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FITENI HOMES

Shoreline

SECTION 5: PLANNING AND DESIGN STRATEGIES

Development Application to Redland City Council for A Master Planned Community

VERSION B: 23rd JULY 2014

shoreline

5.0 Planning and Design Strategies

Shoreline will create a vibrant community based on walkable neighbourhoods and interconnected street patterns. Local employment opportunities are included in the Village Centre to provide the community with a sound economic base and encourage self containment of employment.

Key Strategies include:

- *The Urban Village Precincts*
- *Open Space and Parkland*
- *Community Infrastructure*
- *Access and Movement*
- *Infrastructure*
- *Urban Water Management*

Strategy 1:

The Urban Village Precincts

Shoreline will be modelled on a traditional town form and will deliver a variety of distinctive places - ranging from an active village centre heart where people work, shop and recreate to low density neighbourhoods - that cater for the majority of residents' daily needs in their local community.

Planning and Urban Design Responses

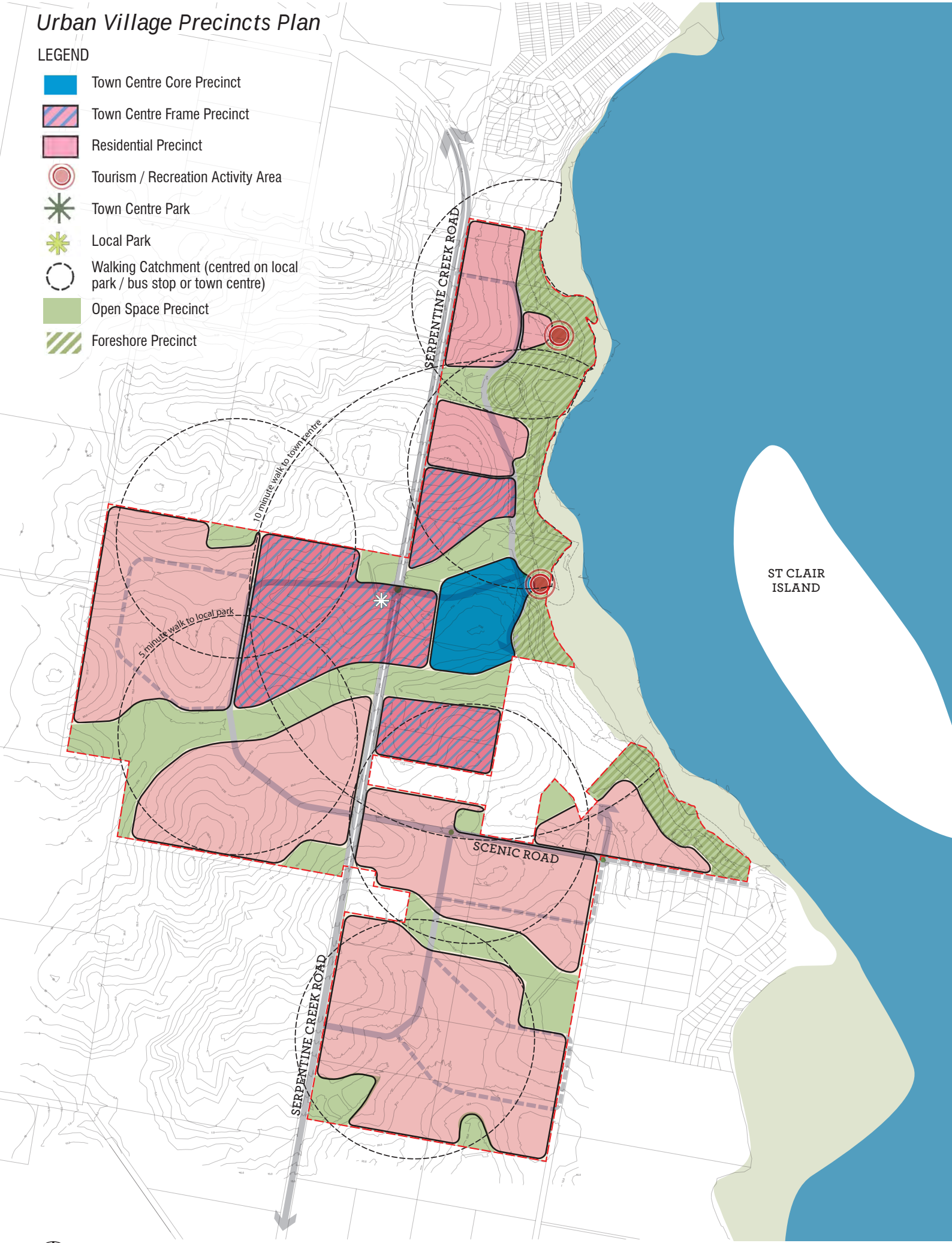
The Shoreline Structure Plan is underpinned by a range of development precincts which guide land use activities and the scale and character or the built form, public realm and open spaces.

Precincts are based on an urban transect that spans the most intensive activity and urban character in the town centre to low density housing on the periphery of the site and adjacent natural environments. The precincts are:

- Town Centre
- Town Centre Frame
- Residential Neighbourhoods
- Tourism and Recreation Activity Centre
- Open Space

Development within each Precinct will be subject to the codes and provisions of the Shoreline Plan of Development. (see Shoreline Structure Plan Volume 3 - Plan of Development)

Urban Village Precincts Plan



THE VILLAGE CENTRE

The Shoreline Village Centre will be a distinctive and vibrant mixed use centre that provides access to daily needs, places for meeting, leisure and recreation and local commerce.

Planning and Urban Design Responses

Placemaking

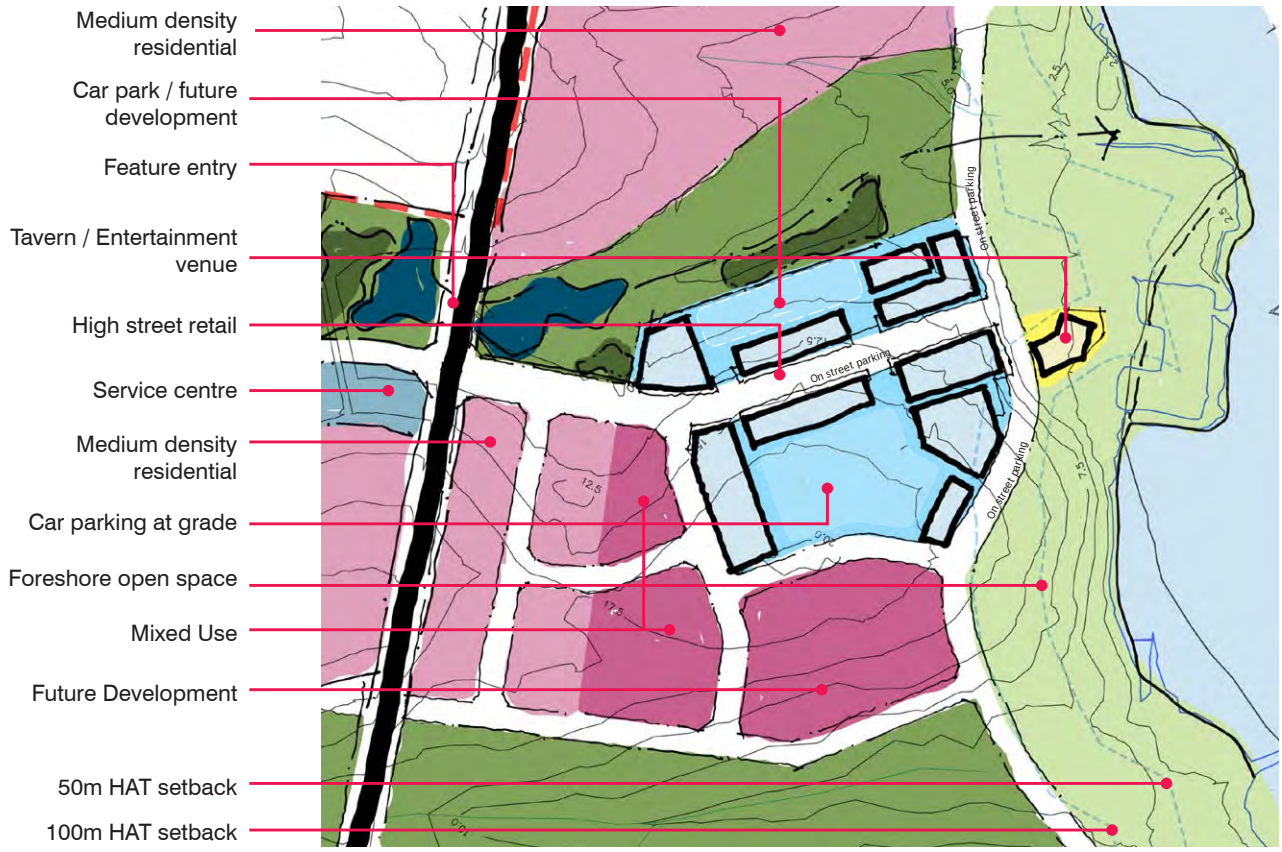
- The Village Centre will be an identifiable and active community heart, achieving a distinctive sense of place drawn from its bayside setting.
- The high quality of its buildings and public realm will characterise the centre, capturing Redland's relaxed subtropical lifestyle qualities and reflect a modern, successful and progressive community.
- The centre will be designed to encourage genuine community interaction and expression, and inspire community identity and pride.
- Reservation of future development sites on at grade parking areas.

Urban Design & Structure

- A wide range of commercial and community functions will be offered, serving Shoreline residents as well as supporting the wider southern Redland, island catchment and tourists.
- The centre will be attractive and well structured, and include:
  - A highly activated retail high street as the central structuring element.
  - Strong physical and visual connections to the Bay.
  - A high quality built environment drawing its character from the bayside context.
  - Distinctive buildings in key visual locations on the foreshore and along the main street.
  - Buildings to be of a robust nature to encourage flexibility of use.
  - Strong vehicular, pedestrian and cycle connections to the surrounding Shoreline community and beyond.
  - A simple interconnected collector street network capable of catering for both local and inter-suburban bus networks.

Activity and Land Use Mix

- The village centre will achieve a highly active mixed use environment and include:
  - A highly active, visually interesting shopping main street.
  - Opportunities for a range of commercial and service sector local businesses.
  - A waterfront tavern overlooking the Bay.
  - Potential for home businesses.
  - A wide variety of residential options and settings.
  - A major foreshore public park.

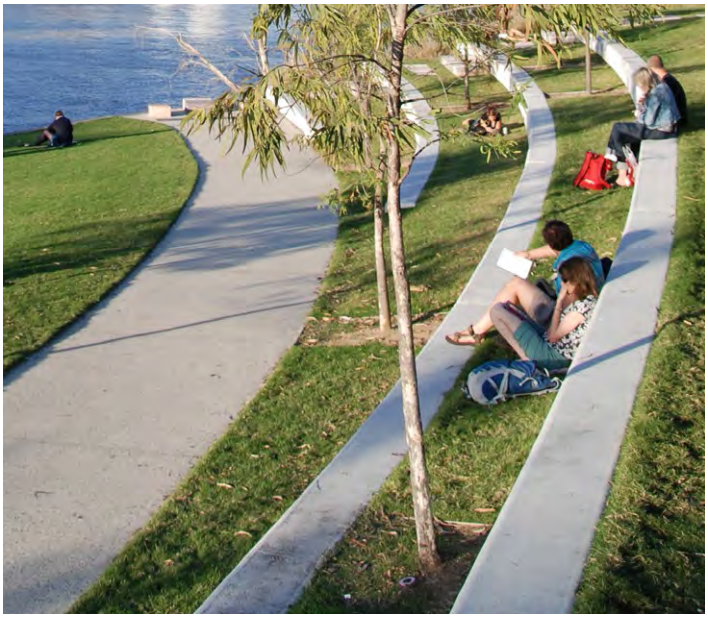


The Precinct Plan is conceptual only, and the future centre's scale, form and mix of uses will be subject to many economic and timing influences. However, it does demonstrate how these principles can be practically applied to achieve an enjoyable and visually interesting centre that is both highly functional and market responsive.

Indicative Village Centre Plan

Building Scale and Design

- The scale and design of the built form will create an interesting and distinctive urban identity and reinforce a highly active community heart.
- The building height, scale and intensity of development will be consistent with the provisions of Redland City Council's District Centre design code.
- Supermarkets or other larger format commercial premises will be sleeved by smaller retail uses along active street frontages, particularly in the main street.
- Commercial and residential buildings will address the open space interfaces and be designed to take advantage of expansive bay views.
- The building design will display appropriate design responses to the subtropical, bayside setting and address natural ventilation, solar orientation, weather protection and landscaping.
- Buildings will be of a robust design and flexible to accommodate a variety of uses over time.



Street Network & Streetscape Design

- A permeable street grid will:
  - be legible with high levels of accessibility for cars, pedestrians and cyclists.
  - support efficient and convenient public transport access.
  - ensure sufficient capacity and accessibility for service vehicles, taxis and lay-overs.
  - flexibly respond to market requirements for varying blocks sizes.
- Streetscapes will be designed to:
  - establish an attractive, urban character.
  - allow for adequate levels of car parking to service businesses and residential development, including long stay and short stay parking in functional formats that do not detract from the overall character of the centre.
- The main street will be designed to:
  - establish an attractive, vibrant urban character with ample shade from trees and awnings and on-street angle parking.
  - accommodate a range of activities such as shopping and footpath dining and places to meet and rest.
  - encourage pedestrian activity.
  - ensure it is not dominated by private motor vehicles.

Development Staging

- Development will be staged and key sites will be 'land-banked' for longer term development to avoid uncoordinated growth and capture the full long term economic potential of Shoreline.

THE VILLAGE CENTRE FRAME

A high amenity environment featuring a variety of housing types within a short walk of shopping, employment, leisure activities and public transport.

Planning and Urban Design Responses

Placemaking

- The Frame area will draw its inspiration from inner city suburbs that are characterised by higher density living with high amenity, connected urban lifestyles.
- The quality of its buildings and public realm will extend the influence of the Village Centre and transition the level of activity to low density neighbourhoods.

Urban Design & Structure

- A wide choice of medium to low-medium density residential development typologies will be set within a highly permeable street network.
- They will feature attached and detached housing at densities up to 30 tenements per hectare.

Activity and Land Use Mix

- The Frame will predominantly comprise a series of medium density residential neighbourhoods.
- Other lifestyle residential developments such as low scale temporary accommodation or retirement living will be encouraged where the scale and character is appropriate to the location.
- A variety of appropriate locations for live and work dwellings and home-based businesses will be provided.

Building Scale and Design

- The scale and design of the built form will provide a transition from the Village Centre to low density neighbourhoods.
- The general building height will be 3 storeys within an overall scale and intensity of built form that is appropriate to the wider urban context and achieves an appropriate scale transition to the surrounding neighbourhoods.
- Adjacent Serpentine Creek Road opportunities for small commercial developments or mixed use buildings that benefit from the frontage and appropriately interface with residential uses will be encouraged.
- building design will display strong design responses to the subtropical, bayside setting and address natural ventilation, solar orientation, weather protection and landscaping.

Street Network & Streetscape Design

- A permeable street grid will achieve high levels of accessibility for cars, pedestrians and cyclists and facilitate high levels of access to the Village centre.
- Streetscapes will be designed to:
  - establish an attractive, semi-urban character distinctive from the low density neighbourhoods through interfacing building density, reduced setbacks and high quality streetscape design and materials palette.
  - offer ample shade from trees.
  - allow for adequate levels of on-street car parking.

THE RESIDENTIAL NEIGHBOURHOODS

Safe , convenient, accessible and attractive neighbourhoods meeting the diverse and changing needs of the community and creating a wide choice of housing, leisure, access to local employment opportunities and community and commercial facilities.

Planning and Urban Design Responses

Placemaking

- A site and context responsive approach to neighbourhood design will be employed to support and enhance the natural context, strengthen local character and promote a sense of individual neighbourhood identity.

Urban Design & Structure

- Individual neighbourhoods will form part of a coherent and connected urban system of compact walkable neighbourhoods which cluster to support the Village Centre.
- Lot layouts will facilitate the delivery of dwellings that address major streets and parkland to enhance personal safety, traffic safety, property safety and security; and contribute to streetscape and park quality.
- Each neighbourhood will be centred on a public park and activity centre.

Residential Variety and Choice Mix

- Neighbourhoods will offer housing and building types to appeal to a wide variety of people and households; from families who wish to live in traditional detached dwellings, to seniors seeking convenient access to transport and shopping, and those who desire affordable small lot, student accommodation or apartment living.

Building Scale and Design

- Neighbourhoods are proposed at a site density of 12-15 dwellings/hectare (average lot size of approximately 450m^2-650m2) which maintains a predominantly detached housing environment.
- Opportunities for medium density residential development (minimum site residential density of 30 dw/ha) are located where there is good accessibility to public transport, parkland and the Village Centre.
- Shoreline will develop a palette of lot sizes which suit a range of local builders products ensuring:
  - passive climatic responses can be achieved.
  - lot and house types are appropriately located within a neighbourhood in terms of scale, density and access requirements.
  - houses meet end users' lifestyle expectations.

- Architectural design will be diverse and reflects individual preferences and subtropical lifestyles.
- Medium density development is of a bulk, mass, form, height and scale appropriate to its location and integrated seamlessly with low density housing.
- Lot layouts and buildings will accommodate the landform, views, prevailing breezes, and environmental features, and take account site constraints.

Street Network & Streetscape Design

- Neighbourhoods will be serviced by a network of interconnected streets that:
  - establishes good internal and external access for residents and minimises the impact of through traffic in neighbourhoods.
  - maximises safety.
  - encourages walking and cycling.
  - supports public transport.
- Direct and convenient routes will link residences to arterial networks, the Village Centre and other key destinations like schools through permeable street networks without any corresponding increase in vehicle speeds or creating “rat-runs”.
- Streetscape design will establish clear physical distinctions between arterial routes, collector streets and local streets based on function, legibility, convenience, traffic volume, vehicle speed, public safety and amenity.
- Plan neighbourhood collector street networks to facilitate efficient public transport services through conveniently accessible bus stops for all residents.

Open Space and Parks

- Shoreline will provide a network of well distributed parks and recreation areas offering a variety of safe and attractive public open spaces for a wide range of users.
- Drainage corridors will be integrated and mitigate environmental constraints including stormwater management and flooding without compromising the design and functionality of neighbourhoods.
- Open spaces will integrate best-practice urban water management techniques relating to stormwater quality and quantity, water conservation and re-use, and ecosystem health.

THE SHORELINE TOURISM & RECREATION ACTIVITY CENTRE

This boutique, mixed use centre will be sensitively set within the foreshore landscape and provide a variety of recreation and leisure activities. It will engage with the Bay and forshore open space and will appeal to the Shoreline community and visitors .

Planning and Urban Design Responses

Placemaking

- The Centre will draw its essential character from the Bayside setting and provide a meeting place and recreation attraction unique to Southern Redland.
- The facility will establish a prominent meeting place and venue for community and private events.
- It is proposed to retain the circular “turkeys nest” dam as a recreational feature.
- The bushland habitat adjoining the centre gives opportunity for interpretive nature trails.

Activity and Land Use Mix

- A variety of leisure and recreation activities are envisaged and will include:
  - A restaurant/cafe/bar
  - Sporting facilities
  - Informal open space for picnics and barbecues
  - Playground

Building Scale and Design

- The scale and design of buildings and structure will be sympathetic to the foreshore landscape and establish a unique coastal architecture drawing on historic influences.
- Design responses to the subtropical setting and address natural ventilation, solar orientation, weather protection and landscaping.

Access

- The Centre will be serviced by collector street access directly from Serpentine Creek Road without detriment impact on local residents or traffic functionality.
- A comprehensive pedestrian and cycle network will link the Centre to the Village Centre, neighbourhoods and beyond.

Strategy 2:

Open Space and Parkland

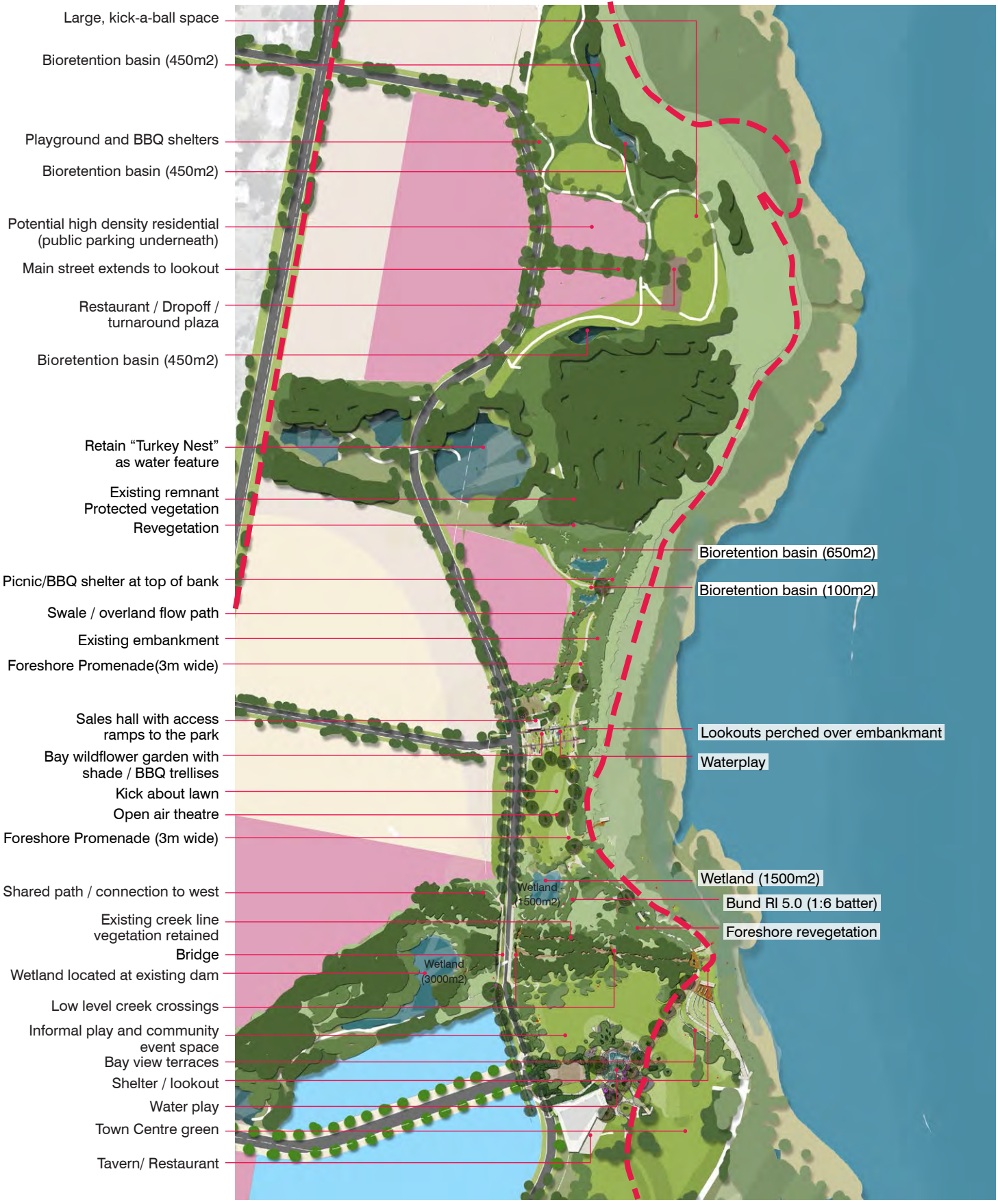
Open space will be the defining feature of Shoreline. A broad range of environmental, formal and informal recreation settings and community spaces will characterise the community and support sustainable long term development of the area.

Planning and Urban Design Responses

- A network of open spaces will integrate and enhance local hydrology, habitat and fauna including:
  - east-west environmental corridors which integrate WSUD responses to stormwater and managing urban stormwater flows into the Bay.
  - a major foreshore parkland conserving and linking remnant coastal vegetation both together and with the western bushland areas.
- A broad range of quality parks and open space will be provided in a timely manner to contribute towards the recreational and social needs of residents and the broader southern Redland community including:
  - foreshore parkland with opportunities to view the bay and engage with the water.
  - a major village park complementing recreation uses of the village centre and providing a setting for community events.
  - local parks with playgrounds and informal open spaces for active play.
  - formal and informal sport fields.
  - community meeting places and venues.
  - community produce gardens.
- A comprehensive pedestrian/cycle network will be established through Shoreline's open spaces, providing excellent connections between neighbourhoods, the village centre and points of attraction both in and beyond Shoreline.
- The water sensitive urban design measures (e.g. wetlands, bioretention basins etc) will be integrated within the urban environment and open spaces will:
  - minimise the impacts upon natural environments sensitive to changes in the natural water cycle.
  - maintain and improve wherever possible surface groundwater quality.
  - protect from flooding.
  - be designed with best practice vector control.
  - support wastewater re-use and water harvesting.

Open Space Network Plan

Indicative Foreshore Concept Plan



Strategy 3:

Community Infrastructure

Shoreline will be serviced by a broad range of community services and facilities that will underpin a healthy and enjoyable community.

Planning and Urban Design Responses

- The village centre will be designed to ultimately accommodate a broad range of local community uses including:
  - district centre level of retail and commercial functions
  - community facilities
  - childcare centre
  - community hall
  - medical and health facilities
  - tavern and other public meeting spaces
- A school servicing the broader southern Redland community is proposed on the western side of Serpentine Creek Road.
- A tourism/recreation activity centre will be located at the northern end of the foreshore parkland and will potentially include:
  - restaurant
  - foreshore parks
  - sporting facilities
- An extensive network of well-distributed parks and open spaces will offer a variety of community facilities and settings including:
  - pedestrian/cycle network
  - community produce gardens
  - event amphitheatre
  - bay viewing terraces
  - nature interpretive walks
  - community / sports club
  - open air theatre
- A major village centre park will establish a community meeting place and provide a venue for community events.

Community Infrastructure Plan

Strategy 4:

Access and Movement

Shoreline will create highly interconnected movement networks that will efficiently and safely cater for vehicles, pedestrians and cyclists. Shoreline will deliver meaningful choice, minimise travel time and encourage transport options other than the private motor vehicle.

Planning and Urban Design Responses

Street Movement Network

- A legible network of streets will be established with clear physical distinctions between trunk routes and local streets based on function, convenience, traffic volume, vehicle speed, public safety and amenity.
- An interconnected street grid will:
  - maximise route choice, convenience and safety for motorists, pedestrians and cyclists.
  - avoid impacts on the traffic volume, safety or amenity of existing local streets connecting to new development.
  - ensure buildings address streets wherever possible.
- The street network will provide direct access to the village centre and community facilities.
- All parks and open spaces will predominantly have an esplanade road frontage to development areas to address interface issues, maximise accessibility and passive visual surveillance.
- Wherever possible the street network will facilitate views and direct pedestrian links to open spaces, parks and Moreton Bay.

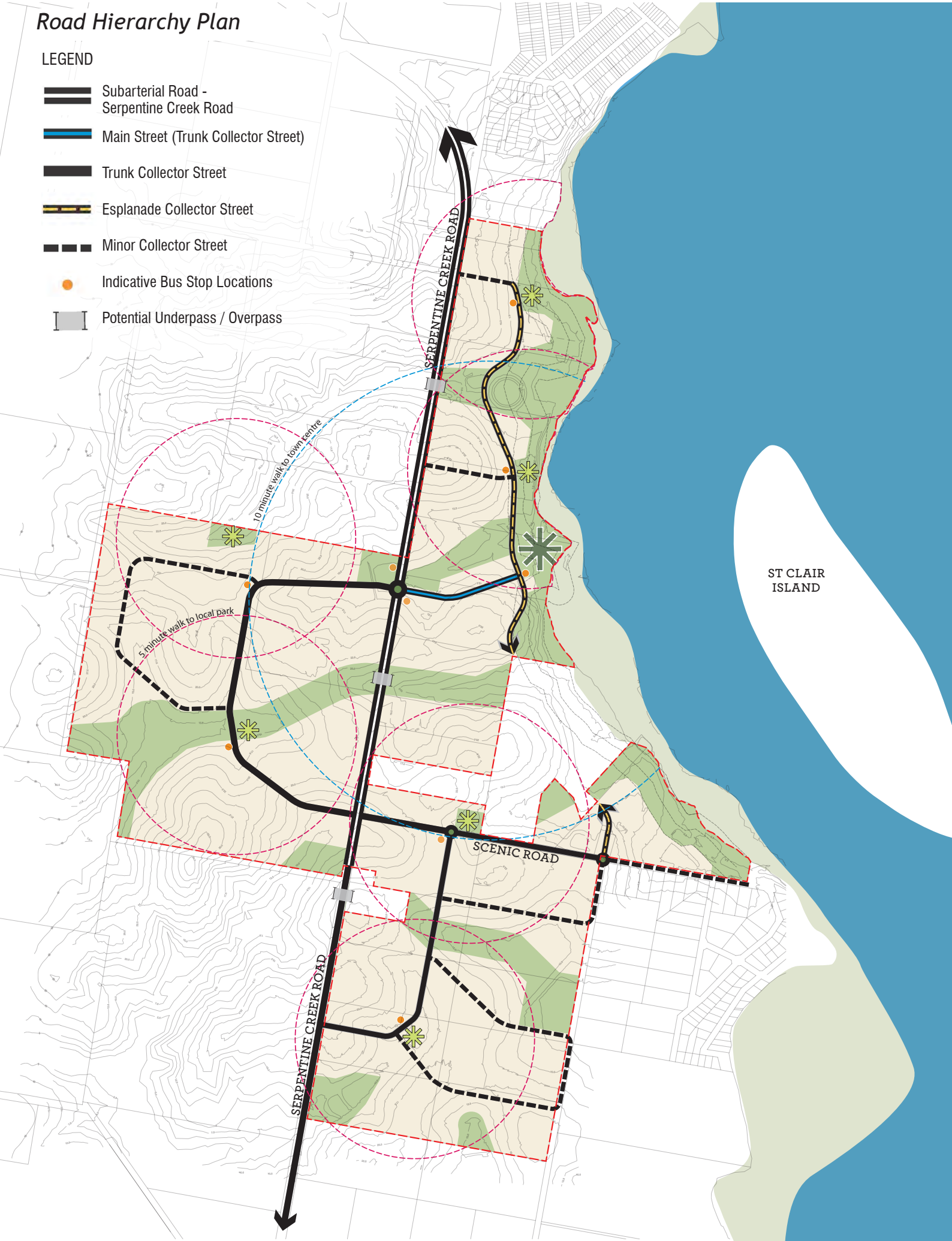
Public Transport

- Collector streets will accommodate a comprehensive and efficient public transport network with bus stops located to be accessible within a five minute walk from the majority dwellings.
- The village centre and other community destinations will prioritise public transport access to encourage higher levels of patronage.
- Shoreline gives rise to the ability to create a line haul bus route connecting Bethania Rail Station, Loganholme, Shoreline, Weinam Creek transport interchange, Victoria Point transport interchange and Cleveland Rail Station.

Serpentine Creek Road

- Shoreline will facilitate the staged upgrade of Serpentine Creek Road with a streetscape that delivers high quality aesthetic outcomes and minimises acoustic impacts on adjacent dwellings.
- Intersections with the collector street network will achieve an appropriate balance between the road's sub-arterial functions and high levels of local street connectivity.
- Shoreline proposes 2 underpasses and 1 fauna overpass which will facilitate safe fauna, pedestrian and cyclist movements. This will minimise the east-west barrier impact of the road's sub-arterial role.

Road Hierarchy Plan



STREETSCAPE DESIGN

Shoreline's streets will be more than simply movement corridors. They will contribute to the quality and function of both open spaces and buildings and their character will play a key role in the visual qualities of the village centre, neighbourhoods and parks.

Planning and Urban Design Responses

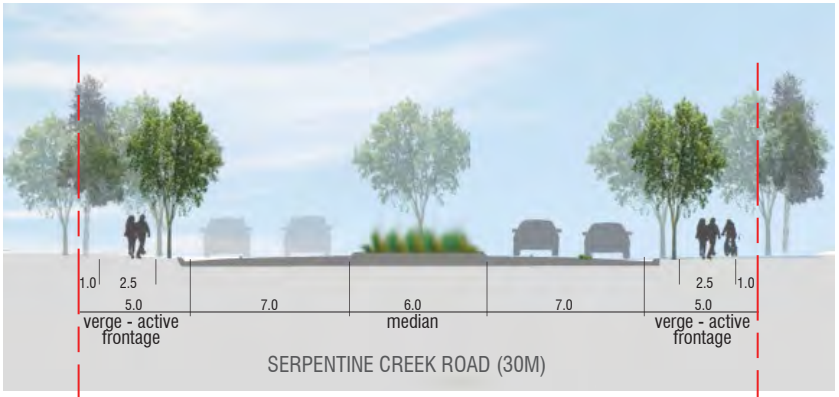
Streetscape Design

- Street profiles and geometry will support driver safety and comfort, providing appropriate service access and levels of parking, set-downs, loading zones and disabled parking consistent with a street's function and location.
- Streetscape design will establish attractive, shaded street environments which reinforce the functions of a street as important and valuable public places and add value and amenity to adjacent housing, mixed use buildings or parkland.

Village Centre Streets

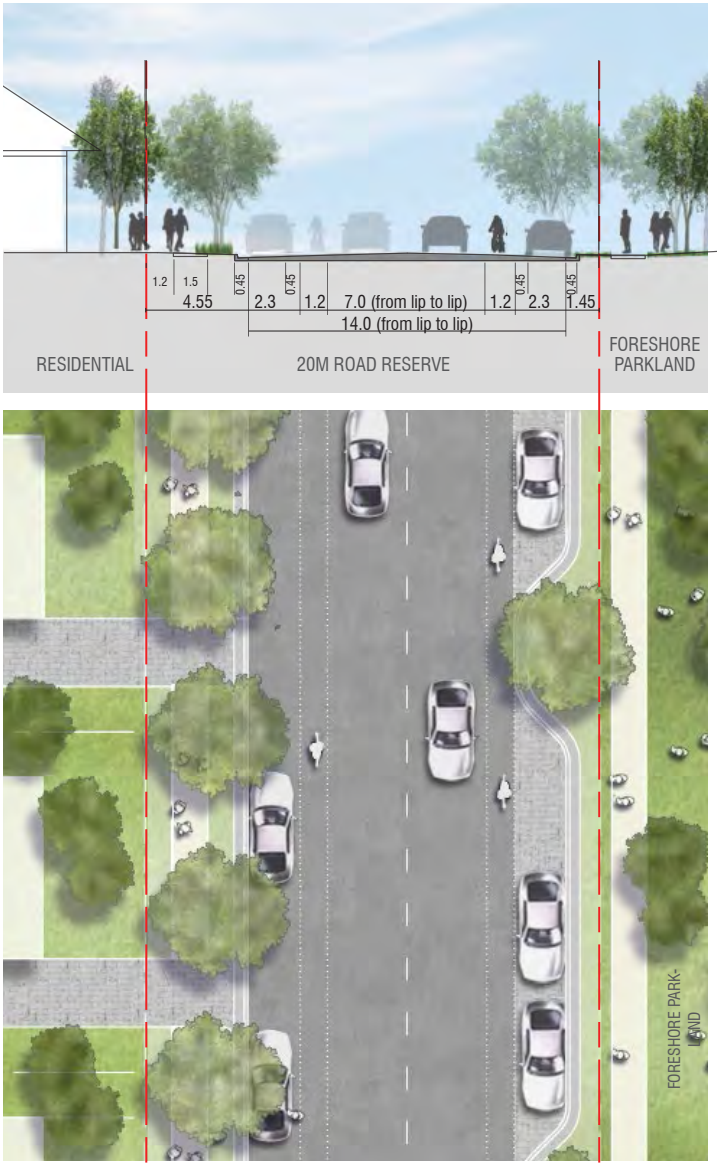
- The streets of the village centre precinct will establish a distinctively urban character and will be characterised by:
  - higher pedestrian prioritisation with paths on both footpaths and slow vehicular environments.
  - on-street parking.
  - an urban materials and street furniture palette.
  - reduced building setbacks.
- The main retail street will be designed as a traditional main street and will be characterised by:
  - mixed use building frontages with active ground floor retail or commercial uses along its entire length.
  - built to boundary frontages.
  - footpath widths appropriate for outdoor dining.
  - angled on-street parking.
  - high quality streetscape finishes, materials and furnishings.
  - avenue trees to provide shade and establish an attractive visual character.

Sub-arterial Road - Serpentine Creek Road

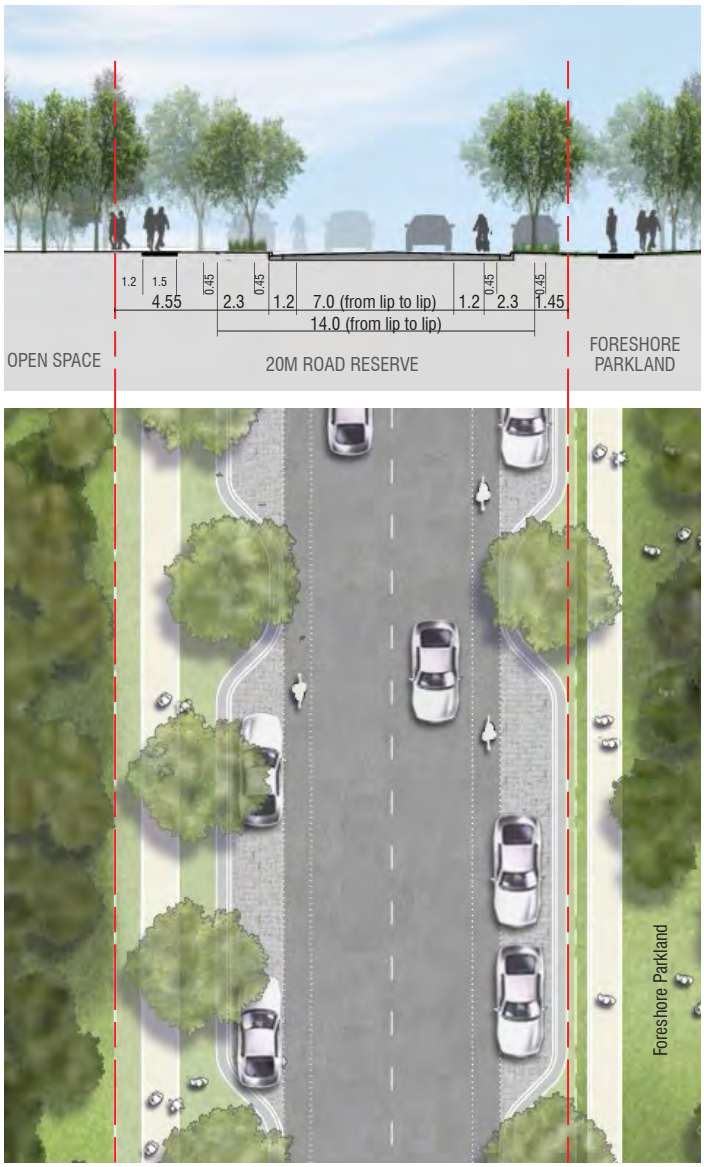


Esplanade Trunk Collector Street

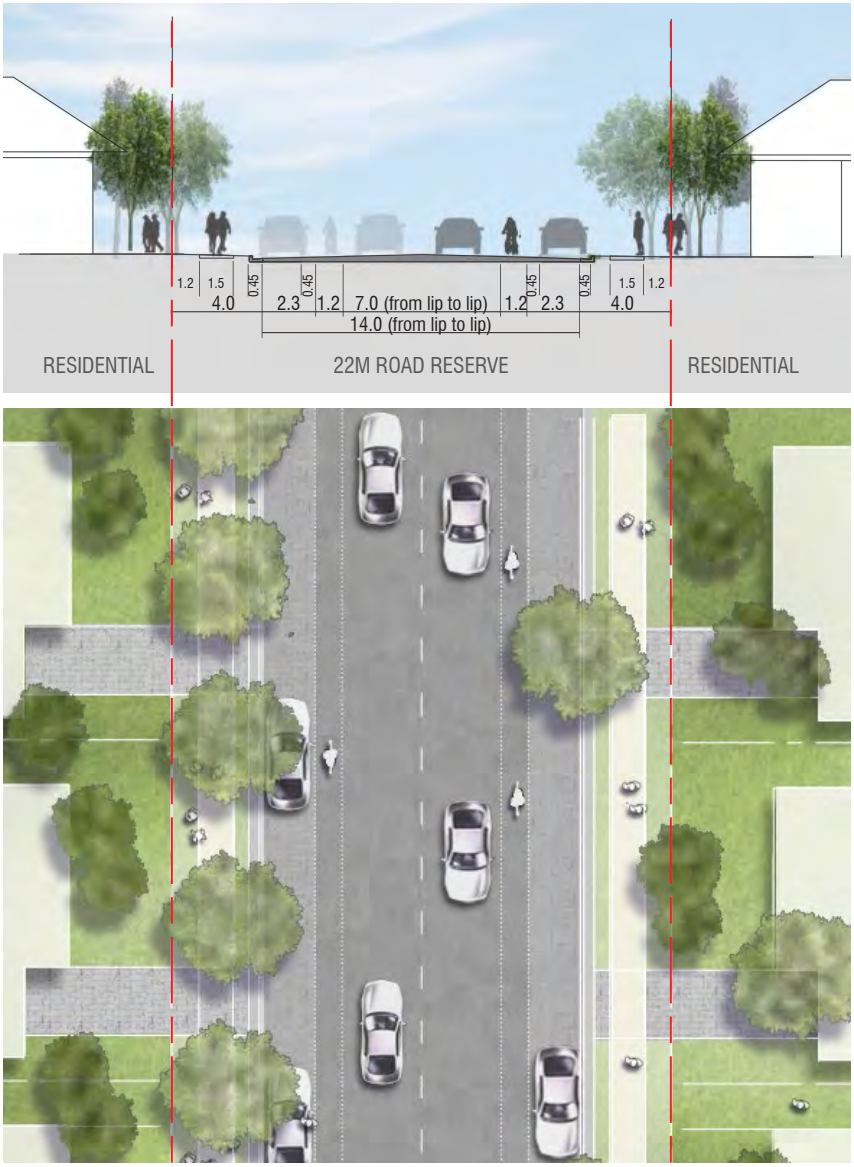
Development Frontage



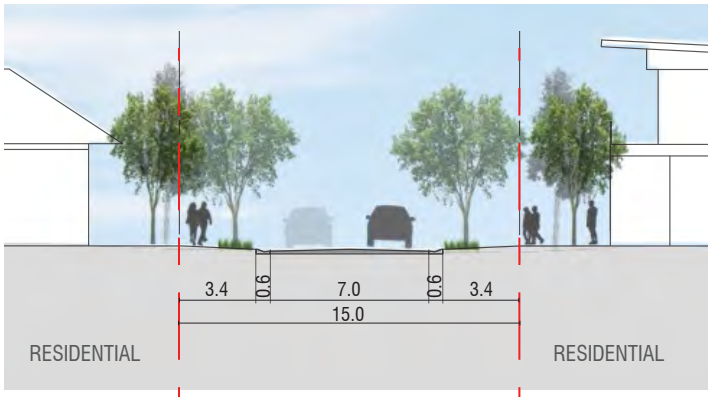
No Development Frontage

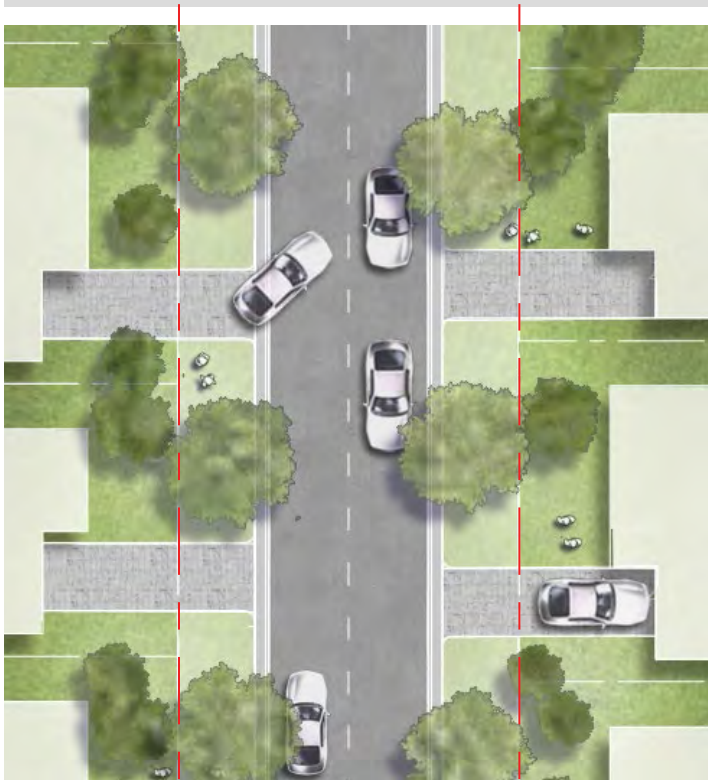


Trunk Collector Street

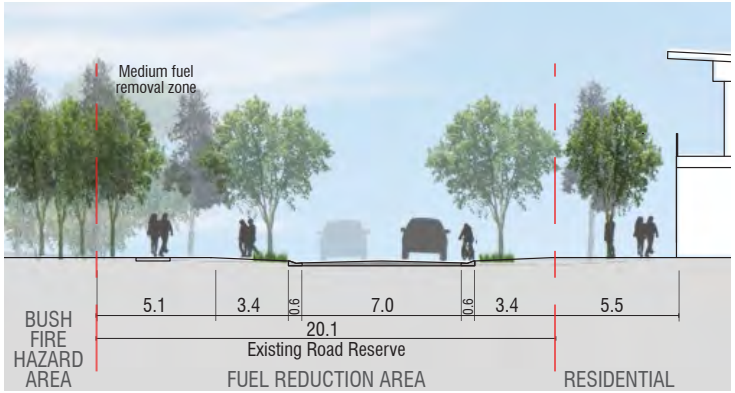


Residential Access Street

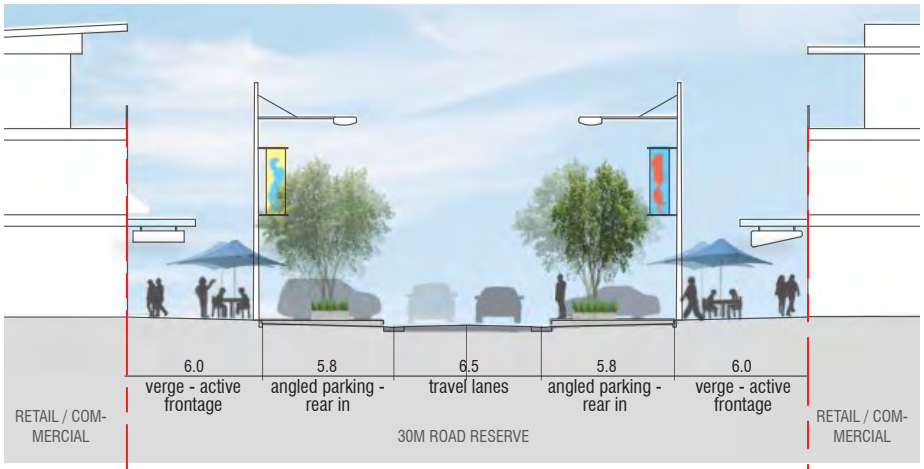




Medium / High Fire Risk Residential Interface



Main Street


6.0
verge - active frontage
5.8
angled parking - rear in
6.5
travel lanes
5.8
angled parking - rear in
6.0
verge - active frontage
RETAIL / COM-MERCIAL
30M ROAD RESERVE
RETAIL / COM-MERCIAL


PIZZA CAPERS

PEDESTRIAN & CYCLE NETWORK

Residents will enjoy an extensive network of convenient and safe pedestrian and cycle pathways connecting daily needs and public transport. The expansive foreshore and environmental open spaces will deliver outstanding walking and cycling experiences and offer broad opportunities for recreation and exercise.

Planning and Urban Design Responses

Pedestrian & Cycle Movement Network

- A comprehensive pedestrian/cycle network will be established through Shoreline's interconnected streets and open spaces. The network will be safe, convenient and legible for visitors, providing excellent connections between neighbourhoods, the village centre and points of attraction both in and beyond Shoreline.
- Street networks will be designed to maximise the walkable access to the village centre, schools, public transit stops and other community attractors.
- The physical barrier created by Serpentine Creek Road will be minimised with frequent opportunities for pedestrians to move safely along and across the corridor. It is proposed for 3 grade separated pedestrian/cyclist crossings.
- Streetscapes within the Town Centre Precinct will be designed to prioritise active transport through visual interest, reduced vehicle speeds, street furnishings, shade and high levels of personal safety.
- Pathways within the open space network and along the foreshore will be designed and located to maximise their recreational potential.
- End-of trip facilities for cyclists will be provided within the Village Centre.
- Within the Village Centre and Frame Precincts, active movement opportunities for people with disabilities and the aged will be delivered.
- Connections to regional/district networks will be provided to support the creation of city-wide networks and encourage the exploration of Redland City's diverse Moreton Bay foreshore.
- A pedestrian/cyclist link is proposed from Shoreline to Weinam Creek.

Pedestrian and Cycle Movement Plan

Strategy 5:
Infrastructure

Shoreline will provide the full range of urban services including sewerage, water, community services, recreation facilities, electricity, public transport, street lighting and telecommunications in a timely, cost-effective, coordinated, efficient and aesthetically appropriate manner.

All hard and community infrastructure can be delivered without impacting the Redland City rate base.

Infrastructure Agreement

Shoreline in partnership with Redland City Council, the State and the community will formulate an Infrastructure Agreement which will ensure timely and efficient delivery of all services and facilities.

The Infrastructure Agreement will include:

Roads and Traffic

The attached report from Holland Traffic Consulting concludes there is no impediment from a Traffic and Transport perspective to the Shoreline proposal.

Serpentine Creek Road which bisects the Shoreline site is a designated main road. The vertical geometry of the road is inadequate and there are no cycle or pedestrian facilities. The section is very dangerous and has contributed to many accidents and at least one fatality in the recent past.

The Department of Transport and Main Roads have no plans for the upgrading of this road as there are insufficient traffic volumes.

As part of the Shoreline development it is proposed to upgrade the vertical alignment and construct a 4 lane parkway with separated cycle and pedestrian paths. These works are estimated to cost in excess of $40.0m.

The attached Traffic Analysis report prepared by Veitch Lister details the impacts of the Shoreline proposal on the traffic network in 2031. There are several intersections (notably Giles Road, Boundary Road, Double Jump Road and Anita Street) which are current underperforming and require upgrading regardless of any increase in traffic volumes. The Shoreline Infrastructure Agreement will be a catalyst for the State, RCC and private capital to resolve these issues.

Water Supply

Shoreline has an adequate water supply with the main water connection to North Stradbroke Island being located to the immediate north of the site. During the life of the project an additional 375mmm water main will be required to be constructed south from this main.

Sewer

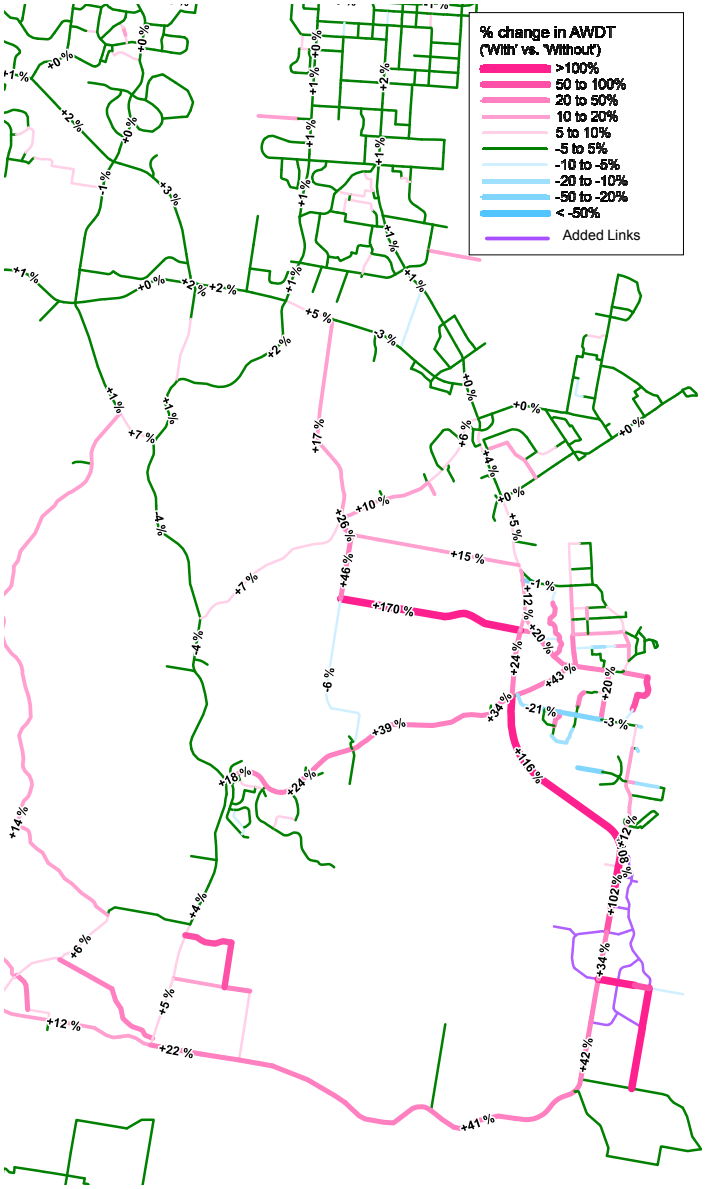
The Investigation Area is currently not included in Redland Waters's sewer PIP planning. Attached to this report is a report from Cardno proposing for effluent to be pumped to a new Sewerage Treatment Plant to be constructed at Council's German Church Road STP. Treated effluent is proposed to be returned to the subject site for re-use and dispersal. In the initial stages of the development treated effluent will be re-used to irrigate small crops and commercial nurseries. As these areas are displaced by residential activities the waste water will be used to irrigate sporting fields and open space.

There may be an opportunity for construction of a near site Sewerage Treatment Plant which will minimise conveyance costs and may give rise to servicing some of the existing Redland Bay residential areas and reducing loads on the Victoria Point STP.

Community Facilities

Shoreline will work with RCC and stakeholders to create a range of community and recreational facilities which currently are not available to residents in the southern portions of the city.

This will include Medical Centres, well being centre, community halls, church sites, public meeting areas, amphitheatre, picnic facilities, commuter cycle ways, water play areas, public swimming pool, childcare centres, potential public school or private P-12 school, fitness trail, environmental interpretive walks, football fields, sports ovals, tennis and net ball courts.



% Change in AWDT 2031 (Veitch Lister Traffic Impact Assessment Report)

Strategy 6:
Urban Water Management

Shoreline offers a unique opportunity to reinstate and enhance both coastal riparian corridors and Moreton Bay foreshore environments.

Planning and Urban Design Responses

- Shoreline will employ best practice management of land and water resources, reduce reliance on potable water.
- The built environment will be protected from flooding, inundation and stormwater damage through a range of WSUD retention and storage measures.
- The quality of surface water will be improved wherever possible to prevent adverse affects upon natural environments that may be sensitive to changes in the natural water cycle.
- Appropriate water sensitive urban design measures (eg wetlands, bioretention basins etc) will be integrated within the urban environment, waterway corridors and open spaces and will be designed and constructed to a standard that supports cost effective on-going maintenance and management regimes.

State Planning Policy stormwater management objectives will be achieved, including:

Stormwater quality

- TSS 80% reduction in post development load.
- TP 60% reduction in post development load.
- TN 45% reduction in post development load.
- Gross pollutants 90% reduction in post development load.

Waterway stability

- Preserve the 1yr ARI flows downstream of the site.
- Minimise risk of erosion for internal waterways (keep flow velocity to 1m/s where possible and stabilise in areas where velocity is greater than 1m/s with vegetation or scour protection).

Flooding

- Preserve the peak flood flows exiting the site to private property.

Stormwater Management Plan

WSUD Elements

Shoreline will include a mix of water sensitive urban design elements integrated with the urban environment and landscape of the community:

WATERWAY REVEGETATION

Revegetation will occur in all reaches of the waterway corridor which are clear of vegetation at the moment. Additionally existing dams will be decommissioned and the waterway re-established. This provides an opportunity for stormwater treatment to occur within the waterways and for stormwater treatment systems to be located in waterway corridors while still supporting fauna movement.

STORMWATER TREATMENT

This will occur through a mix of sediment basins, bioretention system and wetland carefully located in the urban design and adjacent or within the waterways corridors. The systems will be designed to ensure integration with the surrounding landscape, either formal or rehabilitation, ensuring multiple outcomes (treatment, landscape amenity, riparian revegetation).

FLOOD STORAGE

Flood storage will be delivered on all drainage paths entering private property to preserve the 1yr to 100yr flows. The storage systems will be placed behind road crossing or earth flood bunds and deliver safe management of flooding in accordance with the Queensland Urban Drainage Manual.

COASTAL BUFFER DRAINAGE

All stormwater runoff that enters and is located within the coastal buffers will be directed north or south into stormwater treatment systems rather than allowed to drain into the bay. The primary aim is for best practice stormwater management with improved quality of flows to receiving waters and fisheries habitat.