities of the urban release area. The need for these areas was originally established through the Elton Report 2007 and subsequently through Section 94 Planning. The location

***Eight centres of activity to meet the needs of the West Dapto Urban Release Area.***



*Consider existing features and landscape context.*



on the Structure Plan was guided by the principles and although they are indicative, re-emphasise their role as part of the vision and as key structural elements of the urban release area.

## Key changes and other information

**The Structure Plan 2018 includes a number of key changes relating to relevant layers and also inclusion of new layers when compared to the 2008 Structure Plan. These changes are outlined below.**

### Flooding (1% AEP)

The flood extents for Mullet Creek catchment have been updated since the original flood layer shown in the 2008 Structure Plan. The primary reason to update the flood layer is to better inform Council on current and future planned development areas using flood mapping based on improvements in flood modelling techniques and better data.

The main differences between the 2008 and 2018 flood layers are the increased flood extents westwards and also greater definition of flood extents throughout the catchment via the capture of smaller watercourses and low points. Other differences noted between the flood layers are as a result of ongoing development and construction of major infrastructure (ie. bridges) since 2010 and filtering of the 2018 flood extents.

## Riparian Corridor

The 2018 riparian layer has been included to highlight the watercourses shown in the RCMS (2004), which was not evident in the 2008 Structure Plan.

There are minor differences between the 2008 and 2018 layers with respect to the riparian buffers, being associated with the conservation layer. Further explanation is provided in the section relating to the Land-Use Structure Layer.

## Conservation

The 2008 Structure Plan showed conservation areas and some small pockets of rural landscape. The conservation areas on the 2008 Structure Plan supported the strategic basis of protection for the escarpment lands, riparian corridors and pockets of important biodiversity. There was also some rural landscape land identified around conservation areas. This approach has not changed for the Structure Plan 2018 with key areas of high environmental value and connections along riparian corridors from the Escarpment shown. A key change has been the rural landscape areas are no longer represented with the conservation areas. There is also a reduction of conservation land between Stages 4 and 5 as Stage 5 (Yallah/ Marshall Mount) has been rezoned for development. There has been a reduction in conservation areas identified as more detailed investigation was undertaken during the Stage 5 planning proposal assessment.



*Integrate water management into the natural and urban land form.*

## Town Centres

Council's updated strategic direction for centres at West Dapto represents a consolidated approach. Eight centres are now proposed to service the Urban Release Area. This compares with 14 centres proposed in the 2008 Structure Plan (shown in Figure 2).

The consolidated centres approach is considered reasonable and needed to ensure each centre can sustain a commercial outcome long term. The higher volume was considered unsustainable and the ability of all 14 centres to stay commercially viable in the longer term was questionable. Council has developed the consolidated centres approach following recent studies, including the 2014 Urbacity report (capacity in context of Dapto Regional Centre, Calderwood & Tallawarra) and 2016 SGS Dapto Town Centre Study.

## Road Network

There are a number of changes to the proposed road network for West Dapto compared with the previous 2008 Structure Plan. These differences are a result of changes that have occurred in policy as well as improved information and knowledge about the urban release area. Areas of improved knowledge and refinement that have influenced the road network include flood modelling and mapping, road design and strategic traffic modelling and analysis. In addition, road network modifications have occurred as a result of consideration of opportunities and constraints associated with new Neighbourhood Plans and Development Applications, as well as the consolidation of Town and Village Centres.

The key changes are:

- ***Northcliffe Drive now extends along existing Reddalls Road and west to connect with West Dapto Road just east of Shone Avenue***

Detailed investigations have established that the proposed road location is the most efficient and direct main road route with added flood reliability to service the urban release area. The route was informed through improved data and knowledge, including road civil design analysis and costing as well as flood and traffic modelling. Council has identified a significant cost saving for this route compared with the existing policy position of upgrading West Dapto Road, reducing the burden on ratepayers.

The Principles developed for the urban release area also helped guide decision making around this issue.

- ***The North-South Link Road (between Darkes Road and Bong Bong Road) has been removed***

This section of new road was formerly proposed to provide a convenient traffic and public transport link between the northern part of the urban release area and Dapto Town Centre/Railway Station Interchange as well as southern parts of the urban release area. Due to the low topography, this road was not proposed to be flood reliable. Detailed road design and flood analysis has resulted in its removal from the Structure Plan for safety reasons. It is now proposed that the existing Darkes Road/Princes Highway provide this necessary linkage for the northern part of the urban release area. The North-South Link Road also provided convenient active transport (walking and cycling) connectivity for the northern part of the urban release area to Dapto. However, the new Structure Plan would seek to retain an off-road path connection in this location to maintain this positive active transport outcome.

- ***Fowlers Road extension (Princes Highway to Fairwater Drive) is now included***

A significant amount of work was completed following the Growth Centres Commission review of West Dapto Urban Release Area in 2008, resulting in Council resolving in 2013 to re-introduce Fowlers Road extension as a flood-reliable main road link for West Dapto, which was supported by a State Government Agency Working Group. Since that time, Council has progressed with detailed design work for the new road, with construction commencing in July 2017.

- ***Hayes Lane/Jersey Farm Road link has been realigned to the north-east to join Shone Avenue***

The 2008 West Dapto Structure Plan (Figure 2) shows Hayes Lane extending north to meet Wongawilli Rd at Smiths Lane. Following further investigation of this arrangement, it was found to have a number of practical difficulties in design and existing community impacts. The alternative of upgrading Jersey Farm Road was also investigated, with design analysis showing substantial issues

***Areas of improved knowledge and refinement that have influenced the road network include flood modelling and mapping, road design and strategic traffic modelling and analysis.***



with flooding, cost and the dual-line railway level crossing.

The Structure Plan realigns the northern end of Hayes Lane to meet with Shone Avenue, avoiding flood-prone land and providing a more direct route to Darkes Town Centre and the northern part of the urban release area.

- ***The proposed new road between Cleveland Road and Brooks Reach is now realigned to join Brooks Reach Road***

The 2008 West Dapto Structure Plan (GCC, 2008) shows this road connecting to the southern side of Bong Bong Town Centre. An analysis of future north-south traffic demands in the vicinity of the town centre has shown that an additional north-south connection to Bong Bong Road would be beneficial for the town centre function as well as local accessibility.

It should be noted that the main north-south road (west of the town centre) has been realigned slightly eastward compared to that shown in the 2008 Structure Plan, with a

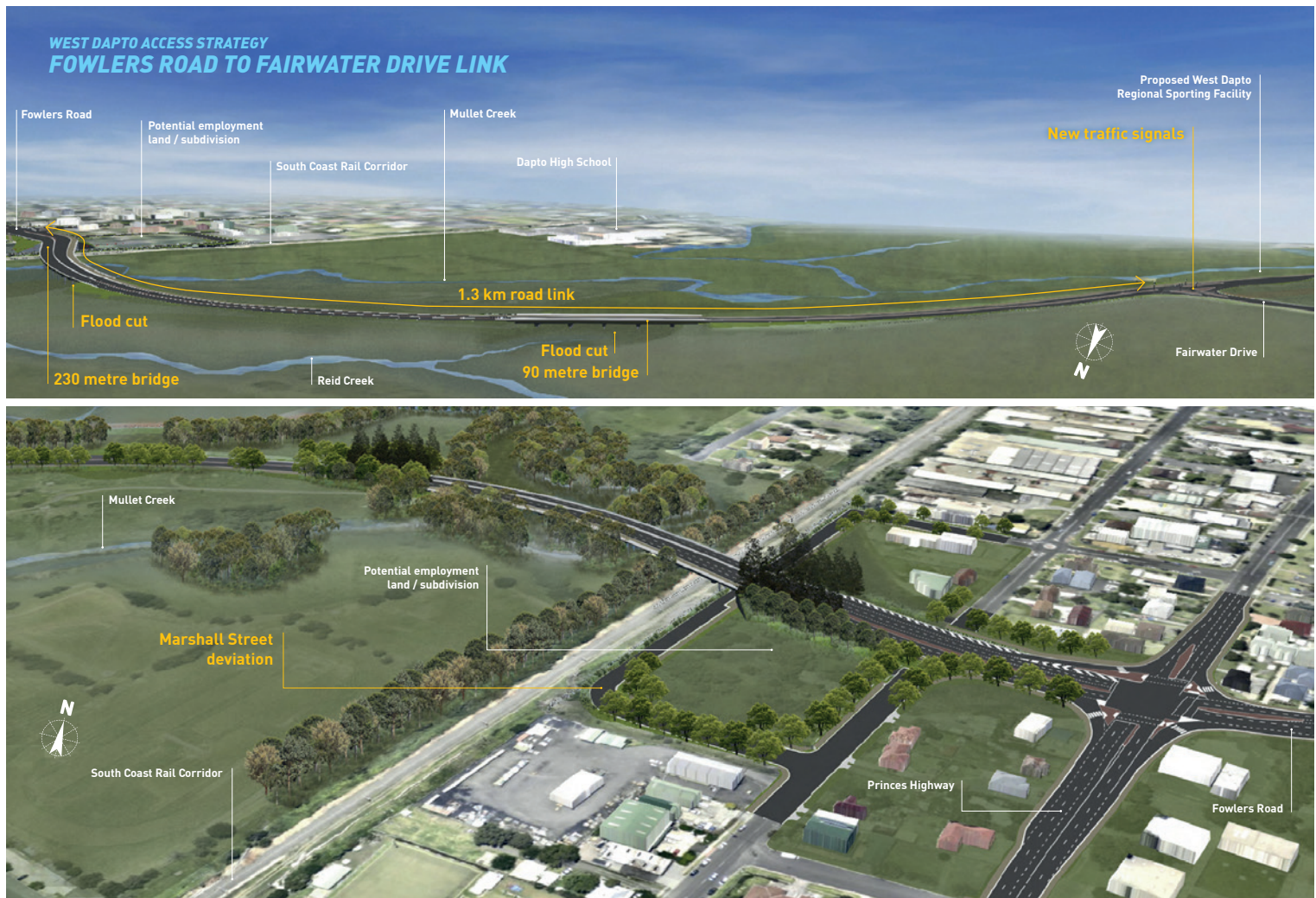
continuation of the Hayes Lane alignment south of Bong Bong Road.

- ***A connecting road between Yallah Road and Avondale Road is proposed***

Detailed traffic modelling work has shown that under the current Structure Plan, Marshall Mount Road and the intersections of Marshall Mount Road/Huntley Road/Princes Highway would be heavily congested, due to the combination of development in both Marshall Mount and the adjacent Calderwood Valley land release. This heavy traffic would result in detrimental impacts for the proposed Marshall Mount Town Centre and would require complex and expensive infrastructure at Marshall Mount Road/Huntley Road/Princes Highway, which is bisected by the South Coast railway line.

A new link road between Yallah Road and Avondale Road was subsequently investigated and modelled, with results showing benefits for Marshall Mount Road and its northern intersection with Huntley Road. In the wider urban release area context,

*Fowlers Road extension  
(Princes Highway to Fairwater Drive)*





it provides a logical and direct link between Stage 5 (Yallah/Marshall Mount) and the remainder of the release area, completing a natural western 'ring road' through the West Dapto Urban Release Area and improving transport accessibility between town and village centres.

- ***Two new parallel roads to the north and south of Marshall Mt Road are proposed***

Both of these parallel roads were included to reduce the impact of through traffic in Marshall Mount Town Centre, largely generated by development in Calderwood Valley. The southern road essentially provides a 'bypass' of the town centre for traffic accessing the M1 Motorway via Yallah Road, while the northern parallel road caters for traffic accessing more northern parts of the West Dapto Urban Release Area. Both roads are required to provide access to/from adjoining residential development precincts.

## Heritage

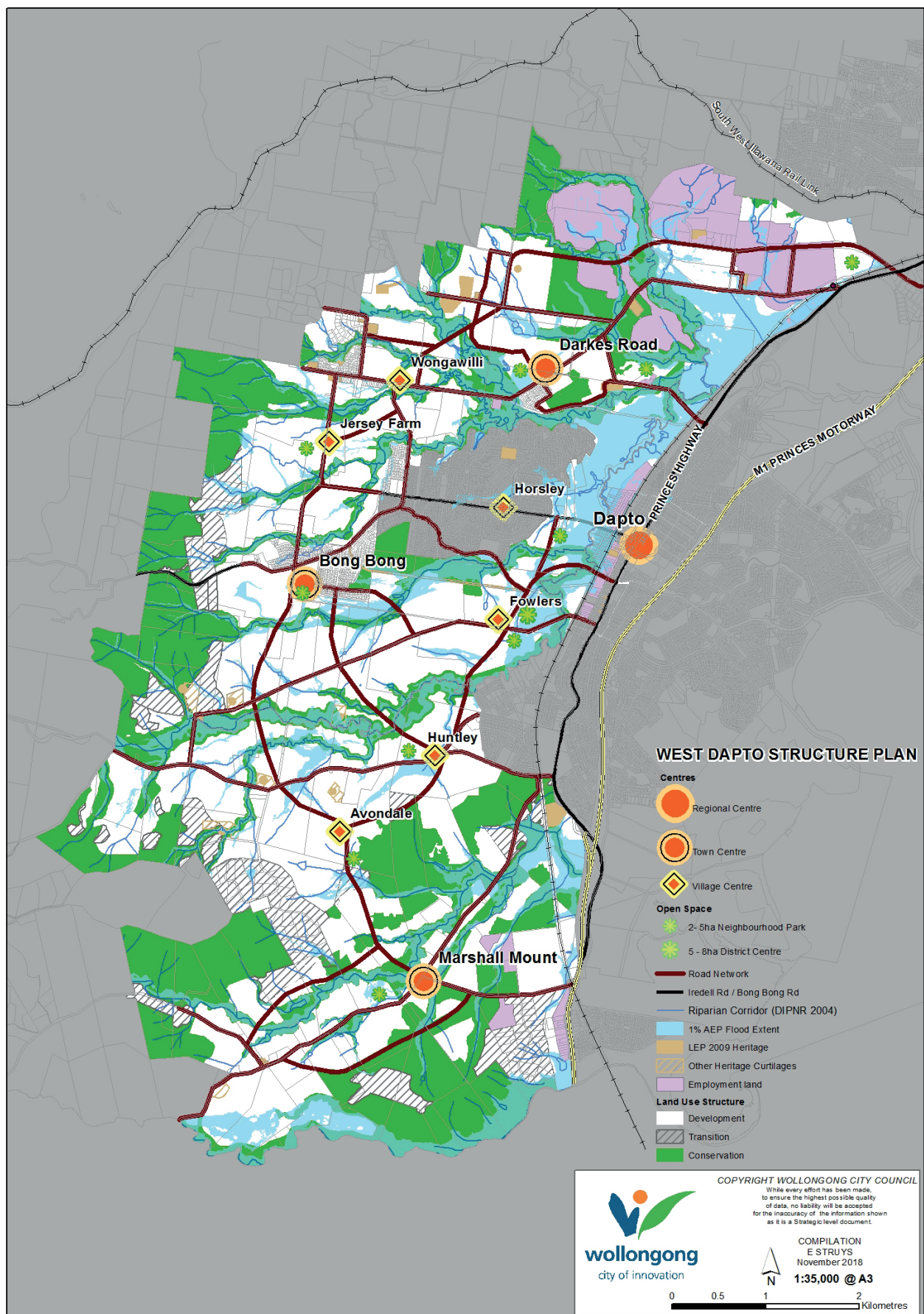
Heritage was not included as a structural element of the urban release area in the 2008 Structure Plan. There have been a number of changes to how heritage is considered since 2008 (particularly through NSW legislation) and it was decided that this constraint should be expressed as a structural element of the urban release areas landscape. It is also important to recognise that although some heritage values are known and place related that can be acknowledged in a land use structure, not all heritage will be linked to the spatial expression of place. Other, more complex heritage values need to be captured as the area continues to be planned.

## NSW Government Correctional Facility investigation

During 2018 Correctional Services NSW investigated land at West Dapto Road, Kembla Grange as a potential location for a correctional centre. Wollongong Council and a large portion of the community opposed the proposal. On 14 September 2018 the NSW Minister for Corrections announced that Kembla Grange has been ruled out as a potential location for a new correctional centre following detailed site investigations and consultation with the community.

## Road/Rail Crossings

Access to and from the West Dapto Urban Release area is constrained by the South Coast Railway Line that borders the east side of the release area. The West Dapto area is currently serviced by four level crossings and two bridges across the South Coast Line, as well as two level crossings over the private Wongawilli Coal rail spur line. Council has developed a railway crossings strategy for the Dapto/West Dapto area in consultation with Sydney Trains and Roads and Maritime Services, which essentially aligns with State Government Policy of reducing risk through removing level crossings where possible. Where this is not possible (for example due to physical and/or cost constraints), then other measures will be considered to maximise safety. Whilst the future strategy for treatment of crossings on the South Coast Line is subject to further design, funding availability and government agency approvals, it would ultimately result in a significant reduction in the proportion of road vehicle movements across level crossings when compared to the current situation.



**Figure 10**  
Revised West  
Dapto Structure  
Plan 2018.

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# Implementing the Vision

The planning and development of an urbanised future for West Dapto has a long history.

This Vision document has evolved out of many studies and reviews conducted to date. This section outlines numerous documents under the principal topics they were prepared for to provide broader context to the principles.

Some Council policies will need to be modified and updated to implement this Vision document. These include but may not be limited to:

- West Dapto Master Plan and Staging
- West Dapto Section 94 Development Contributions Plan 2017
- Wollongong Local Environmental Plan, 2009 and Wollongong Development Control Plan, 2009 and any supporting information needed for these policies
- West Dapto Biodiversity Conservation Strategy and Plan
- Updates to the Planning Agreement Policy

Other new documents that will be formed from the West Dapto Vision document include:

- Release and Development Strategy, including:
  - Infrastructure Delivery Plan (including programming)
  - Internal process policies
  - Planning proposals policy
  - Neighbourhood Planning process and standards

Following exhibition, submissions were considered and some changes were made before finalising the Vision document.

Changes to the Vision Document included:

- addition of Employment principles
- minor changes to Water principles
- minor changes to Transport principles
- minor changes to Open Spaces principles
- other minor changes to wording
- some edits to the Structure Plan 2018 including:
  - South West Illawarra Rail Link

- Road network
- Employment land
- edits to legend and labels

This Vision document is Council policy and is required to be considered by all planning decisions in relation to the growing West Dapto Release Area. This will include future proposed rezoning or amendments to Wollongong Local Environmental Plan, 2009 and Wollongong Development Control Plan, 2009 as they relate to the West Dapto Urban Release Area, ongoing revision of the West Dapto Section 94 Development Contributions Plan, neighbourhood planning, development applications and infrastructure planning and delivery. The next steps process is shown in **Figure 4**.

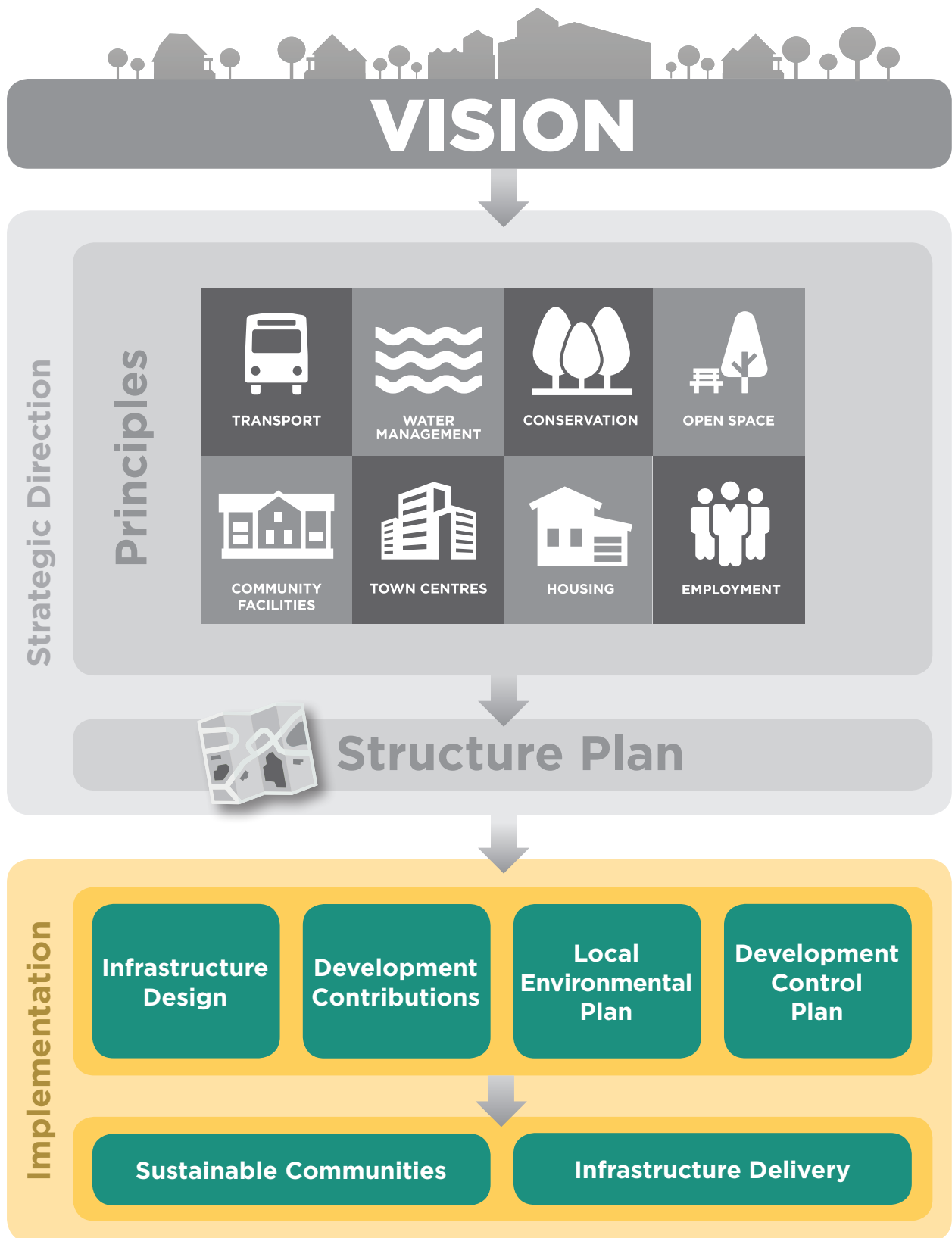
The Lake Illawarra Coastal Management Program is currently being developed by Wollongong and Shellharbour City Councils with support from the NSW Office of Environment and Heritage. Once complete, one of the key actions that will be implemented will be a stormwater management risk-based framework to achieve an overall better water quality outcome for Lake Illawarra and its receiving watercourses. This is supported and aligns with the West Dapto Vision's planning principles.

The NSW Department of Planning and Environment has recently updated the Environmental Planning and Assessment Act (EP&A) 1979. These updates include changes that solidify the role of strategic directions with the use of Local Strategic Planning Statements. Although these changes are not planned to be implemented until mid-2019, Wollongong City Council envisages the West Dapto Urban Release Area Vision document will be used and incorporated in future West Dapto Urban Release Area Strategic Planning Statements.

Other changes the reform work will elicit will benefit from information behind the Vision and guiding principles as Council will work to update the Wollongong Development Control Plan, 2009 with information and standardised formatting to align with the broader reforms implementing the EP&A Act 1979. Delivery of some elements of the vision is subject to the availability of State Government Funding (eg. public transport).

The next steps for planning at West Dapto are illustrated in **Figure 4**:





**Figure 4**  
Structure and relationships of principles to planning tools

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# WEST DAPTO

## VISION 2018

