



**Kingscliff Locality Plan
Volume 1
Context & Locality Wide Strategies**

Amendments

Version	Effective	Resolution	Description	Authorised
1.0	-		Public exhibition document	Council
2.0	-		Council adopted document	Council

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1.0 INTRODUCTION



1.1 The Need for a Locality Plan

For more than a decade the Tweed Coast has seen exponential growth. The locality of Kingscliff has been a major contributor to this growth, elevating its settlement status from a coastal village (<3000 residents), to a coastal town (3000-20,000 residents). When acknowledging existing undeveloped urban release areas, along with continuing infill development, Kingscliff’s population could surpass the population threshold usually associated with a small coastal city (>20,000 residents, Coastal Design Guidelines for NSW). In association with its ultimate population size and geographical position, the existing role of the Kingscliff locality as the sub-regional centre servicing Tweeds’ network of coastal villages (Fingal Head, Cudgen, Casuarina, Cabarita, Hastings Point, Pottsville and future Kings Forest) is anticipated to be reaffirmed.

Population growth of this scale needs to be closely coordinated with infrastructure provision, employment, community and cultural facilities, community expectation, as well as a means to safeguard environmental, agricultural and other valued qualities.

The Kingscliff Locality Plan (KLP) will review Council’s strategic planning framework for the management of the growth, opportunities and constraints of the Kingscliff district within the context of the Tweed Coast, Tweed Community Strategic Plan and the NSW Far North Coast Regional Strategy.

The over arching program of the KLP is to:



1.2 The Purpose of this Plan

The purpose of this Plan is to identify the long-term vision for Kingscliff and a set of strategies aiming to deliver this vision. The structure of this Plan is based upon key themes underpinning the future of the locality: community aspirations, demographic growth projections, economic trends, urban planning considerations as well as physical and environmental characteristics. It is the intention of the Tweed Shire Council to position this Plan as a policy document providing for an exciting future of Kingscliff.

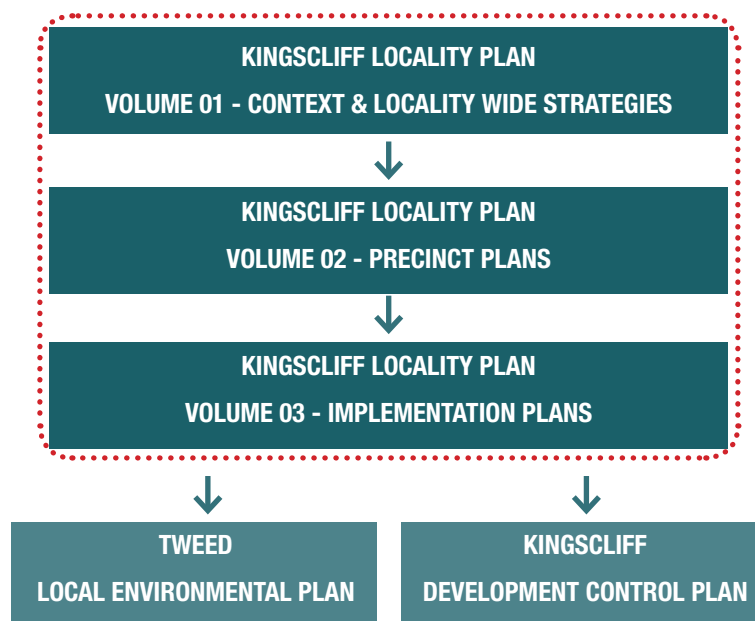
This Plan has been broken down into three volumes:

Volume 01: Context and Locality Wide Strategies - Provides a contextual background and locality wide strategies relating to environmental context, demographic and community context, urban structure, economic and retail, traffic, access and movement and service infrastructure.

Volume 02: Precinct Plans - Provides more detailed background, context and strategies relating more specifically to the different locality precinct areas which make up the Kingscliff and Cudgen localities.

Volume 03: Implementation Plans - Provides tabulation of the key strategies pertaining to locality wide and precinct specific strategies and details key actions to implement, Delivery Partners, time frame and funding source.

Together each of the volumes provide the strategic planning framework for guiding the future development of the Kingscliff Locality Plan (KLP) and should be read in conjunction.



Kingscliff Locality Plan Structure

1.3 Study Area

The defined study area is illustrated overleaf as Figure 1.1. The KLP focuses on lands bounded by the Pacific Highway to the north extending to the locality boundary with Fingal Head, the Tweed Coast Road to the west and south to the locality boundary with Casuarina. The study area also includes Cudgen Village given the proximity and strong historic relationship with Kingscliff the need to more holistically consider the broader locality context, particularly in relation to landuse, desired future character and traffic management considerations.

Although focusing on this defined study area, on a more macro scale the locality plan will acknowledge Kingscliff's sub-regional role in supporting the network of Tweed Coast settlements (Fingal Head, Cudgen, Salt, Casuarina, Cabarita, Hastings Point, Pottsville and Wooyung) as well as the more dispersed rural and hinterland settlements. This broad catchment area is discussed in greater detail within Part 2 of this Report.

1.4 Existing Planning Framework

An 'Integration Report' prepared in conjunction with this Plan, documents the relevant planning documents applicable to the KLP study area. Figure 1.2 illustrates the existing planning framework relevant to the KLP, a number of which are briefly discussed in the following section.

1.4.1 Tweed Local Environmental Plan 2014 (TLEP)

The Tweed Local Environment Plan 2014 (TLEP) is the primary statutory planning tool used to control and guide the future development of land. The TLEP establishes land use zones, development permitted within each of those zones, and development standards (such as minimum lot sizes and maximum building heights).

Implications for the Kingscliff Locality Plan

The TLEP 2014 provides zoning, maximum building height, maximum floor space ratio and minimum lot size provisions to the majority of the KLP footprint. These provisions, generally, influence Kingscliff as follows:

- Shape the extent of the urban footprint and influence residential density,
- Confine building heights to 9m or less in 'suburban' areas and Cudgen Village, 10m in rural and industrial areas, 12.2m in medium density areas and 13.6m in mixed use, tourist or commercial areas and influences the density of housing,
- Restrict lots to a minimum size of 450m² within 'suburban' areas and Cudgen Village, and
- Moderates floor space ratio to a maximum of 0.8:1 in 'suburban' areas and Cudgen Village and 2:1 in greenfield, medium density, tourist and commercial areas.

The KLP will test the validity of the existing provisions and make specific recommendations should any amendment to the TLEP be required to facilitate the future desired character.

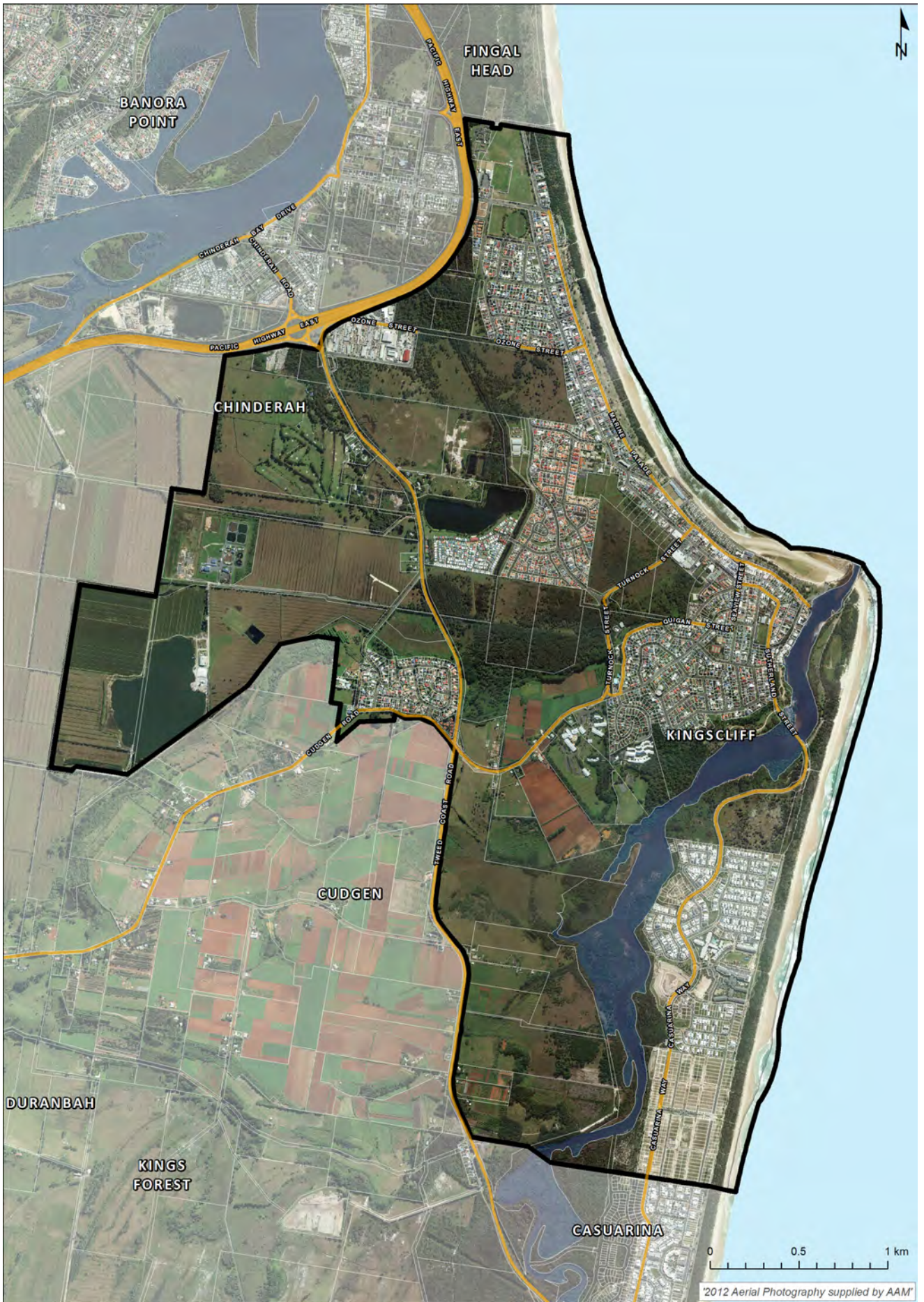


Figure 1.1 - Kingscliff Locality Plan Study Area

The KLP footprint includes a number of properties (or portions of) which have been deferred from the TLEP 2014. Whilst the majority of the deferred areas will be addressed subsequent to the NSW Department of Planning & Environment's 'E-Zone Review', several areas will be addressed specifically within the KLP to enable a clear process towards providing those sites with an appropriate planning framework.

1.4.2 The North Coast Regional Plan

The North Coast Regional Plan (NCRP) provides an overall vision for the region as well as identifying five (5) broad goals relating to the environment and heritage, growth opportunities, housing choice, economic and infrastructure considerations as well as transport and connectivity networks. A series of actions to implement the broad goals are also identified within the plan. The plan and defines the location and form of future development within the region through urban growth area maps and growth precincts. These growth maps and growth precincts take into account opportunity for urban and employment growth, environmental assets and key strategic linkages.

Key Implications for the Kingscliff Locality Plan

The NCRP identifies the broader Kingscliff existing urban footprint and nominates a large tract of land to the south of the existing Chinderah industrial estate as 'future knowledge precinct' and a tract of land to the west of the Kingscliff Town Centre (West Kingscliff) as 'urban renewal'. Whilst this area has been identified within the NCRP, a significant proportion of this site has also been identified as having a high level of constraints including a risk of flood inundation and identified areas of environmental significance.

Broadly, the KLP will seek to uphold the values and actions of the NCRP by ensuring productive agricultural land and environmentally sensitive land is protected, and that urban land provides a variety of employment and housing options. Specifically, the extent and scope of the development potential within the identified growth areas against local constraints and opportunities is identified both within the KLP and precinct specific sections of the KDCP. More detailed context and site analysis is required to be undertaken within future planning proposal and subdivision structure plan processes.

1.4.3 Tweed Urban and Employment Land Release Strategy 2009

The Tweed Urban and Employment Land Release Strategy 2009 provides a growth management strategy for urban and employment land throughout the Shire. The TUELRs examines the population profile, the likely demands arising from the anticipated population growth, then evaluates the supply of land for residential and employment purposes.

Environmental constraints and opportunities that influence the potential suitability of land for future urban use were also broadly analysed. The TUELRs, as adopted by Council, concludes that Council will rely on existing zoned areas and to increase the density of development in key urban areas, such as Tweed Heads Town Centre, Murwillumbah and Kingscliff, to accommodate future growth.

Key Implications for the Kingscliff Locality Plan

The TUELRs has significant implications for the KLP, specifically:

- Identification of Kingscliff as one of the prime areas within the Shire to accommodate future

population growth.

- Augmentation of the identified employment lands extending from Ozone Street east to the drainage channel and south to the decommissioned sewerage treatment plant, as well as land to the west of the Chinderah Golf Course and to the north of the Pacific Highway.

As part of the KLP process an analysis of the development capacity of the study area and development of indicative structure planning with a range of employment generating and residential land uses was undertaken and represented within the Business and Knowledge Precinct. Whilst this structure plan represents one possible structure planning configuration over the precinct, it does not necessarily represent the final developer initiated structure plan which will underpin a future rezoning / planning proposal process. Notwithstanding, a number of key planning and design principles have been developed to inform that future planning proposal and design led structure planning process.

1.4.4 Tweed DCP B9 - Tweed Coast Strategy

Section B9 of the Tweed Development Control Plan (DCP), adopted by Council in 2003, was prepared at a time when significant amounts of greenfield development were being designed along the Tweed Coast, including Casuarina, Salt, Kings Forest, West Kingscliff and Seaside City. A structure plan extract has been attached at Figure 4. DCP B9 estimates that the combined population of these developments would be approximately 26 150 people (inclusive of Kings Forest and Casuarina).

In terms of planning additional retail and commercial uses, the strategy within DCP B9 suggests the development of a regional (retail) centre of some 10,000m² within Kingscliff.

Key Implications for the Kingscliff Locality Plan

DCP B9 is largely under utilised due to a competing framework with State as well as other Tweed policy.

For example although the plan identifies opportunity for a large retail centre within Kingscliff, this conflicts with a Council resolution on the 16th November 2005 to adopt seven principles. Principle 6 does not support the establishment of another district retail shopping centre outside of Tweed Heads South (Tweed City).

Further, many of the identified large areas of greenfield sites within the plan have now been developed. It is intended that the Kingscliff Locality Plan will supersede DCP B9 once complete.

As the study area and core objectives between DCP B9 and the intent of the KLP are similar, many of the strategies and vision statements, urban design ideas and planning objectives have been reviewed and updated as part of the KLP and KDCP plan making process. Of particular note, DCP B9 identified the following critical elements which have informed the As the DCP 9 study area extends beyond the defined study area of both the KLP and KDCP, it will be retained as an active development control plan.

1.4.5 Tweed DCP B4 West Kingscliff (2007)

This Section of the Tweed DCP study area includes an area bounded by Chinderah Road to the north, Cudgen road to the south west, Ozone street to the north and the Pacific Ocean to the

east. The DCP was adopted to provide development framework for lands predominantly to the west of the existing Kingscliff town centre zoned for urban expansion. The general development principle adopted was to provide a high quality, safe and integrated area to include new low and medium density residential development as well as making new traffic and transport connections. The DCP also provides more specific development objectives in relation to:

- traffic and transport - review of local road hierarchy
- open space - identification of open space provision rates
- vegetation - Identification of important vegetation communities
- drainage and water quality - mapped drainage reserves and subdivision requirements
- community facilities - identification of additional primary school and community centre required; and
- utilities - need for water and sewer reticulation to all residential allotments and buffer to sewerage treatment plant (now decommissioned).

Key Implications for the Kingscliff Locality Plan

Many of the objectives and strategies within DCP B4 - West Kingscliff have materialised or the more general strategies have been embedded within other policies whereas there is opportunity to incorporate other policies and strategies which are still relevant. These include:

- DCP A5 Subdivision includes subdivision and road design and open space objectives, strategies and controls. Construction of the distributor road connector between Cudgen Road and Pearl Street, and the decommissioning of the old sewage treatment plant.
- Decommissioning and regeneration of the sewage treatment plant negating the need for the buffer.
- Construction of the Noble Lakeside Park manufactured home estate.

As part of the KLP process the strategies and objectives of DCP B4 have been reviewed updated and where relevant included within the strategies, objectives and actions of both the KLP and KDCP. DCP B4 will be superseded by the KLP and KDCP.

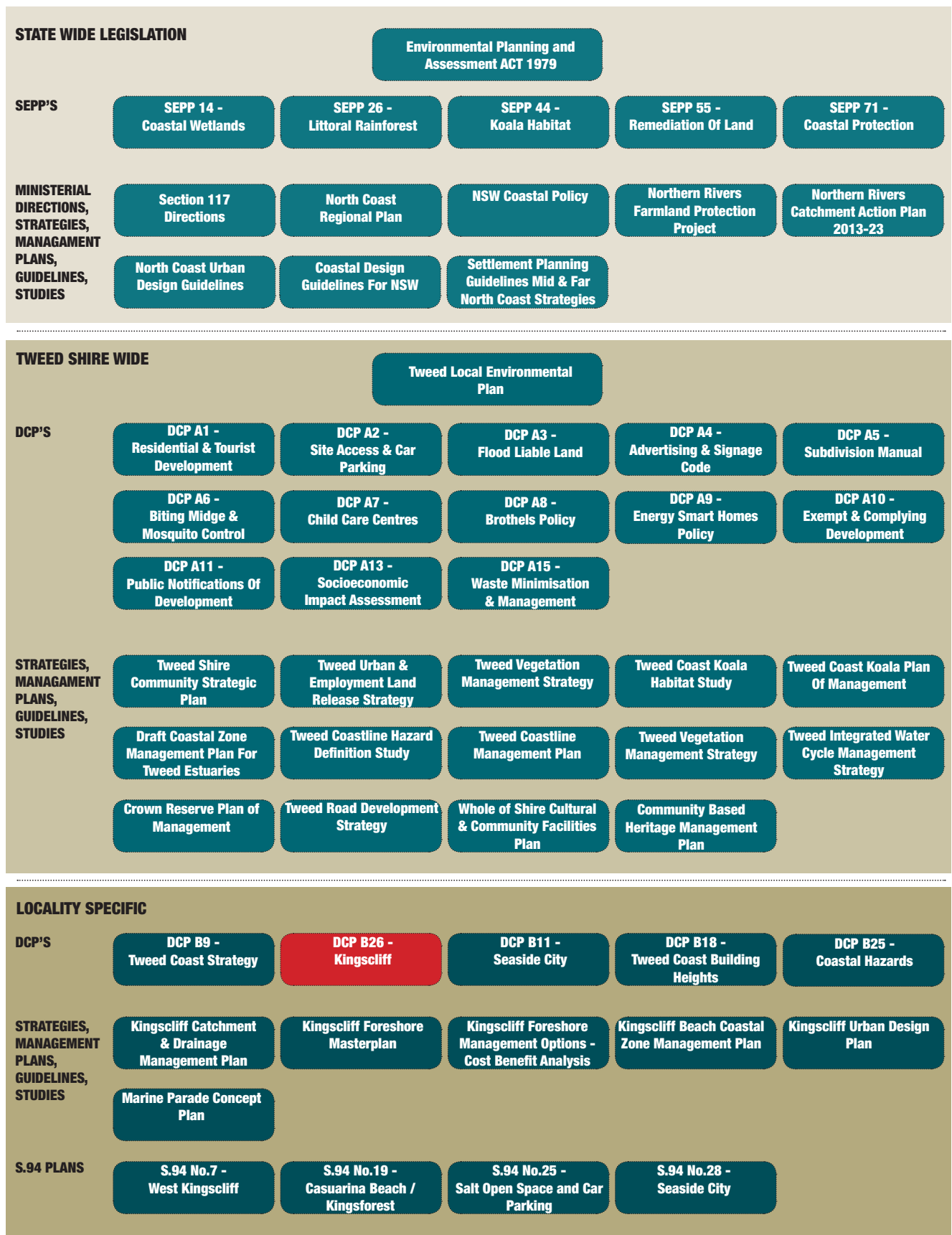


Figure 1.2 - Planning Framework Relevant to the KLP

1.5 Locality Plan Methodology

The Kingscliff Locality Plan has been prepared through a five stage process including:

Stage 01 - Project Inception - Project initiation stage established a project brief, defined the study area, established a project plan and methodology as well as establishing internal and external reference panels. The external reference panel comprised of 14 people local community and business members selected for demonstrating a diverse range of local knowledge, planning and built environment experience with strong links, and networks with the local community. The key outputs from this stage included:

- Kingscliff Locality Project Plan
- External Reference Panel Charter

Stage 02 - Background and Community Vision - Initial community consultation included a community vision workshop attended by more than 150 people which sought to understand broader community visions, aspirations and issues experienced within the Kingscliff locality. This was followed by a widely distributed community vision survey which received more than 250 responses. This background and community visioning opportunity established the core values and important character elements which underpin the Kingscliff locality. Key outputs from this stage included:

- Community Vision survey
- Statutory Planning Framework Report

Stage 03 - Context, Opportunities and Options - The purpose of Stage 03 was to establish a comprehensive background context, issues and opportunities report to service as a platform to understand the locality and directly inform draft strategies within the draft precinct plans. This was also supplemented with the findings of a stakeholder and community invited Enquiry by Design Workshop. This information culminated in a two week shopfront exhibition attended by over 800 people. Key outputs from this stage included:

- Context Issues and Opportunities Report
- Enquiry by Design Workshop Report
- Draft Precinct Plans Report

Stage 04 - Draft Locality Plan and DCP - The draft strategies from Stage 03 were refined following a review of public and stakeholder submissions and developed into a draft Kingscliff Locality Plan and Development Control Plan. The key outputs from this stage included:

- Draft Locality Plan (Vol. 1, 2, 3)
- Draft Development Control Plan

Stage 05 - Final Locality Plan and DCP - Following a formal exhibition period, the draft Kingscliff Locality Plan and DCP is further refined into the final Kingscliff Locality Plan and DCP, formally adopted and Implemented by Council. The key outputs for this stage include:

- Final Kingscliff Locality Plan (Vol. 1, 2, 3)
- Final Development Control Plan.

INCEPTION

- PROJECT PLAN
- FORM EXTERNAL REFERENCE PANEL
- FORM INTERNAL WORKING GROUP
- LIVEABLE CITIES CONFERENCE WORKSHOP
- KEY STAKEHOLDER INTERVIEWS

TALK

- STATUTORY CONTEXT ANALYSIS
- URBAN DESIGN CONTEXT ANALYSIS
- CONSULT 01 - COMMUNITY WORKSHOP
- COMMUNITY VISION SURVEY
- REVIEW CONSULTATION 01 FEEDBACK

TALK-SKETCH-DRAW Methodology

The project methodology is based around the concept of 'talking' and engaging the community and stakeholder groups early within the planning process to understand the broader community vision for the locality. This input is then embedded into some 'sketch' ideas of various strategies and concepts for future growth and management. These sketch ideas, through further more directed consultation evolve and are 'drawn' into firmer visions, objectives and strategies which underpin the locality plans strategic framework.

SKETCH

- CONSULT 02 - ENQUIRY BY DESIGN
- LOCALITY WIDE OPTIONS
- PRECINCT SPECIFIC OPTIONS
- CONSULT 03 - COMMUNITY WORKSHOP
- REVIEW CONSULTATION 03 FEEDBACK

DRAW

- CONSULT 04 - BUILDING HEIGHT WORKSHOP
- DRAFT LOCALITY AND PRECINCT STRATEGIES
- DRAFT ACTION AND IMPLEMENTATION PLAN
- DRAFT DEVELOPMENT CONTROLS

FINALISE

- PUBLIC EXHIBITION
- PUBLIC EXHIBITION REVIEW
- FORMAL COUNCIL ADOPTION
- KLP & DCP IMPLEMENTATION STRATEGY
- LEP AMENDMENTS

1.6 Vision: Character & Community

The Vision

The future vision for the Kingscliff locality is for a vibrant coastal town servicing the needs of the local residents as well as the broader network of Tweed coastal villages and tourist alike. A coastal town which offers a prosperous and healthy community life, local economy and employment opportunities, appropriately scaled goods and service provision, diversity of housing choice nestled within a highly valued environmental context fringed with a working agricultural hinterland.

Kingscliff is renowned for its low key coastal settlement atmosphere, proximity to the beaches, environmental qualities of Cudgen Creek and the expansive coastal foreshore. Agricultural and farming define the edge of the Kingscliff and Cudgen settlements and when combined with the green hinterland back drop forms the unique landscape and visual character of Tweeds Green Caldera. The development history of the settlement has centred around its main street, Marine Parade, and the coastal reserves which continue to be used as the primary community spaces with the town centre fulfilling a range of commerce, residential and recreational pursuits servicing the local population and more broadly the network of Tweeds coastal villages.

Future Growth

Natural attributes and the coastal character make Kingscliff one of the Tweed's most popular tourism destinations, attracting hundreds of thousands of visitors every year. Because it is so well loved, the Kingscliff locality has become the fastest growing residential area in the Tweed and the destination of a number of community, cultural and sporting events. These events bring

excitement and opportunities to both the local community as well as visitors to Kingscliff.

Over the next 20 years Kingscliff's population is set to grow from 8459 in 2011 to 10186 persons by 2036 based on an average population growth rate of 0.74%. This rate could however significantly increase within the same period with greenfield development sites providing opportunity for an additional 3000 dwellings which would result in a population of approximately 14 000 persons.

Large tracts of land to the north, south and west of Kingscliff offer significant future residential, tourist and employment development opportunity. It is this opportunity which needs to be tempered and balanced within strategic planning framework to ensure that the population and landuse increases are in step with community expectation, appropriate infrastructure provision and protection of sensitive environmental areas whilst strengthening the character and identity of Kingscliff.

Community Aspirations

The Kingscliff Community Vision survey which ran between August-September 2014 combined with the first community workshop held on the 12th September 2014 provided an invaluable opportunity for Kingscliff residents to come together and express the unique qualities and future challenges of the locality. A two day enquiry by design workshop provided opportunity to engage with key stakeholder groups. This was followed up by a two week shopfront exhibition of preliminary locality planning ideas in March 2016.

The key issues and feedback which emerged from these consultation sessions included:

- High value placed on the natural environment including the Creek, Beaches and open space but coastal erosion identified as a major threat.
- High value placed on the character of Kingscliff revolving around 'village' atmosphere and 'coastal village' character and maintaining low rise development around Marine Parade.
- High patronage of pedestrian, bike paths, open space areas although access and amenity of shared pathways could be improved.
- Café and restaurant niche along Marine Parade highly valued but need to improve pedestrian spaces, streetscape and amenity.
- Traffic and car parking seen as an issue impacting access, movement and amenity particularly within the town centre which will compound with future residential growth in the surrounding areas.
- Want to improve long term economic stability including employment opportunities for younger generation.
- Want to improve the existing shopping centre in terms of better range of services, better car parking and traffic management.
- Need for more affordable housing.
- More green spaces and street planting in general, particularly around town centre and coastal foreshore.

Kingscliff Coastal Character

On one level the broad but popular statement of retaining the 'village character' refers to the overall physical size of settlement boundaries, population growth and size of buildings. On another level it refers to the sense of community, and interaction of residents and visitors alike within public spaces. This includes those daily moments of community life; dropping off the kids at school, meeting friends in the street, at the markets, in the surf and being part of community based events and sporting activities. The fact that many of the local residents still refer to Kingscliff as a 'village' despite it being a town by definition for some time now is a testament of these community interactions directly

informing this sense of village character.

Residents of Kingscliff value the outdoor and community life. A key element of retaining and strengthening the character will be enhancing and providing additional opportunity for residents to come together as a community. An improved network of public spaces and areas of environmental protection has the opportunity to form the backdrop to this community life, to facilitate key community events, form the communal heart of the town as well as serving as a resilient buffer to coastal hazards.

As we move forward, these key observations of community, character, and well designed places where community life can play out need to be a key considerations in planning and design decisions across a range of scales. From the larger greenfield subdivision design, future town centre expansion proposals, public domain and streetscape works down to choice of street furnishing detail; ideas which strengthen sense of place, community and character aspirations need to be embedded within future development of the locality.



Kingscliff's character and sense of place is underpinned by coastal community lifestyle, ocean beach, Cudgen Creek and the agricultural landscape of Cudgen Plateau.

1.7 Vision: The Key Strategies

Vision

A vibrant north coast town servicing the local population as well as the broader network of Tweed coastal villages with a prosperous and healthy community life, diverse local economy and employment opportunities, innovative sub-tropical design, nestled within a highly valued coastal environmental context fringed with a working agricultural hinterland.

Environment and Heritage

Facilitate the protection of aboriginal and non-aboriginal cultural heritage and management of land identified as environmentally and/or ecologically important through appropriate land use zoning and provisions for ongoing habitat management.

Town Centre

Reinforce the existing role and function of the town centre core as a sub-regional retail centre servicing the local residents as well as a broader network of Tweed Coastal villages fulfilling a diverse range of retail, commercial, cultural, recreation, health and accommodation uses with a focus on improving the connectivity, streetscape and pedestrian amenity whilst effectively managing traffic and car parking.

Economy, employment and infrastructure

Expand employment generating land uses within the region including larger integrated developments such as a business park, hospital, university campus, commercial and retail uses, as well as a range of student, tourist and residential accommodation types to build upon the existing industry pillars of tourism, agriculture, health and local small business.

Housing

Provide a planning framework which will deliver a diverse range of housing types to appeal to a broad demographic profile with a strong focus on subtropical subdivision and housing design, connectivity between residential areas with tree lined streets and well located and embellished open spaces and public domain.

Open Space and Community Facilities

Continue to build upon Kingscliff's diverse network of active and causal open space areas including ovals, parks, coastal foreshore areas, cycle and walking paths with a strong focus on achieving a greater level of connectivity and user amenity.

Protecting the environment	Creating employment opportunities
Enriching community life	Guidelines for existing precincts and future development
Architecture and design reinforcing the coastal character	Ensuring adequate provision of civil and community infrastructure

E-Zone and Vegetation mapping	Manage Aboriginal and European cultural heritage
Environmental protection zoning	Flora and fauna management
Coastal and estuary management	Enhanced Koala habitat

Retain low scale character along Marine Pde	Increase density and housing diversity around town centre
Facilitate town centre expansion along Turnock St	Improve pedestrian connectivity and public domain
Architecture and design guidelines to reflect coastal character	Improved car parking and traffic management

New business and knowledge precinct	Promote and support agriculture and aquaculture
Promote and support tourism	Additional light industrial land
Additional smaller retail centre	Local events and economic development

3000 additional new dwellings to meet a population of approximately 14 000 people	Mix of dwelling types and lot sizes to meet different demographic need
Additional low rise medium density housing types	Focus on subtropical subdivision and house design
Additional shop top housing within the town centre	Improved connectivity and access to open space

Embellishment of North Kingscliff Sportsfields	Expanded network of walkways and bike paths
New district casual open space park	North south and east west passive movement corridors
Embellish coastal reserve including new Central Park and youth activity area (skate park)	Embellish existing local pocket parks and provide new local parks in new subdivision areas.

1.8 Vision: The Key Principles

01 Create the big green

Protect and enhance areas of environmental significance and strengthen connections between them. Natural areas frame and contain areas of urban settlement with connected open space embraced as key community spaces for recreation, connection and enjoyment; the soft green community space behind the beach.



02 Ensure economic opportunity for all

Facilitate the growth and development of economic and employment opportunities through landuse planning including expansion of the existing Town Centre, the development of a future Business and Knowledge Precinct, expanded industrial areas and providing opportunity to grow the tourism industry.



03 A network of villages connected and framed by green

Create 'village scaled' precincts which are discrete with their own identity and character, framed by natural areas and interconnected by a necklace of green spaces for environmental quality, recreation, walking and cycling.



04 Embrace and celebrate the coastal edge

Strengthen and enhance connections and access to the coast which can be enjoyed by the public. All development should provide and enhance universal access connections to this edge.



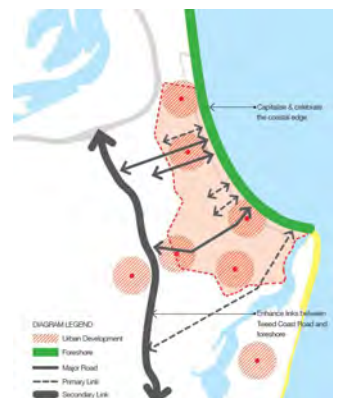
05 The greater density the greater the green

Provide opportunity for an increased housing density and diversity supporting a broad demographic profile and housing affordability needs. Density around the town centre will facilitate provision of additional green spaces, improving resident amenity and enhance connected areas of environmental protection.



06 North-south & east-west permeability

Leverage new development to create important north-south and east-west road, pedestrian, bike and public transport links. Enhance landscape and ecological links linking each of the precincts within the broader settlement.





2.0 ENVIRONMENTAL CONTEXT



2.1 Kingscliff Environmental Context

As put in the Tweed Community Strategic Plan 2017-2027, *the Tweed features an environment of world-significant biodiversity and natural beauty, and distinct cultural and built heritage*. Tweed Shire Council and the community value its protection and consider sustainable, environmental management practices as fundamental to all local strategies, policies and long term plans.

This section of the Context & Locality Wide Strategies document opens with a broad analysis of the environmental considerations relevant to Kingscliff, with the aim to assist in deciding the best and most environmentally sustainable location for each activity and land use on site within land to which this plan applies.

Kingscliff and Cudgen have a history of agricultural use and production that once formed part of the Tweed's major employment sector. This history is typical to the eastern coast of Australia: rapid population growth related with short-term exploitation of natural resources and dynamic growth of extensive agriculture on cleared land, were followed by subsequent "adjustments" of population by increasing pressure of settlement in the coastal areas and corresponding decrease in population and employment base in the hinterland. Environmental changes in Kingscliff locality, significant amounts of the coastal foreshore were also cleared for sand mining between 1950 and 1980 but significant regrowth, predominantly of native vegetation, has occurred since this time.

Due to agricultural and sand mining disturbances there are limited continuous areas of remnant and regrowth floodplain and estuarine vegetation and habitats. These are presented on Figure 2.0 on the opposite page as areas of 'Very High ecological status'. The second category on this map (High) also picks up areas with special ecological values (albeit at lower levels than Very High; eg poorly conserved vegetation communities) and represents tracts of forest, regionally significant corridors, and numerous types of key fauna habitat.

The key environmental themes which are explored within this section include:

- Environmental Protection, Vegetation and Koala Management
- Coastal and estuary management
- Flooding and Drainage
- Acid Sulfate Soils
- Topography and slope
- Soil Stability
- Views and scenic protection
- Potential Development Footprint and Constraints Overlay

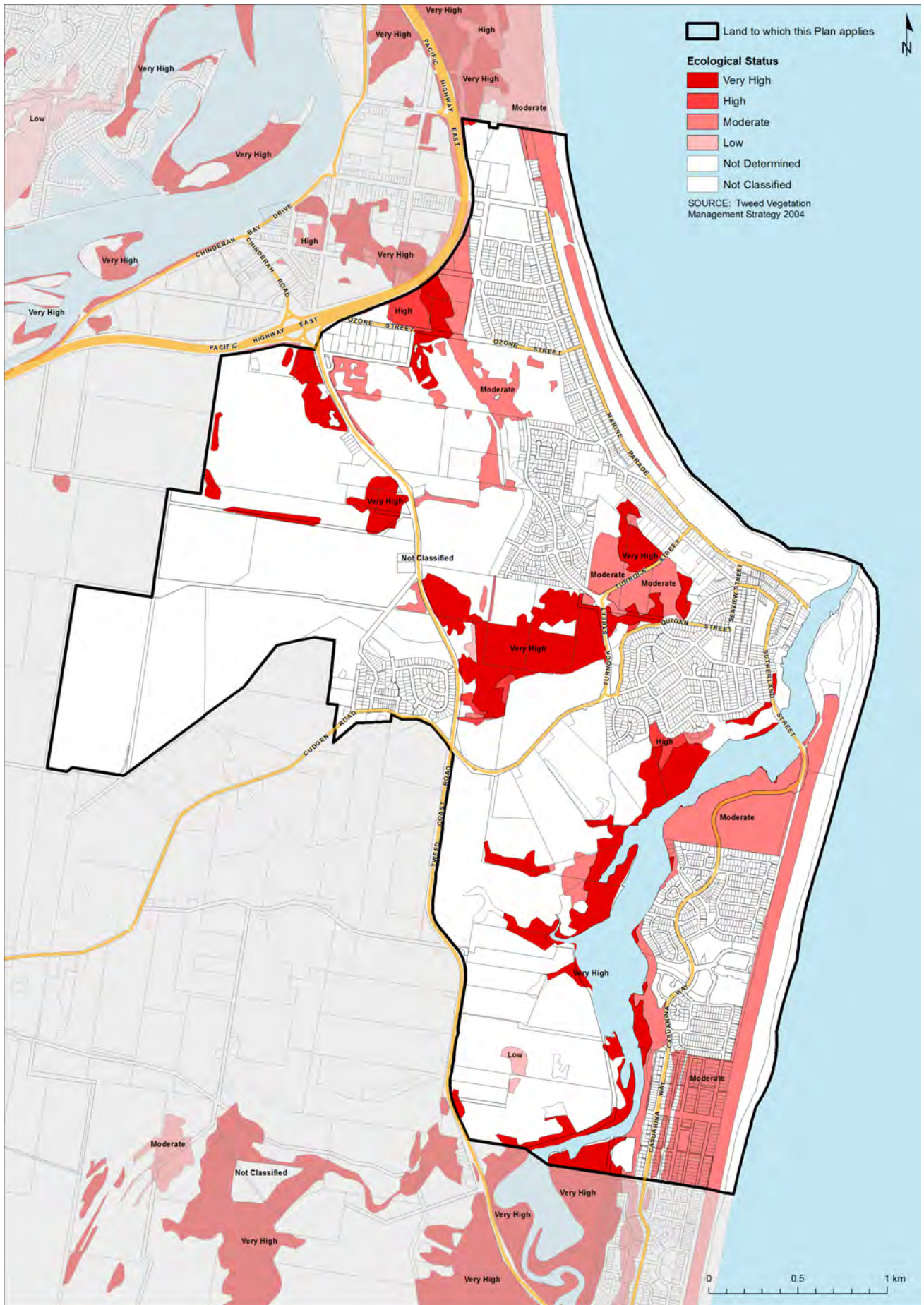


Figure 2.0 Kingscliff Ecological Status

2.2 Protected and Threatened Flora and Fauna

Kingscliff has unique and diverse ecological values that provide habitat for numerous threatened flora and fauna species. A range of threatened ecological communities including wetland, saltmarsh, rainforest and sclerophyll forest also occur in the study area. Figure 2.2 illustrates the location of protected and threatened flora and fauna records within the subject locality.

2.2.1 Protected Flora and Fauna Issues

The interface between the key habitat areas for protected, threatened and endangered species is a key issue which requires careful management. Urban development within a green field context can often reduce the amount of available habitat, fragment retained habitat and sever wildlife corridors. Other impacts of urban development include an increase in stormwater runoff, decrease in quality of stormwater runoff and the impact of acid sulfate soil which places significant pressure on the receiving natural environment and flora and fauna habitats

2.2.2 Protected Flora and Fauna Opportunities

One of the key opportunities resulting from the preparation of this Plan is a possibility to effectively plan for re-introduction of plants and wildlife which were native to the Kingscliff area but have disappeared in consequence of urban development. This could be achieved through effective management of existing and potential habitats, and implementation of appropriate land use zoning and buffer areas. Despite the existing environmental zone designation, many of the green field development sites require a more detailed and updated flora and fauna surveys to determine current ecological status in the context of the broader settlement development opportunity. This includes the allocation of wildlife corridors and protected habitat areas implemented through development applications and master plans.

2.2.3 Protected and Threatened Flora and Fauna Strategies

1. Integrate and co-ordinate broader ecological corridors, buffers and 'green belts' connecting key habitat areas and identify opportunities to improve landscape and ecological connectivity through strategic location of potential future areas of environmental protection across existing and future urban development sites.
2. Developers / Land owners to undertake detailed flora and fauna assessment over key development sites to determine any areas of environmental significance, endangered ecological communities or habitat areas.
3. Developers / Land owners are to provide for the restoration, rehabilitation and enhancement of degraded habitat and ensure that comprehensive ecological restoration plans form part of future development applications and master plans.
4. Developers / Land owners are to identify a defined urban footprint boundary through detailed site and context analysis over development sites which identifies areas of environmental protection, bushland, habitat areas and buffers.
5. Relocate the Wallum Froglet communities from the Turnock street location to the appropriate habitat to the west of Turnock Street as identified as part of DA05/0004 and continue to manage the Wallum Froglet Habitat Area as part of the endorsed 88E Restrictive Covenant.

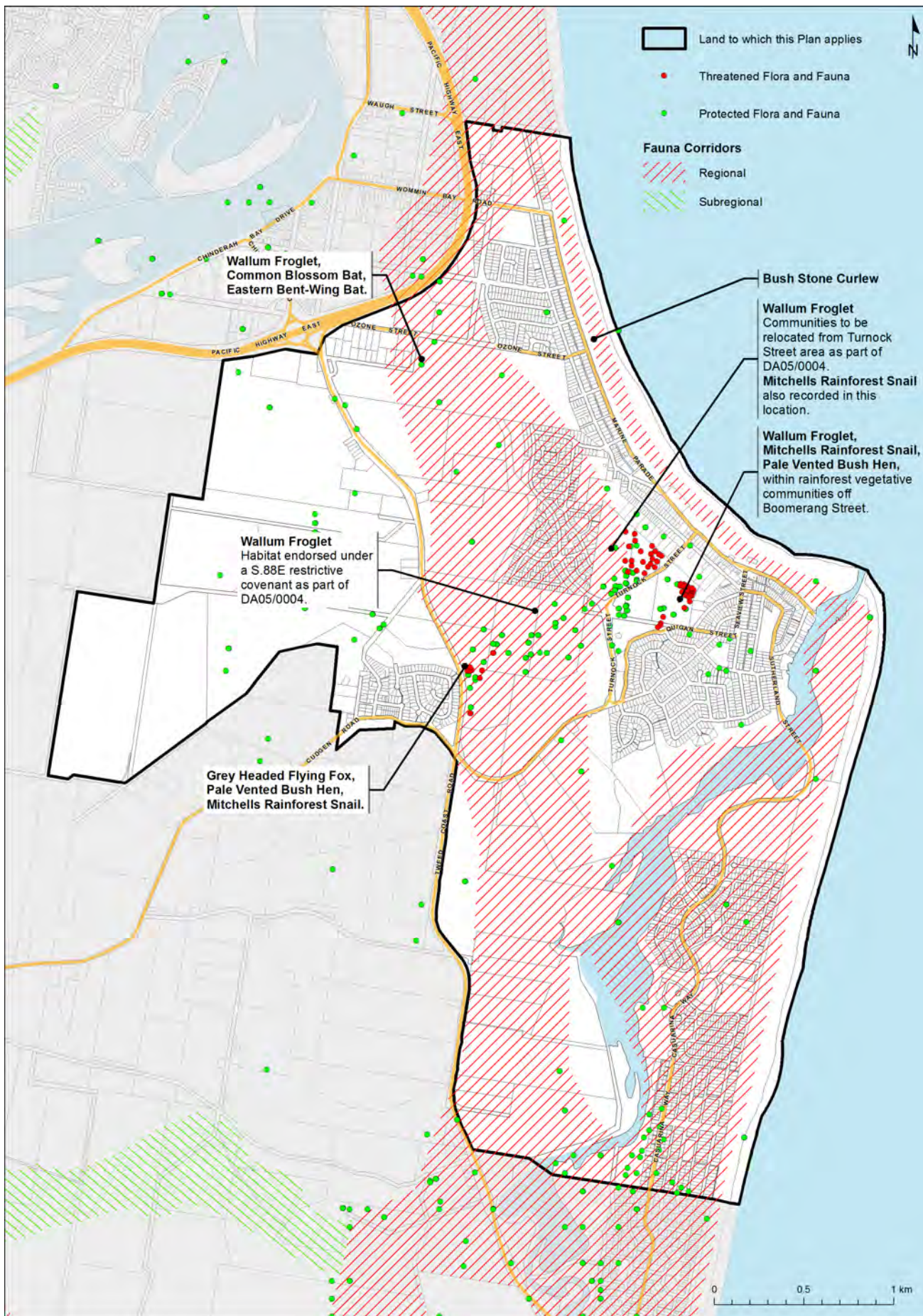


Figure 2.1 Protected and Threatened Flora and Fauna

2.3 Koala Plan of Management

The Tweed Coast koala population has declined by approximately 50% within the last decade. The extent of the decline means that the remaining koala numbers are now so low that mortalities due to fire, cars and domestic dog attack are no longer sustainable by the population over the long-term. To reverse this declining trend and help koala populations recover to a more sustainable level over the next three koala generations (15-20 years), Council has prepared The Tweed Coast Koala Habitat Study (2011) and a comprehensive Plan of Management (referred to as KPOM, 2015). Both these documents apply to Kingscliff and Cudgen localities.

2.3.1 Koala Management Issues

Whilst the Tweed Coast Koala Habitat Study 2011 did not map areas of koala activity within the study area, there is a substantial amount of Preferred Koala Habitat which requires careful future management. Further the KPOM has identified the Preferred Koala Habitat along both sides of the Cudgen Creek as a critical north south linkage for remaining koalas in the northern extent of the Southern Tweed Coast Koala Management Area. Future development in this area is required to be consistent with the relevant provisions of the KPOM.

2.3.2 Koala Management Opportunities

Ecological assessment of environmentally constrained areas, particularly where they relate to key development sites, will form a valuable part of defining development envelopes over key development sites. This process is also likely to involve ground truthing and mapping to identify and define environmentally constrained areas. This process will directly inform land use recommendations for both environmental protection as well as areas suitable for development.

There is also significant opportunity to identify key landscape linkage areas within the study area which will contribute to meeting the targets of the KPOM in terms of providing additional preferred koala habitat and linkages. In addition to rehabilitation and restoration of existing bushland and environmental protection areas, there may be opportunities for the establishment of sites that provide compensatory outcomes in this area.

2.3.3 Vegetation and Koala Management Strategies

1. Co-ordinate strategies and requirements of the Tweed Coast Koala Plan of Management in relation to the Preferred Koala Habitat within key greenfield sites within the Kingscliff locality.
2. Developers/landowners to initiate detailed flora and fauna surveys in consultation with Tweed Shire Council across the identified greenfield development sites to determine ecological value, Koala Management issues and options as part of an overarching site and context analysis which will define potential development footprints.
3. Developers / Land owners are to provide for the rehabilitation and enhancement of degraded habitat and ensure that comprehensive ecological restoration plans form part of future development applications and master plans.

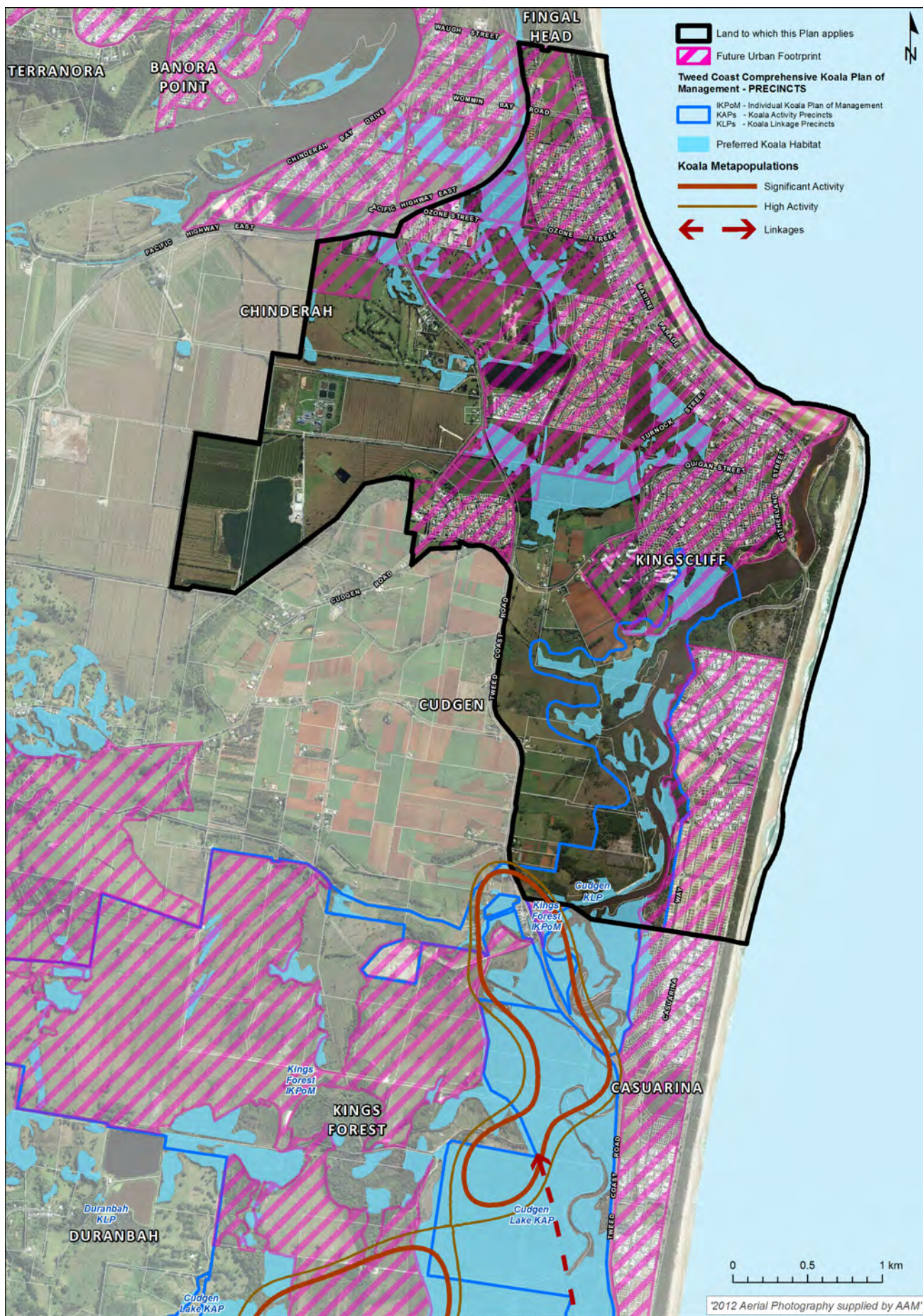


Figure 2.2 Southern Tweed Coast Koala Management Area and Precincts - Extract from the TKPoM 2015

2.4 Statutory Environmental Protection

The statutory environmental protection within the subject site is a combination of the principal land use plan (Tweed Local Environmental Plan 2014) and adopted Shire-wide and/or site-specific strategies defining Council's policy position towards environmental management.

Tweed Vegetation Management Strategy 2004

The Tweed Vegetation Management Strategy (TVMS) provides information about the status of vegetation including detailed mapping of remnant vegetation (Figure 2.3). The TVMS also provides existing and proposed frameworks for the management and conservation of remnant vegetation, provides an overview of threatened species in the Tweed generally, provides information on soil and water landscapes, as well as providing strategic directions and recommendation on vegetation management. This strategy has largely underpinned environmental zones pursued as part of LEP 2014.

Tweed Tree Preservation Order

As part of the process for Council's new Tweed Local Environmental Plan 2014 (gazetted 4 April 2014), Council also concurrently produced revised tree management planning controls, through the adoption of Tweed Development Control Plan Section A16 - Preservation of Trees or Vegetation. Due to the Department of Planning's environmental zone review, DCP A16 does not apply in areas identified as 'deferred matter'. In these areas, three Tree Preservation Orders (TPO), being Tree Preservation Order 1990, Tree Preservation Order 2004 and Tree Preservation Order 2011 as per TLEP 2000 currently apply. These TPOs provide criteria where vegetation removal is exempt, however outside of the set criteria, an application must be lodged with Council prior to works. Further to this, depending on the zoning of the land, approval from the NSW Office of Environment and Heritage under the Native Vegetation Act 2003 may be required.

Tweed Local Environmental Plan 2014, Tweed Local Environmental Plan 2000

Land zoned for environmental protection under the Tweed Local Environmental Plan 2014 and 2000 (TLEP 2000, TLEP 2014) is documented on Figure 2.4 on the following page. Since 2012, the methodology behind the application of environmental zones in Standard Instrument Local Environmental Plans in the Northern Rivers region have been under review initiated by the State Government. This review resulted in an "E-zone recommendations report" published in 2016 with the aim to guide the application of the environmental zones henceforth. At the time of finalising the Kingscliff Locality Plan, Tweed Shire Council has been preparing a planning proposal to implement environmental zones consistently with the State Government's recommendations.

In addition to the current environmental protection zones, there are other areas high ecological significance. Of note are the coastal foreshore reserve areas of high ecological status which are zoned RE1 under the TLEP 2014 and some areas of vegetation within the west Kingscliff Precinct and south of Turncok St and the Turnock street extension which are nominated in part as both 'deferred areas' (7f under TLEP 2000) and R1 General Residential under the TLEP 2014.

Other parcels of land which are currently under review include Lots 1 and 2 DP 1117599 Kingscliff (previously known as Lot 490). This land forms a green break between the residential subdivision areas of Salt and the south side of Cudgen Creek. It includes significant riparian

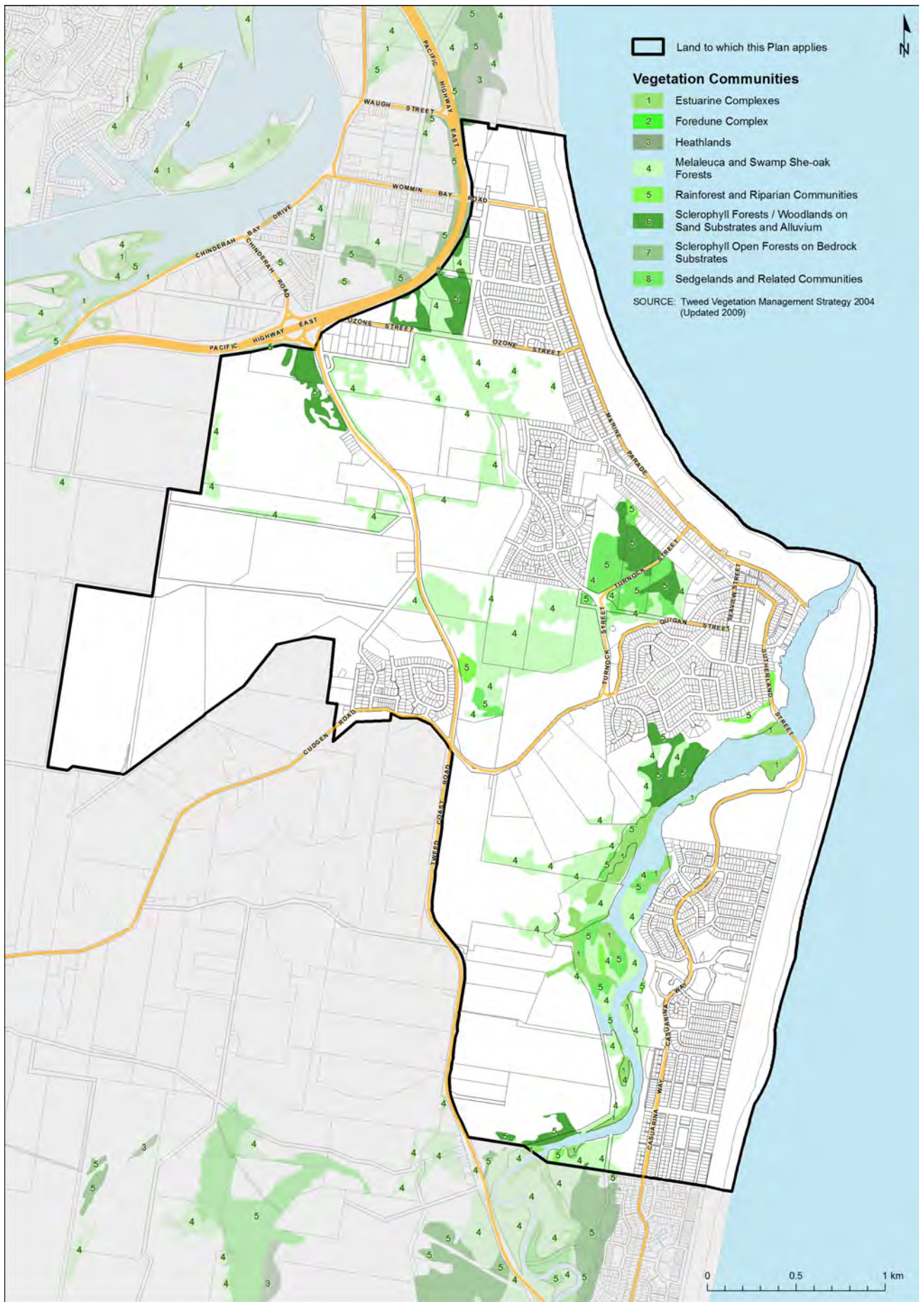


Figure 2.3 Vegetation Communities

vegetation to the west of Casuarina Way and coastal heath linking to the dunal system to the east. Whilst part of this site has been modified, it provides an important ecological link from the beach to the creek. In recognition of the site's ecological value, Council has resolved to rezone it as environmental protection. The planning proposal sought a rezoning of this site from SP3 Tourist to E2 Environmental Conservation under TLEP 2014. A successful aboriginal land claim over these lands was enacted in 2016.

2.2.1 Environmental Protection Issues

There is a currently a lacking of connectivity between tracts of areas with a environmental protection zoning. Further, there is risk that some of this land may be further fragmented as a result of urban development. Key environmental areas within the location have been identified as 'deferred matters' reverting the zoning of these sites to TLEP 2000 land use zones. Whilst a number of environmental flora and fauna surveys have been conducted over various sites over a long period of time, this information needs to be updated and synthesised to identify areas with a high conservation area as well as identify any data gaps which would require future survey work to be undertaken.

2.2.2 Environmental Protection Opportunities

There is an opportunity for the inclusion of additional lands for environmental protection following as part of the implementation of State Government's approach towards environmental zones, and a more detailed flora and fauna studies over green field development sites to supplement and update existing vegetation mapping and surveys. This process is also likely to involve ground truthing and more detailed mapping to identify and define additional areas of high and very high ecological status. This flora and fauna review process will then directly inform land use recommendations for additional environmental protection as well as identifying less constrained areas suitable for development.

2.2.3 Environmental Protection Strategies

1. Facilitate the protection and management of land identified as environmentally and/or ecologically important through appropriate land use zoning and provisions for ongoing habitat management.
2. Improve landscape connectivity, vegetation condition and habitat value through strategic location of potential future areas of environmental protection and habitat restoration.
3. Create strong north-south and east-west ecological links following the existing drainage line and establishing a continuous east-west ecological area (south of Turnock Street and future Turnock Street extension) and enhancing ecological areas along Cudgera Creek and across Lots 1 and 2 DP 1117599.

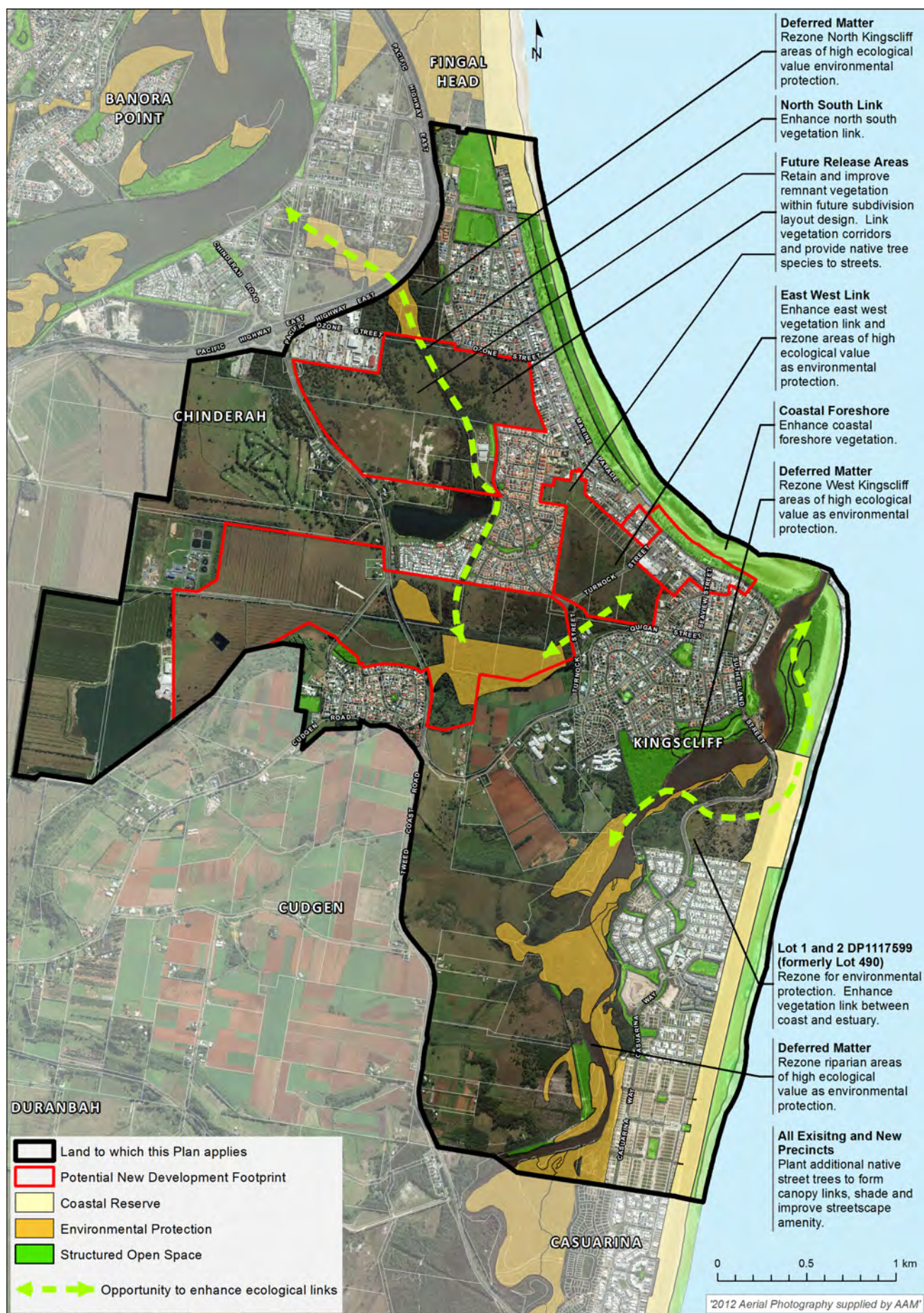


Figure 2.4 Opportunities to enhance environmental protection

2.5 Coastal Management

The Kingscliff Coastline comprises a long east and north east facing sandy beach extending from Fingal Headland south to Sutherland Point where training walls define the Cudgen Creek opening. On the south side of the point and creek, the south east facing sandy beach extends south to Norries Headland.

The beach and estuarine areas of Kingscliff are key focal points for a range of social and recreational activities. Community feedback obtained within the community vision survey identified the beaches and estuarine areas as the most loved aspects of Kingscliff with the protection, access and ongoing management a high community priority.

Regionally, the Kingscliff to Dreamtime Beach embayment is part of a long coastal unit that has a continuous south to north longshore transport of sand extending from the Clarence River to Moreton Bay. This coastal unit has a series of controlling headlands past which the sand is moved by the prevailing waves. The volumes of sand movement along the coast can vary significantly and are dependent on a range of climatic, seasonal and storm based influences which can lead to either a recession or build up of sand on beaches. The shape, in particular of the southern portion of Kingscliff Beach is north east facing which exposes the beach to significant erosive wave action from the north east experienced during the cyclonic period (Nov-April of any given year). This is exacerbated by the broken and narrowed dunal system, man made structures and built form in this location. Whilst the existing protective rock walls stabilise and anchor the alignment of the coastal edge in these locations, the resultant wave rebound and inability of the sand to be nourished by a dunal system can compound the erosive effects on the beach.

Similarly, as the area was historically extensively sand mined, cleared and being the subject of coastal urban development, the natural dunal systems particular to the south has been significantly altered. These factors, including a diminishing flow of sand from the south, provide for an estimated long term average recession rate of 0.15m per year. In addition to this is beach recession of up to 90 metres due to Sea Level Rise of by 2100.

2.5.1 Coastal Management Issues

Kingscliff Beach has been subject of severe and continued erosion since a large storm in May 2009. The erosion was initially in the southern corner and at one stage threatened the structural integrity of the north training wall. Up to 40 to 60 meters of vegetated dune was lost along a length of foreshore approximately 500 metres long. A significant proportion of Faulks Park including part of a car park was lost. A protective seawall which was constructed immediately in front of the Cudgen Headland Surf Lifesaving Club in August 2010 prevented significant structural undermining of the building.

Figure 2.5 illustrates that the majority of Kingscliff's CBD lying within the 2100 and 2050 coastal hazard zones mapped as part of Tweed Shire Hazards Assessment 2014. The key implications will be how this hazard will be managed in terms of the future erosion risk on the coastal foreshore reserve, Kingscliff Beach Bowls Club, Cudgen Headland Surf Life Saving Club, Kingscliff Beach Holiday Park and the Kingscliff Town Centre whilst retaining access and a high level of amenity to the beach area.

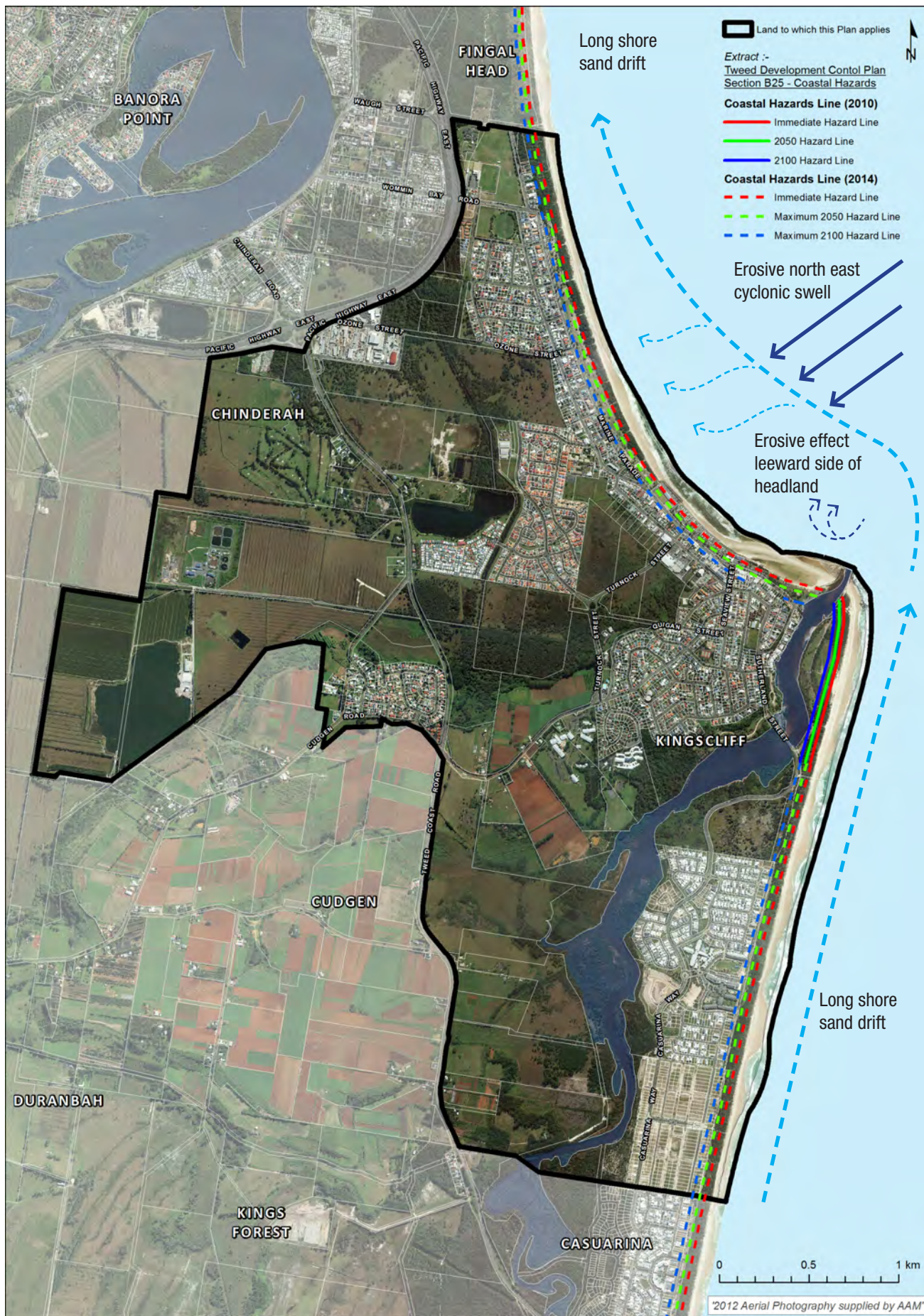


Figure 2.5 Coastal Processes

Dreamtime - Kingscliff Beach Coastal Zone Management Plan (CZMP)

Council is currently undertaking the CZMP which is a major feature of the Kingscliff Foreshore Masterplan adopted by Council in July 2007. The purpose of the CZMP is to investigate longer term solutions to addressing the imminent coastal hazard areas affecting Kingscliff beach and the adjoining town centre. The management plan will investigate a number of different options within a cost benefit framework and will confirm a preferred risk management option for Kingscliff coastal protection. This may include a seawall, sand nourishment. The plan will develop a funding model for any works required.

2.5.2 Coastal and Estuary Management Opportunities

- To investigate and construct long-term coastal hazard protection infrastructure which will prevent further significant storm and erosion events from damaging public assets on the Kingscliff Beach foreshore and the Kingscliff town centre in the long term.
- Given the important public interface between the town centre, future central park and the beach, it is important that any future coastal hazard infrastructure works meet urban design, public domain as well as engineering objectives. There is opportunity to include designed public domain elements improving access to the beach and connecting the coastal foreshore to the north and south with central park and the town centre.

2.5.3 Coastal and Estuary Management Strategies

1. Undertake associated coastal erosion measures as identified within the Coastal Zone Management Plan.
2. Support and, where appropriate, implement the land use strategies and management objectives within the Coastal Zone Management Plan within the coastal foreshore precinct plan contained within the KDCP.
3. Ensure any future coastal hazard protection works are designed to integrate quality public domain areas, pedestrian spaces and access to the beach.
4. Identify and build key pedestrian and swimming points of access to enable more universal, equitable and legible access to the coastal beaches and Cudgen Creek.

Merewether Beach has successfully integrated public domain, pedestrian spaces and beach access with coastal hazard protection measures which also served to protected a surf life saving club.





The Kingscliff Coastline is highly valued by residents and tourists alike and is a key focal point for a range of social and recreational activities.



A storm in 2009 caused a significant erosion event along Kingscliff Beach.

2.6 Cudgen Creek Estuary Management

The Cudgen Creek estuary, a drowned river valley, is highly valued by the community and is a focal point for recreation and tourism. There are significant reaches of estuarine wetlands along much of the length of the Cudgen Creek estuary including areas of significant mangroves, coastal wetlands, saltmarsh and seagrass which contribute strongly to its ecological significance (Figure 2.6). The Cudgen Creek entrance, located at Kingscliff, was modified by the construction of training walls in 1967 to maintain a constantly open system. The estuary water body is estimated to cover approximately 2.1 km² with the catchment area covering approximately 67 km². In 2013, Council adopted the Coastal Zone Management Plan with the aim to guide future management of the Tweed Coast Estuaries and their catchments.

2.6.1 Estuary Management Issues

As identified within the Coastal Zone Management Plan for Tweed Coast Estuaries the major pressures acting upon the estuary include acid runoff from disturbed acid sulfate soils in the catchment above Cudgen Lake and entrance shoaling inhibits navigation for recreational boating. Further, the Plan identifies existing and potential future pressures resulting from major urban and tourist developments at Casuarina Beach, SALT at South Kingscliff and the Kings Forest site to the south of the creek. Finally, the Plan considers bank and soil erosion from intensive vegetable growing area of Cudgen plateau.

Further to the above, the community vision survey and workshop identified user conflicts between swimmers, recreational fishermen and boat navigation near to the boat ramp and opportunity to relocate the boat ramp to the south side of the creek. The community is also aware that there is not enough creek access points, which leads to proliferation of unformed tracks and bank erosion. Finally, there is a lack of universal access points to the creek with the boat ramp and area to the east being generally identified as a good location for universal access improvements.

2.6.2 Estuary Management Opportunities

As identified within the Coastal Zone Management Plan for Tweed Coast Estuaries the long-term vision for the Tweed Coast Estuaries is increased health and resilience of the Cudgen, Cudgera and Mooball Creek estuaries so that they respond naturally to pressures and impacts without requiring excessive management to protect the important values. Given the current limited points of access, there is also opportunity to improve and rationalise access to the creeks edge for passive users. This includes the opportunity to improve the current conflict of users at the end of Marine Parade where boat users, pedestrians, swimmers and fisherman currently converge.

2.6.3 Estuary Management Strategies

1. Support and, where appropriate, implement the land use strategies and management objectives within the Coastal Zone Management Plan for Tweed Coast Estuaries.
2. In consultation with Roads and Maritime Service initiate a Cudgen Creek Boating Area Plan to devise a long term strategy for boating to improving the safety for all users.
3. Instigate through an addition to the Kingscliff Foreshore Management Plan urban design and public domain improvements to rationalise and improve access (pedestrian, swimmer, vehicle, boat) within proximity of the boat ramp.

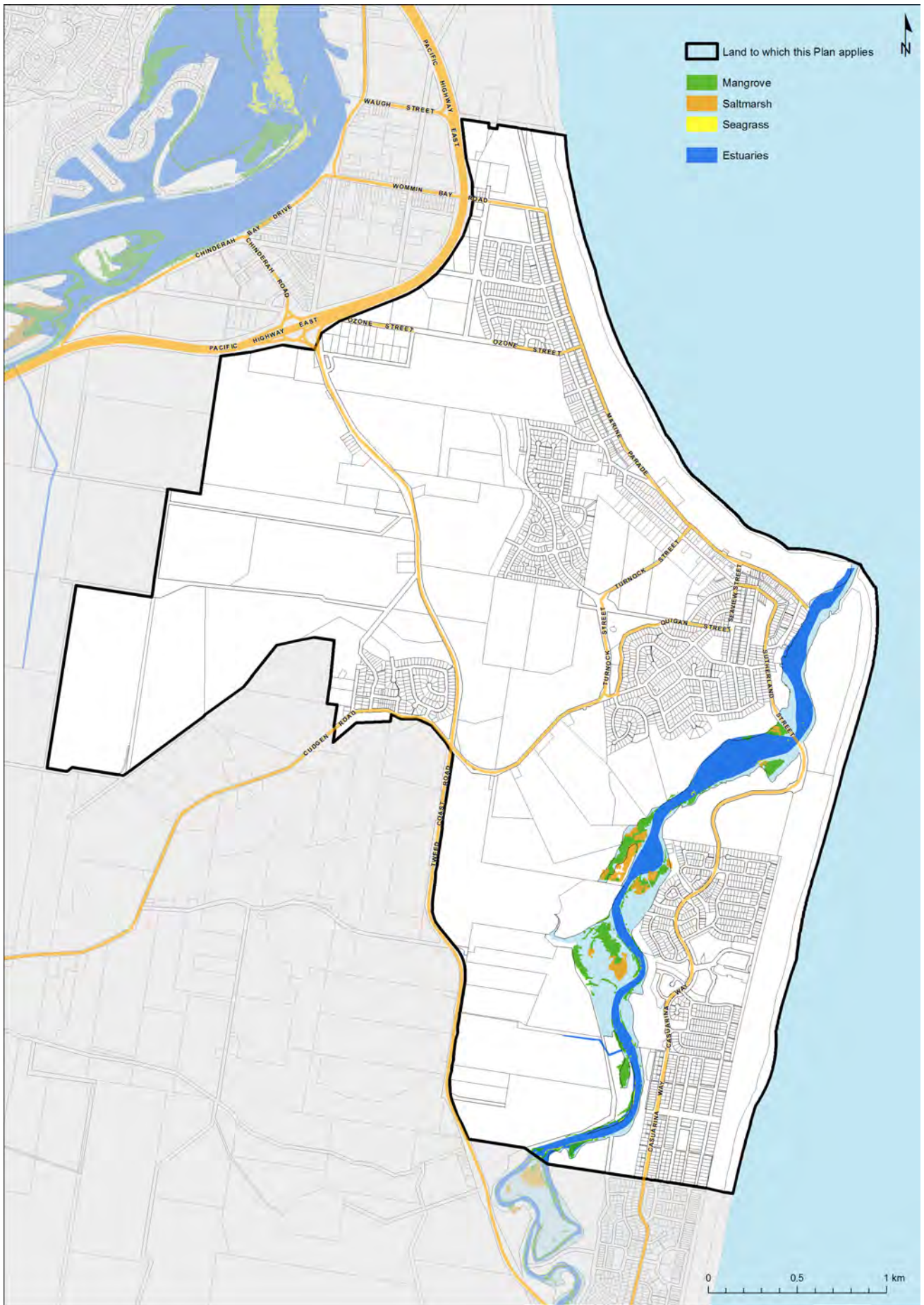


Figure 2.6 Estuary Management

2.7 Flooding

The subject locality spans two separate floodplains, the Tweed River floodplain north of Cudgen, and Cudgen Creek to the south. The extent of flooding in the subject locality is illustrated on Figure 2.7 which is an extract from the 2009 Tweed Valley Flood Study Update and the 2010 Tweed-Byron Coastal Creeks Flood Study.

Much of the undeveloped area of Kingscliff north of Cudgen is flood liable. Flood behaviour and hazard varies across the floodplain. While flow velocities are typically low east of the Pacific Highway, flood depths can exceed 2m in the West Kingscliff. Flood depth reduces adjacent to the coast, due to the higher elevation of the coastal dune formation. This area, as well as previously filled urban land is above the 1% AEP flood level of 3.1 - 3.2m AHD. However in extreme flood events approaching the probable maximum flood (PMF), much of Kingscliff with the exception of Cudgen Hill is inundated, including breakouts through the coastal dune to the ocean.

Council has recently adopted the Tweed Valley Floodplain Risk Management Study and Plan (TVFRMS 2014, refer Section 8.4.2). This document provides the strategy by which Council will manage existing and future flood risk through a range of recommended options in the areas of flood modification (e.g. flood mitigation devices and engineering solutions), response modification (e.g. improved emergency response planning in conjunction with the State Emergency Service), and property modification measures (e.g. development controls). Section A3 - Development of Flood Liable Land of the Tweed Development Control Plan 2008 sets the standard for development on flood liable land throughout the shire.

This approach ensures that only appropriate compatible development occurs on flood prone land in the future, by minimising future potential flood damage and ensuring safe occupation without undue reliance on emergency response agencies.

A similar Floodplain Risk Management Study has commenced for the Coastal Creeks, including Cudgen Creek. However as shown on Figure 2.7 existing and remaining development within the urban zoned parts of South Kingscliff and Casuarina has good flood immunity and limited flood constraints.

2.7.1 Flooding Issues

The North Coast Regional Plan and Tweed Urban and Employment Land Release Strategy identify a large tract of land to the south of the existing Chinderah industrial estate as 'employment lands' and a tract of land to the west of the Kingscliff Town Centre (West Kingscliff) as proposed 'future urban land release' area which is identified as flood liable. The development potential of these identified sites will therefore need to be considered against implications of substantial filling which may in consequence lead to a number of other environmental, planning and urban design issues. The volume of bulk earthworks and filling also needs to be understood in the context of the broader flood modelling scenario, as well as from an urban design, streetscape and visual amenity perspective.

The TVFRMS examined a range of possible filling scenarios in West Kingscliff and beyond, to assess the potential cumulative impacts of loss of flood storage due to filled development in this part of the floodplain. This loss of flood storage, if uncontrolled,

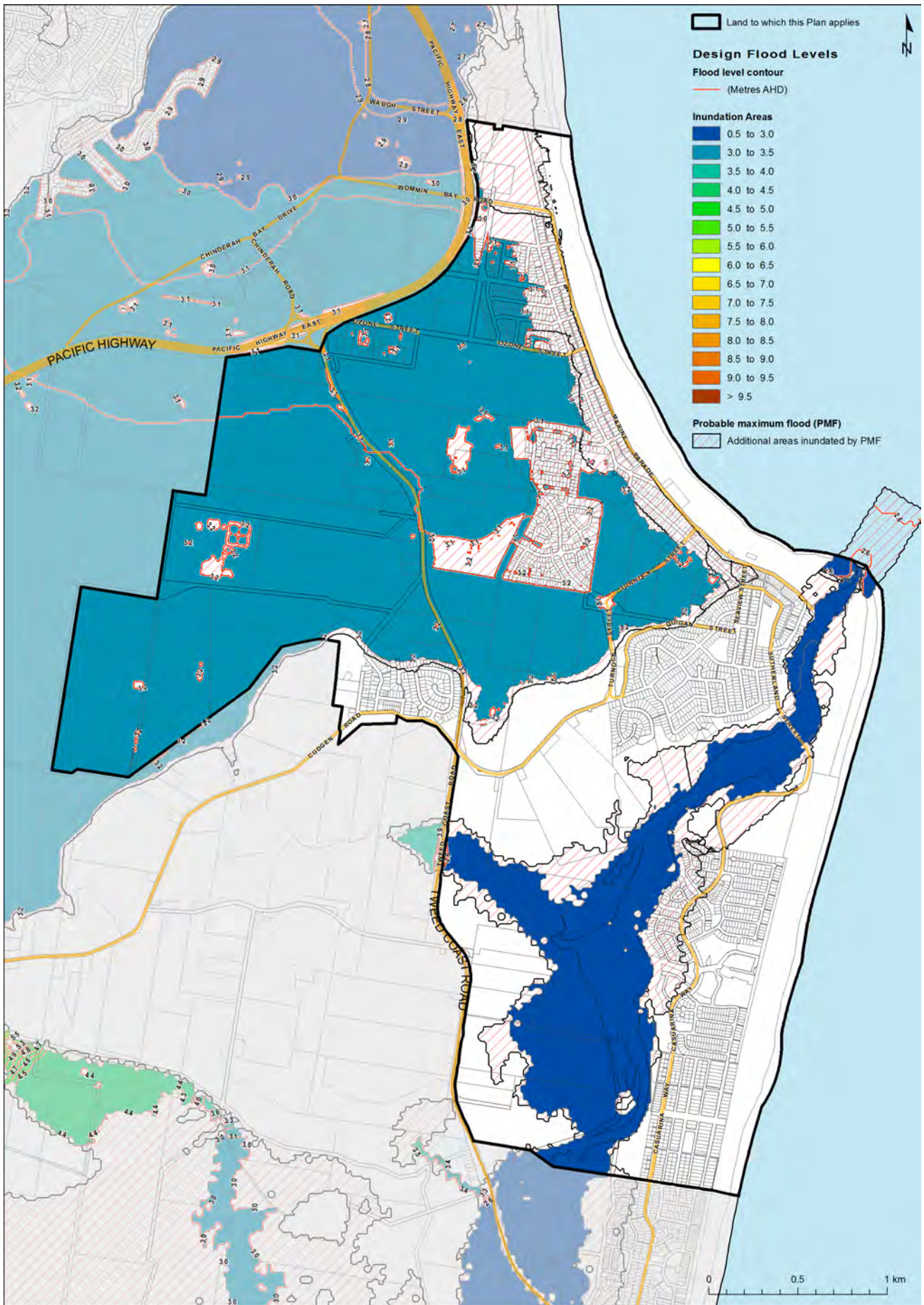


Figure 2.7 Flooding

has the potential to increase flood levels upstream, and increase flood velocities in the main river channel, as the floodplain experiences a significant constriction in width at Chinderah. Modelling of the fill scenarios has confirmed that the impacts of floodplain development (in terms of changes to flood depth and duration) remain within acceptable limits across adjacent urban and rural land, provided coverage of site filling is restricted to a maximum 65% in the industrial zone. 100% site filling is allowed for residential zoned areas. Refinement of flood modelling for individual site impacts and stormwater management will still be required for future development applications.

2.7.2 Flooding Opportunities

Due to the greenfield nature of the urban land release area of West Kingscliff, the flooding controls in DCP Section A5 - Subdivision Manual require that these parcels be filled to a design flood level that incorporates a climate change allowance, and be serviced by high level evacuation routes to land outside of the floodplain. This increases the long term flood resilience of these newer areas as well as reducing current flood risk to existing areas by extending flood evacuation routes.

There is also opportunity to investigate the development of elevated, flood free land at Cudgen, particularly for community services facilities that could provide safe evacuation and support facilities during flood emergencies. Such development opportunities would need to be compatible with the state significant farmland agricultural land classification which extends over much of this area.

2.7.3 Flooding Strategies

1. Implement the recommendations of the Tweed Valley Floodplain Risk Management Study and Plan and development controls for urban subdivision, residential and commercial/ industrial development in Section A3 and A5 of the Tweed Development Control Plan.
2. Over green field development sites, developers / land owners are to initiate and fund site specific flood mitigation strategies which identifies lands to be filled, evacuation routes and location of surface drains as integrated with the road and open space structure / networks.
3. Consider the potential impacts of floodplain filling and flood resilient building design on town planning, urban design, and environmental values of the locality.
4. Explore the feasibility of development of flood free land at Cudgen to provide emergency response support and/or evacuation facilities during flood emergencies, within the constraints of the land's agricultural significance.



Major flood event in Kingscliff, March 2017

2.8 Drainage

Figure 2.8 illustrates the Kingscliff drainage catchment which covers approximately 500 hectares between the beachside communities in Kingscliff to the south and Chinderah to the north, with the drain discharging into the Tweed River south of Barney's Point. The general drainage flows relate to the localities topography with the dominant Kingscliff ridge line defining the northern and southern watersheds. On the northern side of the Kingscliff ridge line, surface water moves into an east west drain running parallel to Turnock Street before merging and travelling along an open northern drain which runs parallel to Elrond Drive, across the open North Kingscliff site, under the Pacific Highway before draining into the Tweed River at Chinderah. East of the Tweed Coast Road, drainage channels direct overland water past the sewerage treatment plant, and then north before being discharged into the Tweed River. Overland flow paths south of Kingscliff ridge line drain into Cudgen Creek. Due to the predominantly sand subsurface of Salt and Seaside estates, stormwater drainage generally infiltrates into the ground with some discharge points into Cudgen Creek.

The Kingscliff Catchment and Drainage Management Plan (KCDMP) was prepared to provide a technical analysis to aid the management of development within the Kingscliff drainage catchment and its impact on the local environment.

2.8.1 Drainage Issues

One of the emerging issues is acid sulfate soil discharge events into the Tweed River which can lead to a decline in river ecology health including potential for fish kills and damage to seagrass communities. In the context of increasing development pressure, this issue is likely to be exacerbated. In terms of drainage management future development needs to take into account the Catchment and Drainage Management Plan for the purpose of storm water and runoff management. Any changes within the Kingscliff Drain catchment area needs to ensure that future development does not have a detrimental impact on the receiving environment, from the perspective of intrinsic value and amenity. It is also important that problem drains are redesigned and reworked to mitigate the impacts of acid sulphate soils.

2.8.2 Drainage Opportunities

Given the significant existing and future development in and around the study area, there is opportunity to update the KCDMP and investigate alternate options in terms of the longer term stormwater drainage infrastructure requirements, water treatment and management strategies. This may include the implementation of a wider north-south drainage corridor which would have the benefit of restoring a marine vegetative environment to treat receiving water, addressing potential acid sulfate soil issues as well as providing a linear open space area and passive movement corridor. It is particularly important at the master planning level to implement the principles of water sensitive urban design and onsite water treatment and reuse systems over future development sites.

2.8.3 Drainage Strategies

1. Update the KCDMP to take account of potential development scenario's and implement a more holistic and water sensitive urban design approach to managing stormwater drainage. This would include revisiting preferred design of key drainage corridors, particularly in dealing with potential acid sulfate soil issues.
2. Investigation the application of water sensitive urban design treatments over green field development sites within early phases of site structure planning and design development.

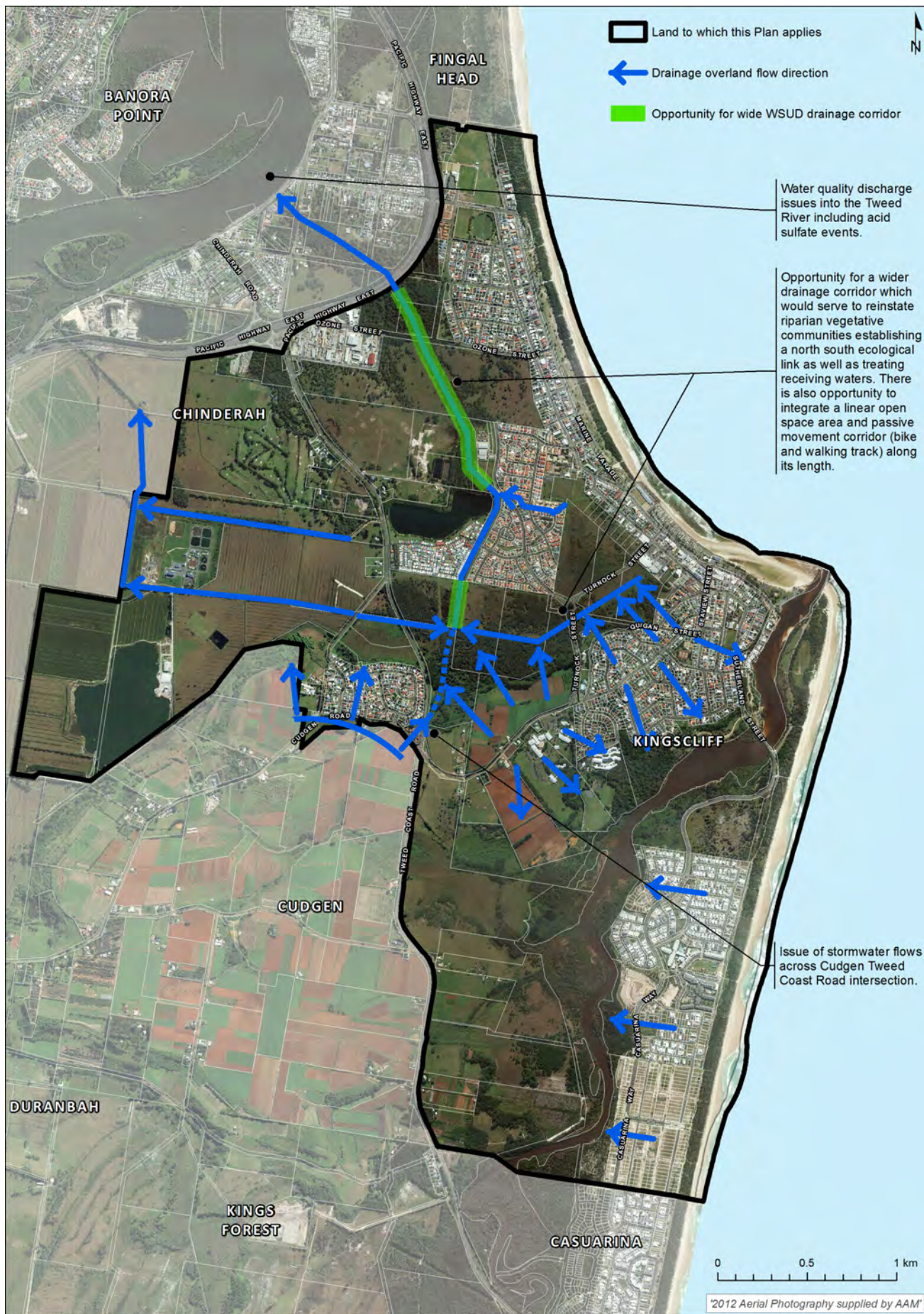


Figure 2.8 Drainage

2.9 Acid Sulfate Soils

In the Tweed, acid sulfate soils (ASS) are common throughout the coastal floodplain, much of which has been disturbed by human activities, particularly agriculture. Figure 2.9 illustrates the extent and classes of ASS which can be found within the locality. The most at risk areas are the lower lying greenfield areas north and west of the town centre because of the proximity of potential ASS to the ground surface. The residential areas off Elrond Drive have been filled thereby negating ASS disturbance risk.

2.9.1 Acid Sulfate Soils Issues

Drainage, excavation and dewatering of these soils exposes the iron sulfide layers to air resulting in the formation of sulfuric acid. The concentrated acid can overwhelm the stream's capacity to neutralise it resulting in adverse affects to the health of fish and other organisms in downstream aquatic environments. There are recorded instances of ASS discharges into the Tweed River via drainage channels. The most significant ASS issues originate in the floodplain to the west of Cudgen Lake causing poor water quality and fish kills in Cudgen Lake but also the Cudgen Creek estuary from time to time.

2.9.2 Acid Sulfate Soils Opportunities

Disturbance of potential acid sulfate soils may be required for activities such as construction works and agriculture. Various management techniques exist for dealing with acid sulfate soil disturbance in order to minimise the release of pollutants to the environment. Within a construction context potential impacts from foundations and basement excavations may be mitigated to a large extent by the requirement to fill development sites above the design flood level.

There is significant opportunity however, that in the context of potential future development within the Kingscliff locality that a more holistic management strategy is devised for the treatment of water quality and stormwater management focussed around the existing drainage network, and in particular the north-south drainage corridor. This would include identifying and managing longer term localised acid sulfate soil issues in co-ordination with a review of the Kingscliff Drainage Catchment Management Plan including high risk acid sulfate soil areas further up the catchment.

2.9.3 Acid Sulfate Soils Strategies

1. Avoid disturbance of acid sulfate soils.
2. Continue to manage works affecting acid sulfate soil liable lands through the existing legislative requirements under Part 7.1 of the Tweed LEP 2014.
3. Investigate preferred design of key drainage corridors when dealing with the ASS.
4. Address ASS issues west of Cudgen Lake through targeted remediation activities.
5. Undertake studies to further understand the mechanisms for existing ASS discharge events that result in significant iron floc discharges within the Kingscliff drain and the Tweed River. Further studies will be used to inform remedial actions and future works required to address chronic ASS issues in the Kingscliff Drain.

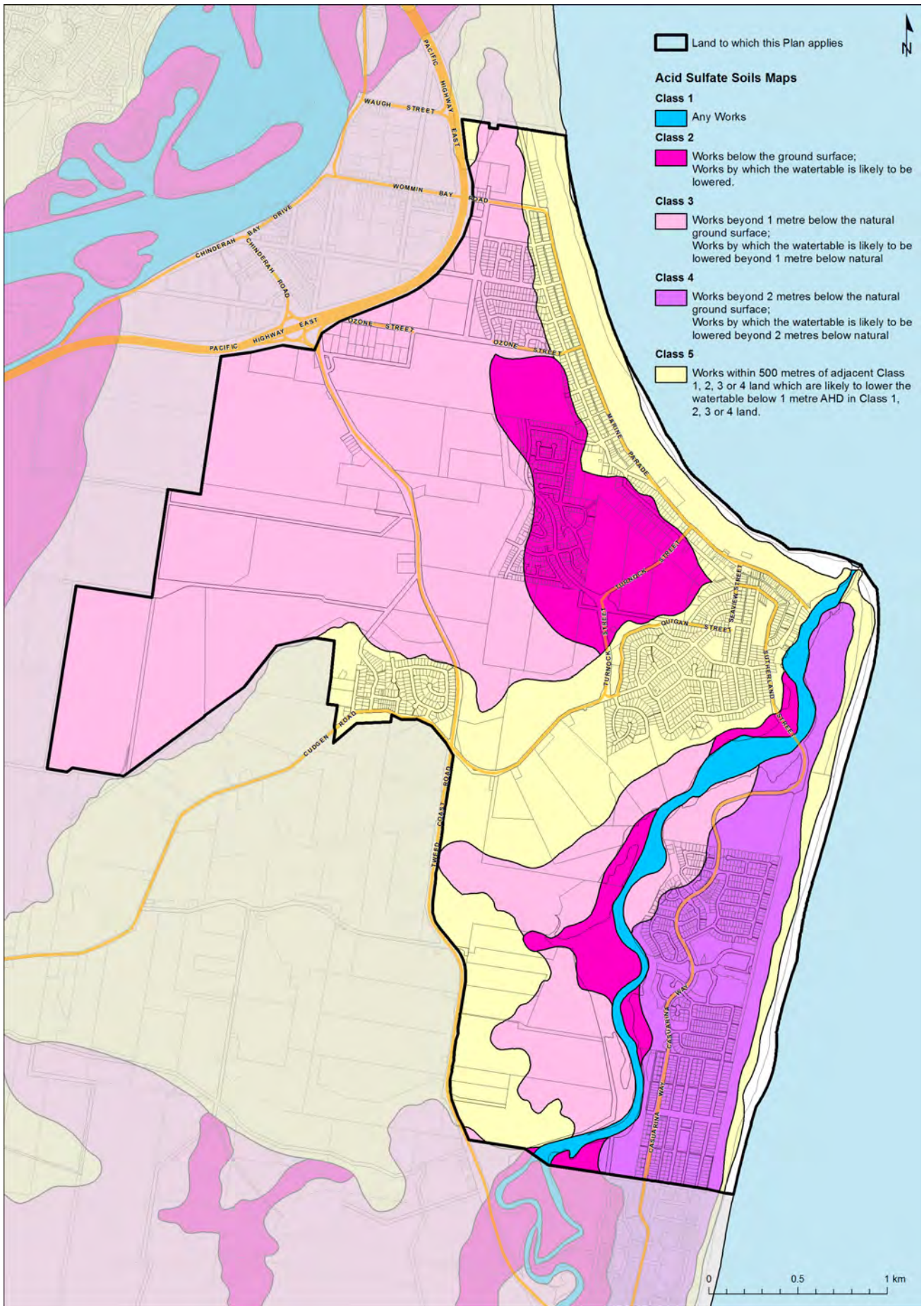


Figure 2.9 Acid Sulphate Soils

2.10 Topography, slope and scenic protection

The dominant topographic characteristic of the locality is a defined ridge line linking the Cudgen Plateau from the west to Sutherland Point in the east. The ridge line slopes north towards the flatter low lands within proximity of Turnock Street and south towards Cudgen Creek. The elevations of the locality range from 0-2 m along the coastal flats which includes the majority of the Kingscliff settlement and the south Kingscliff settlements of Salt and Seaside up to 50m along within proximity of McPhail Street on Kingscliff hill.

The Cudgen Plateau has an elevation of between 20-40m. The elevated Kingscliff Hill provides for important regional panoramic views north towards Fingal Head and Cook Island, north west towards the Terranora Ridgeline, West and South West towards Mt Warning and the border ranges and south towards Cabarita Headland. These views are however experienced from a number of different vantage points. Similarly, views back to Kingscliff Hill, which forms the backdrop to the town centre and the creek are experienced from various key vantage points around the locality. Coupled with the topographic elevation and dominant ridge line are small valleys forming drainage paths perpendicular to the ridge line heading south to Cudgen Creek and north towards Tweed River via drainage channels.

2.10.1 Topography and Slope Issues

Given the highly visible ridgeline it is important to understand the potential visual impacts from development on elevated parcels. View sharing and potential impacts to important view fields need to be considered as part of the merits assessment processes. Particularly on sloping sites there is also a potential risk of development without appropriate consideration of the sloping conditions, leading to substantial visual impacts. Excessive cut, fill and high retaining walls can undermine streetscape character and visual amenity as well as disrupting natural land form.

2.10.2 Topography and Slope Opportunities

- Maintain the integrity of ridge lines, valleys and natural topographic features as an important part of the localities character;
- Promote subdivision, building design and structural systems which are compatible with the landform with streets that take advantage of view lines and aspect;
- Understand the design relationship of slope to appropriate construction type to minimise cut and fill and relationship of slope design considerations
- The watercourses and vegetated drainage lines running through the locality could provide excellent visual, recreational, educational and environmental preservation opportunities and should be integrated with opportunity for pedestrian links between.

2.10.3 Topography and Slope Strategies

1. Ridge lines, valleys, water courses and natural topographic should be conserved for the role that they play in adding to the sense of place within Kingscliff and Cudgen localities.
2. Integrate a north south and east west open space / pedestrian and cycle corridor following the dominant drainage lines.
3. Urban structure and subdivision layout of new greenfield areas to be designed in harmony with the topography to avoid large unlandscaped batters and retaining walls for the purpose of creating flood free land or terraced lots on sloping sites.

2.11 Views and scenic protection

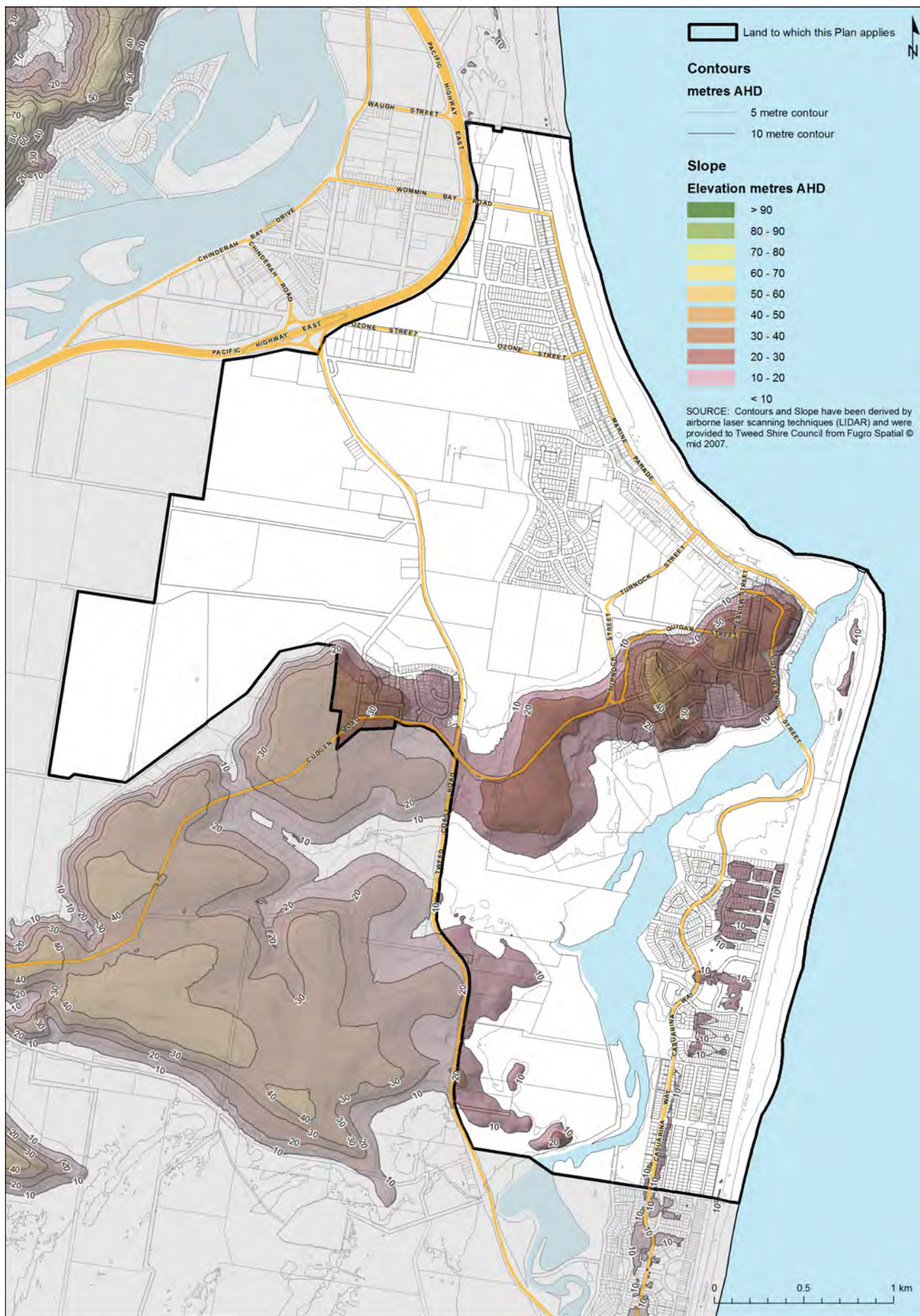


Figure 2.10 Topography and Slope

Part of the defining character of Kingscliff and Cudgen is the high quality scenic landscape including coastal, estuarine and hinterland view fields. Preserving the visual character was a theme expressed strongly through the community vision survey with respondents listing the beach, creek, bushland areas as their favourite parts of Kingscliff. These key view fields identified in Figure 2.11 and some of the defining landscape characteristics including:

- Dominant ridge line from Cudgen Plateau to Cudgen Creek and Sunderland Point;
- Agricultural, farmland and hinterland views experienced heading north and south along Tweed Coast Road and East and west along Cudgen Road;
- Elevated north and east elevated views from various aspects on Kingscliff Hill to Fingal Headland, Cook Island and Pacific Ocean
- Elevated west and south west elevated views from various aspects on Kingscliff Hill to Cabarita Headland and west around to Mt Warning and the border ranges;
- North and South Coastal views experienced from the beaches, coastal foreshore areas and break walls;
- Views along the creek line (east and west)
- Long views north towards the Terranora ridge and west towards the Border Ranges and undulating hinterland;
- Green break or vegetated buffer (Lot 1 and 2 DP 1117599) between the northern extents of Salt and the Cudgen Creek Bridge.
- Large street trees including the town centre Fig Trees which contribute significantly to the landscape character.

2.11.1 Views and Scenic protection Issues

Some of the localities best views are experienced from the highest points of Kingscliff Hill with many experienced from private properties. Maintaining key view lines from private residences has been an ongoing issue in the context of site redevelopment resulting in bigger development and view loss experienced from existing dwellings predominately experienced within the Kingscliff Hill precinct. It is important that these key vantage points and identified view fields from public areas are not obstructed by future development. It is also important that design principles which identify view sharing principles are applied to new development on Kingscliff Hill.

View Loss Planning Principle

In consideration of the issue of view sharing and view loss, four key planning principle assessment steps established from the Land and Environment Court case *Tenacity Consulting v Warringah Council* (2004) NSWLEC 140 relating to view loss and are a relevant point of reference. These four points include:

Step One: An assessment of the value of views to be affected by reference to their nature, extent and completeness.

Step Two: A consideration of how views are obtained and what part of the property the views are obtained from.

Step Three: A qualitative assessment of the extent of the impact in terms of severity particularly as to whether that impact is negligible minor, moderate, severe or devastating.



Figure 2.11 Key Views

Step Four: An assessment of the reasonableness of the proposal causing the impact particularly in terms of compliance with applicable planning controls and whether a different or complying design must produce a better result.

2.11.2 Views and Scenic Protection Opportunities

As derived from the community vision survey and community workshop 01, the scenic management for Kingscliff should maintain the natural setting of the Cudgen Creek and coastal areas as a priority given that these elements largely underpin the landscape character and amenity of the area. For many residents, it is these key landscape elements which attracted them to live within the area and as such the retention of key view fields and access particularly to the coast and creek which is embedded with their lifestyle and well being. Similarly, residents who have purchased properties that enjoy views are generally fiercely protective of maintaining them.

As such there is an opportunity during the locality planning process to identify the key views as experienced from public vantage points and devise a set of planning controls to maintain this scenic protection as well as providing a methodology and set of criteria which would need to take into consideration potential for impacting an important view field and also design considerations to reduce view loss impact as experienced from private property. This scenic protection set of guidelines and controls should seek to:

- Retain and enhance key visual character components
- Realise and retain key visual character components of the site through a contemporary urban structure and built form.
- Provide view sharing and maintenance of view fields
- Maintain important regional and local views
- Preserve the visual amenity of and within the site

2.11.3 Views and Scenic Protection Strategies

1. Ensure key vantage points and identified view fields from public areas are not obstructed by future development.
2. Identifying the key view fields and landscape elements which require protection and careful management within precinct plans within the KDCP.
3. Supplement this view field analysis with key visual and landscape character descriptions, view field development criteria and development controls aimed at protecting the view fields.
4. Provide controls within identified key view field areas requiring development applicants to prepare a visual impact assessment as part of a development application. The visual analysis should address:
 - Four planning principle criteria.
 - Where appropriate prepare visualisations of the development by way of 3D photo montage from key surrounding vantage points around the site.
 - Provide an assessment of the likely visual and scenic impact.
5. Within the rural areas retain remnant vegetation across farmland including existing paddock windbreaks as an important part of the rural landscape and scenic value of the locality.



Elevated views from Kingscliff hill looking south to Cabarita Headland and Cape Byron beyond.



Elevated north and north east views from Kingscliff Hill towards Fingal Headland and Cook Island.



The rural areas of Cudgen and along Tweed Coast Road reinforces the visual character of the urban settlement being surrounded by natural areas and farmland. Sand extraction resulting in a man made waterway in the foreground.



A number of vantages from the creek edge including the bridge offer distant views to Mt Warning and the border ranges which underpins the localities strong visual and landscape character.



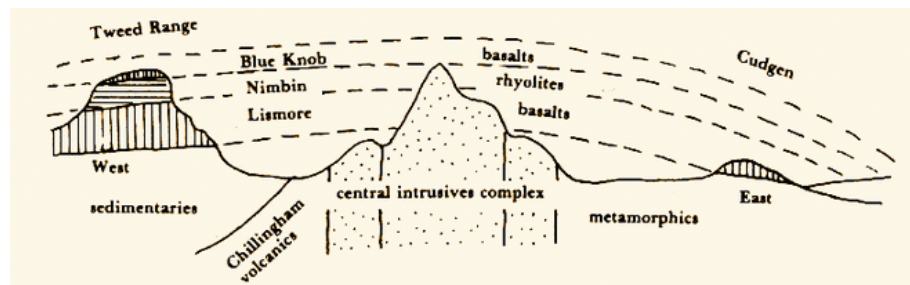
With the town centre directly adjoining the coastal zone, there is a strong connection and association with the beach and creek.



Key landscape elements such as the town centre Fig Tree contribute significantly to the overall landscape and scenic amenity of the locality.

2.12 Geomorphology and Soil Stability

The geomorphology of the Tweed valley is dominated by the remains of the Wollumbin (Mount Warning) shield volcano with the eroded Wollumbin (Mount Warning) central core now approximately 1157 metres high. The remnants of the outer shield include the Nightcap Range to the south, the Tweed Range to the west and the MacPherson Range to the north.



The geology of the coastal section of the Tweed LGA (the study area) includes greywacke, slate, phyllite and quartzite of the Neranleigh-Fernvale Group metamorphics, which predominate across the erosional upland landscapes of the study area; river gravels, alluvium, sands and clay of Quaternary/Pleistocene origin on the floodplains and depressions; Quaternary beach and dune sands along the coastal strip; and localised areas of remnant basaltic material associated with the Lamington Volcanics in the Terranora, North Tumbulgum, Cudgen, Clothiers Creek and Farrants Hill areas.

Fertile soils and a favourable subtropical climate produce a diversity of agricultural landscapes in the Kingscliff / Cudgen locality with the rich red volcanic soils of the Cudgen-Duranbah plateau enable intensive horticulture production and the floodplains support sugar cane plantations.

SHEET AND RILL EROSION

Sheet erosion is the planar removal of surface soil by the action of either raindrop splash, shallow flows of surface of water, or even by wind.

Rill erosion is usually linked with sheet (water driven) erosion as the shallow flows of water driving sheet erosion tend to coalesce and thus increase both in velocity and scouring capacity.

2.12.1 Geomorphology and Soil Issues

As documented within 'Soil Landscapes of Murwillumbah-Tweed Heads, topsoil erosion is a serious problem in Cudgen area (Cole-Clark 1993). Sheet and rill erosion were also observed as part of that soil landscape survey.

2.12.2 Geomorphology and Soil Opportunities

Sound understanding of geomorphology in the local context facilitates sustainable approach to planning and land management solutions. The fertile Cudgen plateau soils offer an opportunity for sustainable farming with reduced reliance on costly fertilisers and pesticides.

2.12.3 Geomorphology and Soil Strategies

1. Support adoption of better on-farm management practices and safeguards that reduce soil erosion and improve soil structure and stability.
2. Surface features such as rock faces and steep slopes to be incorporated wherever possible into the planned development of a site to add to its unique sense of place.

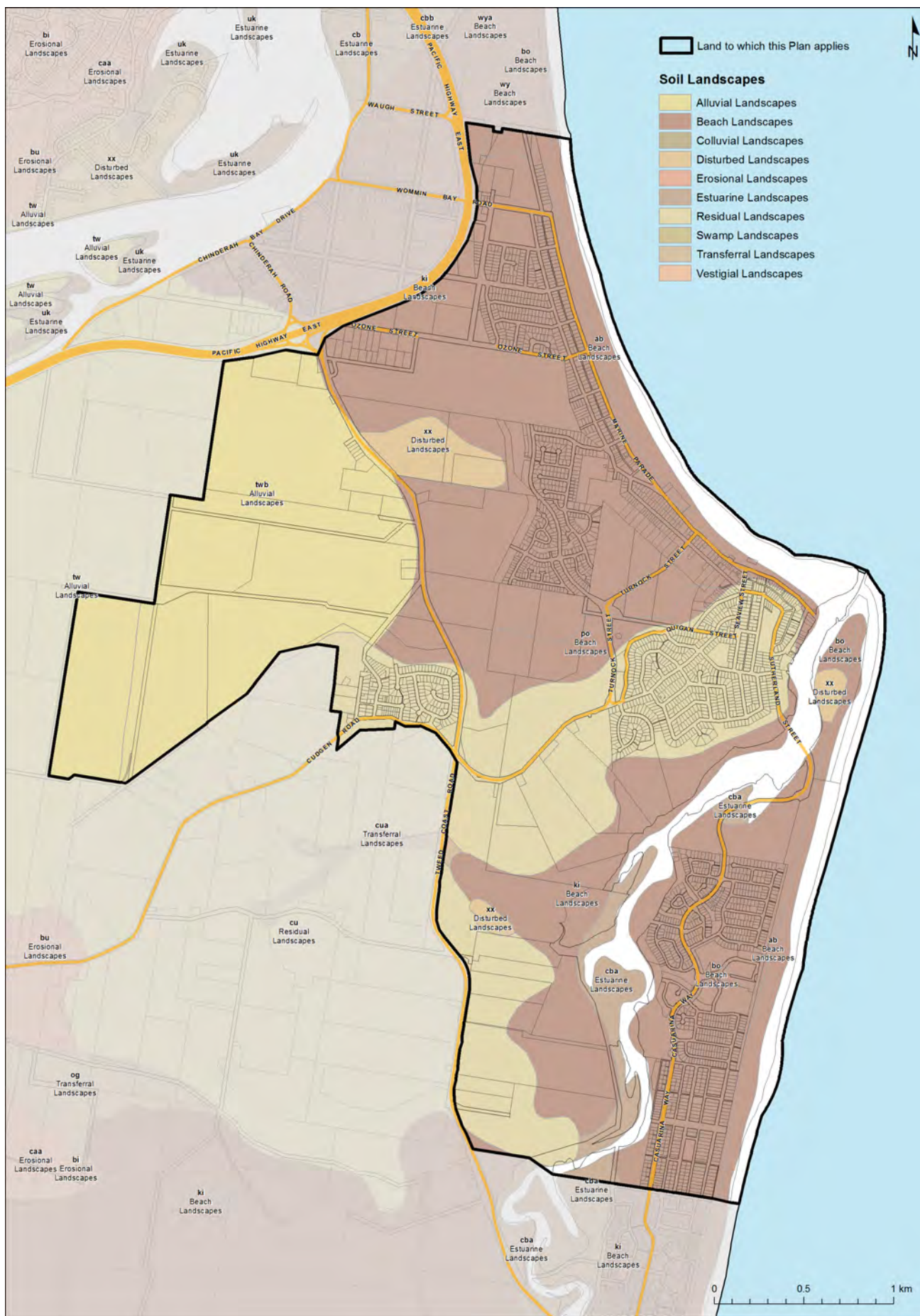


Figure 2.12 Geomorphology and Soil Stability

2.13 State Significant Farmland

The Cudgen Plateau is one of the key agricultural areas of the Tweed Shire with good soils (Krasnozems CU1 - Red self mulching light clay topsoil and subsoil - Ap and B Horizons) facilitating the farming of vegetables including sweet potatoes, tomatoes, zucchini, sweet corn, cucumbers, peas and beans and tropical fruits including avocados, bananas, custard apples and mangoes. The high fertility of the soils inland from Kingscliff (Cudgen) has been recognised through the Northern Rivers Farmland Protection Project 2005. In result, significant portion of the Cudgen locality and a portion of land east of the Tweed Coast Road were classified as 'state significant farmland'. The Farmland Protection Project also identified a large area of 'regionally significant farmland' located inland from Kingscliff, to the western side of the Tweed Coast Road.

Under the NSW planning system, the state and/or regionally significant farmland is protected through the Ministerial Direction provided under s.117 of the Environmental Planning & Assessment Act 1979. The early version of the Ministerial Direction stated that such land shall not be rezoned for urban or residential purposes. This provision was slightly amended following the adoption of the North Coast Regional Plan 2036 by recognising an opportunity to vary significant farmland criteria in some circumstances.

2.13.1 State Significant Farmland Issues

Agriculture is a major land use adjacent to the locality. Whilst state and regionally significant farmland is protected by the Ministerial s.117 Direction and generally cannot be considered for urban or rural residential rezoning, there is continued pressure from some land owners to pursue alternate landuses to agriculture. This position is often argued on the basis of affected land not being productive. One key landuse issue is urban development on the interface with state significant farmland. Without the appropriate buffers it is this interface issue which has the potential to significantly impact farming practices.

2.13.2 State Significant Farmland Opportunities

Introduction of the North Coast Regional Plan 2036 brought about an opportunity for a strategic planning exercise aiming to identify potential land capable of alternative land uses. There is also a need to reinforce land use recommendations of the Kingscliff locality plan to further protect the state significant farmland, assist farmers to be more sustainable, and provide the necessary buffers to allow them to continue their operations without conflict from adjoining land uses.

2.13.3 State Significant Farmland Strategies

1. Reinforce the s.117 Farmland Protection Direction outside of the urban structure footprint through the Kingscliff Locality Plan and retain the rural zoning of these parcels.
2. Support the Rural Land Strategy outcomes including investigate and apply appropriate interface buffers between urban development and state significant farmland to negate impacts on farming practices.
3. Support the farming community to adopt sustainable agriculture practices that increase productivity, reduce the loss of topsoil and better utilise natural processes for pest and disease control and nutrient cycling.

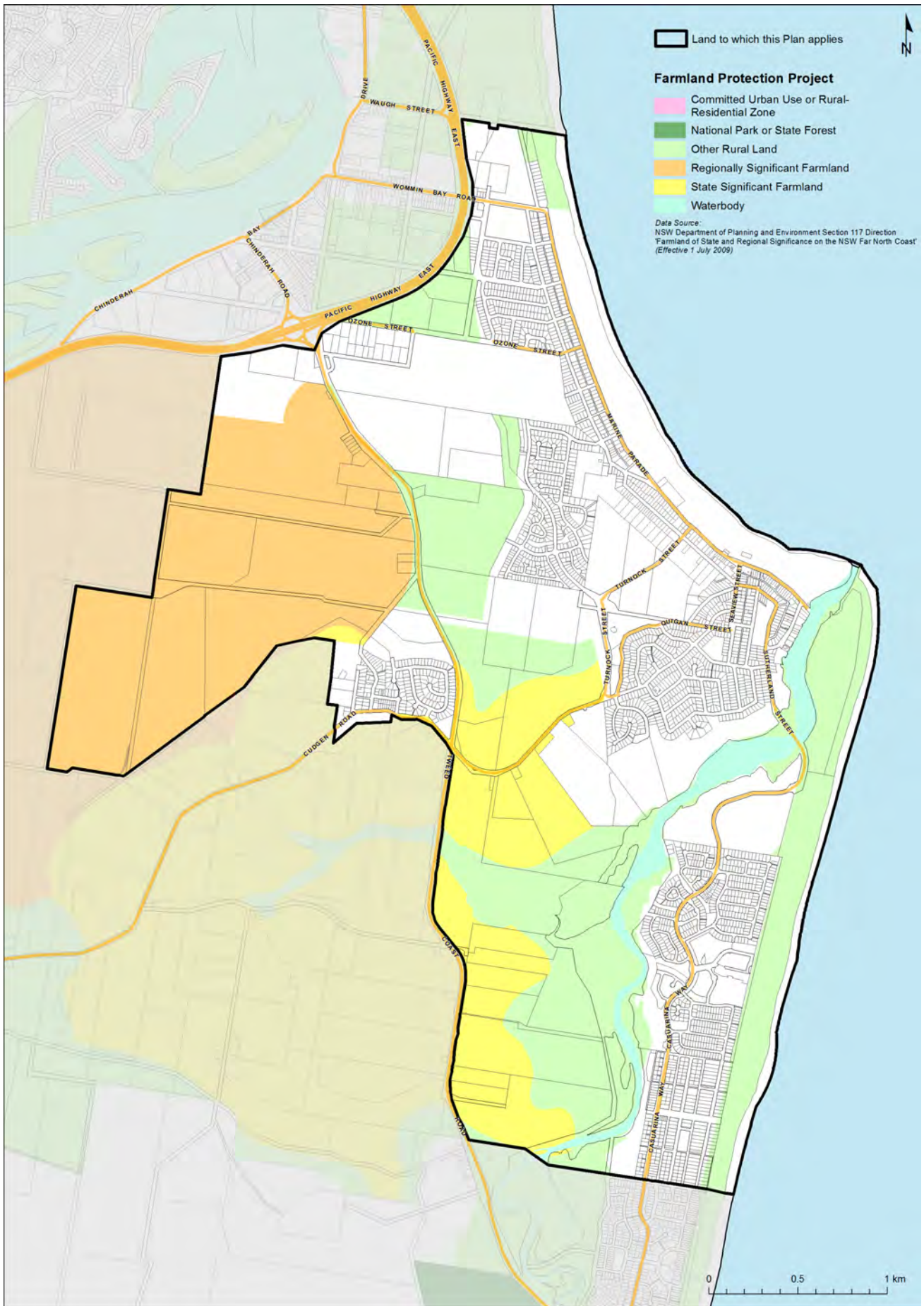


Figure 2.13 State Significant Farmland

2.14 Constraint and Opportunity Overlay

2.14.1 Constrained Lands

Figure 2.14 provides an overlay of the combined land constraints, which by a process exclusion provides an indication of the availability of developable land. The key development constraints include:

- Environmental protection land
- Land with high ecological status
- Lands constrained by State Environmental Planning Policies
- Acid sulfate soil
- State Significant Farmland
- Koala Habitat
- Flood liable land

Whilst environmental constraints collated in this chapter have been based on the up-to-date Council data, there will be a need for further refinements in site specific detail over key sites. A more detailed review, particularly of the status and quality of vegetation, on site will be necessary particularly in context of defining potential future development footprints and informing other land use recommendations.

2.14.2 Developable Footprint

The principle lands remaining after the subtraction and overlay of key constraints are broadly represented in Figure 2.14 and listed in the table below although the actual developable areas would rely on a more detailed investigation and mapping of site constraints. Further, the ‘developable area’ of these green field development sites would also include required road and service infrastructure as well as appropriate provision for community facilities and local open space.

Kingscliff Locality Greenfield Sites		
Release Area	Gross Land Area	Potential Use
Turnock Street	25ha	Town centre expansion, medium density housing, community uses, open space
West Kingscliff	24ha	Low density and low rise medium density residential subdivision, community uses, open space.
Elrond Drive	22ha	Low density and low rise medium density residential subdivision
North Kingscliff	47.5ha	A range of employment generating uses, low and medium residential uses, open space, local centre uses.
Seaside	32ha	Low density and low rise medium density residential subdivision with small local retail centre.
Altona Road	10ha	Low density and low rise medium density residential subdivision with small local retail centre.
Cudgen	4.5ha	Low density residential subdivision (40 lots DA approved)
Total	165 ha	

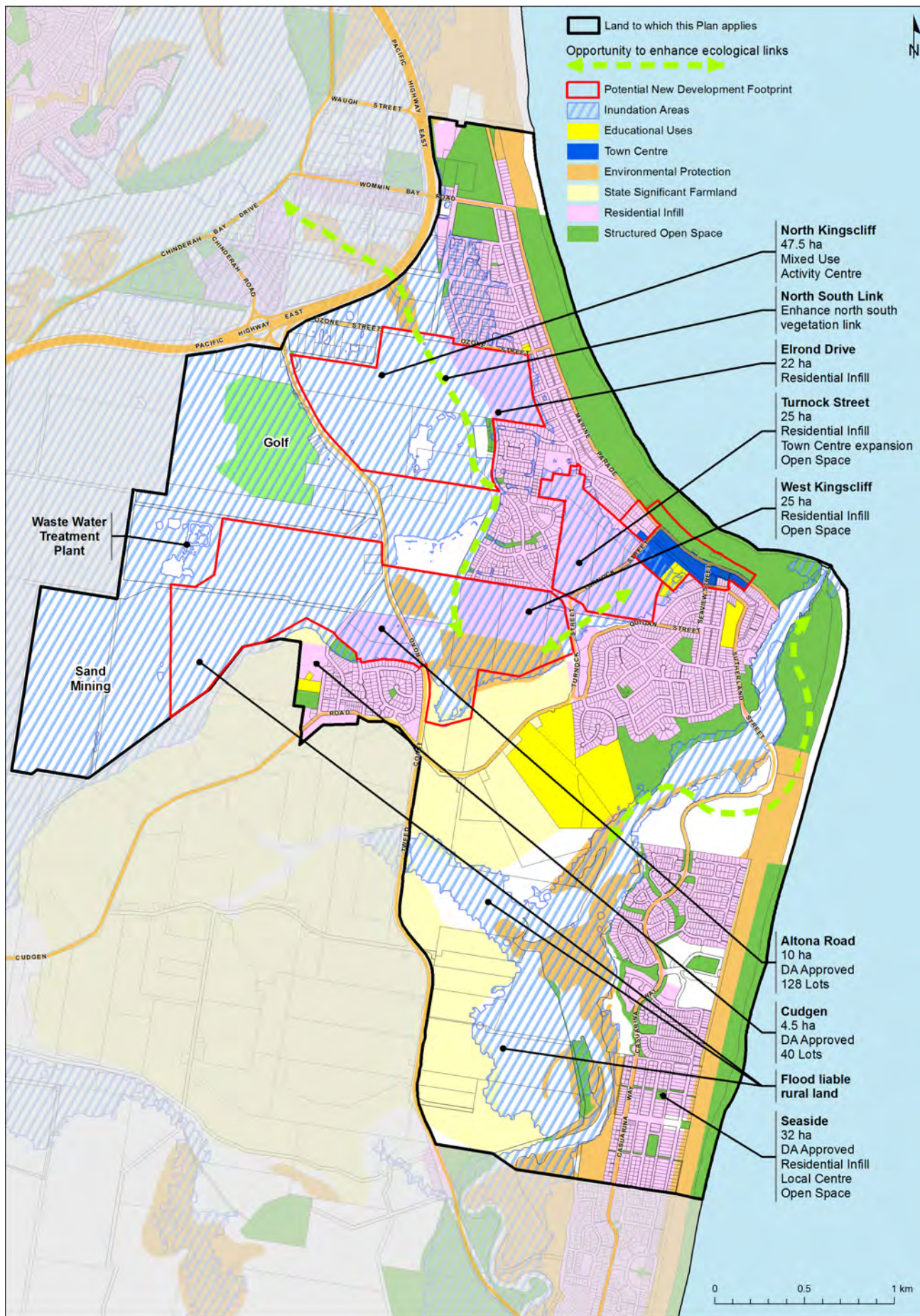


Figure 2.14 Constraint and Opportunity Overlay

2.14.3 Developable Footprint Issues

Whilst a desktop literature review and aerial mapping can provide a base level of information for key greenfield sites, there is a need for more detailed investigations over these sites to determine the environmentally constrained areas. This process will require flora and fauna surveys and mapping to identify and define areas of environmental significance. Detailed site investigations will directly inform land use recommendations for both environmental protection and areas suitable for development.

2.14.4 Developable Footprint Opportunities

In the context of evaluating more detailed site opportunities and constraints, there is an opportunity for key land owners over identified potential development sites to commence detailed site investigations as part of the KLP process. These detailed site investigations could then directly inform revised mapping which could underpin future planning proposals.

In terms of land uses, there is opportunity to take advantage of the relatively flat and vacant land within close proximity to the town centre to provide a broader range and diversity of housing types including shop top housing, residential flat buildings, small lot housing or coastal courtyard housing. The key opportunity is to provide higher density and demographic diversity of occupant within a walkable catchment. The range of sizes and scales of housing will provide more housing affordability choice.

The North Kingscliff green field development site presents opportunity as a key employment generating landuse site which could include a mix of uses combining education, health, commercial, office, retail and residential functions. There is an opportunity due to the overall size of the site to for multiple large employment generating landuses which may include a combination of business park, hospital or university campus, commercial and retail opportunity as well as residential development.

2.14.5 Developable Footprint Strategies

1. The broad settlement pattern is to respond to environmental constraints and development opportunities to maintain and enhance the existing 'connected village' structure framed by natural areas. New development areas should be designed and defined to contribute to this pattern.
2. Through appropriate land use zoning and structure planning over green field development sites clearly defining settlement growth boundaries and including designated environmental protection, natural bushland and open space areas between these settlement areas allowing the integration of natural with built environment as well as forming 'green breaks' between settlement areas.
3. Land owners to undertake detailed context and site analysis over each of the green field development sites to determine the constraints and development opportunities as a preliminary step of the rezoning, structure planning and/or subdivision process. Use the outcomes of the context and site analysis to inform design and planning opportunities in terms of vision and desired future character, housing typology and density opportunity, environmental protection, open space and community infrastructure opportunity.



Key Potential Development Sites - There are a number of key development sites within the Kingscliff locality which will provide future opportunity for residential, commercial, retail, education, community and open space uses. It is this opportunity which needs to be tempered and balanced within strategic planning framework to ensure that the population increases are in step with community expectation, appropriate infrastructure provision and protection of sensitive environmental areas whilst strengthening the character and identity of Kingscliff.



A sand extraction operation within the foreground with the future potential development site of North Kingscliff in the background.



Whilst some site have been identified as having future development potential, a process of detailed ground truthed flora and fauna surveying needs to be undertaken to map important ecological and environmental lands.



NO SMOKING



3.0 DEMOGRAPHIC AND COMMUNITY CONTEXT



3.1 Historic and Cultural Context

3.1.1 Aboriginal heritage

This following Aboriginal heritage account has been prepared and endorsed by the Tweed Byron Local Aboriginal Land Council:

The traditional landowners of Kingscliff and surrounding environs are the indigenous people of the Bundjalung nation of the Nganduwal dialect tribal group who inhabited the Kingscliff and surrounding coastal areas where they lived as hunters and gathers due to the plentiful supply of food and fresh water.

'For many thousands of years the indigenous people flourished in the Tweed Valley, one of the richest and most reliable sources of sustenance known to any indigenous people in Australia.' (Between River and Sea: Historic Images of Kingscliff, Chinderah and Cudgen) The headland at Kingscliff was an important meeting place for this clan, with numerous middens near the beach which still exist today proving testimony to the plentiful supplies of seafood.

Aboriginal sites and places are recognised by traditional custodian descendants as tangible evidence of our ancestor's cultural practice and traditions; as such, they retain a very real and meaningful value through to the present day.

Scientific assessment of cultural evidence from some selected sites supports the fact that Aboriginal people were living in the Tweed from at least 10,000 years ago, and a Carbon-14 dated midden and occupation site on Stradbroke Island (in South East Queensland) is recorded as more than 20,000 years old. Our Aboriginal oral tradition tells a story of 'Three Brothers' who came to this land and its people in the 'Dreaming', gave the lore, and formed the nucleus of tribes with whom today's traditional custodian descendants identify.

A common feature of our Aboriginal identity is language, which is known in the Tweed and further south as Bundjalung; in south east Queensland people prefer Yugambeh; and further west, in Kyogle Shire, people use Githabul as both a language and name for group identification. The language dialect for the Tweed is known as Ngandowal, a name referring to the people who say 'Ngando' for the word 'who' or 'somebody'. However, part of the Tweed Coast and south to the Byron area is Minyungbal, where the word 'Minyung' means 'what' or 'something' and can be used as identification for people of this area.

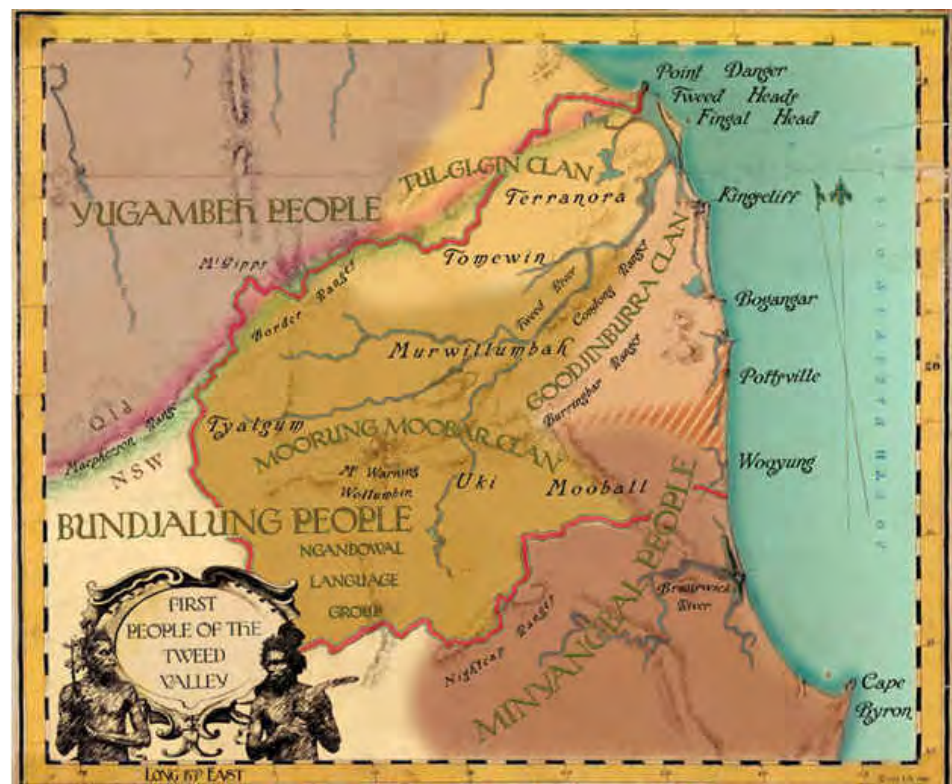
There is general acceptance along our Tweed Aboriginal community for the presence of three main groups in the Tweed River Valley. These were the Goodjinburra people for the Tweed Coastal area, the Tul-gi-gin people for the North Arm, and the Moorang-Moobar people for the Southern and Central Arms around Wollumbin (Mt Warning). However, European settlers used other names and described them as Chubboburri, Gandowal, Duthurinbar, Wirangiroh, Wollumbin, Murwillumbah, Ngarrumbul, Kitabul, and Ngarartbul. These names largely reflected a lack of understanding of our culture, our language and our connection to each other.

An Aboriginal Cultural Heritage Study is currently being undertaken by Council in close consultation with the Aboriginal community with the aim of identifying and assessing the significance of known, and any potential, Aboriginal cultural heritage and develop strategies to manage Aboriginal sites and places.

Population numbers of these three groups are known to have fallen dramatically, before and after permanent European settlement, mainly through the unchecked spread of European sourced illness and disease. Research suggests that prior to any European contact each of the three groups may have contained from 500 to 700 members, distributed in smaller family groups across what was then their area of 'country'. With a loss of access to food resources, death from illness and disease, and intolerance shown by some European settlers, population numbers plummeted and were only about 10% of original numbers within 60 years of settlement.

The Tweed Valley around Wollumbin (Mt Warning) was rich in natural resources and supported many plants and animals which were collected and hunted for food by Aboriginal people. Traditional people managed the landscape and avoided overexploiting these resources in a way that is poorly understood and little recognised in today's wider community. Although camp locations were moved regularly to allow resource recovery some natural resources, such as rock outcrops suitable for the manufacture of stone tools, were used extensively for vast periods of time.

High altitude topographical features were often the focus of social and spiritual custom and the location of many of our Aboriginal sites directly reflects the connection and significance value of these places. Wollumbin retains a high cultural and spiritual status beyond the Tweed Valley and this is reinforced by our knowledge of different stories with regional group gatherings for ceremony and cultural expression at certain sites across the Valley. Descendants of traditional custodians maintain that connection and support initiatives to protect and preserve our heritage sites and places.



Map of the First People of the Tweed Valley (Source I.Fox).

This historic background has been prepared with reference to 'Kingscliff to 1975 We have stories to tell', and *Between River and Sea: Historic Images of Kingscliff, Chinderah and Cudgen*.

3.1.2 European settlement

European settlement of the local Kingscliff area commenced in the early 19th century when on Sunday 1 November 1823 John Oxley, the Surveyor-General in search of a suitable settlement for a new penal colony landed on the beach at Fingal before making an overland journey to meet a boat which had entered the Tweed River. Oxley and subsequent explorer's to the region found the plentiful natural resources, predominantly the rich timber resources reached Sydney's cedar markets.

'By 1845 numerous cedar-getters were arriving on the Tweed, initially based upon a camp at Taranora (Terranora) but increasingly moving up the river over the next decade. They created their own tracks, often the shortest or easiest means between the beaches (the easiest route of all) and the rivers. One of these tracks linked the beach at Kingscliff with the river at Chinderah and another wove towards the Cudgen plateau.' (*Between River and Sea: Historic Images of Kingscliff, Chinderah and Cudgen*)

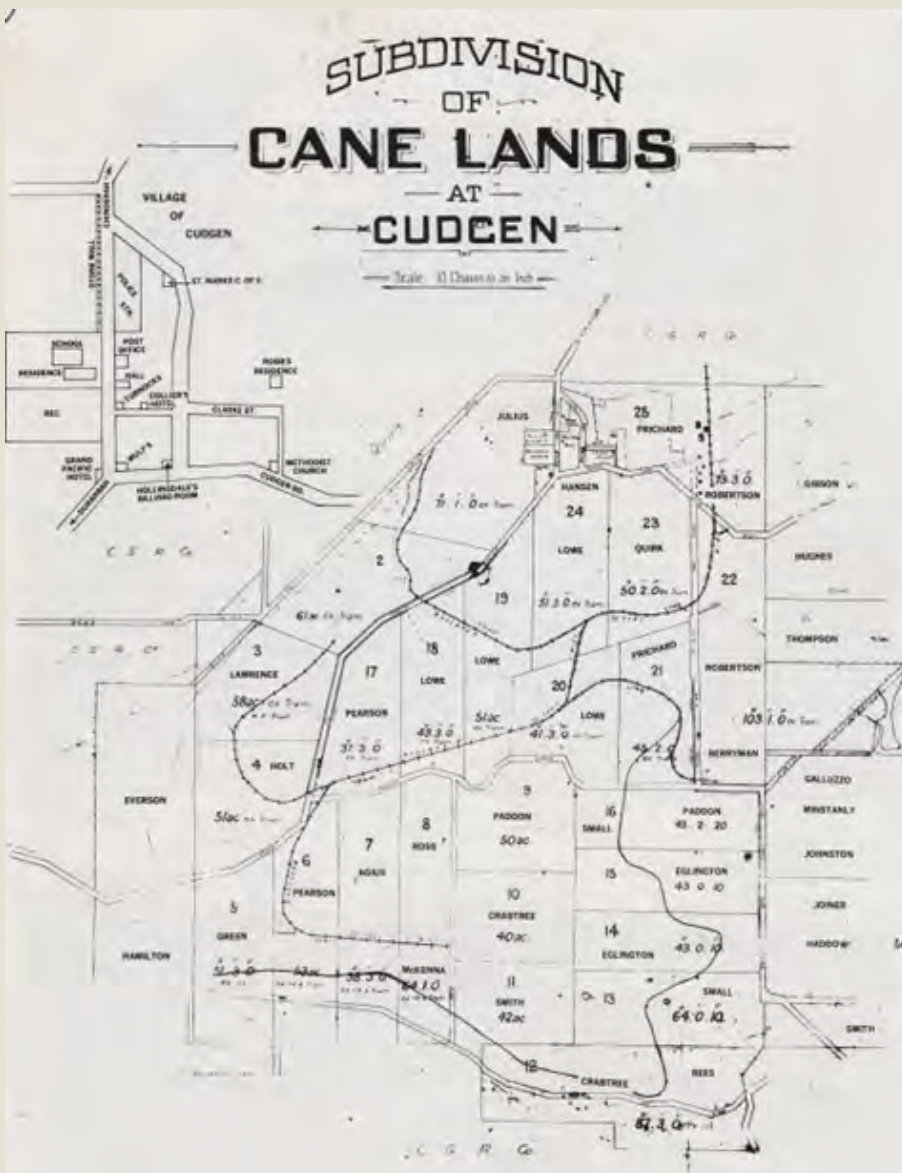
The Cudgen plateau area to the west of Kingscliff soon gained a reputation for the high fertility of the volcanic rich soil. Combined with the high annual rainfall tropical crops such as sugar cane and fruit such as oranges, date plums, breadfruit, mangoes, lychees, bananas, pineapples were soon established.

Given the fast establishing agricultural industry at Cudgen and timber industry further up the Tweed River, most of the regions provisions and exports were handled through a rudimentary wharf established on the Tweed River at Chinderah then know as the Cudgen Wharf. Both Cudgen and Chinderah became the regions first prosperous local centres.

3.1.3 Sugar Cane and South Sea Islanders

In 1875 William Julius purchased land at Cudgen and established a sugar cane plantation. He also built a mill to process his cane and employed a workforce made up largely of men from the South Sea Islands, also known derogatorily as Kanakas. The story of the Kanakas, and of the infamous practice of blackbirding, or Europeans kidnapping Islanders after luring them on board ships with offers of trade, is an integral part of the story of sugar farming in both Queensland and Northern New South Wales. Farmers required cheap labour to make their plantations economically viable and the solution in the 19th century was to import contract labour from the neighbouring South Pacific Islands, mainly from the Solomon and Vanuatu groups.

Between 1863 and 1904 more than 60,000 South Sea Islanders were taken to Queensland to work on sugar plantations, and approximately 350 are known to have arrived in the Tweed between 1874 and 1918. The Pacific Islanders Act of 1901 allowed Islanders who had married in Australia or had lived here for 20 years or more to stay. This meant that close to half of the Islanders were able to remain in the Tweed.



Subdivision of Cane Lands at Cudgen. When the Robb Mill was sold to CSR in 1911 the land was subdivided into approximately 40 acre lots. These were then sold to farmers. Many of the sugar cane farms were linked by rail transporting the cane to the mill.



South Sea Islander Cane cutters in front of tent - taken at Cudgen on Geo. McCollum's farm 1928. Tweed Regional Museum Collection. No: TH01-10.

3.1.4 Growth of Cudgen and Kingscliff

Whilst Cudgen had commenced settlement, Kingscliff remained largely undeveloped serving as a popular day trip for the growing Cudgen residents to ‘Cudgen Headland’ to swim and fish. The first coastal selection was by William Shaw in 1882 who applied for 40 acres of land at the mouth of the Cudgen Creek.

Given the treacherous reefs and outcrops first noted on Captain Cooks 1770 voyage and subsequent naming of Tweed’s Point Danger, NSW most northerly lighthouse at Fingal head was erected in 1878. Despite the provision of the lighthouse, ship wrecks remained a frequent occurrence along this part of the coastline.

‘The locality first gained prominence following 19 October 1890, when the 3398 ton screw steamship Alberta, carrying coal was wrecked on the Sutherland Reef.’ (Between River and Sea: Historic Images of Kingscliff, Chinderah and Cudgen) Remnants of this shipwreck can still be found on the reef known as Alberta Reef.

Cudgen Village continued to grow and by the 1880’s had a post office, police station, general store, two hotels, a butcher, a baker, a school and a church. It was also the location of the popular Cudgen Races, an event particular enjoyed by the local South Sea Islander population by this stage had added a multi-cultural vibrancy to the locality reflected in their brightly coloured housing, clothing and enthusiastic interest in religion and sport including fishing and swimming.

The first residential estate at Kingscliff was acquired for development by German immigrant Carl Hans Gaenshirt, who built a cottage and established a vineyard. The location of this land is generally bound by Seaview and Olga Streets to the west, Viking Street to the south, the creek to the east and Marine Parade to the north. Upon his death, the property was sold to Murwillumbah solicitor Hedley Hungerford in 1912 who subdivided the estate and auctioned the land in 1915. Three years later 8 homes were established. Further estates soon followed including the Kingscliff Estate auctions by the Colonial Sugar Refining Company in 1918. The natural beauty of the Kingscliff area combined with the growth of private motor vehicle and access roads contributed to the areas rise in popularity for new residents and ‘tourist’ from Tweed, Gold Coast and Brisbane seeking the quiet beauty, safe swimming and good fishing of Cudgen headland.

The Old Moreton Bay Fig Tree in Marine Parade was planted by John Anderson, who planted many trees in Kingscliff around 1920. With its shade and central location, the tree has been a popular meeting place for locals and now stands as an iconic landscape element of the Kingscliff town centre. The Kingscliff Chamber of Commerce have recently embellished the tree with lights transforming the tree at night.

Cudgen Headlands continued to grow as a popular holiday resort and by the height of the depression in 1931, included four stores in operation, several boarding houses, a bakery, a butcher and the establishment of the Grand Pacific Hotel along Marine Parade in 1932.



Marine Parade 1912



View south west along Cudgen Creek 1914

The hotel was transferred from an older hotel of the same name in Cudgen with many of the building materials coming from the dismantled Cudgen Grand Pacific. One of Kingscliff's oldest surviving buildings today, the hotel was renamed the 'Kingscliff Hotel' in 2007. In 2014, the Hotel underwent extensive internal and external renovations which included the extension of a beer garden and small outdoor stage. It is now known as the Kingscliff Beach Hotel.

By the early 1930's, 60 private houses had been erected and the coastal foreshore saw scores of tents erected particularly during the holiday periods. Even at this fledgling stage of the townships development, local residents were having doubts about the exponential increase in the areas popularity:

"With the advent of the crowds, is Cudgen losing one of its chief attractions? A few residents claim that its privacy has been its charm - a place where a family could enjoy a quiet, undisturbed weekend." (Tweed Daily 10 January 1931)

Although the Postmaster general's Department had changed the name of the township to Kingscliff officially in 1927, the original name of Cudgen Headland remained widely used until the second world war. In fact the existing surf club is still called Cudgen Headland Surf Life Saving Club to this day.

Many streets in the older sections of Kingscliff were named after prominent early European settlers, such as Hungerford Lane, Turnock, Quigan, Moss, Gibson and Faulks Streets, McPhail and Dawes Avenues and Quirk Place. Parks also were named after residents who contributed significantly to Kingscliff, such as Jack Bayliss, Mrs. Faulks, Ed Parker and Jack Julius.

One early resident of the area was Mrs. Faulks who bought several allotments beside the Cudgen Creek and fronting Marine Parade. Neither time nor money was spared in preserving the little picnic reserve on the corner near the creek. She had the stone wall erected at her expense. She had the area levelled and grassed, trees planted and she preserved surviving native species. She not only had most of the tables and chairs placed there, but was also responsible for having a creek side bitumen car park constructed. Faulks Park was recently updated after a significant section of the park was lost to coastal erosion in 2012 and is now one of the localities most popular coastal reserves. The new park works includes new picnic and bbq facilities, a new playground area, basketball half court and amenities building which was completed at the end of 2013.

By 1946, the township had become increasingly established with many businesses and homes established in and around the existing Marine Parade and over Kingscliff Hill and the Cudgen Headland and District Bowls Club was established in 1949.

By this stage a boom in sand mining on Queensland's Gold Coast had moved south to the Tweed Coast and operations had commenced in and around Kingscliff Beach, down to Bogangar Beach. Extensive dredging and mining for valuable ores such as rutile, titanium and zircon would be carried out in the local area for the next 35 years.

Despite what would be perceived today as environmental devastation of the coastal dunal system, the industry became the impetus for the construction of the first



1944

- Marine Parade centre of built form activity.
- Predominantly holiday village.
- Established coastal foreshore reserve.
- Residential subdivision on Kingscliff Hill.
- Intact Cudgen Creek and South Kingscliff.
- South Kingscliff dunal system extending to Cudgen Creek.
- No bridge crossing Cudgen Creek.
- Unpaved roadway access along Cudgen Road.



1962

- Significant growth particularly around Kingscliff Hill and extending north along Marine Parade and Kingscliff Street and additional growth of the Marine Parade and Pearl Street retail centre corresponding with the arrival of sand mining operations.
- Bowls Club developed.
- Amenities hall constructed (1961).
- Kingscliff Public School (1957)
- Established coastal foreshore reserve including Faulks Park.
- Intact Cudgen Creek and South Kingscliff.
- South Kingscliff dunal system extending to Cudgen Creek.
- New bridge crossing Cudgen Creek.
- Unpaved roadway access along Cudgen Road.

modern sealed road construction along the length of the Tweed Coast which in effect opened the area up to additional tourism and residential development. Cudgen Creek Bridge erected in 1959 was also constructed by sand mining companies requiring ready access to their operations south of Cudgen Creek. Before the bridge was constructed, visitors would hire boats from Charnock's Boat Hire to reach the south beach for picnics or fishing. This infrastructure enabled continued development South of Kingscliff, contributing to the settlements of Cabarita and Pottsville, which were previous unconnected by road.

The sand mining industry also established electrical infrastructure which would in turn service the entire growing coastal settlement. The establishment of this essential infrastructure opened up a major population influx in 1956/57 and subsequent housing boom with many families moving into the area to work in the sand mining industry where over 800 people were employed. Additional services and businesses followed including new shops, service station, Kingscliff Public School (Orient Street), ambulance station and Lions Club were all established in 1957.

Other local committees were also forming including the Kingscliff Urban Committee which was formed in 1960 combining the Kingscliff Progress Association and Wommin Bay Progress Association. The committee was quick to raise funds through it's management of the towns two public caravan parks and were key lobbyists to the Tweed Shire Council and NSW State Government for key district and foreshore improvement works. The committee was the key driving force behind the reticulation of the town's water supply and new Kingscliff Amenities Hall in 1961. The amenities hall, representing an example of modernist public architecture, is today listed as a heritage item despite needing some improvement and maintenance works.

Other key infrastructure works at this time included the Kingscliff sea retaining walls. The first stage of walling Cudgen Creek was completed in 1968, in an effort to keep the creek mouth from becoming silted, and flooding upstream farming lands.

Kingscliff Swimming Pool in McPhail Street was constructed from a community fund-raising effort in the 1970s, and was officially opened on 1 December 1979. The 25-metre has been the training ground for many Olympic and Commonwealth Game athletes including Chris Fydler (4x100m freestyle Gold 2000 Olympics) and Matt Abood (4x100m freestyle Gold 2014 Glasgow Commonwealth Games), Josh Watson (Backstroke Silver 2000 Olympics), and Sophie Eddington (backstroke and Medally Gold 2006, 2010 Commonwealth Games).

Over the intervening years, new residential estates were released to the north of the township along Marine Parade and Kingscliff Street and to the west along Elrond Drive, as well as a significant amount of infill development in and around the village town centre.

The growth of these additional new residential areas and the retail centre into Pearl Street was largely facilitated by the provision of additional essential infrastructure services. This included the commissioning of the first sewage treatment plant in the



1974

- Sewerage Treatment Plant.
- North and south seawalls constructed (1968).
- Further infill development in and around the town centre, Kingscliff Hill and extending north.
- Further subdivision extension of Kingscliff Hill down towards existing high school location.
- Sand mining operations extend further south. Construction of early Casuarina Way road alignment.
- Thriving agricultural industry west Kingscliff to Cudgen and west of Cudgen Creek heading south.



1986

- Further infill residential development around the town centre and Kingscliff Hill.
- Kingscliff Library Opens 1979.
- Development of Kingscliff High School (1986).
- Sand mining operations cease with significant areas revegetated.
- Kingscliff tennis club established on Kingscliff Hill.
- Kingscliff 25m pool constructed (1979)

early 1970's which serviced the township until 2007/8 when it was decommissioned. The new sewage treatment plant was established to the west of the township off Altona Road which has a capacity to treat 6 megalitres per day, which can serve a population of approximately 25,000 people.

In recent years, residential pockets along Marine Parade and Kingscliff Street have seen the redevelopment of the ubiquitous coastal shacks with much larger residential flat buildings and other alternate forms of medium density housing. This higher density residential precinct takes advantage of the relative level access to the town centre and offers direct access to the coastal reserve and ocean beach.

Other more recent key public building development in the Kingscliff area included the Kingscliff High School located at the end of Oxford Street built in 1986. With an average annual enrolment of over 1200 students, the school has a proud scholastic and sporting record, and has recognized strengths in the creative and performing arts.

Kingscliff Public Library first opened in 1979. It was a demountable classroom situated beside the Cudgen Headland Surf Club, with views towards the beach. In 1984 it was relocated to a shopfront within the Kingscliff Shopping Village. Keeping pace with the district's rapidly growing population, a modern, purpose-built library was constructed within the rainforest remnant off Turnock Street in 2000. The award-winning design was by architects Fulton Trotter & Partners. Kingscliff Community Health Centre, located next to the library, was officially opened in 2002, by the then NSW Minister for Health, Craig Knowles. The \$1.04 million facility was purpose built to accommodate a range of health services previously only available in Tweed Heads or Murwillumbah.

The most recent 'wave' of development growth has predominately focused on the Salt and more recently Seaside City developments, at the southern end of Kingscliff. The original Salt development application included 160 houses, a 312 apartment hotel and retail facilities. To mitigate the flooding risk, development included considerable fill of the precinct by up to two metres. With development commencing in 2004, the Salt Precinct has a strong tourism focus, particularly the Salt development, which includes a number of dedicated tourist facilities such as Peppers and Mantra Resorts.

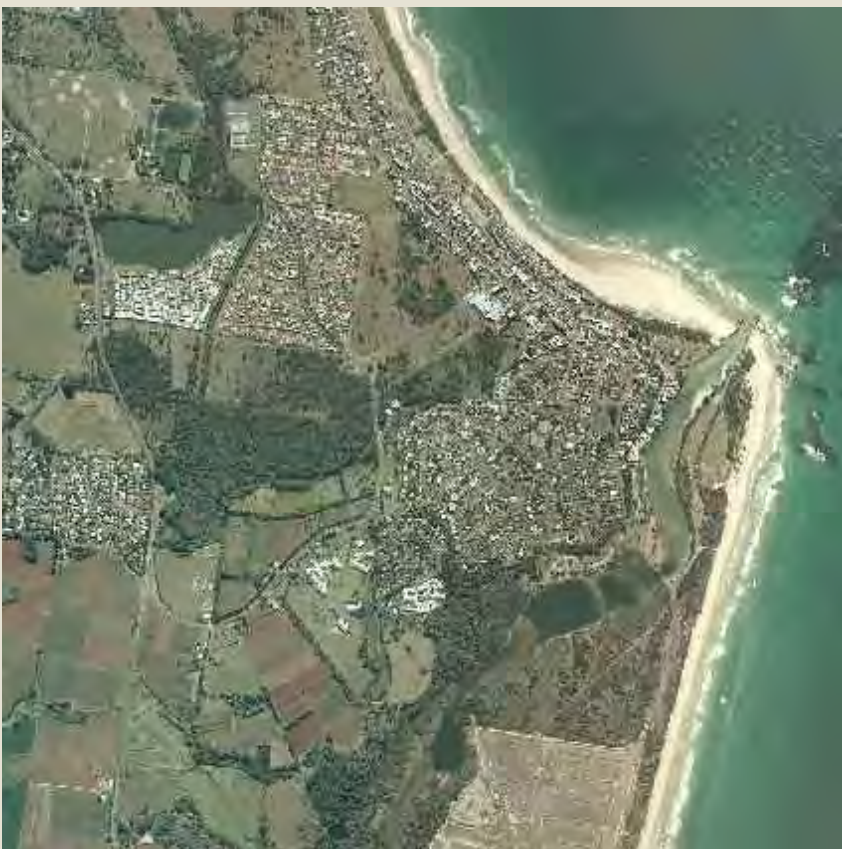
The precinct of Seaside City is one of the oldest subdivisions along the Tweed Coast with the original plans dating back to the 1920's. The 35 hectare parcel of land included 205 titled lots and includes a strong grided urban street structure with a hierarchy of main street linking the beach with Casuarina Way and north south residential streets many supported by rear lanes. A development control plan was first adopted in 2008 and reviewed in 2013 with the aim of guiding development to include a mix of coastal housing typologies centred around a small local centre.

In order to maximise the amenity and services of the area, a number of properties have sought approval for the dual use of dwellings and units to enable both permanent and tourist accommodation, as well as capitalising on the emergence of short-term 'AirBnB' type tourism. The broadening of the accommodation use has informed components of their architecture, as well as given rise to an increasing number of small lot housing product and secondary dwellings.



1996

- Sewerage Treatment Plant expands to create additional treatment ponds.
- New North Coast TAFE constructed.
- Release of West Kingscliff residential subdivision stages and subsequent formation of Noble Lake.
- Release of Cudgen residential subdivision stages.
- Development of Kingscliff Shopping Centre off Pearl Street.
- Further rehabilitation of sand mined areas at South Kingscliff.
- Revegetation between Tweed Coast Road and Kingscliff Town centre.



2004

- Development of Turnock Street linking Pearl and Marine Parade with the expanded West Kingscliff subdivision including Noble Lake Mobile Home Park.
- Additional infill and higher density development extending north along Marine Parade, Pearl and Kingscliff Streets.
- Earthworks in preparation of the SALT development commence.
- Kingscliff shopping centre expanded to current configuration.

3.1.5 Historical Context Issues:

- Lack of historic and cultural representation within the locality including landscape morphology, Aboriginal cultural heritage and European cultural and built environment heritage.
- Need to integrate information contained within the draft Aboriginal Cultural Heritage Study into the KLP.
- The growth of residential and tourist development is rapidly changing the urban landscape of Kingscliff and, if not managed properly, will continue to disturb and change the character and sense of place of this coastal town.

3.1.6 Historical Context Opportunities:

Opportunity for more interpretive displays and representations within the locality which creatively display and represent stories and the Aboriginal and European cultural heritage into open space and public domain areas. Key representations could include:

- Landscape morphology of the Caldera and coastline;
- Stories of the Nganduwal tribal group of the Bundjalung nation;
- Cudgen farm land workers (Pacific islander, Aboriginal and European);
- Sand mining industry;

3.1.7 Historical Context Draft Strategies:

1. Co-ordinate information from the Aboriginal cultural heritage strategy and Tweed Community Based Heritage Management Plan / Draft DCP.
2. Undertake Aboriginal Cultural Heritage due diligence assessment on all planning proposal and subdivision applications.
3. Plan appropriate displays, presentations and stories of Aboriginal and European cultural heritage into key open space and public domain areas throughout the locality to create stronger links with the localities historic context.
4. Liaise with Local Aboriginal Land Council, local artists and historians as part of public domain concept design phases and make provision for public art and interpretive projects within all future public domain projects.
5. Place memory and urban preservation: connect urban landscapes to memory rooted in places, not only through sensitive planning but also through architectural preservation, environmental protection or commemorative public art.



2012

- Kingscliff town centre infill development including Paradiso, Nor Nor East, both 3 storey shop top housing / tourist developments.
- SALT development released and developed including town centre and tourist development buildings.
- Significant erosion events along Kingscliff Beach which led to installation of temporary dunal protection measures and the construction of a protective pile wall fronting the Kingscliff SLSC.
- Construction of new sewerage treatment plant along Altona Road and the decommissioning and rehabilitation of the old sewerage treatment plant.



Creating Historic Links - Interpretive representations within built form, open space and public domain areas create stronger links and appreciation of a localities historic context while enriching the public life experience.

3.2 Demographics

3.2.1 Demographic and Community Profile District

The Kingscliff demographic profile is based on the Kingscliff Census District Catchment, as illustrated in Figure 3.0. This catchment is bounded by the Tweed River in the north and west, the Coral Sea in the east, and the locality of Casuarina, Cudgen Creek and the localities of Cudgen and Stotts Creek in the south. It also includes the settlements of Fingal Head, Chinderah, Cudgen and more of the outlying rural areas around the Cudgen Plateau. This broader demographic area acknowledges the role of Kingscliff as a centre, servicing the outlying rural and coastal communities in addition to settlements within the study boundary. A broad understanding of the demography of the area is needed to plan for the future needs for social and community infrastructure including child care, schools and education, aged care and health services.

3.2.2 Existing Population

The 2011 census recorded 8459 residents within the Kingscliff-Fingal Head Statistical Area. Of this population 396 persons identified as being Aboriginal or Torres Strait Islander.

3.2.3 Age Structure

Age Structure data provides insight to the level of demand for age based services and facilities, such as child care, schools and health care including aged care. The census data is presented by age categories that reflect typical life stages.

When compared to data for regional NSW, Kingscliff has a lower proportion of infants and preschoolers, secondary schoolers, tertiary education enrolments and younger workforce but has a higher proportion of residents over 60 years, particularly within the seniors category (70-84 years). The seniors represent 12.28% of the population compared to the regional NSW average of 10.3%. This also corresponds with a higher proportion of single and couple households (without children) 60.2% compared to the state average of 51.2%.

Presumably on account of the high volume of recently released residential land, house and land prices and primary and secondary school infrastructure, the locality has a marginally higher proportion of parents and home owners which account for 21.17% of the population compared to the regional NSW average of 19.5%.

Kingscliff's age structure presents challenges for the locality, particularly because of an increased demand for health, social security, open space and education facilities. Aside from the provision of adequate land to provide for services likely to be required, particular consideration is required for mobility strategies, specific to the needs of both young and elderly residents. Conversely, there is opportunity to encourage land uses which will support a broader demographic profile including younger persons and younger families. This can be achieved by facilitating additional employment, education, community infrastructure and more affordable housing opportunities.



Fig 3.0 Kingscliff Census District

For profiling purposes the Kingscliff census area is bounded by the Tweed River in the north and west, the Coral Sea in the east, and the locality of Casuarina, Cudgen Creek and the localities of Fingal Head, Chinderah, Cudgen and Stotts Creek in the south.

The intent of the extended demographic boundary is to acknowledge the broader subregional influence of Kingscliff as well as providing a more co-ordinated catchment and base level of data with other Council frameworks, most notably open space planning and the Community Infrastructure Plan.

Kingscliff - Fingal Head Population

Population	Number	Percentage	Regional NSW
Total Population	8 459	100%	100%
• Males	4 085	48.3%	49.4%
• Females	4 374	51.7%	50.6%

Kingscliff - Fingal Head Age Structure

Age Structure	Number	Percentage	Regional NSW
0 to 4 (Babies and pre-schoolers)	574	5.25%	6.3%
5-11 (Primary schoolers)	986	9.02%	9.0%
12-17 (Secondary schoolers)	863	7.90%	8.2%
18-24 (Tertiary education and independence)	669	6.12%	8.1%
25-34 (Young Workforce)	922	8.44%	10.4%
35-49 (Parents and home builders)	2 313	21.17%	19.5%
50-59 (Older workers and pre-retirees)	1 577	14.43%	13.9%
60-69 (Empty nesters and retirees)	1 375	12.58%	11.9%
70-84 (Seniors)	1 342	12.28%	10.3%
85+ (Elderly aged)	306	2.8%	2.3%

Source: Profile ID based on census 2011.

3.2.4 Housing Data

By analysing dwelling structure (the type of dwelling residents live in), the number of persons usually resident and the number of bedrooms within the dwelling, information can be gleaned regarding the variety of dwellings available and how effectively those dwellings serve the population. Broadly speaking, a variety of dwellings and dwelling sizes is highly desired as this provides housing choice appealing to a broader socioeconomic sector of the community. It is also important that housing type responds to the attributes and context within a locality. This can be achieved through a number of solutions, for example by providing a greater density of housing closer to public transport, provision of cycleways, open space and commercial development.

According to the 2011 Census, the three prevailing dwelling structures for Kingscliff are 'Separate house' (50.2%), 'Flat, unit or apartment in a three storey block' (15.3%) and 'Caravan, cabin, houseboat' (12.9%). These results are clearly evident 'on-the-ground' by way of the low density residential housing throughout the locality, residential flat buildings along Marine Parade and Pearl Street and the Noble Park Estate, complimented by the two Tweed Coast Holiday Parks. An increasingly popular housing structure within the development industry is a 'Flat, unit or apartment attached to a house', commonly referred to as a granny flat or secondary dwelling. At present there are only 20 (0.4%) of such dwellings within Kingscliff, however this 'soft' way of increasing population and providing more affordable housing may prove appealing, particularly in light of Kingscliff's topography, tourist focus and aging demographic.

Kingscliff has a high proportion of single and couple (without children) households: 60.2%, compared to the state average of 51.2%. Review of current demographic trends appears to indicate that proportion of single and couple households is likely to increase in step with the aging population. This will increase demand for smaller housing types which provide independent living within close walkable proximity to goods and services.

Within dwellings, 7.72% are one bedroom, 23.24% two bedroom, 28.85% three bedroom and 14.75% four bedroom; however 23.31% of dwellings are occupied by one person, 29.37% two person, 9.92% three persons and 9.03% by four persons. This data suggests that many of Kingscliff's residents are 'aging in place' within their traditional family home, or alternatively purchasing property based on perceived resale benefits. Potentially unlocking these 'spare' bedrooms will result in positive and negative economic, amenity and population impacts which require consideration and discussions with the community. It is acknowledged that Kingscliff and the Tweed Coast (Fingal Head, Kingscliff, Salt, Casuarina, Cabarita Hastings Point and Pottsville) already have a higher percentage of holiday housing than found throughout the remainder of the Tweed Shire.

The use of detached housing as short term tourist accommodation, particularly around many of the Kingscliff estates, has recently come under investigation in the context of the Tweed Local Environmental Plan 2014. As part of the process of translating previous urban expansion zones and the 'suburban' footprint of Salt into the Standard Instrument, the use of dwellings as tourist accommodation within the R2 Low Density Residential areas is now a prohibited use.

This is largely on account of the potential zone objective conflicts of providing for a permanent residential accommodation in terms of available housing stock and potential amenity impacts between permanent residents and holiday makers. Council has

Kingscliff - Fingal Head Dwelling Structure

Dwelling Structure	Number	Percentage
Separate house	2 808	50.2%
Semi-detached, row or terrace house, townhouse etc with one storey	511	9.1%
Semi-detached, row or terrace house, townhouse etc with 2 or more storeys	306	5.5%
Flat, unit or apartment in a one or two storey block	338	6.0%
Flat, unit or apartment in a three storey block	855	15.3%
Flat, unit or apartment in a four or more storey block	0	0.0%
Flat, unit or apartment attached to a house	20	0.4%
Caravan, cabin, houseboat	724	12.9%
Other	34	0.6%

Kingscliff - Fingal Head Number of Persons Usually Resident

Dwelling Structure	Number	Percentage
One person	1 304	23.31%
Two persons	1 643	29.37%
Three persons	555	9.92%
Four persons	505	9.03%
Five persons	254	4.54%
Six persons	84	1.50%
Seven persons	8	0.14%
Eight or more persons	5	0.09%
Not applicable	1 237	22.11%

Kingscliff - Fingal Head Number of Bedrooms

Number of Bedrooms	Number	Percentage
None (includes bed sitters)	98	1.75%
One bedroom	432	7.72%
Two bedrooms	1 300	23.24%
Three bedrooms	1 614	28.85%
Four bedrooms	825	14.75%
Five bedrooms	177	3.16%
Six bedrooms or more	30	0.54%
Not stated	278	4.97%
Not applicable	840	15.02%

Kingscliff - Fingal Head Dwelling Type

Dwelling Type	Number	Percentage	Regional NSW
Occupied private dwellings	4751	84.9%	86.9%
Unoccupied private dwellings	835	14.9%	12.8%
Non-private dwellings	8	0.1%	0.4%

Source: Profile ID based on census 2011.

resolved to undertake an analysis of the short term tourism accommodation throughout the R2 zone to understand the extent and nature of potential impacts in the context of the character of the locality, micro-economic impacts and the rise of largely unregulated internet based accommodation booking. The KLP will seek to coordinate the findings of this analysis where possible.

3.2.5 Housing Tenure

In addition to housing type, housing tenure data provides insights into its socio-economic status as well as the role it plays in the housing market. For example, a high concentration of private renters may indicate a transient area attractive to young singles and couples or those unable to afford to enter the housing market, while a concentration of home owners indicates a more settled area with mature families and empty nesters.

The Kingscliff locality has the highest proportion of renters within the Shire, and the highest number of persons living within cabins and caravans, on account of the Noble Park located off Elrond Drive. The current redevelopment North Kingscliff Holiday Park has phased out permanent resident opportunities. Whilst there are still some licenced residents within the south caravan park, the future redevelopment of this caravan park will also phase out permanent resident opportunities.

A recent analysis of demographic and market trend conducted by On Track Community Programs (2014) indicates that there is a high degree of income, rent and mortgage stress for households within the locality with over 30% of household expenditure on rent or mortgage payments.

Despite the higher than state average of household mortgage and rental stress, there is a significantly lower proportion of public and community housing (11% of stock in region compared to 15% in Sydney). This identifies a need for increased affordability of residential accommodation, which can be achieved by working with and providing incentives to social housing providers to develop dedicated social housing. There is also opportunity to further encouraging a range of housing types including small lot and shop top housing to provide more diversity and affordable housing types.

3.2.6 Employment and Income

The Kingscliff locality has some of the highest and lowest income earners within the Tweed Shire, however trends relatively closely to Regional NSW results. Overall, 9.0% of the households earned a high income (those earning \$2500 per week or more) and 32.8% were low income households (those earning less than \$600 per week), compared with 7.2% and 30.5% respectively for Tweed Shire. Predominately individual income amounts were \$200 - \$399 per week (21.28%) and \$400 - \$599 per week (12.14%).

The higher proportion of lower income earners largely reflects the higher proportion of retirees who although may have large capital wealth, have low incomes. Given income levels are generally an indicator for retail spending and therefore commercial floor space needs, these findings may alter the provision of commercial floorspace, particularly leisure-based retail.

The key industry sectors of employment within Kingscliff include construction, hospitality, retail, education and health. Whilst construction jobs will continue within Kingscliff as



The Kingscliff Locality has a wide range of housing types ranging from small post-war cottages to newer shop top housing, residential flat buildings and tourism accommodation. An important housing strategy for this type of built environment is to increase residential development opportunities and housing type diversity in and around the town centre with a focus on housing diversity, affordability and accessibility.

Kingscliff - Fingal Head Housing Tenure

Housing Tenure	Number	Percentage	Regional NSW
Owned outright	1,914	34.2%	36.6%
Owned with a mortgage	971	17.4%	29.7%
Rented	1,518	27.1%	27.0%

Kingscliff - Fingal Head Weekly individual Income

Weekly Individual Income (Yearly)	Number	Percentage	Regional NSW
Negative or Nil income	525	4.98%	6.5%
\$1-\$199 (\$1-\$10,399)	606	5.55%	7.6%
\$200-\$299 (\$10,400-\$15,599)	1,110	10.16%	13.0%
\$300-\$399 (\$15,600-\$20,799)	1,215	11.12%	12.9%
\$400-\$599 (\$20,800-\$31,199)	1,327	12.14%	13.7%
\$600-\$799 (\$31,200-\$41,599)	964	8.82%	10.8%
\$800-\$999 (\$41,600-\$51,999)	616	5.64%	7.6%
\$1,000-\$1,249 (\$52,000-\$64,999)	558	5.11%	6.6%
\$1,250-\$1,499 (\$65,000-\$77,999)	364	3.33%	4.3%
\$1,500-\$1,999 (\$78,000-\$103,999)	475	4.35%	5.3%
\$2,000 or more (\$104,000 or more)	373	3.41%	3.9%
Not stated	804	7.36%	7.7%
Not applicable	1,990	18.21%	

Source: Profile ID based on census 2011.

remaining release areas become developed, the majority of construction jobs will be outside of the locality. Conversely, hospitality, retail, education and health are likely to become further entrenched within Kingscliff’s land use composition, minimising the ‘leakage’ of jobs and spending outside Kingscliff. The continued presence of these industries is expected to give rise to stronger local networks, clustering of services and greater affordability as work and play occurs within the same locality.

3.2.7 Population Projections

Figure 3.1 illustrates the key release areas within the Kingscliff locality plan boundary. Population growth forecasts within the locality are based of an average annual growth rate of 0.74% to approximately **10 186 persons by 2036** with a forecast increase in the proportion of older workers, empty nesters, seniors and elderly (>50 years). In the context of Kingscliff locality where there are substantial amounts of green field development areas, this population growth rate has the potential to significantly spike relating to approval and staged release of additional residential areas.

The table below provides an estimate of population within each of the existing release areas based on indicative population density projections / land areas. These projections are indicative only and subject to variation in relation to the ultimate developable area, dwelling type composition and density. These projections indicate that an additional 4000 persons could be located within the Kingscliff locality which would extend the local population to **approximately 13 000 persons** over a longer term (>30 years).

Kingscliff Release Area Projections				
Release Area	Developable Residential Land Area	Density * (dwellings per hectare)	Dwellings	Population Projection
Turnock Street	16.2ha	16-50 d.p.h	600	1140
West Kingscliff	8.1ha	16-50 d.p.h	260	500
North Kingscliff	15.1ha	16 -50 d.p.h	420	902
Business & Knowledge	10.8ha	16 -50 d.p.h	452	814
Cudgen	11.7ha	16 - 30 d.p.h	248	523
Total	61.9ha		1980	3879

* Key environmentally constrained land discounted. Remaining footprint assumed having a 80% developable capacity (20% roads, open space, infrastructure). Household occupancy assumes 2.4 persons per dwelling.

** North Kingscliff site assumes residential component of over landuse to be 40% with remainder being a combination of mixed use, retail, commercial, open space and infrastructure.

*** Based on DA13/0024

3.2.8 Surrounding Development Influences

In addition to the consideration of population projections within the immediate release areas of the locality, the broader subregional catchment also needs to be considered in future strategic planning. Given Kingscliff’s existing status as a sub-regional catchment for surrounding smaller settlements, this role and function is likely to increase in step with the overall growth of the Tweed Coast in general.

One key consideration is the Kings Forest development which is forecast to generate fourteen (14) residential precincts with a mix of housing types including town houses,

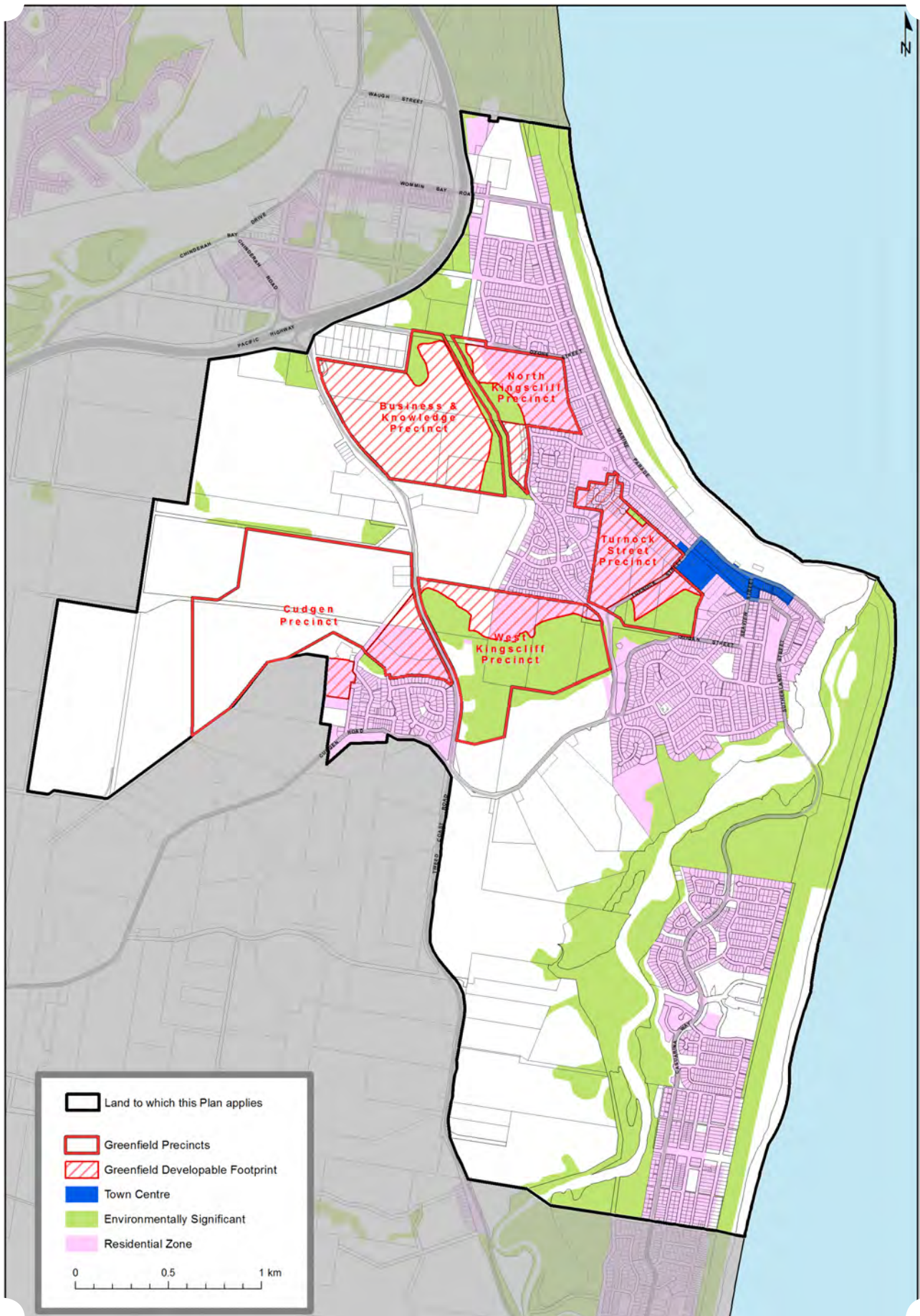


Fig 3.1 Existing and Future Potential Residential Release Areas within Kingscliff Locality

terraces, plexes, zero lot dwellings, and traditional detached dwellings comprising 4,500 dwellings (a new population of over 11,000 residents) covering approximately 437 hectares of net developable land. Whilst the commencement date of the development is currently unknown, the site is likely to be developed in stages over a number of years.

Whilst this development will also include its own mixed use town centre with commercial and community uses, it is likely that Kingscliff will retain its hierarchy as a subregional centre which will service the higher order needs of the growing surrounding population. This will result in additional traffic movements into the Kingscliff town centre, beaches and open space areas which will place additional strain on car parking and infrastructure.

Surrounding Release Area Projections				
Release Area	Land Area	Density (dwellings per hectare)	Dwellings/Lots	Population Projection**
Kings Forest	437ha	13 d.p.h*	4500	11 000
Miramar	16.65ha	10.6 d.p.h	177	425
Casuarina	Combined	-	790	1896
First Light	4.733ha	14d.p.h	88	211
Cotton Beach	Combined	-	330	792
Total				14324

* Based off density yields within the residential community concept plan and supporting documentation within MP06_0318.

** Household occupancy assumes 2.4 persons per dwelling which is the national average of occupants per household which the ABS predicts will continue to decrease to between 2.4 and 2.5 people per household by 2031.

3.2.9 Key Demographic Issues

Given existing and projected population age structures, future development and landuse will need to respond to demographic need and opportunity by way of a broader range of housing types, promoting density around activity centres, improving access and mobility within the public domain and promoting greater connectivity and public transport opportunities. It is anticipated that there will be an increasing demand for housing compatible for elderly residents, dedicated aged housing, aged care, health services, age appropriate open space, recreation and movement infrastructure.

Subdivision and dwelling design will also need to be design-responsive to ensure the services and houses provided are compatible with the changes in demographically driven demands, such as households for first home owners, empty nesters, aged, single parent and families. There should also be a strong focus on promoting diverse housing types, particularly within walkable catchments of required retail, commercial and health services and along public transport corridors. Encouraging more well designed small lot housing, one bedroom housing options, home office responsive dwellings and more innovative integrated housing projects will be important to meet these demographic sectors.

Housing needs to be supplemented by civic design measures including wide and safe pedestrian and mobility paths which have a good level of amenity including shade and seating along pathways and within public domain and open space areas.

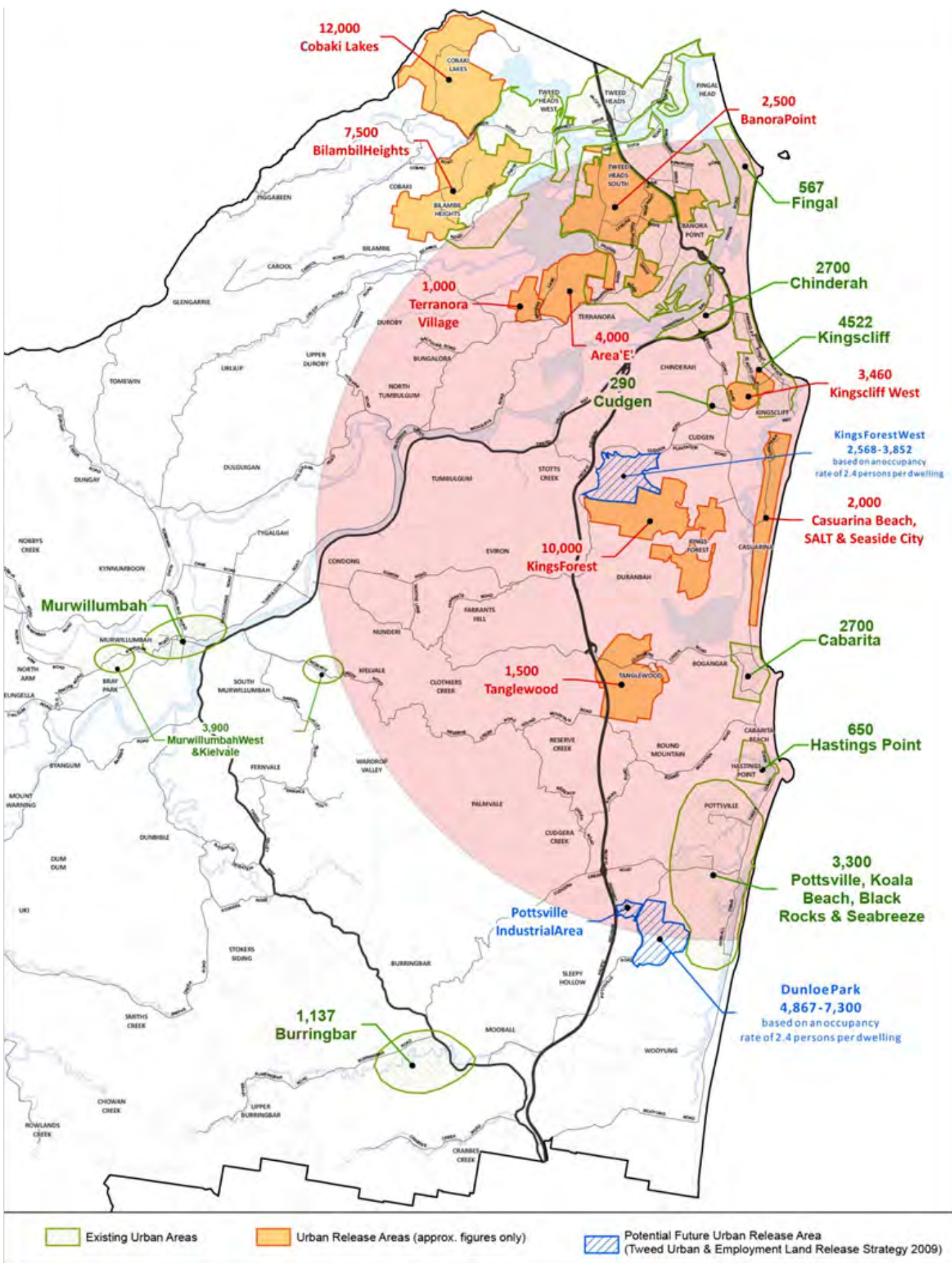


Fig 3.2 Release Areas surrounding the Kingscliff Locality

- An aging population will see an increasing demand for aged housing, aged care, health services, age appropriate open space and recreation, public and community transportation.
- Existing and forecast socio-economic demographic reveals a high instance of rent and mortgage stress indicating a need for more affordable forms of accommodation.
- The size of available developable land in and around Kingscliff will see a continued increase in the number of families with school aged children within the locality which will require additional provision of schools, support services including youth facilities and open space areas within a walking catchment of residential areas.

3.2.10 Demographic Opportunities

- More detailed exploration of secondary dwelling, one bedroom dwelling, SOHO and small lot housing opportunities, both within infill and greenfield development.
- Aim for sustainable population structure through ensuring that desired lifestyle options for all age groups are met.
- Provision of smaller yet well located independent housing types to provide options for those looking to down size or get into the housing market. This will have the flow on effect of increasing existing family home stock.
- Siting varied and flexible housing types meeting demographic need within walkable catchments of required retail, commercial and health services and along public transport corridors will be an important landuse strategy.
- Civic and urban design measures including wide and safe pedestrian and mobility paths which have a good level of amenity including shade and seating connecting residential estates with the town centre and open space opportunities.
- Promotion of a locally based transportation services which provide links between residential areas and the town centre.

3.2.11 Demographic Strategies:

1. Future development and landuse will respond to demographic need and opportunity by way of a broader range of housing types, promoting density around activity centres, improving access and mobility within the public domain and promoting greater connectivity, providing a range of open space types and community uses and public transport opportunities.
2. Promote housing type diversity, housing affordability and accessibility in both new residential development areas as well as within infill and town centre redevelopment which respond to a broad demographic and socio-economic profile.
3. Promote a mini bus public transportation system linking residential areas with the town centre and key community and health services which could be run by Kingscliff Village Shopping centre and the Kingscliff Chamber of Commerce.

3.3 Community Infrastructure

3.3.1 Community Infrastructure Planning

The Whole of Shire Cultural and Community Facilities Plan 2007 (C&CF Plan) provides a framework for the future provision of community facilities infrastructure within the Tweed Shire. The C&CF Plan will be supplemented by the Community Infrastructure Framework and Community and Cultural Facilities Network Plan scheduled to commence in 2015.

The C&CF Plan methodology provides community facilities that reflect the current and future age structure of seven districts within the Tweed Shire. There is an opportunity within Kingscliff to provide for the changing demographics of the region and plan for new community facilities. The KLP, along with Community Infrastructure Framework and Community and Cultural Facilities Network Plan will need to address these opportunities.

Kings Forest

A number of community facilities and social services will be provided within the Kings Forest. As part of the approved concept plan 12.7ha of land has been allocated for community and education facilities. It is expected that these community and education uses will meet the needs of the projected Kings Forest population.

Under the C&CF Plan, the Kingscliff locality is situated in the Rural Coast A district, along with Fingal, Chinderah, Rural North Coast and Bogangar/Cabarita. The C&CF Plan acknowledges the projected population growth and likely age structure before identifying a variety of facilities that should be provided based on industry thresholds, existing services and the demographic make-up of the district.

There is an opportunity through the KLP to further refine the community and cultural needs to be based on localities (such as Kingscliff as a district centre) rather than the current generic coast description within the C&CF Plan. A more direct understanding of where these facilities are required, their funding sources and what the functional brief of each of them are will be important during the master planning and strategy forming stages of development (particularly the KLP and any future Planning Proposals).

Through the KLP process there is opportunity to identify suitable sites both within the existing town centre, adjoining the town centre and/or within other surrounding green field development sites to accommodate future community social and cultural facilities. In identifying suitable sites, key locational criteria should include accessibility and visual prominence within the locality, be within walkable catchment of residential and commercial growth areas, be co-location with other retail, community and or open space uses as well as presenting opportunity to expand.

This can be further supported by land use planning strategies (and implemented through rezoning) and revised/new s.94 Developer Contributions.

The specific facilities required for the Rural Coast A district include:

Rural Coast A - Local Facilities		
No.	Use	Comment
2	Community meeting room multi- purpose hall	1 centre currently not funded through s.94
4	Childhood centres	3 centres currently not funded through s.94
2	Preschools	Not funded through s.94

Rural Coast A - District Facilities		
No.	Use	Comment
1	Multipurpose community centre / Civic Centre	
1	High School	Not funded through s.94
1	Youth facility	
1	Branch library	
2	Aged care service / respite centre	1 centre currently not funded through s.94
1	Neighbourhood centre	
1	Community health centre	
1	Police station	Not funded through s.94
1	Ambulance	Not funded through s.94
1	State emergency service	Not funded through s.94

3.3.2 Existing Social and Community Facilities and Services

Fig 3.3 illustrates the existing distribution of social and community facilities and services in and around the Kingscliff locality. Specifics of each facility are detailed in the table below.

Kingscliff - Council Facilities		
Use	Location	Comment
Kingscliff Community Hall	Marine Parade	Heritage listed multi- function hall. Located within the Coastal Hazard Zone. Community consultation confirms strong historic and social connection with this building on this location. Full calendar of events and occupancy with community consultation calling for an expanded facility. Opportunity to rebrand as Kingscliff Activity Space rather than Amenities Hall (toilet and shower association). Opportunity for future upgrade to expand usable floor area and open up spaces to surrounding (future) public domain spaces.
Kingscliff Library	Cudgen Road / Turnock St	Co-located on periphery of settlement with NSW Health and Meals on Wheels. Approximate 600sqm Opportunity to move this function to a future site within the Kingscliff Town Centre within a larger multifunctional community use building to improve access, efficiency and quality of service.
Sustainable Living Centre	Altona Road	Council-owned sustainability centre runs educational programs for surrounding schools as well as being regularly used for various Council meetings and training courses.

Kingscliff - Aged Care			
Use	Location	Residents	Capacity
Wommin Bay Village Aged Care	Wommin Bay Road	70 residents	TBC
Blue Care Aged Facility	24a Kingscliff St	95 residents	112 beds

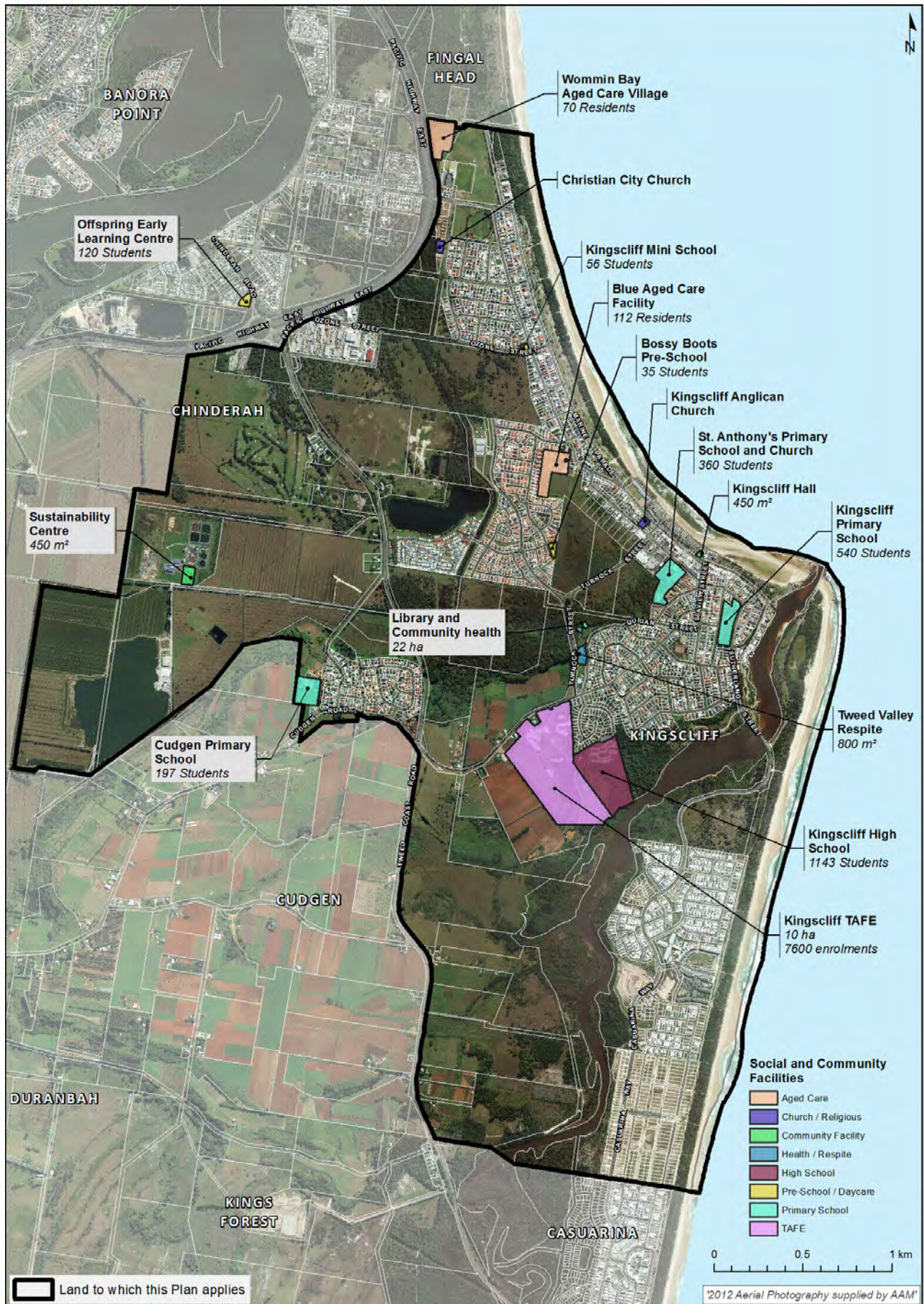


Figure 3.3 Distribution of Social and Community facilities within the Kingscliff Locality

Kingscliff - Child Care / Preschool			
Use	Location	Enrolment	Capacity
Bossy Boots Preschool	Lorien Way	35 Students (TBC)	100%
Kingscliff Mini school	Kingscliff Street	56 Students	100% 56 students
Cudgen Family Daycare	Rob Roy Way	5 students	100% 5 students
Offspring Chinderah Early Learning	Naru St Chinderah	13-27 students per day	118 students per day
Kool Kids	Casuarina Way	90 students	90 students

Kingscliff - Schools / Education			
Use	Location	Enrolment	Capacity
St Anthony's Primary School	Pearl Street Kingscliff	360 Students	TBC
Kingscliff Primary School	Orient Street Kingscliff	540 Students	90% 600 students
Cudgen Primary School	11 Collier Street Cudgen	190 Students	80% 240-250
Kingscliff High School	33 Oxford St Kingscliff	1,143 Students	89% 1,281 students
Kingscliff TAFE	Cudgen Road	7,600 enrolments	TBC

Kingscliff - Health		
Use	Location	Comment
Kingscliff Community Health	Cudgen Road	Co-located on periphery of settlement with Kingscliff Library and Meals on Wheels, KCH offers a range of health consultation services including child and family health clinics and counselling amongst other services. Growing need to expand this facility, especially as the residential population expands. Opportunity to expand into the library building if it relocates in the future.
Tweed Valley Respite	Cudgen Road	A not for profit organisation which provides disability services, support and training.



Community Infrastructure - The Kingscliff library, community health and “Meals on Wheels” currently form a community facilities precinct on the outer edge of the Kingscliff Township with poor pedestrian and cycle connectivity. One option could be to relocate the library along with other Council and community infrastructure services within the town centre allowing for the health services to grow.

3.3.4 Key Community Infrastructure Issues:

Given existing and projected population age structures, future development and landuse will need to ensure the adequate provision of appropriately sized and located community and social infrastructure. The future development in Kingscliff locality needs to be in step with additional facilities that fulfil a function and needs within a broader shire wide network of community infrastructure. In this regard community infrastructure planning needs to have regard to the existing roles and functions of Kingscliff locality, as well as the more broader residential and demographic catchment. In this regard the emerging community infrastructure issues include:

- Significant amounts of residential development surrounding Kingscliff, in particular Kings Forest which is forecast to accommodate up to 11 000 persons will influence the type, standard and location of community facilities.
- The need to audit existing Kingscliff community facilities to provide information in relation to status, function and use of existing facilities and determine if there is an under or over supply in the provision of services and operational floor area.
- More detailed review and identification of the current and future need for additional social infrastructure to be located within Kingscliff rather than more generic coast zone allocation.

3.3.5 Community Infrastructure Opportunities:

- Opportunity to rationalise social and community infrastructure into more coordinated and visible locations within the locality within or directly adjoining the existing town centre as the preferred location.
- Identification of appropriate sites and locations for new social/cultural/community facilities within the Kingscliff locality for future provision with a particular focus on locating a combined multi- purpose community facility, civic hub and branch library within the town centre to improve accessibility, efficiency and quality of service.

3.3.6 Community Infrastructure Strategies:

1. Co-ordinate with Council's Community Services Unit and the Community Infrastructure Plan documenting the localities social and community infrastructure future needs over the location and provision of future community and social infrastructure needs.
2. Audit existing Kingscliff facilities in terms of current usage, condition, capacity and opportunity for expansion, renovation and refurbishment within the context of the Shire wide community facilities network plan.
3. Identify a number of key locations and sites through the locality appropriate to accommodate future community buildings with a focus on a identifying a site for a multi-purpose civic, community, library building within the identified town centre precinct.
4. Acknowledge the increasing population from surrounding residential areas including Kings Forest in the context of planning, coordinating and distribution of community facilities.

3.4 Open Space and Recreation

3.4.1 Open Space and Recreation Facilities

The distribution of key open space areas within Kingscliff are detailed in Figure 3.4. As illustrated, the network of existing open space areas include a concentration of active open space facilities to the north of the Kingscliff settlement (including Walter Peate Fields, Reg Dalton Oval and Merv Edwards Field), with passive open space widespread throughout the settlement. The principle, and most utilised open space areas include the coastal and creek reserves, as well as the smaller parks located within each residential precinct.

Of recent times, refurbishment works have occurred within Faulks Park to the south of the Kingscliff Town Centre with a playground, half court basketball court, amenities block and car parking. Also, the recent improvement of facilities within Jack Bayliss Park included outdoor exercise equipment, shelters, bbqs and amenities block upgrade. A proposed Central Park adjoining the northern side of the Cudgen Headland Surf Club has also been included as part of the Kingscliff Foreshore Masterplan.

Council is currently undertaking a shire wide Open Space Strategy which will provide a framework for the embellishment and provisional of additional active and passive open space facilities and needs based of population projections. Part of that strategy will integrate with a number of previous existing open space and recreation related studies that have already been completed include:

Tweed Sports Field Strategy (TSFS) - Prepared in 2014 this shire wide strategy identifies the existing sports field facilities (along with their age and quality) and details the likely demand for new sports facilities given the anticipated population growth for the area. The TSFS considers sport provision trends and issues, as well as presenting community based ideas and aspirations. The scope of the TSFS is limited to outdoor field, oval and court based sports located in Tweed Shire.

The TSFS is broken down into different precincts with Kingscliff falling under the Mid-Coast Precinct. The TSFS finds that based on the existing and projected population the existing Reg Dalton Oval and Merv Edwards Field, combined with new sports fields proposed at Depot Road (6ha) and within the planned Kings Forest estate (8ha) will generally meet sports field need for the Mid-Coast Precinct until 2031. After this time there will be a gap or deficit in the provision of sports fields requiring the allocation of additional active and passive open space areas. The large sand mining site to the west of Tweed Coast Road, as previously identified by Gales Holdings could potentially fulfil this need as could green field development land to the north of the settlement.

Kingscliff Sports and Recreation Complex Masterplan (KSRC Masterplan) - Dated February 2015, the KSRC Masterplan focuses on the existing 11.7ha sports field complex which includes the Walter Peate Reserve, Merv Edwards Field and Reg Dalton Oval. The principle aim of the KSRC Masterplan is to provide a realistic and achievable vision for the complex, where the needs of the user groups, community and Council are established and balanced. Figure 3.5 illustrates the proposed 'ultimate' embellishment for the complex, achieved through a staged development process, including:

Sporting opportunities

- Cricket - turf field lit to playing standards, two additional full size ovals with synthetic wickets and a smaller junior field with synthetic wicket. Three-net lit cricket practice facility;
- Hockey - two full sized playing fields (one lit to competition standard) and additional lit field space for training;

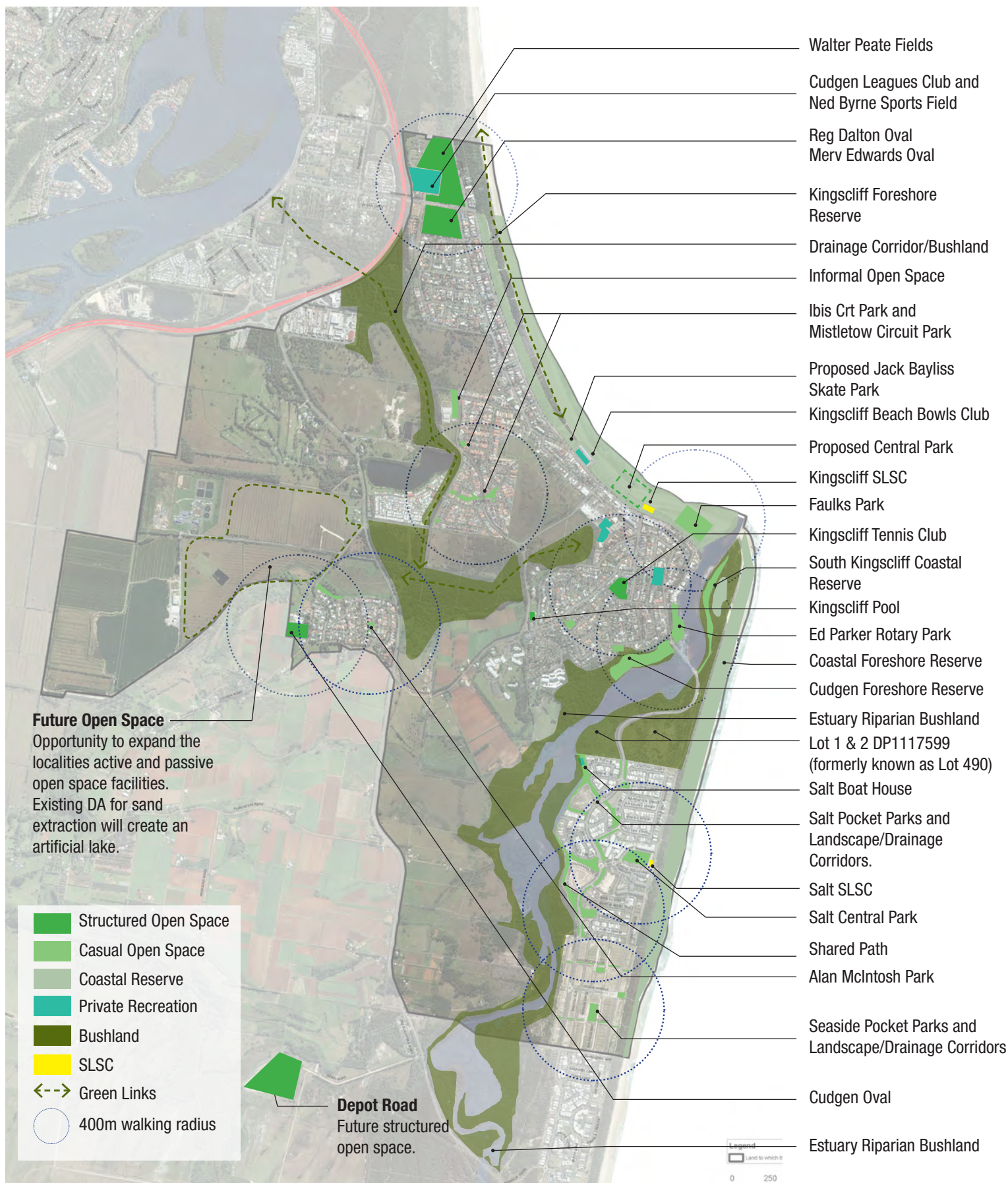


Figure 3.4 Distribution of Open Space and Recreation Areas within the Locality

- Football - premier field (lit and fenced) and second full sized field available year-round and a range of additional fields (approximately 4.5 fields total in the winter season);
- Little athletics - grass track with suitable field event facilities;
- Rugby league - access to one full sized field lit to training purposes directly to the north of the Cudgen Leagues Club; and
- Oztag - access to at least 4 fields outside the Cudgen Leagues Club.

Recreation opportunities

- Create a central recreation area at Walter Peate Reserve and at Reg Dalton Oval/Merv Edwards Field.

Common areas

- Suitable clubhouses with views across premier fields, amenities, change rooms and storage servicing both the northern and southern sides of the Complex;
- Shaded spectator mounds and grassed grandstand seating;
- Path system providing loops;
- Four formal car park areas within the complex and additional overflow car parking opportunities; and
- Significant planting of additional shade trees in key locations.

Kingscliff Foreshore Masterplan 2007 (KFMP) - In July 2007, Council adopted the Kingscliff Foreshore Masterplan for the town's coastal strip from Cudgen Creek to Wommin Bay Road. The planning document establishes a vision for future upgrade works to be realised over a period of up to 20 years, to protect Kingscliff's main commercial precinct, upgrade the parks and preserve the beach and foreshore. Council has been progressively constructing components of the KFMP with the following major recommendations for upgrade still to occur:

- Boardwalk - A 3.5 metre timber boardwalk to run the length of the beach protection area from north of the Kingscliff Beach Bowls Club to south of the Cudgen Headland Surf Life Saving Club.
- Central Park - An upgrade of the area between the Holiday Park and Kingscliff Community Hall. Changes include a reduction in the length of the Holiday Park to make room for public space, the RSL Centograph to become the central focus of the area with an enlarged ANZAC memorial space surrounding it and a promenade that connects Marine Parade directly to the beach (Figure 3.6).
- Skate park - At the southern end of Jack Bayliss Park (adjacent to the Kingscliff Beach Bowls Club)
- An upgrade of picnic areas and facilities along the vicinity of the foreshore.

Ed Parker Rotary Park Concept - In addition to the Kingscliff Foreshore Master Plan a concept plan has been prepared in consultation with the local rotary club which sought to formalise access and car parking arrangements combined with some park embellishment on the east side of the Tweed Coast Road.

Complex Master Plan - Overall layout

- | | | | | | |
|---|--|--|--|--|--|
| 1. Linemark existing car park | 6. Rugby league and oztag field (realigned slightly south and west) | 10. Raised clubhouse with spectator area | 17. Sealed car park and access to service road | 22. New entry and car parking | 28. Entry plaza and celebration space |
| 2. Football and oztag fields | 7. Building reconfigured for little athletics and extended with changerooms and amenities. New storage shed constructed nearby | 11. Premier football field | 18. Entry gateway with featured signage and entry statements | 23. Walk/cycle loop with exercise stations | 29. Cricket practice facility |
| 3. Re-oriented athletics track and field event facilities | 8. Tree-lined access boulevard to recreation node with shaded seating opportunities | 12. Grassed tiered seating | 19. Appropriate pedestrian island | 24. Premier cricket and hockey fields | 30. Consolidated amenities and changerooms |
| 4. Football field within athletics facility | 9. Recreation node with shade shelters, seating, BBQ and play elements | 13. Service vehicle delivery area | 20. Refurbishment of existing bus stops to primary bus layover and drop-off zone | 25. Hockey field | 31. Recreation node (older children) |
| 5. Formalise existing on-street nose-in and parallel parking along Murphys Road and McKissock Drive | | 14. Football field | 21. Tree-lined entry walkway into southern precinct | 26. Shaded, grass tiered spectator seating | 32. Formalised entry and sealed car park |
| | | 15. Football field (half size) | | 27. Refurbished clubhouse with eastern and northern outdoor extensions | |
| | | 16. Tree-lined path and service vehicle access | | | |



Figure 3.5 Kingscliff Sport and Recreation Complex Masterplan Source: Ross Planning



Figure 3.6 Kingscliff Central Park Concept

3.4.2 Key Open Space Issues:

Themes and issues relating to open space and recreation featured consistently throughout the community feedback obtained within Stages 01 and 02 of the KLP. Specifically, the community values the beach, creek and natural areas, with survey results identifying 70% frequent the beach and creek areas either daily or weekly, with almost 70% of respondents also stated that they utilise the walking / bike trails on a regular basis (38.9% daily, 29% weekly, 10% monthly). The existing cycleway network is well utilised however initial feedback suggests there is opportunity to improve the amenity of the network through wider paths, additional shade, more seating, water fountains and lighting.

In light of this community's feedback, it is important that future open space strategies acknowledge the embedded value of retaining and enhancing these spaces within its future decision making. Kingscliff's open spaces provide an integral component of its character and should not be viewed as 'left-over' spaces which are sacrificial to emerging and short-term infrastructure needs. Implementing appropriate upgrades and design solutions will be increasingly critical as Kingscliff's population increases and ages to ensure the retention of character and usability.

The core of the open space related issues and ideas identified by the community can be summarised under the following themes:

Active Sports

- Not enough sporting fields, often a conflict between the use of sports fields with some sporting clubs needing to travel further afield to play home games.
- The need for more youth focussed open spaces including a skate park and basketball court and shade structures at Jack Bayliss Park.
- Opportunity to build an ocean pool along the north break wall.

Passive Open Space and Conservation

- More open space for community based activities including concerts, music, food and wine festivals (such as Miami mini marketta) and farmers markets in addition to the regular markets.
- More planting, shade and general improvement of amenities (including shade, seating, bbqs and lighting) required.
- More street trees throughout the locality and landscaping along the coastal reserve.
- Need to reserve Lot 490 for environmental protection.
- Improve amenity along Marine Parade (between Turnock Street and Fig Tree).

Beach and Creek

- Improve the coastal foreshore area with a strong greening buffer extending north to south with more shade, trees and green spaces within the coastal reserve.
- Need to improve access to the beach and creek areas including disabled access and provide more showers.
- Resolve existing conflict between boat users (ramp) and other creek users including swimmers.
- Improve cycleways and walkways.
- Need to improve the overall amenity including shade, seating, water, bike stands, wider paths and lighting particularly between the estates of Seaside and Salt through to Kingscliff.
- Provide a boardwalk along the southern side of Cudgen Creek.

Kingscliff Beach Holiday Park and Proposed Central Park

The Kingscliff Beach Holiday Park, one of the settlements oldest land uses, forms part of the Tweed Coast Holiday Parks who hold leases from Land and Property Management Authority to operate. Revenue generated by the holiday parks is used to fund coastal management and environmental projects as well as beach access and public domain projects within the coastal reserves.

There was a mixed opinion during the community vision survey, community workshop and external reference panel regarding the long term future of the Kingscliff Beach Holiday Park. Out of the 297 community vision surveys received, 52 comments were made that Kingscliff Beach Holiday Park should be relocated from the current site and the land be used as open coastal parkland. Relocation sites suggestions include an expanded Kingscliff North Holiday Park, and a new site over the coastal foreshore south of Cudgen Creek as identified within the Tweed Coast Regional Crown Reserve Plan of Management. Part of the objection to the caravan park is the perception that it occupies a significant proportion of the town centre beach frontage effectively reducing access to it. Other comments related to the caravan park being an 'eye sore' and significantly contributing to Marine Parade traffic congestion during peak holiday periods. In reply, 10 responses to the survey supported the Kingscliff Beach Holiday Park citing affordable holiday family accommodation and economic flow on benefits to the local town centre businesses as the key reasons for its retention.

The adopted Council position is to reduce the holiday park footprint from 176 sites down to 60 sites comprising a range of tourist accommodation styles with the balance of the site to be embellished as the proposed Central Park. Feedback from initial community consultation indicates general support for the reduced footprint and creation of Central Park. The KFMP would include a 3.5m wide boardwalk improving public access to this coastal reserve.

3.4.3 Key Open Space Opportunities:

Key opportunities which emerged from the community vision survey and community workshop include:

- Expand the bike and walking trail network with supporting facilities including lighting, seating, water source and shade.
- Create a strong north-south and east-west green link connecting the northern and western precincts (future development sites) with the town centre.
- Investigate the creation of 'micro parks' within the urban footprint, allowing the landscape to permeate the urban environment and provide a rest point for pedestrians between more substantial green corridors and spaces.
- Investigate the lands to the west of Tweed Coast Road for future active and passive open space and recreation facilities.
- Provide additional toilet amenities within Faulks Park.
- Improve and rationalise pedestrian access to beach and estuary foreshore areas.
- Undertake a boat action plan to mitigate existing conflict between boat users (ramp) and other creek users including swimmers. Consider relocating boat ramp to the west (Rotary Park) or south of the Creek.
- Create a coastal foreshore botanical gardens and embellish with shade, shelters and informative narratives about Aboriginal cultural heritage and local ecology.
- Pursue a skate park in the southern portion of Jack Bayliss Park in accordance with the KFMP.
- Investigate provision of kiosks at key open space and recreation spaces.

3.4.4 Open Space Strategies:

1. Continue to promote and embellish the Kingscliff sports and recreation complex as the premier key active sporting areas.
2. Co-ordinate the outcomes of the Tweed Shire Open Space Strategy within precinct plans, masterplanning and subdivision proposals within the locality.
3. Investigate options to further expand active and passive open space in step with greenfield development release areas within the locality with a preference for good accessibility to residential populations. This may include longer term opportunity to dispose of the Depot Road Sports Precinct in favour of a more centrally located and accessible open space facility.
4. Continue to implement actions within the KFMP including:
 - promote the proposed Central Park as the premier passive community open space for Kingscliff town centre;
 - rationalise and improve pedestrian access to beach and estuary areas with a focus on universal design and access particularly adjoining the SLSC, at the end of Marine Parade near the boat ramp and on the southern bank of Cudgen Creek and Ed Parker Park;
 - integrate public domain elements including a boardwalk, seating, shade and beach access points with the design of any future coastal hazard protection infrastructure between the SLSC and the Kingscliff Beach Bowls Club;
 - undertake design investigations for the construction of a skate park and associated amenities, natural shade, seating, water source, bike parking facilities and bike racks and lighting within Jack Bayliss Park in accordance with the adopted KFMP;
 - ensure community consultation processes are pursued in finalising the design for the Kingscliff Foreshore Masterplan projects particularly in relation to Central Park and Ed Parker Park.
5. Initiate a streetscape and public domain masterplan for the town centre with a focus on improving connectivity, pedestrian and streetscape amenity integrating the town centre with the Central Park and KFMP concepts.
6. Initiate a street tree planting program within existing residential and town centre areas to improve pedestrian and visual amenity as well as strengthening ecological links.
7. In co-ordination with the Roads and Maritime Service, NSW Rescue and the SLSC initiate a Cudgen Creek Boating Area Plan to devise a strategy for boating. This would include reviewing the best long term location of the boat ramp with a focus on safe navigation, improvements to the safety for all users and optimise best public domain design and coastal foreshore management outcomes.
8. Provide additional toilets within Faulks Park as an extension to the existing facilities.
9. Investigate the extension of the existing shared path cycle / walkway network into new residential and business areas particularly along the north-south (Elrond Drive) and east-west (Turnock Street) alignments.
10. Investigate as a longer term open space and recreation opportunity lands to the west of the Tweed Coast Road to fulfil a broad range of active, passive and water based recreational opportunities as a local and regional facility.



Integrate public domain elements with coastal hazard protection measures.



Opportunity for small kiosks within open space and recreation areas such as the coastal foreshore and Rotary Park adjoining Cudgen Creek.



Additional street and park tree planting significantly improves pedestrian and visual amenity as well as strengthening ecological links. Suggestion has been made to re-imagine the foreshore coastal reserve as a native botanical gardens including coastal bush foods.



Further embellish the Kingscliff Sport and Recreation Complex in accordance with the endorsed Masterplan which aims to provide a better range of facilities to a broader range of participants.



Shade structures within the public domain improves pedestrian and visual amenity.



Innovative night lighting reinforcing the coastal context.

3.5 Kingscliff Community Events, Markets and Festivals

3.5.1 Existing Community Events

Kingscliff is increasingly becoming the destination for a number of community, cultural and sporting events. These events bring excitement and opportunities to both the local community and visitors. With these events come a number of significant economic benefits such as creation of jobs, increased purchase of local goods and services, business opportunities and adding to the quality of life in Kingscliff and along this part of the Tweed coast.

Some of the events which are held either regularly or annually include:

Kingscliff Community Events		
Event	Location	Frequency
Lions Club Markets	Jack Bayliss Park	2 x month
Kingscliff Lantern Market	Lions Park	Monthly
Long Table Dinner	Salt	Annual
Salt Christmas Carols	Salt	Annual
Relay for Life	Merv Edwards Field	Annual

Kingscliff Sporting Events		
Event	Location	Frequency
Kingscliff Triathlon	Kingscliff Coastal Foreshore	Annual
Surf Life Saving IRB Championships	Kingscliff Coastal Foreshore	Awarded application basis
SLSC Events	Kingscliff Coastal Foreshore Salt	Seasonal / Weekend / Annual
Battle on the Border Cycling	Kingscliff	Annual
Australian Longboard Championships	Kingscliff Coastal Foreshore	Annual
Casuarina Cup Touch Football	Casuarina	Annual

In addition to these larger events, there are a number of community based activities which operate out of the Kingscliff Community building on a weekly basis. Some of these activities include seniors events, children's sporting activities, private functions, club and group meetings, business functions, dramas and musicals, exhibitions, dances, and conferences, cultural and religious events.

Feedback received from the Community Vision Surveys and the first Community Workshop indicated that there is generally strong support for community based events within Kingscliff. Many respondents indicated that they would like to see more community based events with some of the respondent suggestions including:

- Farmers markets;
- Food, wine and jazz festival;
- Theatre and comedy shows;
- Concerts and live music in the coastal foreshore park lands especially during summer months;
- Festival similar to Bleach, Swell and Sculpture by the Sea.



Kingscliff Markets



Kingscliff triathlon.



Cudgen Headland and SALT Surf Life Saving Events



Australian Longboard Open.



Salt Village Carols



Kingscliff Long Table.

Kingscliff Events - Kingscliff is increasingly the destination of a number of community, cultural and sporting events. The community vision survey indicated a general support for the existing events with many wanting to further expand the range of community, music, cultural and sporting events held each year.

3.5.2 Community Event Issues

On Thursday 12 March 2015, Tweed Shire Council in collaboration with Kingscliff and District Chamber of Commerce and Kingscliff Ratepayers and Progress Association, hosted a breakfast forum at the Kingscliff Beach Bowls Club titled: “Kingscliff Matters”.

The initial purpose of this forum was to engage with a range of local stakeholders, regarding the rise in requests to Council for festivals and events to be held at Kingscliff. In assessing these requests, Council sought feedback from community and business representatives, giving consideration to striking the right balance of maintaining Kingscliff’s sought after lifestyle and community ambience with opportunities to contribute to the ongoing economic and social development of the town.

At that forum and following survey questionnaire a number of the issues raised by participants include:

- market stalls are competing and taking business away from the permanent retailers within the town centre;
- impacts from increased car parking and higher volumes of traffic make it hard for locals, business owners and staff to access the town centre;
- lack of communication between event managers and broader resident and business community;
- lack of Council based co-ordination and communication to address the key traffic and car parking issues.

Other participants at the forum felt that the short term inconvenience of traffic and extra people in town was outweighed by the economic, social and cultural benefits of hosting such events.

3.5.3 Community Event Opportunities

At the Kingscliff matters forum a number of opportunities and ideas were raised by participants for consideration when hosting future events which included:

- Clearer and more transparent Event Planning protocols which includes advertised and notified approvals process, events based traffic and car parking management plans.
- Need to co-ordinate car parking and traffic movements with event organisers, Council, Chamber of Commerce and residents and clearly communicate traffic and car parking plans to all stakeholders including event participants prior to the event taking place. This may include utilising a car and ride system with parking on the periphery of the town such as the northern sports fields and event participants take a mini bus into the town centre.
- Create business owner and staff priority car parking areas within the town centre allowing business and staff access to their business’ during event periods;
- The need to consider the nature of market stalls to ensure a preference for local businesses and produce and ensure that there is not too much duplication with existing town centre businesses. This may also include the offer of market stalls to local business owners.

3.5.4 Community Event Strategies

1. Continue to promote and where necessary review the existing Events Strategy 2011-2016 and Festival and Events Policy to:
 - Ensure that proposed events and festivals are notified and widely communicated within the resident and business communities;
 - Include provision to prepare traffic and car parking management plans in co-ordination with Council, business and residential stakeholder groups to ensure access to town centre is maintained, particularly for business owners and staff;
 - Review measures to ensure there is not too much duplication of market stall holders and existing businesses and ensure there is a preference for local business owners and local produce within the markets.
2. Encourage and promote a Kingscliff or Tweed brand which market holders can display indicating that they are local producers.
3. Explore the option of a universal development application which applies to a designated area within the town centre / coastal foreshore and provides consent to host a range of different events and festivals over the course of the year. This would have the affect of:
 - cutting red tape to event holders and festivals which encourages more diverse events and festivals contributing to the ongoing economic and social development of the town.
 - setting a calendar of events which could then be widely notified amongst the resident and business communities who would then know when these events would be run;
 - set up traffic and car parking management plans and protocols with the intent of reducing traffic and car parking impacts during event and festival periods and providing continued access for business owners and staff within the town centre;
 - provide an opportunity for community and business feedback to improve the co-ordination of event and festivals within Kingscliff.



4.0 URBAN STRUCTURE



4.1 Regional Context

The Tweed Coast extends from the NSW-Queensland State Border approximately 35km south to Wooyung and comprises of a unique stretch of the NSW coast. The area exhibits significant environmental qualities that include highly valued beaches and coastal reserves, expansive wetlands, rivers and estuaries, native bushland and prime agricultural land. The natural areas provide important habitat for an array of flora and fauna. The range of available habitats and the subtropical climate make the district one of the most bio-diverse areas in Australia.

The coastal settlements of the Tweed Coast possess an over arching theme of confined urban footprints surrounded by areas of natural environment. The relationship between built form and natural environment is one of the key reasons of why Tweed Coast continues to be a popular tourist destination, provides a particular point of different to the adjoining Gold Coast and is one of the fastest growing regions of NSW.

The relationship and hierarchy between existing coastal settlements is diagrammed below and illustrated in Figures 4.1 and 4.2. Regionally, Kingscliff sits below the more highly urbanised centres of the Gold Coast and the regional centres of Tweed Heads and Murwillumbah. Byron Bay to the south has traditionally fulfilled an entertainment and recreation role rather than the provision of higher order services.

High order services require a higher population threshold to use the service in order to remain more efficient and profitable. This means high order service such as large medical centres, supermarket or department stores need a greater number of people than a low order service such as a cafe or newsagent.

It is these larger regional centres which provide a higher density of employment opportunities, higher order retail and commercial services, leisure shopping and entertainment. In terms of this regional hierarchy however, Kingscliff in terms of its footprint size and projected catchment population could potentially surpass Murwillumbah if additional development across the available greenfield development sites occurs.

As a part of the Tweed Coast, and outside of the regional centre of Tweed Heads is a smaller network of coastal villages which includes Fingal Head, Kingscliff, Cabarita and Pottsville combined with the inland settlements of Chinderah and Cudgen. Of these villages, Kingscliff was historically the first growth centre along the Tweed Coast and today is larger by both population and settlement area. As such Kingscliff now functions as a subregional catchment for surrounding smaller settlements to the south, west and north up to the Tweed River. Whilst Kingscliff has a resident population of approximately 11,000 people, it has the potential to be a sub-regional catchment to approximately 30,000 people which includes the development and future resident population of Kings Forest.

While recognising the significance of the natural habitat areas which in many ways underpin the regional character of the Tweed Coast, Kingscliff has potential for extensive urban and employment generating development which would further assert the locality as a subregional centre.

A clear vision of how these precincts are to develop is necessary to ensure that the most significant natural qualities are retained while still allowing for development to occur in a sustainable, efficient and attractive manner. The future strategic planning direction must achieve the appropriate balance between community, development, provision of appropriately scaled goods, services and employment opportunities and conservation, nestled within a highly valued environmental context fringed with a working agricultural hinterland.

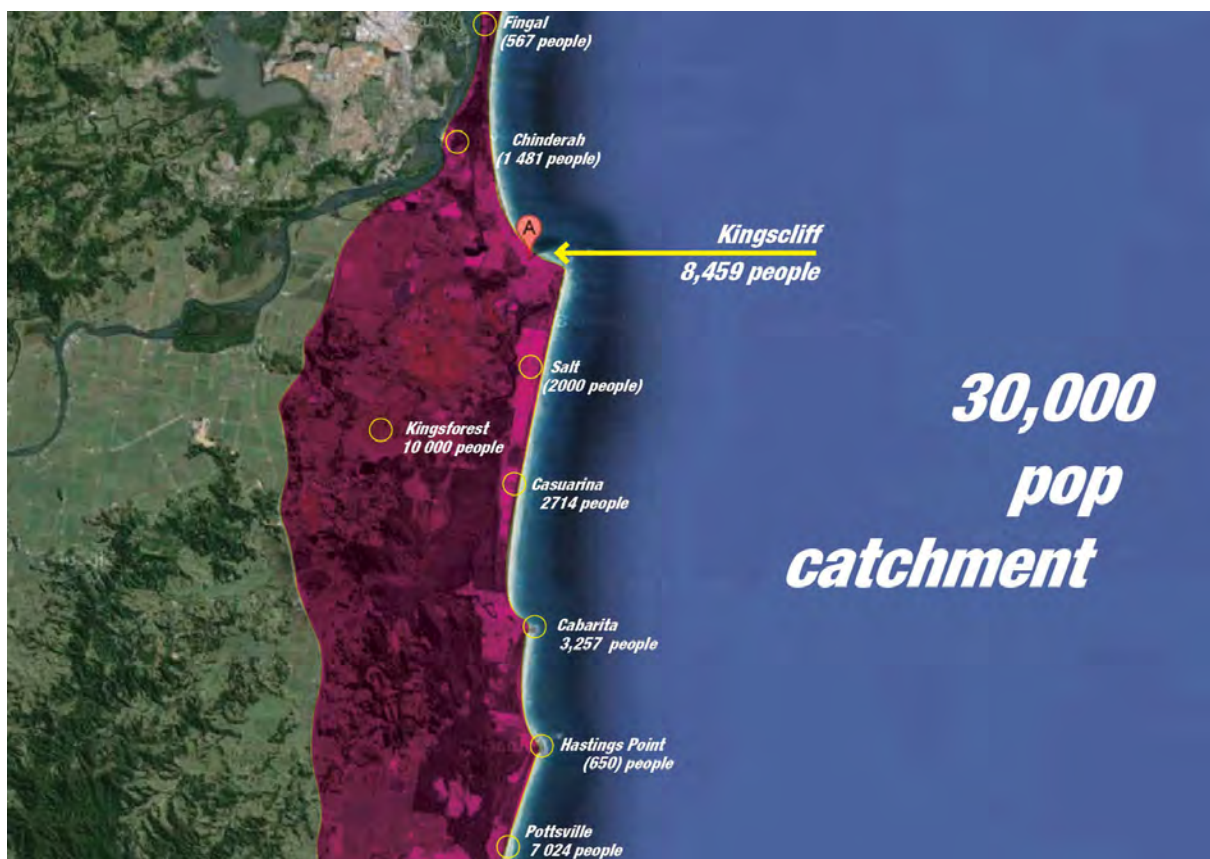


Figure 4.1 Kingscliff Sub-Regional Context

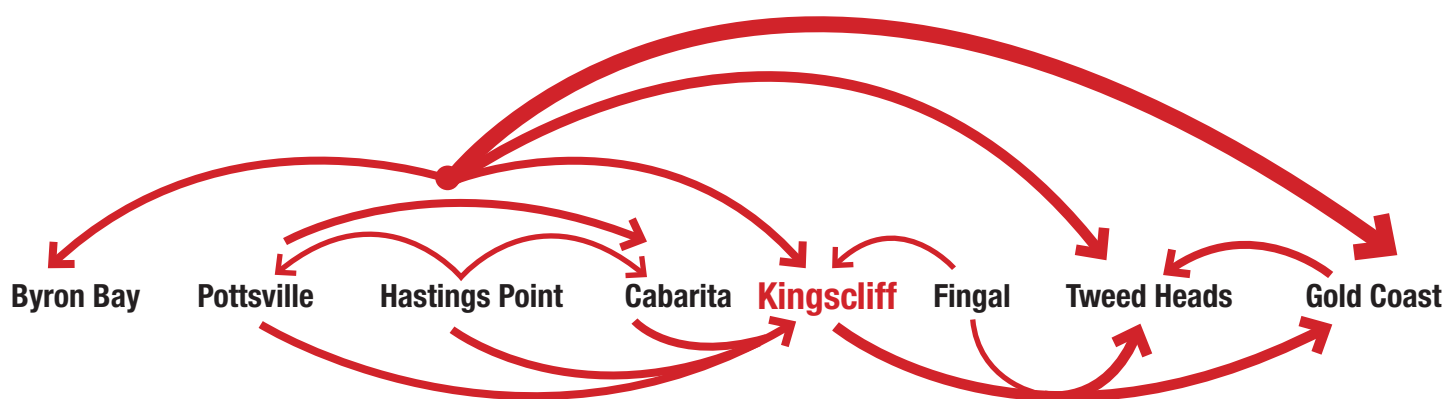


Figure 4.2 Diagrammatic Relationship of Regional Settlements and Centres - Whilst the smaller coastal villages to the south use Kingscliff as a subregional centre, the larger regional service centres of Tweed and Gold Coast including Robina Town Centre cater for higher order retail, commercial, health and recreational shopping demand.

4.2 Urban Structure and Landuse Context

Urban Structure is the composition of streets, buildings, open spaces, land use zones, environmental areas, activities, transport and landscape. It underpins the integration of movement, public spaces and development opportunity within a locality. In doing so, urban structure influences land use efficiencies, economic performance and viability, movement and access, sustainability and the overall qualities of place.

4.2.1 Urban Structure Morphology

The growth of the Kingscliff settlement and the resultant urban structure is largely a response to the local topography with the street pattern largely evolving from a series of the early walking and animal trails. These trails often tracked the top of ridgelines as this provided the easiest grade and best observation out and over the area. The main ridgeline trails then had a series of secondary trails running perpendicular or zig zag down the side of the ridgelines to the Kingscliff flats to the north, the river mouth and beach to the east and Cudgera Creek to the south. These trails, now roads, have shaped much of the development footprint and open space within Kingscliff.

Whilst Cudgen settled as the agricultural centre, Kingscliff settled as a popular day tripping destination. The desire to enjoy the natural attributes of the coast and creek through camping, fishing and surfing located the tourist based footprint, which remains the primary activity centre today. The establishment of the sand mining industry led to the rapid provision of essential electrical, road and water infrastructure, enabling the growth of Kingscliff north of Cudgen Creek and post sand mining, predominately provided access and shaped the development footprint for settlements south of Cudgen Creek.

Although the predominate overall settlement footprint and structure has stemmed from historical links, in contrast many of the more recent subdivision designs and internal roads within the suburban residential areas have been derived from a vehicle dependant development form. Consequently the Kingscliff coastal village character does not resonate as strongly within these areas.

For more than a decade Kingscliff's geographic position and availability of land suitable for development has seen it grow as the focal point to the broader Tweed Coast, and it's population and provision of services has elevated its status from a coastal village to coastal town. Kingscliff's role had been further emphasised by strong population growth on its southern periphery (predominately Casuarina and Miramar) which, to-date, has occurred largely without supporting retail and commercial facilities.

The future planned Kings Forest development, located to the southwest of Kingscliff, will provide its own non- residential development through a number of 'neighbourhood centres', however will also continue to increase the population of the Tweed Coast and justify the overall provision of higher-order services. In light of Kingscliff's latent areas of greenfield land and its natural assertion as a sub-regional centre to the Tweed Coast, there is significant potential to bolster Kingscliff's place within Tweeds' network of coastal villages.

The Coastal Design Guidelines for NSW identifies population thresholds to describe settlement size. Within those guidelines a coastal village typically has less than 3000 residents, a coastal town has between 3000-20,000 residents and a coastal city has over 20,000.

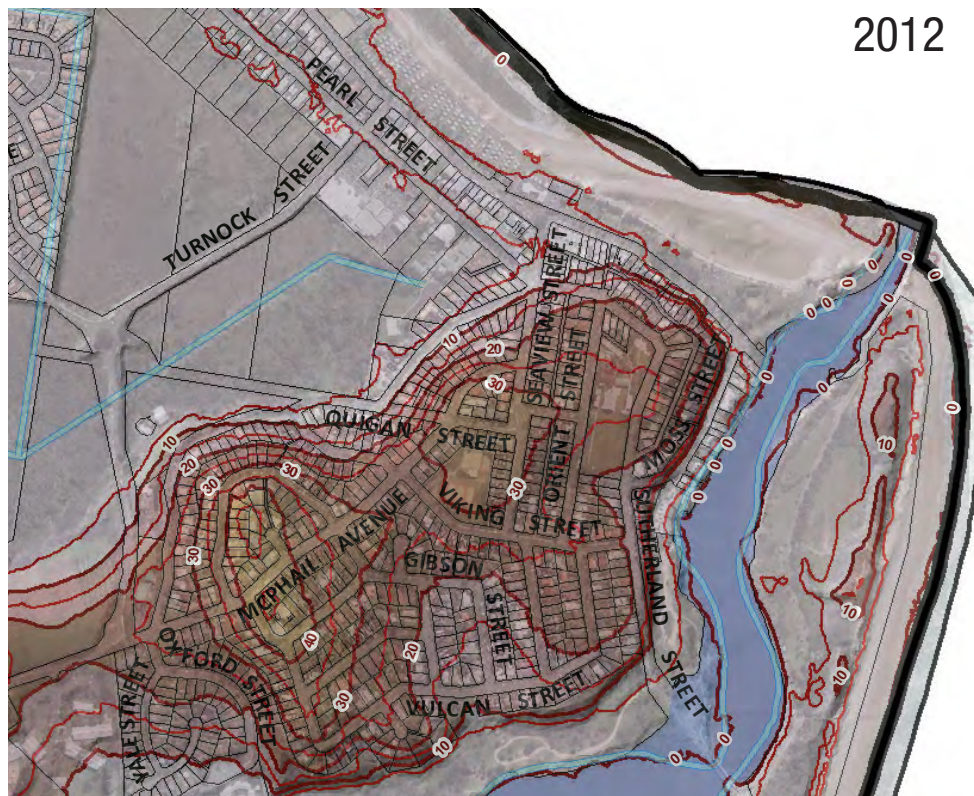
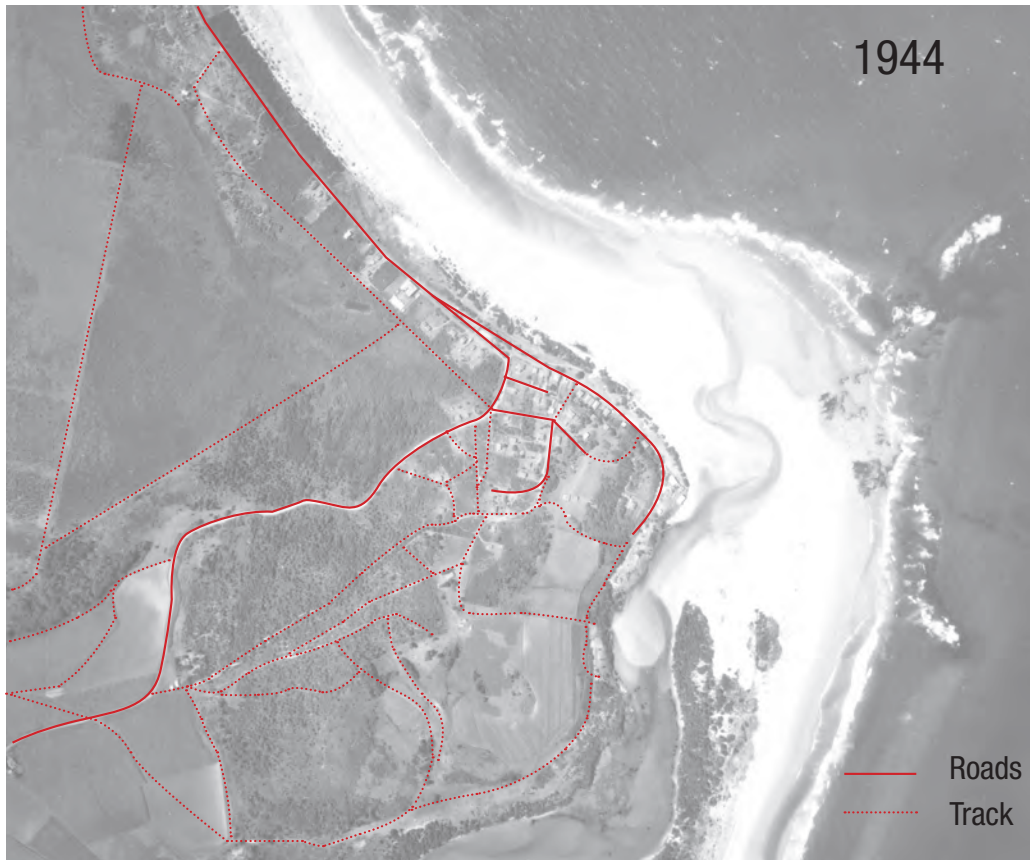


Figure 4.3 - The underlying physical structure of Kingscliff evolved from ancient bush tracks and the first roads and pathways which followed key topographic features enabling ease of passage between Kingscliff, Cudgen and Chinderah.

Greenfield opportunities however need to be tempered and balanced within a strategic planning framework to ensure that the population increases are in step with community expectation, appropriate infrastructure provision and protection of sensitive environmental areas whilst strengthening the character and identity of Kingscliff.

4.2.2 Locality Structure Characteristics

The morphology of the settlements development have now established a number of clear physical and urban structure characteristics which underpin the access and broader land uses of Kingscliff as illustrated in Figure 4.4 and comprise the following:

- The settlement is predominately bound by the natural environment and open spaces, namely the Pacific Ocean to the east, environmental protection to the north, and agricultural land to the west.
- The non-urban approaches to Cudgen and Kingscliff adding to the localities overall character and sense of contained urban areas surrounded by agricultural and environmental lands;
- A distinctive ridgeline running from the Cudgen Plateau to the edge of the Kingscliff town centre with flood plains to the west of Tweed Coast Road and north of the Cudgen Plateau;
- Cudgen, the localities oldest settlement within the locality located on Cudgen plateau on corner of Tweed Coast Road and Cudgen Road surrounded by state significant farmland;
- The existing Kingscliff town centre located at the centre of the settlement on the confluence of Cudgen Creek and the Ocean Beach;
- Undeveloped Sutherland Point (Cudgen Headland) to the south of the Cudgen Creek;
- A street pattern and hierarchy which evolved from topographic constraints and historic tracks and trails;
- The majority of movement is along a north-south alignment, whether that be Tweed Coast Road towards the west, or Marine Parade, Kingscliff, Pearl and Casuarina Way along the east
- The pattern of residential development within Kingscliff represents different stages of the towns growth and now represent distinct character precincts including the town centre, the flats heading north, Kingscliff hill and the new coastal areas of Salt and Seaside City which when combined define the character of the Kingscliff locality;
- A frontal ocean beach dune system which has a cycleway connecting surrounding northern and southern settlements with Kingscliff, the ocean beaches and Cudgen Creek.

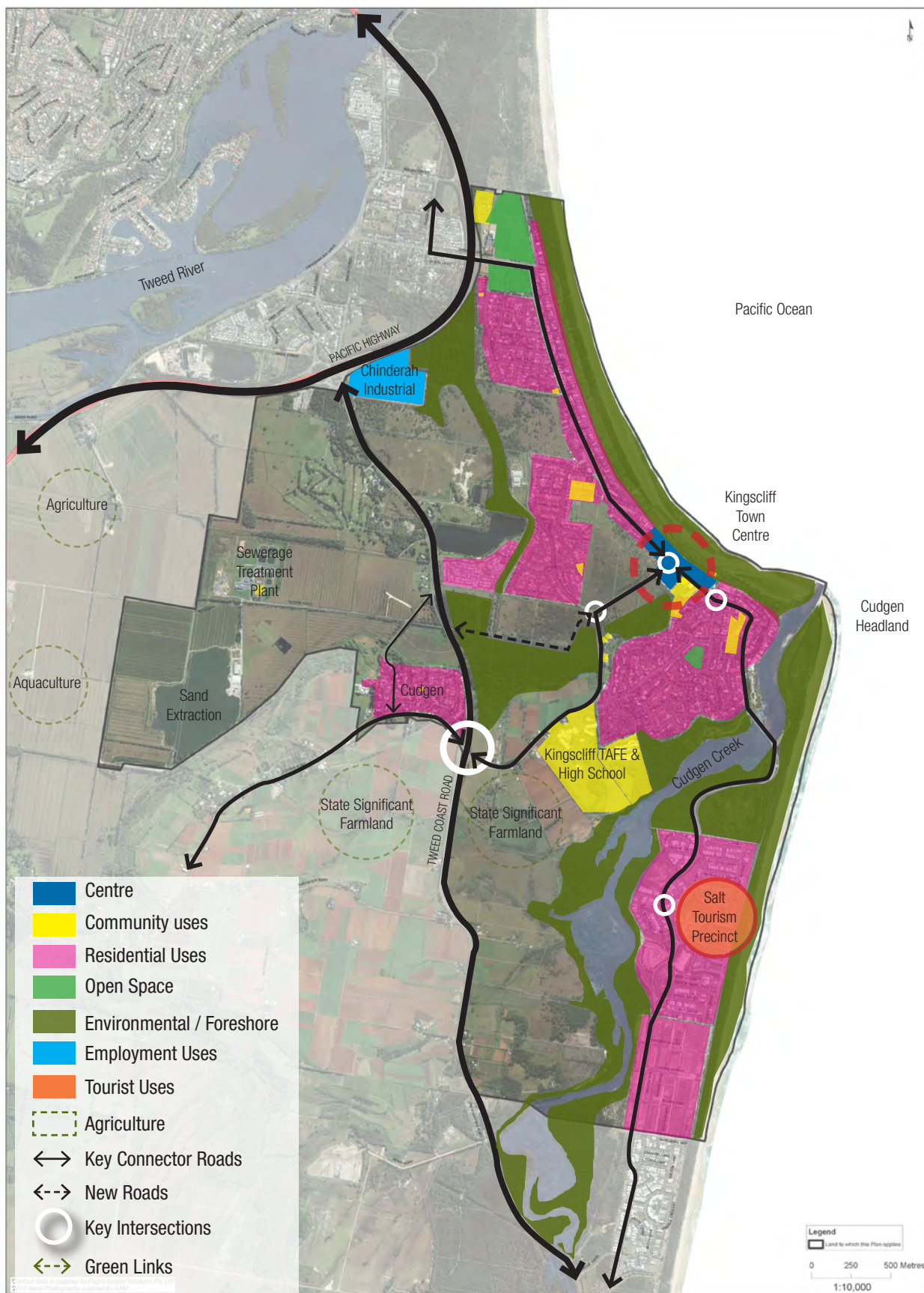


Figure 4.4 - Kingscliff and Cudgen Locality Urban Structure

4.2.3 Kingscliff and Cudgen Land Use and Settlement Precincts

The KLP footprint is generally grouped into identifiable precincts based on land use and development release as illustrated in Figure 4.4. These different land use and settlement character precincts have been illustrated in Figure 4.5 and are discussed briefly below and in detail within Kingscliff Locality Plan Vol 2 - Precinct Plans.

The Town Centre Precinct- Centred around Marine Parade, Seaview, Pearl and Turnock Streets, the existing town centre contains a range of retail, commercial, entertainment and leisure, food and beverage and accommodation uses. The town centre comprises predominantly single and two storey buildings with newer three storey shop top development including the Paradiso, Azura and the Kingscliff Central commercial building.

The precinct provides two distinctly differing town experiences, Marine Parade being a more typical linear 'High Street', (albeit single sided), contrasting the Kingscliff Shopping Village located on the corner of Pearl and Turnock Streets, which is an internalised shopping mall anchored by the Woolworths supermarket.

Despite these differing retail/commercial elements and experiences within the town centre, there is no recognisable centre or memorable civic/public domain area at present. Despite the natural beauty of surrounding creek and ocean beach, the town centre lacks a sense of designed coastal character, cohesion, balance between pedestrian and vehicle and meaningful community space. This will be somewhat addressed as part of an overall coastal foreshore masterplan which will establish parkland adjoining Marine Parade and the beach.

The current planning framework foreshadows a westerly extension of the town centre along Turnock Street. Whilst the extent and form of this extension is not overly prescribed, the presence of significant greenfield land immediately adjoining an existing centre presents a genuinely unique opportunity to meet the needs of a growing resident population. This retail and commercial landuse growth needs be undertaken concurrently with public domain and landscape improvements with a focus on improving connectivity and pedestrian amenity.

Coastal Foreshore Precinct - The Coastal foreshore precinct includes the long linear strip of coastal foreshore land extending from Cudgen Creek north to the localities northern boundary as well as the land on either side of Cudgen Creek taking in Cudgen Headland and Lot 1 & 2 DP1117599. This coastal and estuarine precinct represents perhaps the most highly valued areas by community in terms of environmental protection, recreation, lifestyle and locality character. This precinct includes the North Kingscliff and Kingscliff Beach Holiday Parks, the Cudgen Headland Surf Life Saving Club, Faulks Park, the Boat Ramp, Rotary Park. This precinct has been the subject of a number of staged public domain and parkland improvement projects over recent years in accordance with the adopted Kingscliff Foreshore Master Plan including Faulks Park and future plans for the creation of the Central Park over part of the existing Kingscliff Beach Holiday Park site.

Recent community consultation has revealed a split opinion regarding the continuation of the Kingscliff Beach Holiday Park in its present location. Out of the

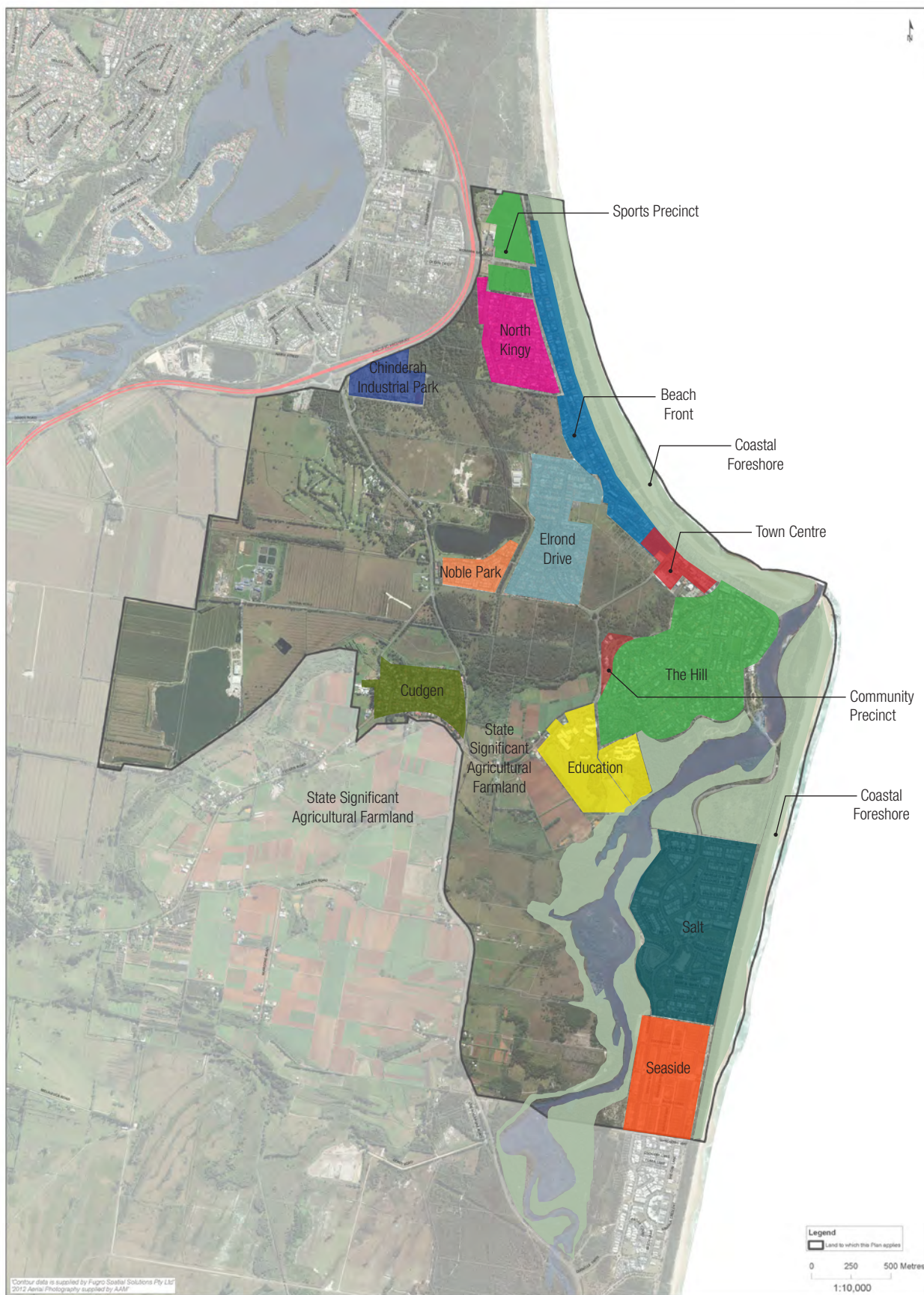


Figure 4.5 - Kingscliff and Cudgen Locality Existing Precincts

297 community vision surveys received, 52 comments were made that Kingscliff Beach Holiday Park should be relocated from the current site and the land used as open coastal parkland. Relocation sites suggestions include an expanded Kingscliff North Holiday Park, and a new site over the coastal foreshore south of Cudgen Creek as identified within the Tweed Coast Regional Crown Reserve Plan of Management. 10 responses within the survey supported the Kingscliff Beach Holiday Park citing affordable holiday family accommodation and economic flow on benefits to the local town centre businesses as the key reasons for its retention. The creation of the central park is generally supported across the board.

Beach Front Precinct- This residential precinct extends north from the Town Centre along Marine Parade and the parallel Pearl and Kingscliff Streets to the localities northern boundary. The precinct has developed a medium density character the ubiquitous coastal beach shacks of the past have been redeveloped as residential flat buildings, capitalising on the availability of ocean views and proximity to the town centre. Whilst the redevelopment of this precinct has largely occurred within the past 15 years, a coherent architecture is not present. Along the eastern boundary of the precinct is the linear foreshore reserve, which provides a community and recreation space to balance the higher density residential development.

North Kingscliff Precinct- Adjoining the Beach Front and Sports precincts, the North Kingscliff precinct predominately has a low density residential character. Whilst the housing of the precinct was primarily developed through the 1980's, many of the homes have been renovated and expanded with contemporary features. This ongoing gentrification, combined with the proximity to the beach and coastal reserve has increased the appeal of residing within the precinct despite not having ocean views.

Whilst outside of the North Kingscliff precinct, there is a large undeveloped parcel of land located to the south of Ozone Street. This key site has the capacity within the existing planning framework to develop a diversity and range of residential accommodation types and provide a built form transition along the interface of medium and low density residential. The development of this key site will provide critical north-south and east-west connections, linking the North Kingscliff and Elrond Drive Residential Precincts.

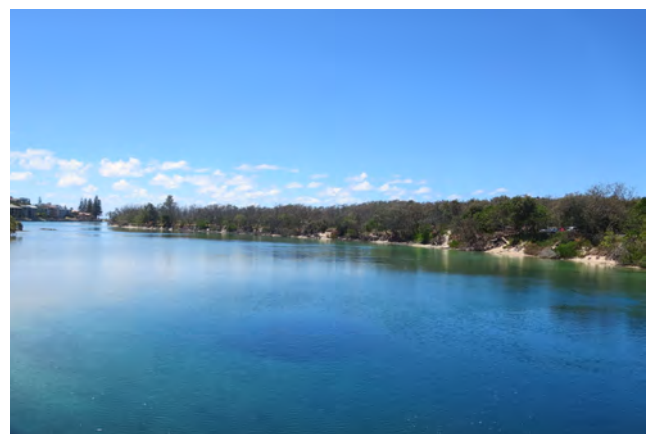
In addition to the residential component of this precinct is the North Kingscliff Sports fields focussed on improving the amenity and progressively updating sporting facilities.

Elrond Drive Residential Precinct - Located to the west of the Kingscliff township, the Elrond Drive residential precinct was developed in the late 1990's with fill from the Noble Lake site used to elevate the precinct above flood levels. Development within the precinct is predominantly single and two storey detached dwellings on 600-700m² allotments; however a number of dual occupancies and a multi-unit aged care development are present.

There is a tract of land on the western side of Elrond Drive which is currently developed as a storage shed facility. Council has received a request from the landowner to pursue a rezoning of this site to permit low density residential development.



Town Centre Precinct offers two divergent characters including the open high street of Marine Parade and the enclosed shopping centre of Kingscliff Village. Effective structure planning, land use and urban design need to play a stronger role in guiding new development to strengthen the coastal character and improve pedestrian connectivity and town centre amenity.



Coastal Foreshore Precinct includes the coastal foreshore areas and land both sides of Cudgen Creek are the areas most highly valued by the community and underpins Kingscliff's character. The careful future management including coastal foreshore hazards and ongoing protection of key environmental areas are a high priority.



Beach Front Precinct includes a concentration of large three storey medium density residential flat buildings.



Kingscliff North Precinct includes predominantly low density residential dwellings, with larger residential homes replacing the small beach side shack which previously characterised the precinct.

Noble Lake - Directly adjoining the Elrond Drive residential precinct is the approximately 22ha over 55s Noble Lakeside Park. This manufactured home estate contains 254 lots configured around a large artificial lake and provides an alternate, more affordable form of seniors housing within a leasehold arrangement. The site is accessed via Monarch Drive, however the site also has a 370m frontage to Tweed Coast Road which in part is has a tall acoustic fence.

Kingscliff Hill - Kingscliff Hill was part of the first residential release areas of Kingscliff with the first subdivision dating back to 1912. This was largely due to its proximity to Cudgen, favourable elevated aspect and high visual amenity. Many of the residential allotments on Kingscliff Hill today enjoy expansive views across the township of Kingscliff, Cudgen Creek, the Pacific Ocean and north to Cook Island. In light of the above, Kingscliff Hill possesses an eclectic character of traditional coastal cottages, large modern homes and small residential flat buildings.

As this precinct was a founding area of Kingscliff, the historic urban structure is highly prevalent, particularly in its response to topography, view opportunity as well as street and lot patterns. The retention of views and level of 'view sharing' has regularly been debated within the precinct and continued design guidance will be required as smaller, older stock dwellings are replaced with larger contemporary development.

Cudgen Village - Located to the west of Tweed Coast Road, Cudgen Village is the oldest settlement within the locality, traditionally serving the agricultural pursuits of the Cudgen Plateau. Unfortunately, there is very little built form retained reflective its historic context. The existing urban structure of Cudgen Village is curvilinear in form, with several cul-de-sacs anchored from the cyclic John Rob Way. Crescent Street provides through access linking Cudgen Road with Tweed Coast Road to the north. The Cudgen Public school on the western side of Collier Street forms the western edge to the village which interfaces with state significant agricultural lands.

Land use within the village is predominantly low density residential and includes some dual occupancies and a multi-unit development located on the intersection of Tweed Coast Road and Cudgen Road. Located to the immediate north of Cudgen is a tract of undeveloped land zoned for general residential development. Accessed from Crescent Street, approval for 96 allotments was granted in 1994 has since lapsed. However a consent to fill the site is still current and the subject of an undetermined modification application. In addition there is also an undeveloped subdivision approval for 40 residential lots at the northern end of Collier Street. In terms of further residential development opportunity there is also a small ribbon of undeveloped residential zoned land on the southern side of Cudgen Road, however this directly adjoins state significant agricultural land where a buffer between the residential and agricultural land uses would be required potentially limiting or restricting future development.

Combined, these undeveloped parcels would represent a doubling of the existing settlement size of Cudgen. This is an important consideration which will prompt a strategy to address potential future traffic management issues within Cudgen Village and more broadly the relationship of these local roads with the locality wide network.



Elrond Drive Precinct consists of predominantly low density single storey brick and tile dwellings.



Noble Lakeside Park Precinct is an over 55s manufactured home park centred around an artificial lake.



Kingscliff Hill Precinct includes predominantly low density brick and tile residential dwellings to medium density residential flat buildings closer to the town centre. The elevated topography affords some of the best views within the locality.



Cudgen Village Precinct is a contained low scale residential settlement surrounded by agricultural landuses. Being elevated there are a number of long views experienced around the village. In terms of built form, dwellings within Cudgen includes a mix of brick and tile as well as lightweight low density residential dwellings with some dual occupancy developments and a single multi-unit development.



Despite Cudgen being the historic trading centre for the locality, there is currently no retail or commercial uses within the settlement. Given the proximity to existing agricultural land uses and market gardens, a fresh produce retail opportunity exists within Cudgen which could fulfil day-to-day convenience needs of the local population and day-tripping tourists alike. Road side stalls are permitted with consent in RU1 zoned under the Tweed LEP 2014.

Kingscliff Education Precinct - NSW North Coast TAFE Kingscliff Campus and Kingscliff High School are located off the southern side of Cudgen Road. The TAFE gains access off Cudgen Road and the high school gains access off Oxford Street. The 16.697ha TAFE presents as a series buildings in a 'campus configuration' across the downward sloping site. Moving eastward from the Tweed Coast Road intersection, the TAFE buildings represent the first larger 'built form' transitioning from surrounding agricultural areas to the Kingscliff township and has available land to expand. The adjoining 8.515ha Kingscliff High School site presents as a series of connected linear building forms with a series of small courtyards between them which gives way to open grassed playground, hard courts and a sports field adjoining the creek. The school site is flanked with a significant tract of bushland along its eastern and southern boundaries.

Both the high school and TAFE occupy large sites and are considered to hold the opportunity to intensify through additional or taller buildings. Despite a recent drop in enrolment numbers, Kingscliff TAFE maintains an enrolment of approximately 7600 students. Kingscliff High School, which is the only public high school along the Tweed Coast, currently has 1143 students has a present capacity for 1281 students. Given expected population growth rates combined with a desire by State Government to consolidate existing facilities, it is likely the Kingscliff High School campus will need to expand. Any expansion will need to consider the presence of significant tract of vegetation along the south portion of the site and need to provide adequate outdoor play and amenity spaces which may limit the building envelope and therefore future capacity numbers.

Pool, Library and Community Health Precinct - This collection of community based buildings and services are located over a sloping allotment bounded by Turnock Street to the west and Cudgen Road to the east. Whilst the immediate needs of these facilities are predominately met, environmental constraints restrict the expansion of these buildings in an economic feasible manner. In light of the limited size of these facilities, Council may need to relocate one or more of the uses into a larger facility and either reuse the buildings with other community uses, or commercially sell or lease parts of the site. The timeline and assessment of appropriate options will be analysed in detail within Council's Community and Cultural Facilities Network Plan.

Salt Village - Located to the south of the Kingscliff bridge across Cudgen creek is the Salt precinct which combines retail, open space and tourism land uses at its core and is surrounded by low density residential housing. The formal tourism component currently accommodates two hotels (Peppers and Mantra) with retail units fronting Bells Boulevard, which in turn defines a large village green/open space area. The built form maximises its locational advantages and is predominately 3 storeys throughout and a consistent use of white and grey hues on rendered finishes, complimented by lightweight material throughout the buildings detailing.

The tourism core is supported by large single and two storey homes with a predominately suburban context. Recent trends in holiday accommodation being arranged by online internet booking systems have given rise to more informal holiday accommodation within suburban homes along the entire Tweed Coast, particularly within the Salt precinct.



Education Precinct to the south of Cudgen Road includes the Kingscliff TAFE and Kingscliff High School which are configured as a series of connected buildings in a landscaped campus configuration.



Pool, Library and Health Precinct is a collection of community uses located to the west of the town centre.



Salt Village Precinct accommodates two large tourism developments and small neighbourhood centre surrounded by predominantly low density residential characterised by large contemporary coastal homes.



Seaside Precinct is a new residential release areas which has a variety of lot sizes aimed at encouraging a diversity of housing typologies with provision for a small mixed use area adjoining the beach front.

Seaside City - One of the most recent of the residential estates releases along the Tweed Coast is also one of the oldest in terms of the original subdivision design, with the 32 hectare precinct first subdivided into 205 titled lots in the 1920s. As identified with Section B11 - Seaside City of the Tweed Development Control Plan 2008, the vision for Seaside City is to create a community that has a clear individual identity of its own while contributing and connecting to the Tweed Coast as a whole. Seaside City provides a range of housing types and density options, centred on a mixed-use activity centre at the eastern end of Ocean Avenue. The subdivision design also possesses an integrated network of open spaces and pathways orientated back towards the centre and coastal reserve where cycle and pedestrian access can be gained north to Kingscliff or south to Casuarina and Cabarita. Seaside City represents one of the predominate growth areas in Kingscliff at this time with a number of allotments currently under construction.

Chinderah Industrial Area - Located to the north of the settlement and directly adjoining the Chinderah Service Centre is the Chinderah Industrial precinct which gains access off Tweed Coast Road via Ozone Street. This industrial area has an overall site area of approximately 8.6ha and currently accommodates a range of light industrial uses including but not limited to building and landscape supplies, automotive and mechanical repairs workshops, recycling depot, concrete batching, kitchen and joinery workshops and showrooms and adult services.

The recent closure of the Lysaught BlueScope Steel centre has reduced the amount of active employment generating activity within this industrial area. There is opportunity to improve the overall access and connectivity of this industrial area by extending Ozone street east towards Kingscliff Street. This could be considered as part of the overall master planning strategy for the large tract of land to the immediate south of this industrial area, which has the potential to accommodate a broader range of employment generating and residential land uses.

4.2.5 Urban Structure and Land Use Issues

Like many expanding coastal settlements which have experienced significant growth, there are associated pressures of that growth. Some of those perceived or real pressures currently being experienced in Kingscliff, some of which were reinforced from the community vision survey include:

- risk to settlement character from the impact of increasing traffic and car parking on streetscape, public domain and pedestrian amenity;
- loss of identity and character created by expanding and new surrounding subdivisions and inappropriate buildings;
- inappropriately tall new buildings and loss of street and pedestrian amenity;
- potential degradation of the economic viability of the town centre by new competing commercial and retail uses developed remotely from the existing town centre such as across the north Kingscliff site;
- lack of long term employment opportunities due to the imbalance of residential over employment generating landuses and under development of available retail and commercial land.

- impact on the environment and character caused by new settlements, subdivision areas and expanding major commercial, retail and tourist developments;
- reduction in the green space and natural areas between settlements;
- degradation of water quality in waterways from increasing populations and development activity;
- degradation of historic built form and landscape elements;
- pressure to protect existing buildings in areas subject to natural hazards including coastal hazard.

Other more specific issues which were identified in feedback from the community vision survey and community workshop include:

- The need for greater connectivity within the Town centre;
- the need to create greater employment opportunity;
- New buildings to contribute to coastal character with no high rise;
- Mixed opinion on the future of the town centre caravan park with some respondents supporting its reduced footprint where as other felt it would be better located to the south of the Cudgen Creek with the current site given over to coastal foreshore.



The Chinderah Industrial Precinct, located directly adjoining the Pacific Highway is a relatively small light industrial area accommodating a range of building, landscape supply, mechanical repair, recycling uses. There is significant opportunity to promote this precinct as an activity centre by expanding employment generating landuses on the large lot to the south, and form new east west road connections.

4.2.6 Urban Structure and Land Use Opportunities

In identifying future broader settlement, urban structure and landuse opportunities, it is imperative to contextualise those opportunities against the aspirations, concerns and values of the community to inform strategic decisions. Key community consultation feedback relating to the future growth and development of the Kingscliff locality centred on maintaining the 'village character' and unique village feel. In addition to this overriding statement were a number of other observations which provided a deeper understanding of what that village character actually is, including:

- maintaining generally low scale coastal character buildings within the town centre;
- improving pedestrian amenity and walkability within the town centre shifting from the existing dominance of traffic and car parking;
- making adequate provision for car parking and traffic to enable convenience without compromising public domain with more pedestrian orientated streets;
- improving public domain and open space areas including building upon the existing cycle and path network to connect up all the surrounding precinct areas with the town centre;
- visually improve the town centre, both in terms of streetscape and buildings; and
- improve access to the beach and creek, the two most valued natural assets.

Other urban structure opportunities include:

- Maintaining the primacy of the existing town centre by enabling opportunity for expansion to the west whilst retaining the low rise character to Marine Parade.
- To enable another business/retail centre within the locality which could reduce some of the future growth pressure on the existing town centre particularly in terms of traffic management and car parking.
- Preserve key natural environment and open space areas by clearly defining the extents of urban development and enhancing ecological links through regeneration and street tree planting.
- Further foster and nurture the individual characteristics of the precincts established within the locality.
- Utilise future infill development sites to provide for additional housing diversity, local open space as well as connectivity between each of the precincts.
- Undertake details site and context analysis for each of the greenfield development sites to minimise land use and design conflict upon sensitive precinct characteristics and optimising development opportunity.
- Improving settlement connectivity with addition north-south and east west vehicle, pedestrian and cycling links.
- Improving traffic management and car parking within the town centre to absorb increased growth pressures.

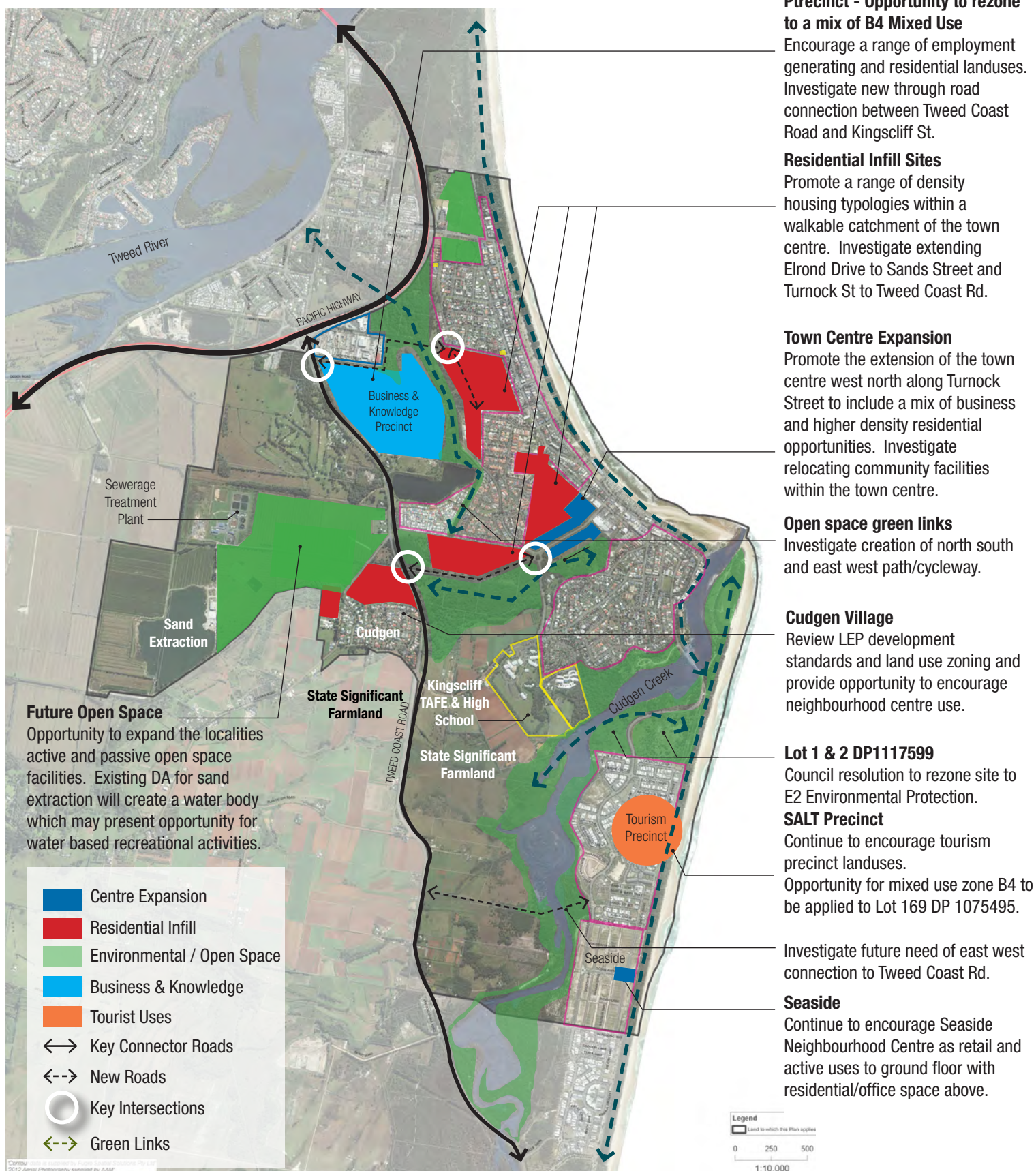


Figure 4.7 - Key Kingscliff Locality Urban Structure Opportunities

4.2.7 Urban Structure and Land Use Strategies

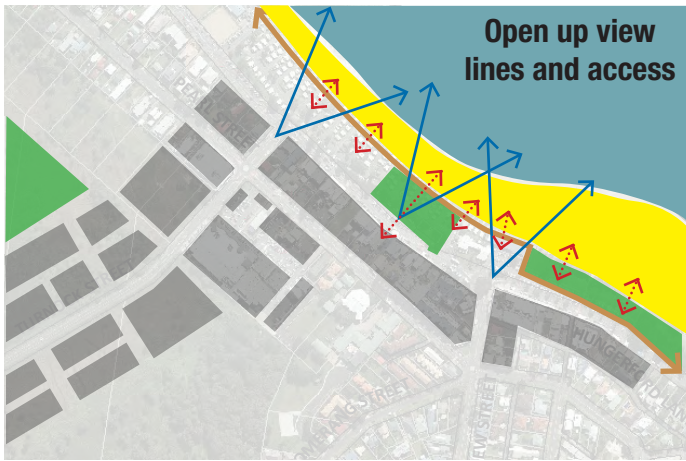
Urban Structure

1. The broad settlement pattern is to respond to environmental constraints and development opportunities to maintain and enhance the existing 'connected village' structure framed by natural areas. New development areas should be designed and defined to contribute to this pattern.
2. Through appropriate land use zoning and structure planning over green field development sites clearly defining settlement growth boundaries and including designated environmental protection, natural bushland and open space areas between these settlement areas allowing the integration of natural with built environment as well as forming 'green breaks' between settlement areas.
3. Land owners to undertake detailed context and site analysis over each of the green field development sites to determine the constraints and development opportunities as part of rezoning and/or subdivision process. Use the outcomes of the context and site analysis to inform design and planning opportunities in terms of vision and desired future character, housing typology and density opportunity, environmental protection, open space and community infrastructure opportunity.
4. Commence design investigations in the short term to best align new road way connections between Turnock Street and the Tweed Coast Road and between Ozone Street and the Tweed Coast Road.
5. Investigate the future traffic movement need for an additional connector road between the northern end of Seaside City across Cudgen Creek to Tweed Coast Road.
6. Prepare clear character statements and specific strategies as required for each defined precinct area to guide future development within KDCP.

Town Centre

1. Maintain the primacy of the existing town centre.
2. Reinforce the existing role and function of the Marine Parade/ Pearl St town centre block as the town centre core where the existing recreation retail, cafe and restaurant niche is further encouraged along with shop top and holiday accommodation above. This would include:
 - strengthening the 'fine grain' retail experience along Marine Parade and Pearl Street promoting active ground floor uses and building on the existing cafe and restaurant and recreational retail niche.
 - explore roof top food and beverage uses to Marine Parade to take advantage of the ocean views.
 - maintain the low rise scale and fine grain shop frontages of Marine Parade by reducing building height from 13.6m to 11.0m.
 - retain 13.6m height limit along Pearl st to encourage shop toip housing redevelopment.
 - identify optimum locations to form pedestrian links over redevelopment sites between Pearl St and Marine Parade.

3. Provide opportunity for town centre staged growth and expansion along the western side of Pearl Street and along Turnock Street to include boarder and expanded range of retail, commercial, community, open space, tourist and residential uses. The development of the sites fronting Turnock Street require traffic and car parking integration to reduce the pressure of future impacts along Marine Parade and Pearl Street.
4. Given the low set nature of the land (and high water table) along the greenfiled development sites fronting Turnock street, increase building height to 16.6m to enable low level car parking (below Turnock Street level), ground level retail and three stories of residential development to upper levels.
5. Encourage the staged redevelopment of the Kingscliff Shopping Village site by rationalising and consolidating car park into basement and multi- storey configuration, encouraging additional retail expansion, providing a strong active and pedestrian orientated footpath edge to Pearl and Turnock Street and integrating community public domain space / landscaped public square demarking the Town Centre retail and civic heart.
6. Investigate options to relocate an expanded library (approximate 1500sqm) with community meeting rooms within the town centre.
7. Promote opportunity for additional shop top residential and tourist accommodation within the town centre to further contribute to the range and diversity of housing and take advantage of access to retail goods and services as well as the coastal foreshore.
8. Co-ordinate and implement actions within the Kingscliff Foreshore Masterplan including promoting the Central Park as the premier passive community open space for the Kingscliff town centre and integrating any future foreshore protection works with public domain and good urban design outcomes.
9. Initiate a Public Domain and Streetscape Master Plan to promote a higher level of designed pedestrian orientated public domain and streetscape works. This would include:
 - Identification of the high pedestrian areas of Marine Parade, Pearl Street and Turnock Street as a pedestrian priority area to include wider foot paths, seating and break out spaces, rationalised and improved alfresco spaces, street trees, street furniture including seating, bike packing and water.
 - Initiate preferred pedestrian connection points between Pearl Street and Marine Parade which can be integrated through future redevelopment / site consolidation.
 - Investigate design opportunity for a defining water feature and public art re-interpreting locality history within proximity of Marine Parade and the proposed Central Park.
 - Strengthen key site lines to the ocean at the termination of Turnock and Seaview Streets.
 - Identify measures to generally improve the visual amenity of the town centre including the screening of unsightly back of house service and refuse storage areas and taking advantage of long featureless elevations as green walls or as a 'canvas for urban art' especially where they front a public street or pedestrian connection route.



Open up view lines and access

Embrace and celebrate the coastal edge by improving pedestrian access, embellishing adjoining open space and opening view line opportunities. This also requires implementing coastal erosion measures.



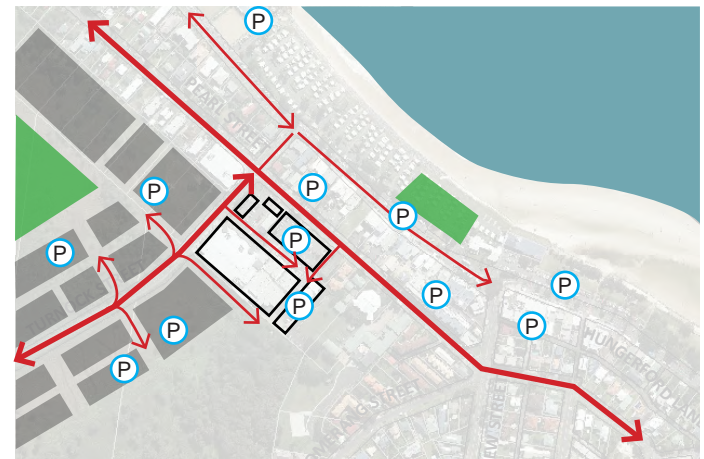
Smaller retail uses to beach

Larger retail uses out back

Reinforce structure and role of the town centre including the continued 'fine grain' cafe and retail niche of Marine Parade and the larger retail uses such as supermarkets to the west of Pearl Street.



Expand town centre and mix use development west along Turnock St and encourage development over Kingscliff Shopping Village site to Turnock and Pearl St.



Manage and integrate traffic and car parking. Encourage multi-deck and part basement car park to Kingscliff Shopping Village site.



Improve pedestrian connections and amenity between Pearl Street and Marine Parade. Create a town square over the Kingscliff Shopping Village site. Increase the green spaces through large landscape bays and street trees.



Integrate additional community, education and public uses and facilities within town centre including renovated Kingscliff hall, new library and community meeting rooms and opportunity for additional childcare.

Figure 4.8 - Key Kingscliff Town Centre Urban Structure and Public Domain Opportunities

Business and Knowledge Precinct

1. Promote the North Kingscliff development site as a key activity centre and employment generating landuse site in accordance with the TUELRs as a predominately mixed use area combining a variety of employment functions and suitable accommodation types. There is an opportunity due to the overall size of the site to explore larger, integrated developments, such as a combination of business park, hospital, university campuses and other commercial, retail and wide range of housing, tourism and accommodation opportunities.

Other Retail Centres

1. Encourage an additional business/retail centre within the locality (business and knowledge precinct) which could reduce some of the future growth pressure on the existing town centre particularly in terms of traffic management and car parking.
2. Where new retail and commercial development is accommodated outside of the existing town centre boundaries, the size, scale and offer of service should be complimentary to the existing town centre hierarchy, role and function. The size and scale of a new centre should be underpinned by a retail and commercial strategy / needs analysis to ensure that the primacy of the existing town centre is retained.
3. Continue to promote the provision of neighbourhood shops providing convenience goods and services within a walkable catchment of all residential areas including Cudgen which currently does not have a neighbourhood centre.

Residential Precincts

1. Take advantage of the relatively flat and vacant land within close proximity to the town centre to provide a broader range and diversity of housing typologies including shop top housing, residential flat buildings, small lot housing, coastal courtyard housing. The intent is to provide additional housing types appealing to a wide demographic and socio-economic profile within a walkable catchment of the town centre. The range of sizes and scales of housing will provide more housing affordability choice.
2. Prepare clear character statements and specific strategies as required for each defined residential precinct area to guide future development and where appropriate controls within the Kingscliff Development Control Plan.

Coastal Foreshore Precinct

1. Continue to reinforce the roles and functions of the coastal foreshore reserve areas as areas of environmental significance, areas of premier open space and public domain whilst co-ordinating the findings of the Coastal Hazards Management Plan.
2. Investigate long term options of the town centre holiday park in terms of future coastal hazards, redevelopment and design considerations in terms of urban structure, public domain and urban design considerations, access and view fields.
3. Improve and rationalise access to beach and estuary areas through detailed design projects within the Kingscliff Foreshore Masterplan and Town centre public domain improvement plans.



5.0 ECONOMIC AND RETAIL CONTEXT



5.1 Economic Context

In 2014 Tweed Shire Council in a joint venture with Destination Tweed undertook the Tweed Shire Economic Development Strategy. The aim of the Tweed Shire Economic Development Strategy is to identify practical actions for the enhancement of the Tweed Shire economy, responding to the opportunities and constraints to economic and business growth in Tweed Shire and the values of the Tweed Shire community. The key outcomes of that strategy include the following seven pillars:

1. Continue to develop Tweed Heads as the regional centre
2. Promote the Tweed as the Creative Cauldron
3. Promote resilient and innovative agriculture
4. Promote location and lifestyle benefits for business and investment
5. Promote Tweed tourism especially nature based tourism
6. Leverage opportunity from strategic location to airport and south east QLD
7. Diversify business and industry base for a sustainable economic future.

Whilst the Tweed Shire Economic Development Strategy focussed largely on the continued growth and development of Tweed Heads and Murwillumbah as the regional centres, there is a need to explore these key economic drivers and pillars within the Kingscliff context.

5.1.1 Kingscliff Economic and Industry Context

An analysis of the jobs held by the resident population in Kingscliff in 2011 shows the three most dominant industry sectors were:

Health Care - Health Care, aged care and social assistance account for 467 people or 14.7% of the localities employment. This employment is focused on the Tweed Heads and Murwillumbah Hospitals and supporting health consultancy, clinics and support services. In effect this industry has a major flow on effect to other sectors of the economy including retail, offices and housing. Whilst Tweed Heads Hospital is currently undergoing a master plan for future growth over what is a spatially constrained and flood liable site, it is unknown whether there will be a future need for an alternate hospital site to supplement Tweed Heads, or whether there is opportunity to develop a private hospital. Given Kingscliff's proximity to Tweed and the highway with relatively constrained free land, there is good opportunity to further grow and diversify this industry within Kingscliff.

Accommodation and Food Services - Those employed in tourism, food and beverage industries account for 400 people or 12.6% of the local population workforce. Employment in these sectors is largely centred on tourist developments within the SALT precinct as well as the strengthening food and beverage niche within the Kingscliff town centre. There are direct links between

the tourism industry supporting local retailers and other service based industries. There is opportunity to expand tourism accommodation both within the Salt precinct and within the town centre in the format of shop-top housing increasing seasonal population densities within the core of the existing town centre. This needs to be supplemented with improvements to the town centre public domain and surrounding open space and recreation opportunities.

Construction - Driven by the release of residential subdivisions, construction provides employment for 378 people or 11.9% of the local workforce. Despite many of the larger development consortium who are managing and carrying out the primarily residential subdivisions and housing development are based outside of the Tweed (Gold Coast, Brisbane, Sydney), many of the employees, particularly trades are locally based. This industry will continue to enjoy sporadic spikes in demand in step with the future release of additional residential release areas, particularly the larger future release areas of Kings Forest to the south west of the locality and Cobaki Lakes to the north.

In combination, these three industries employed 1,245 people in total or 39.1% of the total employed resident population. In comparison, Tweed Shire employed 14.8% in Health Care and Social Assistance; 10.4% in Accommodation and Food Services; and 11.3% in Construction.

5.1.2 Emerging Economic Issues

Whilst the Kingscliff locality has seen recent growth of residential development and the construction industry sector, there has not been similar parallel growth in employment generating land uses with many residents seeking employment opportunities within the Gold Coast and beyond. In addition, anecdotal evidence collected during Public Workshop 01 suggests there is concern that Kingscliff's economy is too narrow and reliant on the seasonal tourist trade.

A present issue which is predominately in the economic sphere includes the frequency, scale and nature of events, such as the Kingscliff Triathlon and Night Markets. Whilst many of the events within the Kingscliff events calendar provide an opportunity for a diverse range of businesses, start-ups and residents pursuing a secondary income stream, their impact on existing commercial premises and overall value to the local community has raised mixed responses. Establishing an appropriate balance between temporary and permanent uses that will bolster economic development and enrich a sense of community overall will undoubtedly be an ongoing challenge within the Town Centre Precinct.

Aside from the above mentioned issues, there are limitations in analysing the 'health' of existing business within Kingscliff aside from comparing trade from year-to-year and monitoring population growth. This information void is somewhat compounded by land use zones applying broadly throughout the locality and Shire, enabling a variety of uses which may not be complimentary or deliver the synergies desired within their immediate application context. In this regard, an ongoing stewardship of employment land within the locality will be required and championed by stakeholders other than Council.

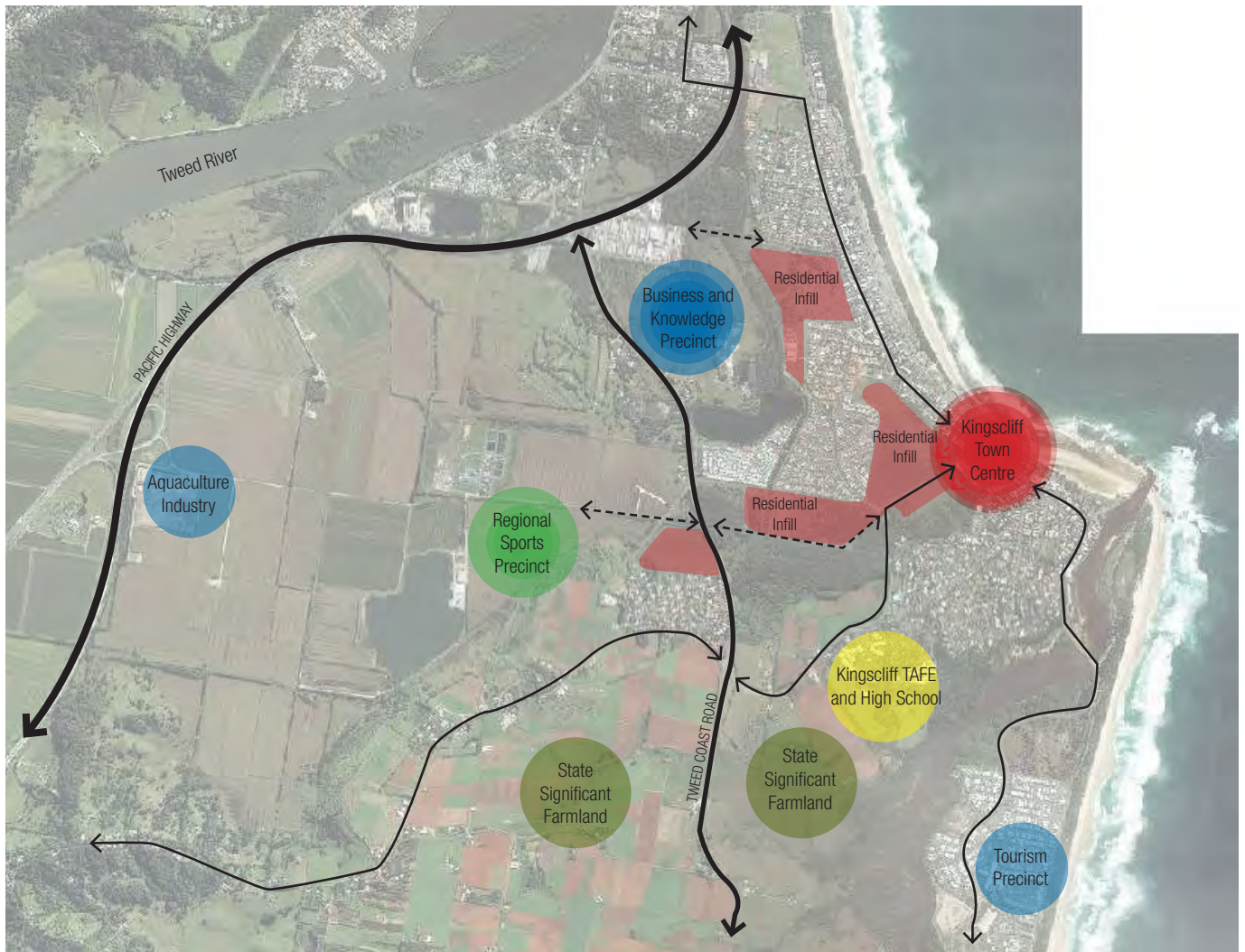


Figure 5.8 Opportunity to further promote employment generating landuses within the locality



Innovation Campus is part of Wollongong University focus's on establishing collaborative relationships between research and business communities by co-locating commercial and research organisations within an open campus typology. Creating symbiotic relationships between tertiary education and business provides opportunity for diversity, future job creation outside of more traditional light industrial estates. There is opportunity within Kingscliff to establish or create a specific business niche especially in areas that are well connected to existing settlements and infrastructure.

5.1.3 Economic Opportunities

Kingscliff has the opportunity to play a stronger transformative role to expand its functions beyond providing local services and leverage economic and employment generating land uses from its existing tourism industry appealing to the broader sub-regional catchment. Employment and economic growth in this regard has the opportunity to 'play to existing strengths' and focus on diversifying opportunity within these existing industries including:

- tourism;
- agriculture;
- education;
- health;
- construction.

The combination of industry with education uses could thereby provide a strong economic driver for the future. Creating symbiotic relationships between tertiary education and business provides opportunity for diversity, future job creation outside of more traditional light industrial estates.

One example could be coupling of education with the existing agricultural landuses including the emerging aquaculture industry within the immediate area. There is future opportunity for tertiary based institutions to take advantage of this industry by offering internationally recognised sustainable agricultural courses supplemented by on farm training and research. The coupling of industry with education could then generate a number of broader economic opportunities typically associated with larger scale tertiary institutions including accommodation and service and retail based industry growth. This industry and education coupling could also readily apply to the other dominant local industries including the health, tourism, environmental management and the construction sectors.

There is opportunity within the Kingscliff area to establish or create a specific business niche especially in areas that are well connected to existing settlements and infrastructure. Diversity of landuse typically leads to a more diverse demographic structure. For example a larger education campus would lead to the need for more student based accommodation and flow on demand for goods and services to meet that demographic need.

There is ability to further consolidate the economic footprint within the existing settlement including town centre and urban footprint functions. However the large tracts of relatively unconstrained land within the existing Kingscliff settlement hold the potential to expand the localities employment opportunities in terms of both type of occupation and industry. These parcels of land are located close to major roads, are not negatively impacted by land fragmentation and are of sufficient size to enable coordinated approaches to future development.

5.1.4 Draft Economic Strategies

- **Kingscliff Town Centre Expansion** into lands to the west of the existing centre would provide opportunity for the development of additional retail, commercial, community and residential floor space. There is also opportunity to cater for additional tourist accommodation within the town centre precinct which typically works with shop top housing configurations. This town centre expansion requires provision of effective traffic, parking and movement strategies with built form controls focussed on strengthening the coastal character and public domain opportunities.
- **Activity Centre** which may include a health, education, performing arts and business precinct to the north of the settlement adjoining the existing Chinderah Light Industrial estate. There is opportunity to establish a university campus with combined health services including a private regional hospital, business park and other ancillary land uses. The education precinct focus could be developed around the predominant adjoining land uses and existing industry base such as health, tourism, construction, business and sustainable agriculture. This precinct could also include a range of accommodation types including student housing and other live work opportunities similar to what has been pursued at Varsity Lakes on the Gold Coast.
- **Residential Development Areas** in and around Kingscliff provide opportunity for meeting the housing needs of a diverse demographic. This includes shop top and multi-unit development within a walkable catchment of the town centre as well as more diverse housing opportunities including small lot housing, secondary dwellings in addition to more typical suburban patterns of development in peripheral residential growth areas.
- **Tourism Development** continued to be encouraged centred around the Salt precinct and within the Town Centre to provide a range of accommodation types, retail and dining, open space and recreation opportunities with strong links to the existing town centre.
- **Passive and active open space** opportunity over flood prone lands to the west of the Tweed Coast Road. The area of land available within this location would significantly contribute to active and passive recreational sub-regional needs.
- **Aquaculture and Sustainable Agricultural Industry** over agricultural lands to the west of the Kingscliff settlement provides opportunity to expand and build upon a burgeoning aquaculture industry initiated by the recently established Morton Bay Bug Farm. Given this area is flood prone, further flood modelling analysis needs to be undertaken to determine impacts of site filling to establish required infrastructure and aquaculture ponds.
- **Promotion and Co-Ordination of Events** - Council will continue to work collaboratively with relevant stakeholders to ensure a co-ordinated events calendar. Amongst the objectives of the events calendar will be:
 - supporting platforms for youth-based and start-up businesses;
 - supporting appropriate methods to strengthen the Kingscliff economic base;
 - provide avenues for market stall holders to transition into permanent or semi-permanent spaces, predominately within the Town Centre Precinct;
 - ensure that temporary events do not saturate the use of public land and ancillary services including car parking for such purposes; and
 - pursue geographic coordination so to limit direct competition between temporary and permanent uses and offer different experiences for customers.

5.2 Retail and Commercial Centres Context

Kingscliff has emerged from being a day tripping and holiday destination, a growing coastal village to now a coastal town as defined by the NSW Coastal Urban Design Guidelines (3,000 - 20,000 residents). The expansion of the Kingscliff settlement has seen the locality continue to assert itself as the sub-regional centre for the network of coastal villages. The locality offers a range of higher level services and facilities for both the residential population, as well as residents of the other Tweed Coastal Villages.

The core of Kingscliff's retail and commercial activities area are centred around Marine Parade, Pearl Street and parts of Turnock Street. This town centre is then supported by a number of other existing and planned neighbourhood centres which when combined constitute the network and hierarchy of retail and commercial centres. These existing and planned centres have been represented in Figure 5.10 and Table 5.1.

In the context of discussing retail and commercial centres; the following definitions are provided for the purposes of this section. The definitions seek to rationalise the intents and definitions of the Tweed LEP 2014 and Section B9 of the Tweed DCP 2008 (Tweed Coast Strategy):

Local Centre - To provide a range of retail, business, entertainment and community uses that serve the needs of people who live in, work in and visit the local area. Local Centres typically involve 1,500m² - 6,000m² of retail floor space to serve a population catchment of 10,000 people.

Neighbourhood Centre - To provide a range of small-scale retail, business and community uses which serve the needs of people who live and work in the surrounding neighbourhood. Neighbourhood Centres provide approximately 1000m² of retail floor space to serve a population catchment of 500 - 1,000 people.

5.2.1 Existing and Planned Retail and Commercial Centres

Kingscliff Centre initially commenced with a small string of shops along Marine Parade and by the 1880's had a post office, police station, general store, two hotels, a butcher, baker, school and church. Today, the overriding structure and distribution of existing and planned retail centres within the Kingscliff locality represent implementation of strategic planning and master planning frameworks, including the Council adopted retail principles and provisions of Section B9 of the Tweed DCP, being the Tweed Coast Strategy. Key components of those strategies applying to the Kingscliff locality include:

The character of existing towns and villages and the retail facilities they already have be protected.

Where appropriate, Council will support the incremental expansion of existing retail centres in such a way as not to threaten or fracture those existing centres, rather than building new ones.

Limit the scale of new large scale retail centres in the coastal region to a level which caters for the majority of chore type shopping needs. This concept to reflect the need to reduce fuel consumption and to support sustainability within each centre through discouraging vehicle use and encouraging walking and cycling.

Encouraging 'active neighbourhoods' by placing commercial nodes at 800m intervals (allowing residential development to be contained within 400m walking distance of a commercial node).



Figure 5.9 Kingscliff Town Centre Core is centred around Marine Parade, Pearl and Turnock Street.



Marine Parade has a distinct high street retail experience with a restaurant and cafe niche.



Kingscliff Shopping Centre is an internalised task focussed shopping experience based around the supermarket.

Local Centres		
L1	Kingscliff Town Centre	The core of the localities retail and commercial activities, Kingscliff Town centre currently includes 57,690m ² of land zoned B4 mixed use (though an additional permitted use is available to Lot 13 DP 871753 which would enable further 'Shop' development). Current services include (but not limited to) Woolworths supermarket, pubs, restaurants, speciality stores, office space, banks and medical facilities.
Outside of Kingscliff Locality Plan Footprint		
L2	Kingsforest	2(c) Urban Expansion zoning (Tweed LEP 2000), Kings Forest masterplan identifies a 'Town Centre' 89,000m ² in size, which would facilitate a Local Centre role.
L3	Casuarina	Approval has been granted on a 16,380m ² site for a local centre comprising 4,881m ² of retail space, 200m ² of ancillary office and 148m ² of restaurant. Whilst not constructed as of yet, the centre is anchored by 3,300m ² of supermarket floorspace (likely to be Coles) and supported by 1,581m ² of speciality shops. A further 43,174m ² of land on the periphery of the approved site is zoned B2 Local Centre and is yet to be developed (nor are there approvals in place aside from a childcare centre involving a maximum of 98 enrolments and 12 staff).

Neighbourhood Centres		
N1	Wommin Bay	Two lots comprising 5,097m ² of land, all of which is zoned B2 Local Centre. The site is currently vacant.
N2	Marine Pde Wommin Bay Rd	No specific site identified or zoned for nonresidential activity. No current nonresidential land uses located in the vicinity.
N3	Pearl St	No specific site identified/zoned for nonresidential activity. No current nonresidential land uses located in the vicinity.
N4	Pearl St - Small retail frontage	A small retail unit at 140 Marine Parade. The lot is not zoned for nonresidential purposes, limiting the ability of the site to perform a neighbourhood centre function.
N5	Cudgen Rd	No specific site identified or zoned for nonresidential activity. No current nonresidential land uses located in the vicinity other than community-based activities (Kingscliff Pool, NCAHS, Library etc)
N6	Salt Village	Current approvals in place for the Salt village include a total of 1,905m ² of retail floorspace, 2,047m ² of Office floorspace, 3,380m ² of Food and Drink (including Tavern) floorspace, 2,041m ² of recreation-based floorspace (gymnasium, health spa, surf lifesaving clubhouse etc.) and 757m ² of Function Centre floorspace. Despite approvals being in place, a significant amount of retail (1,390m ²) and office (1,686m ²) floor space has not yet been constructed.
N7	Seaside City	Four lots comprising 4032m ² of land zoned B4 Mixed Use (excluding the area of environmental protection land). The site is currently vacant though an application for a portion of this site is currently before Council.
Outside of Kingscliff Locality Plan Footprint		
N8	Kingsforest	2(c) Urban Expansion zoning (Tweed LEP 2000), Kings Forest masterplan identifies a neighbourhood centre of 10,000m ² within this vicinity
N9	Kingsforest	2(c) Urban Expansion zoning (Tweed LEP 2000), Kings Forest masterplan identifies a 3,000m ² Neighbourhood Centre within this vicinity.
N10	Casuarina	The Casuarina Rec Club, which includes gym, pool, tennis courts, wholesale bakery, restaurant/function centre and office facilities. The Rec Club previously included a small general store, however the majority of these functions now operate ancillary to the restaurant. The Rec Club is zoned R1 General Residential so it's ability to evolve over time as an ongoing 'Neighbourhood Centre' may be limited to its current facilities.

Table 5.1 - Kingscliff and Surrounds Existing and Planned Retail and Commercial Lands

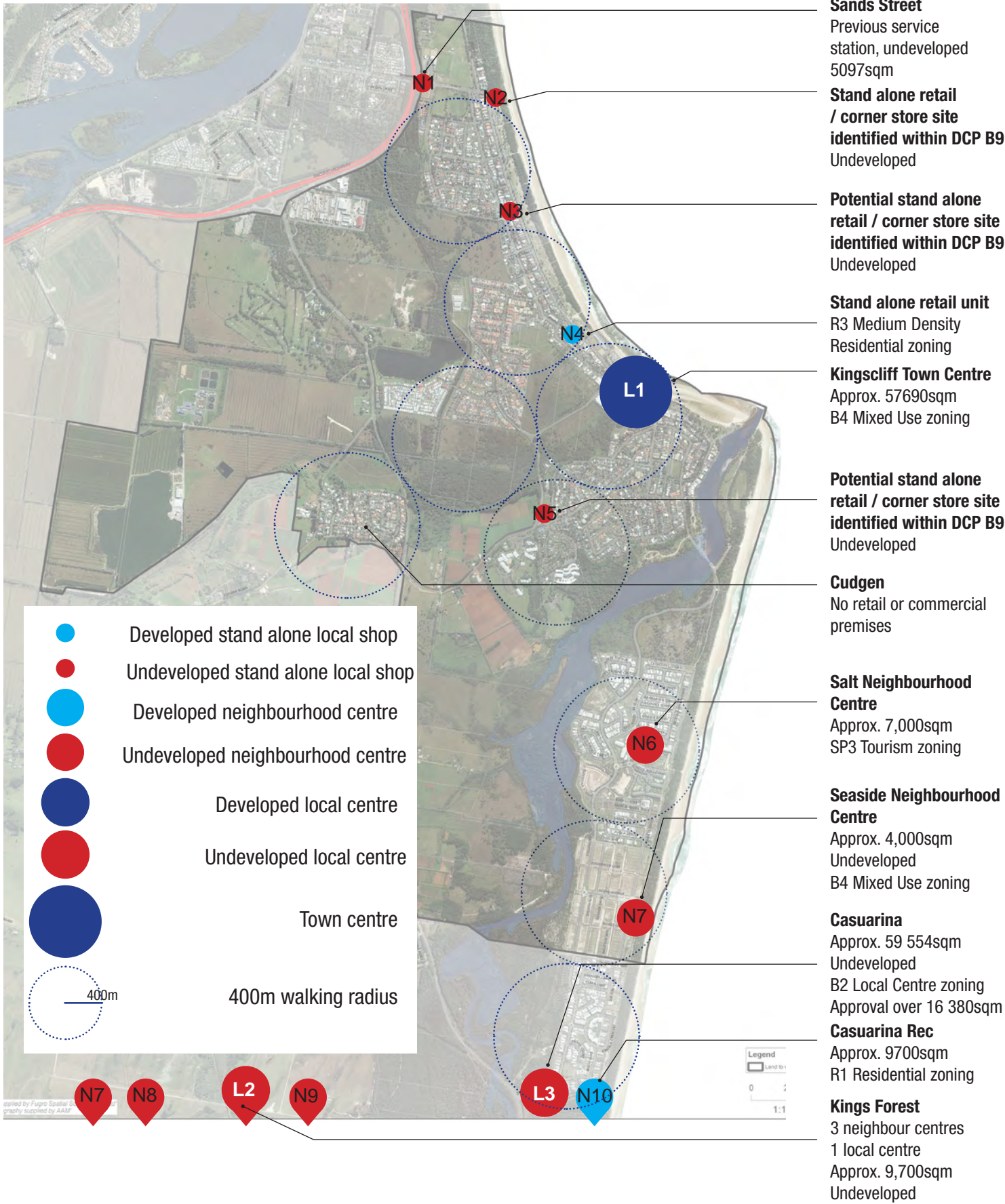


Figure 5.10 Distribution of Local and Neighbourhood Centres within the Kingscliff Locality

5.2.2 Retail and Commercial Floor Area Benchmarks

Future landuse decisions based on provision of future need requires an understanding of the current supply of floorspace and the likely future demand for floorspace for different retail and commercial sectors. The NSW Department of Planning Draft Centres Policy 2009 identified that in the absence of an area specific floor space demand analysis, a base rate of 2m² of retail floor area per capita with annual increases can be used as a guide for the planning of future retail and commercial floor areas. The purpose of applying this rate is to understand if there is a current under supply or over supply of retail and commercial floor areas; also known as a floor space supply and demand assessment (FSDA).

In the context of population projections, the FSDA provides a general indication of the likely retail and commercial floor area needs. Rather than being used to determine particular retail and commercial development floorspace requirement, the assessment provides a base benchmark to assist in making strategic decisions and pro actively forecast likely future floorspace demand. The intent is to understand demand and provide retail and commercial development opportunity for future growth.

To ensure place and centre vitality it is important to provide variety and retail affordability by ensuring adequate land availability, as opposed to limiting supply of retail and commercial floor space, and therefore opportunity.

For the purposes of this analysis, the Kingscliff locality population census and population projections utilises Forecast Id which is based on an average locality growth rate. The following commercial and retail/commercial floor area benchmarks and projections have been identified:

Year	Population (Projection)	Base Commercial Retail Floor area benchmark*
2011	8 459	16 918m ²
2016	9 409	18 818m ²
2026	9 822	19 644m ²
2036	10 186	20 372m ²

* Based off a rate of 2m² per capita as identified within the NSW Draft Centres Policy

Table 3.2 - Kingscliff Locality Population projections

5.2.3 Existing Retail and Commercial Floor Areas

At present, the Kingscliff locality includes two operating centres within the Town Centre and Salt Precincts. The Town Centre precinct includes approximately 57,690m² of land (excluding roads) which is zoned B4 Mixed Use, which comprises the predominate footprint for retail and commercial development. Based on a desktop analysis, approximately 27,800m² of commercial and retail floor area is provided within this footprint. Previous master planning work for the Salt Precinct identified appropriately 17,077m² of land for retail and commercial purposes. To-date much of the approved commercial and retail floor area has not been constructed, though approximately 2,280m² of floor area is provided for retail, commercial, food and drink and function centre purposes.

Accordingly, these two existing centres currently provide approximately 30,000m² of floorspace. Based on existing supply of retail and commercial land against existing population numbers, Kingscliff locality has a rate of approximately 2.94m² per capita which would represent equilibrium of supply and demand, when considering Kingscliff's wider catchment and sub regional role.

As described in Section 3.2.7 Population Projections the population of Kingscliff locality based on the density yields of residential release areas has the potential to reach 10186 by 2036. This would generate the need for up to an additional 7,500m² retail and commercial floor area if locality specific population increase alone was the only measure.

In terms of town centre expansion opportunity, there is a significant tract of available land to the west of the existing town centre along Turnock Street which would enable the continued retail, commercial and residential growth as required. This town centre expansion requires provision of effective traffic, parking and movement strategies with built form controls focussed on strengthening the coastal character and public domain opportunities. Expansion areas require rezoning to facilitate the full range of town centre uses and services.

The amount of available 'zoned' land does not often translate directly to availability of retail and commercial development opportunity. Nor does it provide an accurate understanding of whether future demand will be sufficiently catered for. These areas are often significantly discounted due to constraints, road, car parking, public domain, the economics of multiple storeys, service infrastructure and back of house uses. A more detailed design investigation of key development sites is therefore required to gauge how much of a development site can be translated into usable net retail and commercial uses.

5.2.3 Emerging Retail and Commercial Trends

The benchmark FSDA rates need to be contextualised in terms of Kingscliff's wider catchment as well as calibrated to a smaller coastal settlement, as opposed to a metropolitan context, which is subject to significant seasonal spikes in patronage and expenditure. There also needs to be an understanding and consideration of general shifts in retail, commercial and shopping trends and the potential influence they have on the built environment and land use planning.

Generally, people undertake a variety of shopping trips at different frequencies ranging from regular fresh food trips through to occasional furniture or white good trips, alongside sporadic trips to access services such as banks or post offices. There is also an increasing trend towards recreational shopping trips where people meet friends or go window shopping.

Of significant consideration and one difficult to quantify in terms of future floor space needs in a built environment sense is the influence of on-line shopping. Online shopping has the ability to contract the traditional high street footprint. Many high street retailers with significant overheads and operational costs find it difficult to remain cost competitive with online counterparts. This trend is likely to also lead to an increased demand for well-located warehouse and distribution centres.

Another emerging trend originating from the evolution and rollout of improved information technologies is an increase in people choosing to work from home. While there have always been home workers in the Australian labour market, advances in information technology, as well as the introduction of family-friendly policies and flexible working arrangements have made working from home an increasingly attractive option.

In parallel, an increasing trend is co-work spaces. Co-work spaces are shared office arrangements where freelancers, self employed professionals, work from home businesses and small businesses can rent a desk space for flexible periods of time; from a few hours, months or more permanently. One of the benefits is the reduced risk and financial burden of taking on a lease over a larger commercial floor area. Another documented benefit of co-working is business networking and opportunity to work collaboratively with other small businesses. Within Kingscliff, there is good opportunity, especially for smaller and start up businesses to have a town centre address with co-work spaces.

5.2.4 Major Retail District Centre for Kingscliff

One of the key strategies identified Tweed Coast Strategy adopted in 2003 is the provision of a District Centre in Kingscliff servicing the Tweed Coast. This District Centre was envisaged to:

- Cater for a population catchment of 40 000 people.
- Provide 10 000-20 000m² of retail floorspace inclusive of one major supermarket and a discount department store.
- Provide district level government and private services.
- Ideally, include a central bus interchange, hospital, library, community centre, medical centre, police station, employment agencies, banks and places of worship.

Whilst a specific site to accommodate a major retail centre was not directly identified within the Tweed Coast Strategy, a design concept prepared by a private landowner over the large site adjoining the Chinderah Industrial area included over 70 000m² of district, retail and industrial uses (refer Figure 5.11). Whilst the landowner sought community feedback over the scheme, the concept was never formally endorsed by Council. Given the availability of land directly adjoining the town centre, there is also opportunity for additional floor space to be met within an expanded town centre envelope. There is opportunity to therefore explore the relationship between the incremental expansion of existing town centre building towards a more pedestrian centric contemporary coastal town centre character, with the ability to provide other complimentary and higher traffic generating business, industrial and retail land uses over the out-of-centre site.

Post adoption of the Tweed Coast Strategy, Council resolved in 2005 the following as one of the seven principles as the retail strategy for the Tweed Shire:

Principle 3: Reinforce Tweed Heads south as the major district retail centre by encouraging the expansion and when Tweed's population demands that increased range and level of shopping.

Since this resolution, the creation of a new district centre at Kingscliff has been considered in contradiction to this principle and not pursued further by Council. Despite the superseding resolution of 2005, the Tweed Coast Strategy has not been reviewed or amended since. Accordingly, the KLP process will seek to clarify this position and provide commentary on the implementation of the retail principle as it applies to Kingscliff and provide recommendations in order to reconcile the applicable planning framework. It is envisaged that these strategies will not only address the location, scale and nature of future retail development, but also identify any site specific thresholds for when detailed economic analysis is to be undertaken. Whilst the threshold or requirements to prepare an economic analysis will require further industry based consultation, it is expected that the analysis would determine:

- The established need for the retail and commercial development with Kingscliff.
- Identification of the broader likely catchment.
- Identify potential impact on other retail and commercial centres including South Tweed as the identified major district retail centre.

As part of these investigations, it is important to review the constraints of the existing South Tweed retail centre. Specifically, an understanding of available space to expand in the context of population and expenditure projections, landuse implications of potentially reallocating existing land uses, or transitioning to more intensive land uses. It is also important to understand the economic implications of the flood constraint which place significant restrictions on the provision of residential accommodation, a key centre component in promoting active, vibrant, walkable and sustainable centres.



Figure 5.11 - In 2007 Gales Holding produced a masterplan for discussion and consultation over key development sites in Kingscliff. This north Kingscliff site explored a mix of district centre functions, (30000sqm) light industrial and bulky goods uses (40,000sqm) with open space and residential landuses.

5.2.5 Kingscliff Locality Retail and Commercial Centres Landuse

The introduction of the Standard Instrument (Local Environmental Plans) Order 2006 required Council's to prepare LEPs that included state-wide standardised zones. Tweed has since adopted the Tweed LEP 2014 in accordance with these provisions, which saw the removal of the 2(c) Urban Expansion zone, which was a commonly used in greenfield areas, particularly the vacant land on the periphery of the existing town centre. The advantage of the urban expansion zone was the breadth of permitted land uses, which enabled detailed site investigations and structure planning to occur in a fluid manner. The Standard Instrument Order 2006 does not include a zone which enables this degree of flexibility within the statutory framework, rather, specifically provides for more clearly delineated residential or business zones.

In light of the above, the size and placement of business zoning is increasingly critical to ensure their development and ongoing sustainability.

When considering the land use composition of the existing and proposed centres, it is considered critical to couple retail space with complimentary uses. An audit of the Kingscliff village indicates that approximately 30% of the stores (note: number of stores, not size of floor space) are 'retail premises' by definition. Approximately 25% comprised Food and Drink and the remainder predominately medical or health-based premises (15%) and professional services (30%).

Likewise, approvals at Salt village indicate a relationship between uses where office and retail floorspace possess a 1:1 ratio, with food and drink premises being the predominate land use (ratio of approximately 1.5:1 with retail or office).

Accordingly, for strategic planning purposes, should 1,000m² of retail floor space be required, a total zone or site area of 4,000m² - 8,000m² may need to be 'zoned' to support the sites sustainability.

5.2.6 Kingscliff Locality Retail and Commercial Centres Issues

Feedback from the community vision survey and the community workshop identified a number of issues which relate directly to the retail and town centre experience. These include:

- The experiential qualities of the town centre are now car dominated.
- There is currently no recognisable town centre or town heart which defines the retail centre. It is currently dispersed between the lineal Marine Parade shopping strip and the internalised Kingscliff Village Shopping centre.
- The town centre is generally looking tired and run down with many buildings in need of maintenance and improvements.
- There is a general lack of legibility and connectivity especially for pedestrians and a lack of unifying public domain elements.
- In terms of landuses, survey respondents identified additional preferred uses included a new supermarket offering competition, a hardware facility, delicatessen and additional health services and doctors as the priorities.

5.2.7 Retail and Commercial Centre Opportunities

Town Centre Development

- Reinforce the existing town centre core and provide growth opportunity along the western side of Pearl Street and along Turnock Street for the expansion of the town centre to include boarder and expanded range of ‘task based’ goods and services.
- Strengthen the pedestrian amenity and streetscape character of Marine Parade and Pearl Street as predominantly ‘pedestrian priority’ areas including widened pedestrian spaces, more landscaping and street furniture implemented through a public domain and streetscape master plan which can be progressively developed.
- Continue to promote the Marine Parade ocean front town centre block as the town centre core where the existing cafe and restaurant niche is further encouraged along with shop top and holiday accommodation housing above.
- Promote additional accommodation within the town centre which will provide more opportunity for tourism and low cost accommodation.
- Opportunity to investigate building design provisions to enable retail and commercial uses above the ground floor level and, where appropriate, potentially in a roof-top format (eg roof top restaurants).
- Provide a more complimentary relationship between uses in a mixed use buildings and ensure appropriate building heights are permitted to provide for retail, commercial and residential targets.
- Encourage the Kingscliff Shopping Village site to be redesigned to include a strong built form edge to Pearl and Turnock Street and provide a public square / public domain area demarking the Town Centre.
- Town centre expansion requires a more integrated consideration of traffic movement and car parking opportunities to service the broader town centre precinct. This will include the need for a combination of basement and/or multi- storey car parking configurations within the Kingscliff Shopping Village Centre site to meet increasing car parking needs.
- Investigate opportunities to co-locate community services within or directly adjoining the town centre to foster greater accessibility, town centre presence and community relevance to these services.
- Provision of appropriate coastal hazard protection measures will facilitate the future development of the proposed central park, coastal foreshore public domain elements and the Kingscliff Beach Holiday Park reconfiguration as well as providing more certainty to businesses and development opportunities which fall within the coastal risk area.

Out of Centre Uses

- Explore North Kingscliff site adjoining the Chinderah Industrial area as a new ‘activity centre’ to provide a range of industrial, business, education, retail, residential and open spaces uses to compliment the existing town centre. There is an ability to locate larger traffic generating uses over this site whilst forming strong movement links (vehicle, pedestrian and cycling) with the existing town centre.

Other Small Retail Centres

- Investigate opportunity to provide locally based retail uses in existing suburban settlements such as Cudgen and Seaside City to encourage greater accessibility to day to day convenience goods and services. This may also include opportunities with the Kingscliff Bowls club and Cudgen Leagues club to amend their zoning to enable a wider range of retail uses as permissible, as opposed to new sites within similar locations, particularly when land fragmentation has occurred.
- Investigate land use opportunities to explore a fuller range of local centre uses within the Salt precinct whilst supporting and continuing to encourage tourism based landuses and support service. This could include the option of zoning the remaining development site within Salt village a 'B' zone, enabling the provision of office space and permanent accommodation options.

5.2.8 Draft Retail and Commercial Centres Strategies

1. Retain and strengthen the primacy of the existing Town Centre.
2. Promote the expansion of the existing Town Centre land uses (B4 Mixed Use) west along Turnock Street to accommodate a range of retail, commercial, service and residential uses. This town centre expansion requires provision of effective traffic, parking and movement strategies with built form controls focussed on strengthening the coastal character and public domain opportunities.
3. Develop design guidelines which will identify and reinforce the desired coastal town character to guide future development.
4. Strengthen the pedestrian amenity and streetscape character of the Town centre including the Marine Parade and Pearl Street town centre block as a 'pedestrian priority' area which would include widened pedestrian spaces, more landscaping, shade and street furniture implemented through a broader Town centre public domain master plan which can be levied through s.94 funding and progressively developed.
5. Provide opportunity through land-use zoning to create an additional future business, retail and commercial centre over part of the Business and Knowledge precinct. The size and scale of the new centre to be underpinned by a retail and economic feasibility study as part of a rezoning/ subdivision development proposal. The key heads of consideration for preparing economic feasibility study is to address but not be limited to:
 - establish strategic justification and need for the additional retail and commercial development with Kingscliff,
 - identify an appropriate size and landuse breakdown of proposed retail, commercial, business and light industrial uses, and
 - identify potential impact on other retail and commercial centres including South Tweed as the identified major district retail centre.
6. Continue to promote infill development within the existing town centre envelope with a focus on active ground floor uses, street engagement and range and scale of floor space opportunities. Promote additional accommodation within the town centre which will provide more opportunity for tourism and low cost accommodation.
7. Continue to promote the provision of neighbourhood shops providing convenience goods and services within a walkable catchment of all residential areas including Cudgen which currently does not have a neighbourhood centre.



5.0 TRAFFIC ACCESS AND MOVEMENT



6.1 Regional and Local Road network

The Tweed Coast Road is the connector and key movement corridor which services the Kingscliff locality. The Tweed Coast Road provides direct access onto the Pacific Highway allowing ease of movement north to Tweed Heads and beyond to the Gold Coast where many of the local residents commute each day to work. The stretch of Tweed Coast Road between the intersection with the Pacific Highway to Cabarita is planned to be widened to four lanes in the future as part of the Tweed Road Development Strategy. The other key connector roads include existing Wommin Bay Road connection to Chinderah Bay Drive providing access onto the Pacific Highway. The general road network has been illustrated at Figure 6.1.

Despite the relatively proximity to the highway, there is only one point of access between Tweed Coast Road and Kingscliff township via the Cudgen intersection. To improve the connector options into the township from Tweed Coast Road, an extension to Turnock Street intersecting with Tweed Coast Road near the Altona Road intersection has been included within the Tweed Road Development Strategy. The timing and alignment of this new connector road will be dependent on the development of the West Kingscliff precinct in consideration of traffic generation from these release areas as well as resolution of the environmental and flooding constraints.

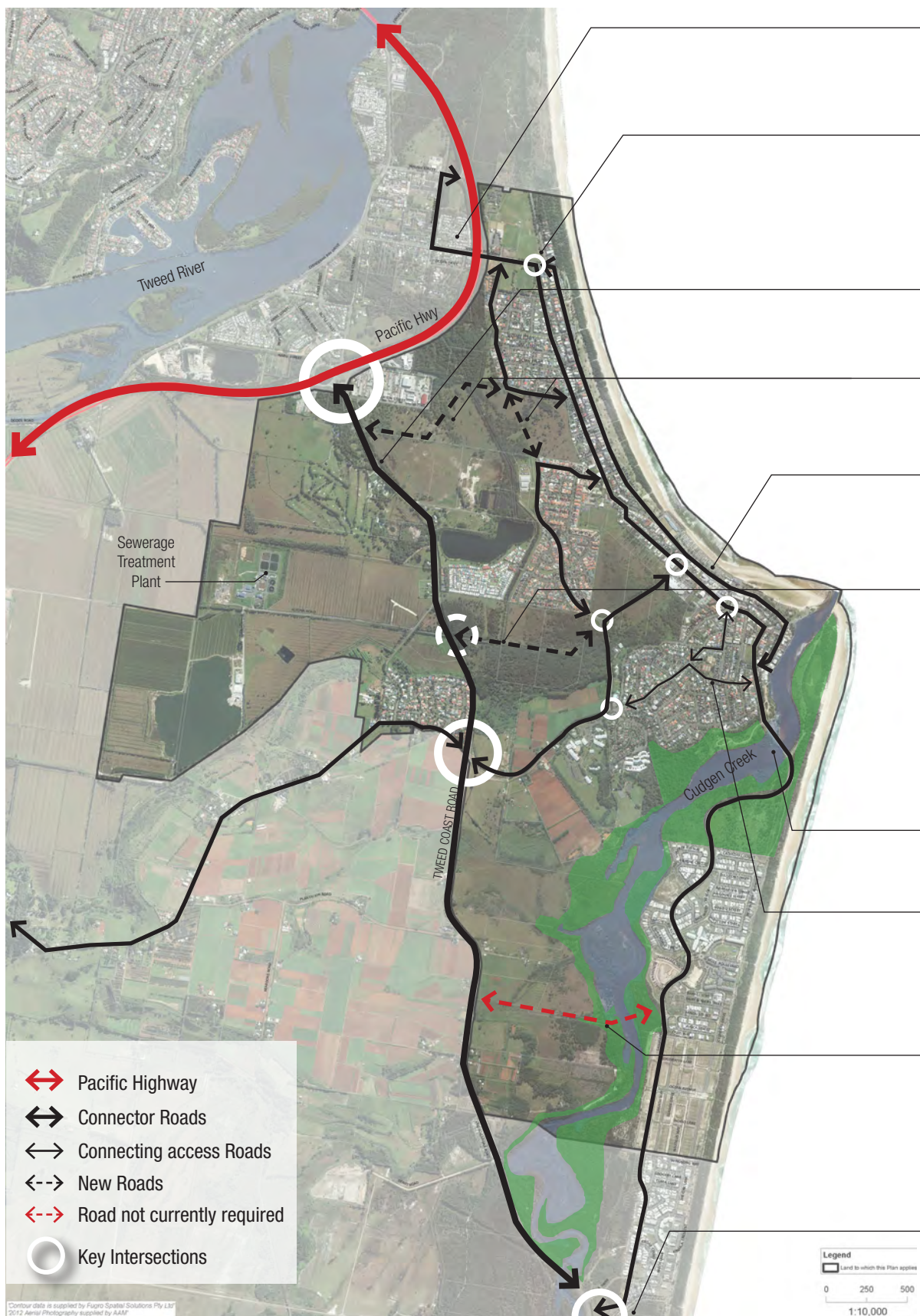
To the south, Casuarina Way connects to the Tweed Coast Road at Casuarina Town Centre. It connects south Kingscliff across Cudgen Creek to Sutherland St. This traffic can then enter the town centre at Pearl St / Moss St or use the local access streets (Viking St and McPhail Ave) to connect with Cudgen Rd and the Tweed Coast Road beyond.

6.1.1 Tweed Road Development Strategy – 2007

The Tweed Road Development Strategy – 2007 (Veitch Lister Consulting (VLC), 2007) examines:

- The traffic studies which have defined the Tweed Shire's long term road improvement strategy;
- The principles, mechanisms and assumptions underlying the schedules of contributions contained in the Tweed Shire Council contributions plan.

The document suggests an ultimate development scenario based on zoned land and likely development options including detailed additions and improvements to the road network for West Tweed Heads, Banora Point, the Tweed Coast and Murwillumbah. It uses a consumption based model and generic road costs to generate the cost of accommodating anticipated development and how this might be shared among development in different localities.



Pacific Hwy Access via Wommin Bay Rd, 15min access to Gold Coast Airport.

Key North Intersection
Opportunity to upgrade urban design around this key intersection and more clearly define preferred route for south bound traffic.

Tweed Coast Road
Arterial Rd with future TRCP plans to widen to four lanes.

Elrond and Ozone st Links
Extension to Sand St and Ozone Street through link.

Marine Parade One-Way
Opportunity to improve the pedestrian and streetscape experience.

Turnock Street Extension
New connector road linking Tweed Coast Road to Turnock Street and north end of Marine Parade one-way segment. Will form new main access and gateway entrance into Kingscliff.

Bridge Upgrade
New vehicle bridge across Cudgen Creek.

Viking Street
Alternative route for north bound Salt and Seaside residents wanting to access Tweed Coast Road.

Tweed Coast Rd Connection
Whilst previous strategies have tabled a possible connection between Salt and the Tweed Coast Rd, projected vehicle movements do not currently support this as an economical option.

Signalised Intersection
New signalised intersection to handle future traffic generating landuses including supermarket and retail outlets and Kings Forest.

Figure 6.1 - Kingscliff Locality Road Network

6.1.2 Regional and Local Road Network Issues

Traffic and car parking issues were the most frequent comments made during the initial stages of the community consultation including the community vision survey and the community workshop.

Developed in 2007 and not reviewed since, there is opportunity for the Tweed Road Development Strategy to be reviewed and updated. This review should be based in part on future density and population projections to determine likely demand for additional upgrade road infrastructure and appropriate timing and funding of those works.

In the context of testing the growth potential of Kingscliff Town centre and immediate surrounding areas, there is a need to understand the implications of a low, medium and high growth scenarios against a traffic and car parking needs analysis. This will identify options and constraints which need to be considered to ensure compatibility of appropriate movement with growth. There is an opportunity to engage a Traffic and Car parking Consultant to undertake these studies.

Other issues to be resolved include the alignment of Turnock Street extension west to a new intersection with Tweed Coast Road. This alignment will largely be determined by the review of the existing vegetation community in terms of its ecological value along with the optimum urban structure configuration for the residential release areas of West Kingscliff. There is also a portion of the Tweed Coast Road (Connector) is below the Q100 flood level and will need to be raised by over 2.0m to be above flood level (RL3.2). This would need to be raised as part of any future staged residential development within the Altona Road and West Kingscliff areas.

Other issues relating to the existing local network of roads which was raised during consultation 01 and the community vision survey includes:

- Increased traffic movements by Salt and Seaside residents along Viking Street to access Tweed Coast Road and avoid moving through Pearl St during school drop off and pick up hours;
- Perceived dangerous 5 ways intersection;
- Perceived traffic congestion issues, particularly around St Anthony's primary school;
- Mixed feelings regarding Marine Parade one-way system between support of the new configuration to very strong views to either reverse the direction, revert to the two way configuration and finally to pedestrianise the Marine Parade stretch between Turnock Street and the Figtree Roundabout.

6.1.3 Regional and Local Road Network Opportunities

The key opportunity for the Kingscliff Locality Plan is to undertake desk top urban structure planning of key Greenfield sites and make recommendations for new road alignments and intersections. Preliminary density studies of these green field development sites will provide a more detailed analysis of the traffic and road hierarchy implications which could provide some base for future road infrastructure planning in and around Kingscliff and if required revisit the hierarchy of identified additions and improvements for the Tweed Coast Area.

There is opportunity to plan for Turnock Street extension in terms of the desired future character as a key gateway connector to Kingscliff Town Centre. This includes the desired carriage width, the inclusion of a dedicated cycleway, the type of desired road side car parking (especially between Turnock Street roundabout and Pearl Street), the inclusion of landscaping and street tree plantings and other visual amenity elements.

This will include investigating the need to upgrade Tweed Coast Road between Chinderah and Casuarina, and a new connection between Tweed Coast Road and Turnock Street in accordance with the Tweed Road Contribution Plan.

6.1.4 Road and Local Road Network Draft Strategies

1. Co-ordinate findings of a recent Kingscliff Town Centre car parking study into Kingscliff Town Centre Traffic and Car Parking Strategy to determine optimum future traffic movement and car parking needs both locality wide and more specifically within the town centre. Part of that Traffic Study should include:
 - collection of traffic movement and car parking data to understand traffic flows during the course of a year encapsulating on and off season data to be compared with empirical data collected to date.
 - review the TRCP in accordance with revised population projections and densities within new release areas including the need for 4 lane Tweed Coast Road between the Pacific Highway and Cabarita.
 - investigate the need based on population thresholds within the Salt and Seaside precincts, for a long-term option of constructing a new east-west road across Cudgen Creek connecting Casuarina Way with the Tweed Coast Road.
 - investigate measures to improving traffic design and amenity of the 5 ways intersection including improved intersection grade, sightlines and improved round about design.
 - investigate congestion issues and traffic / pedestrian safety around Pearl Street during school pick up and drop off times which will require co-ordination with St Anthony's Primary School.
2. Land developer to instigate design for the Turnock Street extension in terms of preferred alignment and finished levels, desired future character as a key gateway connector to Kingscliff Town Centre in co-ordination with Council. This includes the desired carriage width, the inclusion of a dedicated cycleway, the type of desired road side car parking (especially between Turnock St roundabout and Pearl Street), the inclusion of landscaping and street tree plantings and other visual amenity elements.
3. Land developer to instigate alignment / design for the north-south road link between Elrond and Ozone Street as part of any future rezoning / subdivision design process in co-ordination with Council.
4. Land developer to instigate alignment / design for the flood evacuation east-west road link across the Business and Knowledge Precinct as part of any future rezoning / subdivision design process in co-ordination with Council.

6.1.5 One-Way Marine Parade

Significant interest was raised during the initial stages of the community consultation which provided a varied response to the relatively new Marine Parade one-way system ranging from those who support the one way proposal, those that would rather see Marine Parade reverted to a two way system as well as a sample who would rather the Marine Parade between Turnock Street and the Figtree be pedestrianised.

Whilst the works to create the one way system are relatively new, the proposal for the one-way system was first instigated in 1995 when Council's traffic committee received a submission from the NSW Police recommending the road to be made one way southbound on traffic and pedestrian safety grounds. In 2001 the Kingscliff Ratepayers association in 2001 submitted a request to Council for Marine Parade to be made one-way to increase car parking opportunity within the town centre. This idea was then resurrected in 2012 when the Kingscliff Chamber of Commerce requested the same.

In response to these requests and the need to provide additional car parking within the town centre, in 2012 Council embarked on a preliminary design and consultation stages which sought to:

- Make Marine Parade one-way for south-bound traffic
- Provide additional 41 car parking spaces by utilising the reduced carriageway width.
- Realign the road to discourage speeding
- Beautify the street with tree planting in the pedestrian walkways and islands.

The direction of the Marine Pde one-way system was chosen due to the longer-term strategy for traffic flows which incorporates within a new arterial road linking the Tweed Coast Road with Turnock Street, when the proposed development in West Kingscliff goes ahead. This would provide more direct access into Kingscliff and is expected to be the town's main gateway.

The one way scheme was exhibited and consulted upon between April 2012 - June 2012 including a community meeting, factsheets circulated and direct consultations with business owners and town centre users. The scheme generally received support, and Council resolved to adopt the scheme and commenced construction in January 2013 completing works by April 2013.

6.1.6 One-Way Marine Parade Issues

Since the commencement of the one-way system Council has continued to monitor traffic usage in and around the town centre recording a 10% increase in the usage of Pearl Street rather than Marine Parade, reducing traffic flows, reducing speed and improving safety.

Since its inception, Council has received mixed feedback on the successes and impacts of the scheme. Some feedback suggests an improvement in the availability of convenience car parking along Marine Parade and general improvement in traffic/pedestrian safety. Other feedback suggests the direction of the system needs to be reversed allowing north travelling residents (from southern residential estates) to more easily park in the street.



Marine Parade Looking South - Although Marine Parade has resulted in an additional 41 car spaces and reduced traffic speed, community consultation has identified the need to improve public domain amenity as part of future streetscape improvement works.



Concept Marine Parade Montage Looking North - There is opportunity for an additional future stage to improve the pedestrian amenity by increasing the width of the western footpath and providing for additional street tree planting and landscaped areas. This would also include additional street furniture, lighting and dine out opportunities.

6.1.7 One-Way Marine Parade Opportunities

Results of the community vision survey suggests that whilst there is a perceived traffic and car parking issue in Kingscliff, the need to improve the overall pedestrian amenity, particularly along Marine Parade and Pearl Street featured strongly.

This suggests one of the key opportunities within this precinct is to revisit the streetscape and urban design elements within these locations to supplement traffic and car parking works. One opportunity is to significantly increase the width of the pedestrian footpath along the western side of Marine Parade allowing more substantial opportunity for landscaping and public domain. Although this would result in the loss of approximately 6 reverse parking car spaces, additional landscape works would improve the visual as well as pedestrian amenity whilst promoting this particular stretch of the Kingscliff town centre for cafe, restaurant and recreation retail. The improved pedestrian amenity of this area will further assert the role of Pearl Street and Turnock Street in handling through and serviced related traffic.

6.1.7 One-Way Marine Parade Strategy

1. Continue to monitor the traffic movements more broadly within the Kingscliff Town Centre (particularly Marine Parade and Pearl Street) to understand traffic flows during the course of a year encapsulating on and off season data to be compared with quantitative and qualitative data collected to date.
2. Instigate a streetscaping and public domain concept plan along Marine Parade and Pearl Street which seeks to improve the overall pedestrian and visual amenity.
3. Instigate a business owners and staff car parking management strategy to identify and utilise on-site parking opportunities where they existing and investigate allocating all day parking for staff outside of the immediate Marine Parade and Pearl Street area freeing up availability of car parking for customers.

6.1.8 Replacement of Cudgen Creek Bridge

The existing timber vehicle bridge over Cudgen Creek was first constructed in 1959 by sand mining companies requiring ready access to their operations south of Cudgen Creek. Today the timber constructed bridge provides vehicular access between Kingscliff and the southern Tweed coast villages and in many ways form the southern gateway approaching the Kingscliff Town ship. A new pedestrian cycle bridge was added in 2004.

The replacement of the bridge has been nominated as part of the Tweed Road Development Strategy (TRDS) with an envisioned time frame being 2016-17.

6.1.9 Cudgen Creek Bridge Issues

Despite the character the timber bridge adds to the locality, it is well below the required geometrical standard for the volume of traffic that it currently carries. It is likely that traffic volumes will increase as a result of the development of the South Kingscliff area, Kings Forest and to a lesser extent, other areas of the Shire, particularly the southern network of coastal villages.

Sentiments during the first round of public consultation vary between those wishing the existing bridge be preserved as an important built form element defining the character and historic context of the settlement and other views that the bridge is of an insufficient design and width to satisfactorily handle the amount of traffic movements currently experienced.

6.1.10 Cudgen Creek Bridge Opportunities

Whilst the replacement of the bridge is imminent to meet traffic movement capacities, the design of a new bridge or alignment has the opportunity to equally become character defining built form element indicative of the townships southern gateway. Although Council's Engineering Services Unit have undertaken the replacement design of the bridge to be generally consistent with the structure, form and materials of the new pedestrian bridge, there is opportunity to include some character defining urban design elements which may include the public domain nodes and landscaping at either end, balustrade detailing and lighting.

There is also opportunity to investigate how the existing timber bridge could be reused or repurposed as a historic reference to this character defining element of the Kingscliff locality.

6.1.11 Cudgen Creek Bridge Strategy

1. Prior to its replacement undertake a historic recording of Cudgen Bridge in co-ordination with the Tweed Regional Museum and utilising Office of Environment and Heritage guidelines which should include:
 - details of the bridges history and local significance;
 - drawings and documentation of the original bridge
 - photographs of the existing bridge.
2. Investigate material reuse opportunities of the demolished bridge which could include park shade structures, wayfinding signage and entry features.

6.2 Car parking

6.2.1 Existing Need and Supply

Car parking within Kingscliff Town centre is represented within Figure 5.2 and table 5.3 and takes a number of different forms including:

- Off street parking at Kingscliff Shopping Village
- Off street public car parking along Marine Parade
- On street parking throughout the town centre
- Basement car parking (public and private spaces); and
- Back of house private business and resident parking.

One of the key ongoing community and business complaints is the perceived lack of car parking available within the town centre. To understand the availability of existing car parking spaces within the town centre, an informal car park survey was conducted on a work day during summer (10.12.15 between 10am-12pm). The results have been tabulated below, with car parking areas corresponding to Figure 5.2. Given these tabulations are based on only a single day survey, the results can only be used as broad observations as a prelude to a more detailed traffic and car parking study being undertaken.

Kingscliff Town Centre Car Parking				
Town Centre	No.	Parking	Number	Vacant at Count
North Town Centre	1	Bowls Club	159	109 (68%)
	2	On street	34	18 (53%)
	3	On street	82	30 (36.5%)
Town Centre Core	4	Kingscliff Shopping Centre	361	106 (29%)
	5	Pearl Street (on-street)	50	42 (84%)
	6	Kingscliff Pub	52	18 (35%)
	7	Back of house	48	20 (42%)
	8	Marine Parade (on-street)	42	7 (17%)
	9	Marine Parade car park	54	31 (57%)
	10	Basement	95	35 (37%)
South Town Centre	11	SLSC	45	1 (2%)
	12	South Car park	93	5 (5%)
	13	Sth Marine Parade (on-street)	14	0 (0%)
	14	South Back of House	14	8 (57%)
	15	Cinema basement	55	30(55%)
Faulks Park	16	Faulks Park	33	14 (42%)
	17	VMR	34	25 (74%)
	18	Boat Ramp (trailer spaces)	11	9 (82%)
	19	On-street	52	42 (80.7%)
TOTAL			1328	550 (41%)



New car park opportunity
 Adjoining future skate park and beach access

Bowl Club car park
 Opportunity to designate for staff all day parking

Multi- storey Carpark
 Opportunity to integrate multi-deck / part basement car park as part of future development scheme.

Time Limit
 Opportunity to revisit town centre time limits especially south Marine Parade/beach car parking spaces to discourage all day town centre staff parking.

Connectivity and Back of House
 Opportunity to rationalise and group back of house parking reducing access points onto Pearl Street. Investigate additional pedestrian connections between Kingscliff Shopping Centre and Marine Parade. Park once, walk everywhere else.

Creek and Beach Parking
 Investigate additional future staged car parking opportunities to meet the need of a growing regional residential and tourist population.

Creek and Beach Parking
 Opportunity to utilise old coast road alignment for additional car parking servicing south Kingscliff Beach.

Salt Precinct Parking
 Currently has 250 spaces servicing retail, commercial and recreation uses including beach access.

Figure 6.2 - Kingscliff Car Parking Opportunity

Out of town centre parking				
Precinct	No.	Parking	Number	Vacant at Count
North Kingscliff Precinct				
Coastal Reserve -Marine Parade / Beach St	20	Off street	47	35 (74%)
Coastal Reserve - Marine Parade / Terrace St	21	Off Street	43	39 (91%)
TOTAL			90	74 (82%)

Out of town centre parking				
Precinct	No.	Parking	Number	Vacant at Count
Library/Area Health/ MOW	22	Off street	38	12 (32%)
Salt Precinct	23	On street	200 tbc	
Rotary Park	23	Informal	200 tbc	-
Rotary Park South	24	Informal	100 tbc	-
Cudgen Creek	25	Informal	50 tbc	-
Cudgen Creek	26	Informal	50 tbc	-
Cudgen Creek	27	Informal	30 tbc	-
TOTAL			718	

The above tabulations indicated that during the time of the survey, of the **total availability of 1456 spaces** within the surveyed area indicated there was an overall occupancy rate of 63% or 37% of car spaces vacant. Within the immediate town centre core defined within Marine Parade, Pearl Street and Turnock Street (Kingscliff Shopping Village) of the total 702 car spaces there were 259 spaces available with 443 cars parked.

The south town centre precinct highest car parking occupancy rates largely attributed to proximity to roundabout, central location to the town centre, SLSC and beach. There is also anecdotal evidence that due to the lack of a time limit, this car park is predominantly used for staff car parking.

Also of note during the survey was the availability of 109 vacant spaces out of a total of 159 available spaces at the Kingscliff Beach Bowls Club which is less than 200m from Marine Parade. The beach side car park directly adjoining the bowls club is a Council owned car park utilised mainly by Bowls Club visitors and surfers. Given the high vacancy rate and close proximity to the town centre, this car park could be promoted for all day free staff car parking which would free up the availability of car parking within the town centre core being Marine Parade and Pearl Street.

6.2.2 Car Parking Need

The provision of car parking and site access is currently controlled under DCP A2 - Site Access and Parking Code. DCP A2 provides car parking rate requirements for various development types with some landuses, such as food and beverage use generating the need for more car parking spaces as others including office space.

Applying the car parking rates within DCP A2 is useful in undertaking a car parking needs analysis based on current retail and commercial gross floor areas. Despite not having a specific breakdown of actual business types (which generate different car parking rates) an averaged car parking rate can be applied to give a base threshold or range of the likely car parking required to service that retail and commercial land use need. The following table uses the higher base car parking rate applied to the existing amount of floor area within the town centre being 27 800sqm as derived from section 02 of this report.

Kingscliff Town Centre Car Parking Need				
Town Retail and Commercial Use Sqm	Average Car Parking Rate	Car spaces required	Staff Car parking	Total
	3.5 / 100sqm**		1 / 100sqm***	
27 800sqm*	3.5	973	278	1251spaces

*Using the base existing retail floor area of 28 800sqm as described in section 2 of this report.

** Using average car parking rate for retail and commercial uses.

***Assuming higher rate of shop as average.

Based on a desktop needs analysis by applying policy requirements to existing floor areas, there is a need for approximately 1251 car spaces within the Kingscliff town centre. Within the same study area there is currently 702 car spaces available within either an off street, on-street or basement format. This would indicate a shortfall of 549 car spaces available within the town centre of what would typically be required by the car parking DCP. It is interesting to note however the comparison between the amount of cars parked on the day of the survey (443) against the likely averaged number of car parks required by policy (1251) may indicate the current policy provisions prescribe a high rate of car parking than what is actually needed.

This general observation would however need to be confirmed by a more detailed robust traffic and car parking study which investigates the pattern of car parking and town centre movement at different times of the day and potentially at different times of the year (holiday season - out side of holiday season) against likely locality based population increases. This could also identify the parking behaviours of various town centre users (customers/staff) to understand how far users are prepared to walk to their desired destination after parking. The more detail study could also recommend strategies to firstly reduce the number of car movements to and within the town centre but also improve the future traffic movement and car parking regimes.

6.2.3 Car Parking Issues

Car parking combined with traffic management issues were the most frequent comments made during the initial stages of the community consultation including the community vision survey and the community workshop. Many respondents cited recent additional car parking within Marine Parade as being insufficient and that the Kingscliff Shopping Village requiring a redesign to improve access, car parking and traffic management issues. No car parking issues were raised relating to areas outside of the Kingscliff Town Centre.

In support of the perceived lack of car parking in and around the town centre, the car parking and desktop survey revealed that there is approximately 549 spaces under supply as would be required by current policy. Despite this apparent under supply however, of the 702 spaces available within the town centre, there was still 259 spaces remained vacant on the day of the survey in the middle of a typical summers day. As such there is a discrepancy between policy driven under supply and actual under supply which warrants further investigation.

Contributing to the perceived lack of car parking is most likely a combination of available car parking not being conveniently located and/or the perception of lack of car parking are based on parking behaviour. Community comments collected during consultation revealed that if a car park wasn't available right out front or within immediate proximity of a particular business the respondent would rather not stop or seek out an alternative. As such there is an inherent reluctance to park a bit further away and walk to the desired destination.

Community feedback indicated that many town centre staff park occupy the more centrally and conveniently located car parking spaces due to the lack of parking restrictions and convenient location to the work place. Even in restricted car parking areas staff members would tend to hop from one space to another to avoid receiving a parking infringement.

Challenging parking behaviour including the desire to park right out the front is difficult to control or manage within the scope of a locality plan and Development control plan. Strategies can however be put in place which identifies more clearly the availability of centrally located car parking spaces such as within existing basements. Measures could also be put in place to encourage staff to park in peripheral locations rather than occupy more centrally located spaces which should be reserved for customers.

Recent streetscape works along Marine Parade has increased the amount of on street parking by approximately 41 spaces. Given the significant opportunity of the town centre to grow particularly along Turnock Street, car parking, pedestrian access and landscaping will need to be carefully considered to balance pragmatic movement and access function with town centre amenity. There is opportunity to identify small peripheral pocket car parking areas which take up less site area but provide different accessibility opportunities base around key town centre destinations.

External development pressures are also likely to place additional car parking and traffic pressure. For example it is likely that the future development of Kings Forest combined with the infill developments within Casuarina are likely to place additional pressure

on parking within both the town centre as well as the natural recreation areas of the Creek and various beach access points which currently requires 300 spaces per kilometre under the Tweed Coast Strategy B9. Whilst the nature of this pressure is difficult to quantify, there is a need to anticipate this future growing requirement and make adequate provision for additional car parks within strategic locations for staged increases. Parking, particular adjoining water based recreation areas needs to be co-ordinated with SLSCs to encourage users where there will be SLSC patrols.

In consideration of the above, one of the key issues for the future management of traffic and car parking is the lack of a car parking and traffic strategy relating to the Kingscliff Town Centre. A car parking strategy which models different development densities (low, medium, high) is required to generate projected car parking requirements to understand potential under supply thresholds and preferred future car parking locations.



Marine Parade has a combination of nose-in and 'off street' parking totalling 96 spaces.



Users have expressed frustration in reverse parking into western side spaces and need to 'drive all the way around' until a space becomes available in the car park.



Kingscliff Village Shopping Centre has the opportunity to accommodate a multi-deck and basement car park as part of a future staged redevelopment strategy.



Pearl Street, the primary connector through Kingscliff Town Centre has the opportunity to rationalise back of house parking and access points onto Pearl Street. Existing basement car parking is largely under utilised.

6.2.4 Car Parking Opportunities

One of the key opportunities is to undertake a Kingscliff Town Centre Traffic and Car Parking Strategy. The objectives of the strategy would:

- To determine the existing car parking availability and useage to determine if there is an under or over supply of car spaces within the town centre.
- To maximise shared use of parking spaces within the Town Centre, and so minimise the public and private cost of parking provision.
- To review the rates applicable under DCP A2 based on an assessment of supply and demand for parking so as to give certainty to land owners seeking to develop their land.
- To ensure that car parking for development of land in the Town Centre is provided in an equitable manner for both current and future premises, with direction given to the way in which parking is to be provided in different precincts.
- To ensure that parking on private and public land within the Town Centre is located and designed in a coordinated manner, and is consistent with strategies for preferred development patterns.
- To cater for a supply of new parking that balances the need for parking to meet demand from new commercial development in peak holiday periods and the quieter off-peak seasons, maintaining existing spare parking capacity to cater for the peak periods.
- To ensure that management strategies are devised to maximise the availability of short term parking close to retail facilities, and caters for long term parking for staff.
- To consider appropriate locations for loading bays, taxi parking and coach parking.

In addition to the development of a car parking strategy, there are a number of key short term and longer term car parking opportunities which can be explored in the context of improving car parking and traffic management particularly in and around the town centre.

Some of those **short term** opportunities include:

- The need to encourage public and active transportation options to reduce traffic movements within the town centre. This includes improved opportunity for bicycle parking and amenity within the town centre to encourage more cycling rather than driving.
- Option for 3 hour time limit in SLSC/south town car park to free up car park and restrict all day parking currently largely utilised by town centre workers/staff.
- Instigate a business owners and staff car parking ticket allocating all day parking outside of the immediate Marine Parade and Pearl Street area freeing up availability of car parking for customers. The ocean front car park adjoining the bowls club might be one suitable location.
- Implement an Events Car Parking Management Policy during festival and event times to provide information on parking locations including all day car parking at more peripheral locations serviced by shuttle buses freeing up town centre spaces for customers.

- Improve signposting and information identifying existing car parking opportunities including the existing basements which are currently under utilised.
- Opportunity for small shuttle bus services (bowls club, leagues club, SLSC club buses during the day) doing a ‘hail and ride’ town centre to residential estate loops reducing the need for private vehicle movements to the town centre.

Some of the **longer term** opportunities include:

- Pursue the development of a multi- storey car park and part basement over the Kingscliff Shopping Village site as part of the sites future redevelopment.
- Increased pedestrian connections between Kingscliff Shopping Centre and Marine Parade. Park once, then walk everywhere there after.
- Identify strategic locations suitable for staged car park expansion to meet future needs. This may include a new car park on the northern side of Turnock Street and another pocket car park north of the bowls club adjoining a planned skate park and beach access. The site for a new public car park must be capable of being connected to the town centre by pedestrian pathways.

6.2.5 Draft Car Parking Strategies

1. Undertake a Kingscliff Town Centre Traffic and Car Parking Strategy to determine future car parking needs both within the town centre and adjoining natural recreation areas.
2. Pursue the inclusion of a multi- storey car park and part basement over the Kingscliff Shopping Village site as part of the sites future redevelopment.
3. Make provision for new identified car parking requirements through a reviewed s.94 contribution car parking schemes which providing alternatives for developers to make contributions towards more centrally located and accessible car parking spaces.



Ferry Road markets provides centralised car spaces around the perimeter of retail frontages and combines generous shaded pedestrian circulation paths and landscaping to break up the hard stand.



Concept of a multi-deck car park with retail uses on ground floor with landscaped and architectural treatment to upper level car parking areas could be explored over the Kingscliff Village Shopping Centre site.

6.3 Public transportation

Public transport provides cost effective transport while also reducing traffic congestion and the associated impacts on air quality and environmental amenity. Perhaps most importantly within the Kingscliff demographic context with a higher proportion of elderly and younger persons, it is an invaluable mode of transport for those people who have no other alternative means of travel.

6.3.4 Bus Services

Bus service routes and bus stops are illustrated in Figure 6.3. Bus services are provided by Surfside bus lines of the Gold Coast. There are also local school bus routes servicing Kingscliff Public School, St Anthony's Primary School, Kingscliff High School and other schools outside of the locality.

Presently, there are three bus routes that service the locality: Kingscliff – Robina, Southport – Kingscliff and Tweed Heads – Pottsville. The Kingscliff – Robina route provides the 'Trainlink' service to Robina train station on the Gold Coast and therefore provides a direct link to the Brisbane/Gold Coast heavy rail system (Queensland Rail). Kingscliff is the terminus of the bus route from Southport at the northern end of the Gold Coast.

The Tweed Heads - Pottsville bus route passes through Kingscliff and is the main service for the Tweed Coast. It is envisaged that this bus route will eventually be modified or supplemented by an additional bus route to service the rapidly developing South Kingscliff locality. Kings Forest, when developed, will likely require the provision of a new bus service linked to Kingscliff.

It is essential that public transport services are expanded and in place as residential areas are developed. In the ideal it is preferable that route development keeps pace with land release. Therefore it is important that the provision of new services be planned through early consultation with the service provider(s) which includes ensuring adequate road carriage widths and well located bus stops within the structure planning phases.

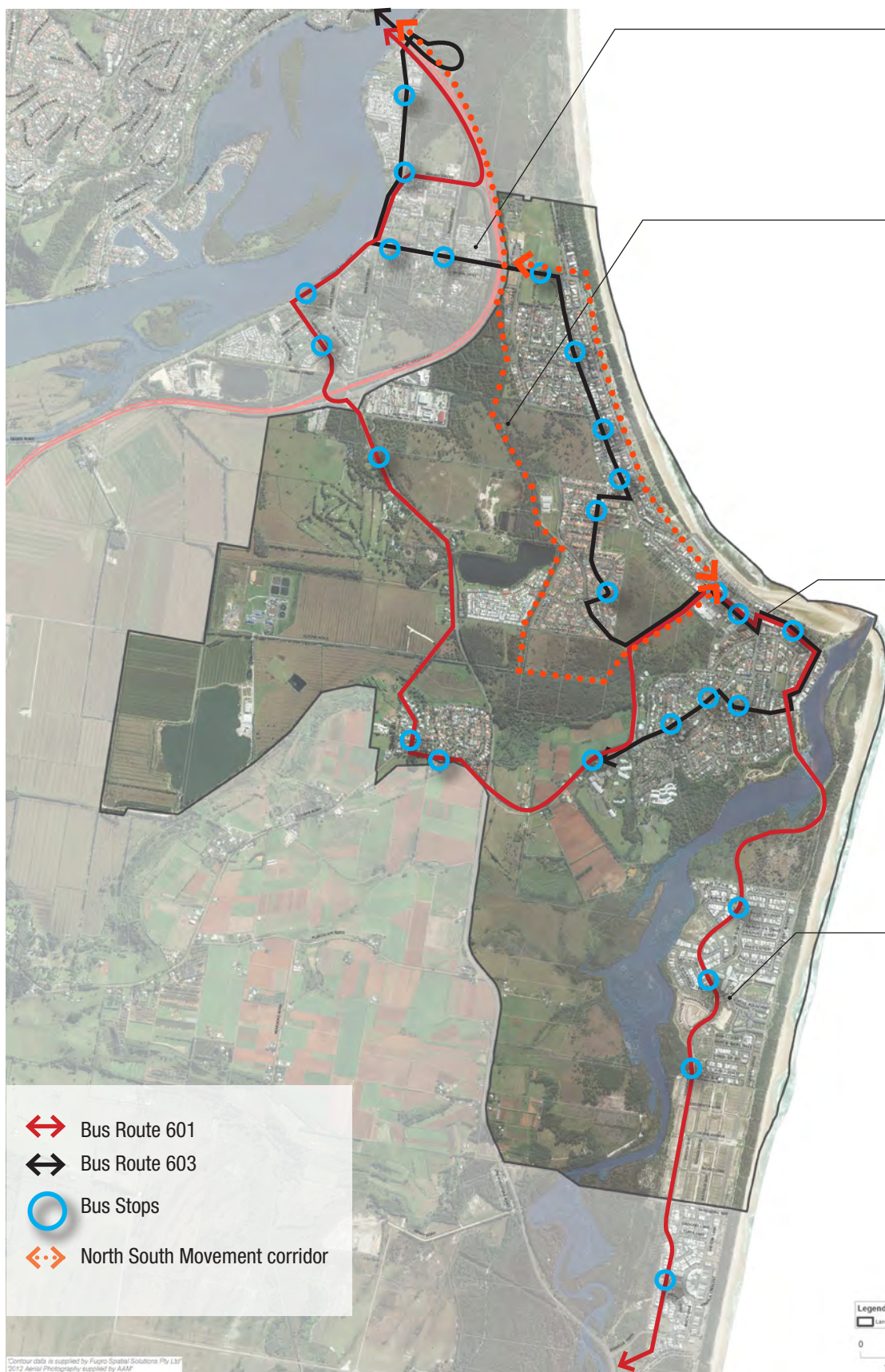
6.3.4 Public Transport Strategies

Public transport in the Kingscliff district is limited to buses and taxis only. There are no current proposals to provide heavy or light rail connections to the district.

The future provision of public transportation has been previously addressed within the Tweed Public Transport Strategy. However given the proximity to the Queensland Border, and the daily movement of respective residents across the border for employment, education, retail and recreational purposes it is also important to consider the findings of the Gold Coast Transport Strategy 2031. Both strategies and their findings are considered below.

Tweed Public Transport Strategy

The Tweed Public Transport Strategy undertaken and adopted in 2011 aimed to establish a preferred strategic transport direction for Tweed Shire that is achievable in terms of sustainability, cost and population, and to support integration with public transport modes proposed or existing within the Gold Coast City Council and South East Queensland areas.



Pacific Hwy Access via Wombin Bay Rd, 15min access to Gold Coast Airport.

Movement Corridor
A north south movement corridor which in the short to medium term could be used as cycle and pedestrian corridor linking Turnock Street with the North Kingscliff precinct. Longer term strategies could include public transport opportunities including bus and a future lightrail corridor if patronage numbers ever support this mode of transport.

Bus Interchange
Opportunity for a purpose built bus interchange within the town centre (Pearl or Turnock Street) to include appropriate shade, seating, bike parking, water and wifi connection.

Mini Bus Connection
Opportunity for the operation of a minibus hail and ride system connecting the localities residential estates within the town centre. One option could be the operation of the bowls, surf and league clubs mini vans during the day when they are under utilised.

- Bus Route 601
- Bus Route 603
- Bus Stops
- North South Movement corridor

Legend
Land to which this Plan applies

0 250 500
1:10,000

Figure 6.3 - Kingscliff Bus Routes and Stops

Public transport mode options considered within the Public Transport Strategy included heavy rail, light rail, bus ways, bus lanes and combinations of these modes.

The Strategy found that an analysis of the available public transport modes indicates that a rapid transit corridor bus system is the optimal rapid transport mode for Tweed Shire because of the Shire's relatively low current and future population and its dispersed patterns of development. In doing so the adopted strategies include:

1. Request the NSW Government to integrate the bus services in Tweed Shire into the Queensland 'Trans Link' transportation system.
2. Develop a Rapid Bus Transit Corridor Plan from Gold Coast Airport Transport Hub to Pottsville through the coastal villages with links to Murwillumbah.
3. Request the NSW Government Ministry of Transport to advise on progress on The Cross Border Transport Taskforce Report 2009 recommendations.
4. Due to uncertainty that it will ever be constructed, Council will not rely on a heavy rail link from Coolangatta to Yelgun in a medium to long term Tweed Shire Public Transport Strategy.
5. Council will not include the southerly extension of light rail south of the Coolangatta Airport Hub in any medium/long term Tweed Shire Public Transport Strategy.

Gold Coast Public Transport Strategy 2031

The Gold Coast City Transport Strategy 2031 is Gold Coast City Council's blueprint for the city's transport network over the next 20 years, with a focus on the years leading up to the 2018 Commonwealth Games. The intent of the whole of city strategy is to provide a balanced transport system which aims to better manage road space, eliminate bottle necks, invest in cycling and walking, extend the light rail network, improve bus services and extend the capacity of the heavy railway.

Of particular cross-border relevance are the following strategies:

- Recognition that Cross-border issues include the need for better integrated road networks and land use, more extensive cycle paths and the need to extend the coverage of the go card system to the Tweed.
- Extend the light rail network across the city with support from the private sector including the extension of Line A in stages to the south by 2031. Extension stages include Broadbeach to Nobby Beach; Nobby Beach to Burleigh Heads; Burleigh Heads to the Gold Coast Airport via Elanora.
- A corridor will be protected for a future extension of light rail from the airport to Coolangatta.
- Undertaking a corridor planning study between Broadbeach to Coolangatta.
- Preserving heavy rail corridor to the airport.
- Developing rapid bus network between Broadbeach and Coolangatta and Coolangatta to Robina.

6.3.5 Public Transport Issues

The core issues raised by the community during the initial community workshop and community vision survey related to the limited nature of the existing bus services, both in terms of routes, but more so in relation to frequency. This issue is circular however within a regional context where travel distances are great and patronage level low leaving service providers to rely heavily on subsidised reduced services. Because of the reduced services, more people are likely to utilise private transportation as a matter of time and convenience.

This situation is likely to change in the future considering population projections based around available release areas adding up to 30 000 more residents along the Tweed Coast resulting in a Tweed Coast population in the order of 60 000 people.

The continued growth of the district is likely to require the establishment of an improved bus station with a high level of design amenity to encourage patronage. Such a facility should be located centrally in the district town centre. The design and location of the central bus interchange must be considered at the detailed planning stage for the establishment of a district centre and must involve consultation between Surfside Buses, the relevant landholders and developers, Council and the community.

6.3.6 Public Transport Opportunities

A high level of accessibility between destinations allows for a more efficient and viable public transport system. This can be provided by the alignment of urban centres within identified transport corridors and the location of key commercial and community facilities in the identified centres. In this regard Council and developers collectively need to identify what can be done to improve the network for public transport as an integrated component of the continued development of our centres. This relates not only to the existing Kingscliff Town centre, but also opportunity for employment generating landuses adjoining the existing Chinderah Industrial Estate.

Bus priority lanes (other than at key intersections) are unlikely to be provided in the District, as the level of service necessary to make the provision of priority lanes viable is unlikely to be achieved, due to the relatively low population densities and small catchment area of the District.

Tweed Light Rail network is not currently a strategy as identified with Councils adopted Public Transport Strategy due to projected population numbers and distance between settlements. This situation could only change if over the long term future population growth along the Tweed Coast surpassed existing projections establishing a resident population which could meet patronage requirements of operating such a service. There could however be opportunity for the future development of the north Kingscliff site to operate a localised light rail system similar to that currently being pursued in Byron Bay as a way of connecting the existing town centre to out of centre uses.

Some opportunities to improve the patronage of public transport (and reduce car dependence) within regional centres such as Kingscliff include:

- The establishment of urban environments designed specifically to encourage walking and cycling and to discourage the unnecessary use of private cars;
- The provision of a safe and attractive pedestrian/cyclist environment that provides easy and direct access to public transport stops;
- Improving the design of bus stops including the provision of seating, lighting, timetables, accessibility and route maps in bus shelters;
- The provision of bus shelters in highly accessible, visible, safe and well-lit locations that are central to the potential population catchment;
- Access for all users, including the provision of appropriate facilities for people with disabilities, people with strollers and cyclists.

6.3.7 Transport Draft Strategies

1. Reinforce the Tweed Public Transport Strategy to develop a rapid bus transport corridor/service linking the Tweed Coastal Villages with Gold Coast Airport and beyond. Public transport services should reinforce identified transport corridors to ensure that a high level of public transport service is available between destinations.
2. Upgrade the existing bus stop(s) within the town centre with co-ordination between the bus service provider, the landholders/developers, Council and the community to consider the best location and design of a bus station.
3. Bus stop areas must be designed with appropriate facilities such that they are accessible to all users, including people with disabilities, people with strollers, the aged and infirm and cyclists. As a long-term goal, bus stops should be provided with a higher level of amenity including shelters that contain lights, timetables and route maps, wifi, water source and ability to generate, store and reuse their own power supply.
4. Promote and encourage a private operated hail and ride mini bus service which connects existing residential estates with the town centre. This could potentially be offered by Kingscliff Shopping centre supported by the Kingscliff Chamber of Commerce.
5. The provision of public transport services must be planned in consultation with the service provider at the initial stage of any master planning for new release areas. Consideration is to include street layout, bus stop and bus lay back area locations.
6. Investigate a north south movement corridor linking Turnock Street with North Kingscliff which could be used in the short term for passive transportation (cycling, mobility carts etc). Corridor would also provide future opportunity for future public transport options including rapid bus transit and/or light rail if future patronage would support this as a viable public transport option.



The adopted Tweed Public Transport Strategy is to develop a Rapid Bus Transit Corridor Plan from Gold Coast Airport Transport Hub to Pottsville through the coastal villages with links to Murwillumbah.



The continued growth of the district is likely to require the establishment of an improved bus station with a high level of design amenity to encourage patronage given the adopted Tweed Transport Strategy is for Rapid Bus Transport corridors.



New bus shelters should be designed to universal access design standards given the aging demographic. All bus shelters should be progressively upgraded to include a higher level of traveller amenity to include shade, seating, lighting, timetables and maps.



There is opportunity for a mini bus service to operate between various residential estates and the town centre on a hail and ride basis. There are precedent examples where shopping centre managers have offered this free service to local residents.



Current population projections do not support a viable light rail patronage along the Tweed Coast into the foreseeable future (typically require more than 200 000 people), however there could be opportunity for the future development of the north Kingscliff site as an activity centre could operate a localised light rail system similar to that currently being pursued in Byron Bay.

6.4 Cycling and Walking

Cycle ways and footpaths are an integral part of the transport network, as well as an important recreational asset. When cycle ways and footpaths are designed to be functional, attractive and safe, they encourage people to walk and cycle. They therefore provide significant benefits to residents and tourists alike.

The existing cycle and walking network, illustrated on Figure 6.4 extends along the Tweed Coast from Kingscliff to Pottsville. The Tweed Coast route passes along coast side of the Kingscliff settlement and provides users with ready access to the beach and adjoining coastal reserve and maintains grade separation from vehicular traffic. This pathway connects to the Cudgen Creek bridge across the Rotary Park connecting with the Cudgen foreshore pathway linking through to Faulks Park and north to the Kingscliff Township. This coastal foreshore pathway is well utilised for passive movement, recreation and exercise.

Heading north, the pathway/cycleway is located within the coastal foreshore reserve connecting the northern residential estates and open space areas with the Kingscliff township. Heading east, provision has been made along Turnock Street for cycle/walking access which links into the Elrond Drive and Noble Park estates which has a smaller series of paths.

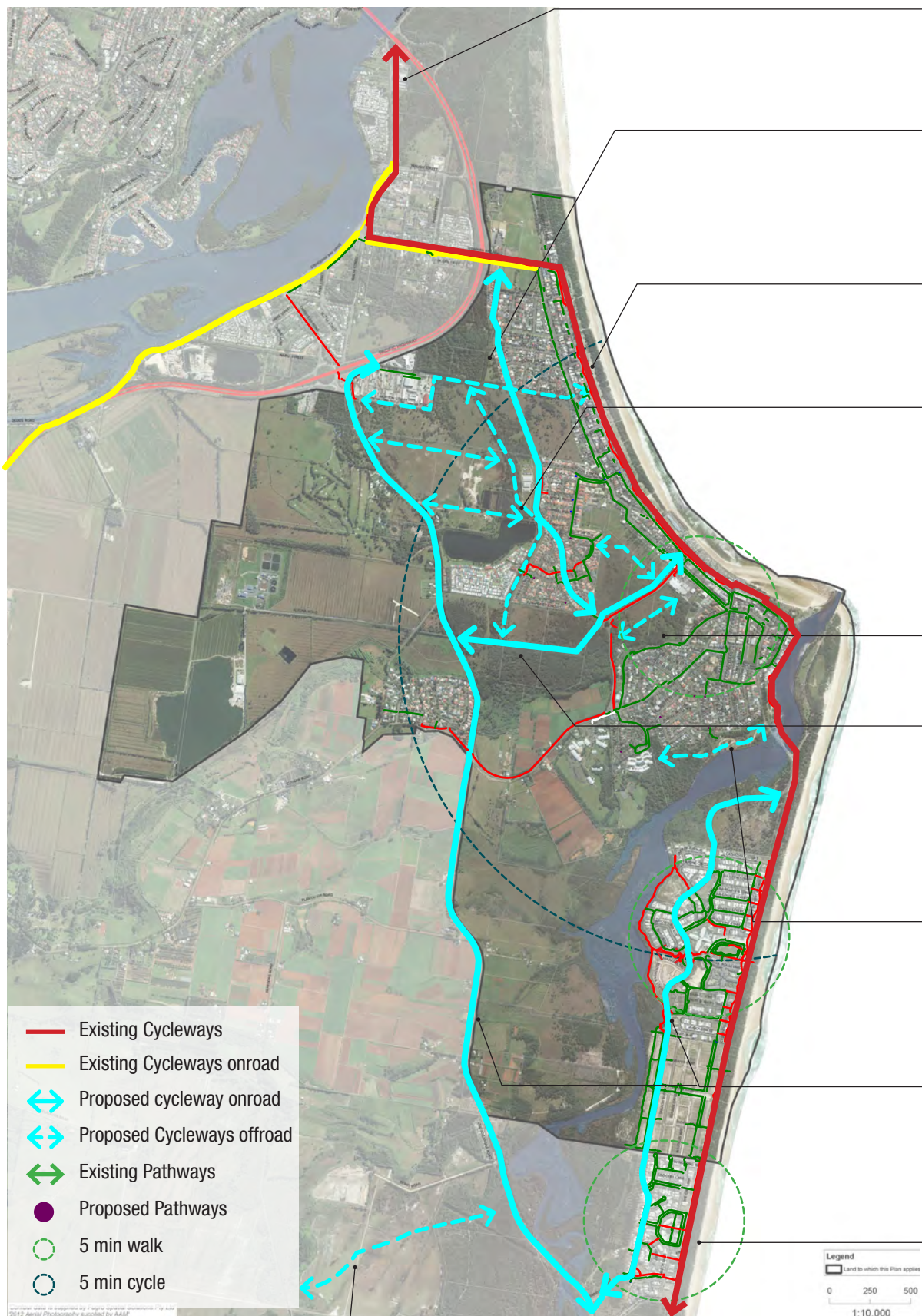
Many areas of Kingscliff are subject to heavy pedestrian activity with the main commercial strip on Marine Parade between Turnock Street and Seaview Street being one way traffic and subject to a 40 km/h speed limit has a high density of pedestrian movement. Another area of high pedestrian activity is within the Kingscliff Shopping Village. There are also significant pedestrian movements within proximity to the Kingscliff High School at Oxford Street (also Cambridge Crescent and Yale Street), Kingscliff Public School (Orient St), St Anthony's Primary School (Pearl and Boomerang St), and TAFE Campus on Cudgen Road.

6.4.1 Cycling and Walking Issues

Pedestrian Access and Mobility Plan 2014

In 2014 Council undertook a Pedestrian Access and Mobility Plan (PAMP) to improve the safety, convenience and connectivity of the Tweed's highest pedestrian activity areas. The purpose of the PAMP was to review the current and future pedestrian needs in the Tweed LGA to provide a consistent standard of facilities for all pedestrians, including older persons, people with mobility or vision impairments, school children, tourists, cyclists and recreational pedestrians. The overriding intent is to ensure a high level of pedestrian access amenity that will encourage people to walk rather than use their cars.

In order to provide a strategy framework the PAMP study area focuses on five town centres in the Tweed identified as high priority and high pedestrian activity areas including Kingscliff. The PAMP identifies pedestrian networks within each of these priority areas as well as linkages between town centres. In doing so the PAMP identifies pedestrian concentration, centres of activity, identifiable accident clusters, walking patterns and links between land use, pedestrian facilities (existing and proposed), pedestrian accessibility and mobility issues within a radius of 1.5km to 2km.



Pacific Hwy Access
Cyclist and pedestrians share single path across the bridge (western side).

Ozone Street
Opportunity for new cycle and pathway through Ozone Street connecting the coastal foreshore with the industrial estate.

Coastal Foreshore
Opportunity to further embellish the cyclepath with more shade, seating, lighting and water points.

North south cycleway
Opportunity for new cycle and pathway along either the road or the existing drainage corridor linking future employment generating landuses and residential areas with the Turnock Street extension.

Library Precinct
Link between library and Pearl St.

East west cycleway
Opportunity for new cycle / pathway integrated into the Turnock Street section extension linking the Tweed Coast Road, past residential estates into the Kingscliff Town Centre.

School Link
new cycleway/pathway link connecting the Kingscliff High School and TAFE to the Cudgera Creek foreshore area.

Casuarina Way & Tweed Coast Road
Opportunity to allocate a dedicate cycle lane along the full length of Casuarina Way and Tweed Coast Rd.

Coastal Foreshore
Opportunity to further embellish the cyclepath with more shade, seating, lighting and water points.

Kings Forest
Future pathway and cycle connections to Kings Forest Estate.

Figure 6.4 - Kingscliff Pedestrian and Cycle Network

Some of the key PAMP issues identified during consultation which specifically relate to Kingscliff include (Figure 6.5):

- Poor pedestrian access to shopping centre.
- Lack of footpath along Sutherland Street.
- Lack of crossing along Turnock Street
- Lack of trees shade and lighting along Turnock Street
- Lack of crossings along Cudgen Road.
- No safe access to Cudgen Creek from Sutherland and Viking Streets.
- Lack of trees/shade and lighting along Turnock Street.
- Poor pedestrian and cycle movement along Marine Parade including missing links, narrow footpaths.
- Generally poor pathway lighting.

Community Vision Survey

The thematic of cycling and walking featured strongly within the community vision survey where it emerged that the existing network of paths and cycleways very high valued and well used by local residents and tourists. A high number of community vision survey respondents (60%) indicated that they walk or cycle once or twice a week.

Some of the key pedestrian and cycling issues which emerged from the community vision survey and community workshop include:

- need to improve and expand the network, this includes the widening of some of the more heavily used path/cycleways including the southern cycleway connecting Casuarina, Seaside and Salt with Kingscliff town centre where there were some reported conflicts between walkers and cyclists;
- future need for cycleway to connect to Kings Forest;
- the need to improve the overall amenity along the cycleways including addition of lighting, and way points at strategic locations providing shade, seating, bike parking and water source; and
- the need to consider commuter cycle travel in addition to recreational cycling which have different needs. Commuter cycling prefer a designated lane within road ways rather than utilise smaller, more windy and less direct paths.



LEGEND

- Cadastre
- Waterbody
- Road corridor
- Site Specific Issues
- Poor or Missing Crossing Opportunity
- Poor or Missing Kerb Ramps
- ML - Missing Link
- K14 - Footpath Width Past Construction Site
- K9 - Disjointed Footpath

<p>Paper Size A4</p> <p>Metres Map Projection: Transverse Mercator Horizontal Datum: GDA 1994 Grid: GDA 1994 MGA Zone 56</p>			<p>Tweed Shire Council Pedestrian Access and Mobility Plan</p> <p>Kingscliff Existing Footpath Audit Results</p>	<p>Job Number 22-17143 Revision 0 Date 08 Sep 2014</p>
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Figure F.4

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Data source: RMS: Crash Data 2014; LPI: DCDB & DTDB 2012. Created by: fmackay

Figure 6.5 - PAMP Audit Extract (Kingscliff Existing Footpath Audit Results)

6.4.2 Cycling and Walking Opportunities

A walkable catchment is generally referred to an area within a five- to ten-minute walk from a pedestrian destination. Most people are comfortable walking 400 metres (about 5 minutes) regularly and, depending on the circumstance or the walking route, amenity, slope and climate.

Given that a significant proportion of the Kingscliff locality (with the exception of Kingscliff Hill precinct) is relatively flat, good opportunity exists to expand the existing network of pedestrian and cycle paths to even further improve usage passive modes of movement including walking and cycling thereby reducing the usage of the vehicle. This is particularly relevant for parts of the locality that are within easy walking and cycling distance of key destinations including the shopping centre, sports clubs, open space areas, health services and community facilities including the library.

The proposed pedestrian improvements identified within the PAMP relating to Kingscliff have been tabled below and illustrated on Figure 6.5.

Ref No	Issue ID	Road	Location	Initiative	Cost
King 1	N/A	Marine Parade	Off Road shared use path	Lighting upgrade	High
King 2	K9	Marine Parade	West side between Beach St and Wommin Bay Rd	Connect footpaths	Medium
King 3	K2	Marine Parade	Off Road shared use path south of Beach St	Provide formal connection to south end of car park	Low
King 4	K3	Marine Parade	North of Pearl St	New connection from pedestrian crossing to shared path	Low
King 5	K8	Marine Parade	North of Turnock St	Replace pavement treatment with zebra crossing	Low
King 6	K4	Marine Parade	Off Road shared use path near Turnock St	Repair footpath	Low
King 7	-	Turnock St	East side between Marine Parade and Supermarket entrance	Widen footpath to 2.0m	Low
King 8	-	Turnock St	North side between Pearl St and Elrond Dr	Improve pedestrian environment, upgrade lighting	High
King 9	-	Turnock St	South of Pearl St	Provide shaded seating	Low
King 10	-	Marine Parade	South side through commercial strip	Locate seating, signage etc to ensure clear width minimum 2.0m	Negligible
King 11	K5	Marine Parade	Eastern end near Faulks Park	Remove conflicting pavement markings	Low
King 12	K6	Off-road	Footpath connecting between Marine Parade and Pearl St	Widen footpath to 2.0m	Low
King 13	K14	Pearl St	Full length between Seaview St and Turnock St	Widen footpaths to 2.0m both sides and resurface some parts	Medium
King 14	-	Pearl St	Turnock St roundabout	Provide refuge islands on all approaches	Low
King 15	-	Hungerford Lane	Full length of section parallel to Marine Parade	Convert to shared zone 10km speed limit	Low

Ref No	Issue ID	Road	Location	Initiative	Cost
King 16	-	Kingscliff Street	West side between Beach St & Zephyr St	New footpath 1.2m wide	Low
King 17	K10 K11	Sutherland St	East side between Moss St and Seaview St	New footpath 1.2m wide	Medium
King 18	K12	Orient St	Pedestrian Crossing	Connect footpaths to crossing with kerb ramps and provide footpath connection to Sutherland St west side.	Low
King 19	K15	Yale St	Cambridge Cres and Yale St	New footpath 1.2m wide connecting off-road path to Oxford St and McPhail Ave.	Medium
King 20	-	Monarch Dr	South side between Osprey Place and Bellbird Dr	New footpath 1.2m	Low
King 21	-	McPhail Ave	South side between Gibson St and Oxford St	New footpath 1.2m	Medium
King 22	-	Cudgen Rd	Between Turnock St and Oxford St	Replace painted island with refuge island	Low
King 23	-	Beach St	South side between Marine Pde and Kingscliff St	New footpath 1.2m	Medium
King 24	-	Zephyr St	South side between Marine Pde and Kingscliff St	Connect footpath to Marine Parade	Low
King 25	-	Kingscliff Street	Beach St roundabout	Provide refuge islands on all approaches	Low
King 26	-	Sutherland st	East side south of Moss St	New Footpath 1.2m wide	Medium

Of the above actions, the following table represents a ranking priority of the Kingscliff actions within the Shire wide context:

Rank	Ref No.	Location	Treatment
3	Kings 14	Pearl St Turnock St Roundabout	Provide refuge islands on all approaches
6	Kings 5 K8	Marine Parade North Turnock St	Replace pavement treatment with zebra crossing
9	Kings 17 K10 / K11	Sutherland St, east side between Moss St and Seaview St	New footpath 1.2m wide
10	Kings 18 K12	Orient St, Pedestrian crossing	Connect footpaths to crossing with kerb ramps and provide footpath connection to Sutherland Street west side
12	Kings 19 K15	Yale St, Cambridge Cres and Yale St	New footpath 1.2m wide connecting from off-road path to Oxford St and McPhail Ave

In addition to the actions identified with the PAMP are the following opportunities:

- Designation of a pedestrian priority area within the Kingscliff town centre by way of better connections between Pearl and Marine Parade, wider footpaths with improved surface, shade and amenity.
- Improve the pedestrian and cycle amenity with more shade, regular seats and water source and night lighting where required.
- Make provision for the commuter cyclist along key connector roads including the Tweed Coast Road and Turnock Street (including provision within the extensions) to supplement the network of shared pathways.
- The design of cycle ways is to ensure connectivity with the public car parks.
- The footpath and cycleway network will be designed and expanded to connect coastal foreshore and riparian areas with residential and commercial areas.
- The footpath and cycleway network is to be further embellished by establishing way points along its length at various strategic intervals. These way points are to include seating, shade, bike parking and water source.
- The footpath and cycleway be further embellished with lighting along key stretches of the network providing greater night time accessibility and safety.
- A footpath and cycleway is to be allocated along Turnock Street through the Tweed Coast Road (east west) as well as north from Turnock Street to Ozone Street (north south). The alignment and section of these new connection routes are to be designed in the form of a cycle and pedestrian highway to cater for high levels of movement along these corridors.
- A similar pedestrian/cycle highway is to be established within the coastal foreshore north of the town centre and south of the Cudgen bridge to cater for the high levels of movement and increasing need for additional safety along these corridors.
- Footpaths and adequate pedestrian crossing points are to be provided along all main roads to encourage and provide for safe and pleasant walking between destinations, as per Council's Development Design Specification D1 Road Design Manual.
- Cycle ways should be provided as integral components of any future developments in the district, providing links between residential areas and key facilities such as schools and shops.
- The provision of a pedestrian path between Kings Forest and Seaside City should be planned including provision for an appropriate corridor width and alignment to provide safe and convenient pedestrian access from Kings Forest to the beach.
- Investigate an onroad cycleway along the length of Casuarina Way.
- If a new holiday park is pursued in the future on the south side of Cudgen Creek, investigate a future pedestrian bridge across Cudgen Creek at the end of Marine Parade / Moss St which would provide more direct access into Kingscliff town centre.



Cycle highways provide purpose built paths directly adjoining connector roads. Constructing new roads provides opportunity to make provision for a dedicated cycle lane along Tweed Coast Rd, Turnock Street and along a north-south bike corridor.



Opportunity to define a town centre pedestrian priority area which includes wider footpaths, more shade and more pedestrian friendly spaces within Marine Parade, Pearl Street and Turnock Street.



Improve amenity of pathways to include regular seating, shade and water supply along the length. A network of pathways should connect all residential areas with key nodal points within the locality.



Marine Parade has opportunity for improved pedestrian amenity to include wider footpaths, improved pavement, shade, street trees, landscaping and water features.



The future redesign of Kingscliff Shopping Village has the opportunity to improve town centre pedestrian connectivity and amenity.



Pedestrian spaces within the town centre have the opportunity to engage with the coastal edge. Consideration needs to be given to night time use by designing appropriate lighting and safety by design.

6.4.3 Cycling and Walking Strategies

1. Investigate a pedestrian upgrade area within the Kingscliff Town Centre bounded by Marine Parade, Pearl Street and Turnock Street as part of the locality plan process with a focus on improving pedestrian amenity and connectivity. This would include the identification of key pedestrian corridors between Pearl St and Marine Parade and a widened footpath fronting Marine Parade and Pearl Street.
2. To instigate a public domain improvement plan within the Kingscliff Town centre which would include master planning and design of all public domain elements. This would also include wider footpaths, improved pavement surface, shade, street trees, landscaping and water features.
3. To progressively implement the strategies and actions identified within the PAMP 2014.
4. Cycle ways are to be constructed by the individual developers of release areas as part of their development conditions in co-ordination with Council in terms of location, width, material and level of embellishment along its length.
5. Footpaths are to be provided by the developers of respective release areas in accordance with the standards of Council's development design Specification D1 Road Design Manual.
6. Update Council's Bike Plan to include existing and proposed expanded cycle network which acknowledges recreational cycling as well as road / sport / commute cycling. Bike Plan to document appropriate level of embellishment and standard cycle path(s) design details for development.



7.0 SERVICE INFRASTRUCTURE



7.1 Service Infrastructure Planning

Future development potential of the identified urban release and employment generating lands combined with substantial infill development opportunities within Kingscliff and Cudgen will place an increased capacity on existing water sewer, telecommunication and electrical infrastructure. A range of different development scenario's and expected population yields need to be considered in relation to the future planning of these infrastructure services.

The efficient delivery, roll out and considered integrated design of additional required infrastructure needs to be a key consideration within the early design phases of the greenfield development sites. In this regard, Council must consider how to most effectively service the area and provide for future development needs within Council's budget and works program, integrated with appropriate developer participation and contribution.

7.1.1 Existing Water Infrastructure

The indicative water reticulation system is illustrated in Figure 7.1. The Kingscliff and Cudgen localities fall within five water zones including Duranbah, Cudgen, Cudgen Booster (Cudgen Village), Kingscliff and Kingscliff Booster (Kingscliff Hill).

The water supply to the Kingscliff District is sourced Bray Park Water Treatment Plant (WTP) and pumped to Hospital Hill Reservoirs in Murwillumbah, but is then transported by different trunk main systems. The area north of Cudgen Creek receives its water from the trunk main located along Tweed Valley Way to a pumping station in Chinderah where it is pumped into the Kingscliff Hill Reservoirs, which is then gravity fed to the urban area. The area south of Cudgen Creek receives its water from the trunk main located along Environ Road to the Duranbah Reservoirs, where it is gravity fed north to Salt, Seaside City and Casuarina and south to other regions.

Future extra storage capacity will be required at the Duranbah Reservoir site and additional transfer capacity (ie: trunk mains) to cater for additional populations forecast to the south of Cudgen Creek. Additional storage capacity is not planned for future populations in Kingscliff to the north of Cudgen Creek, however additional transfer capacity is planned.

Opportunities for water infrastructure expansion include:

- The construction of a trunk main to connect the areas north and south of Cudgen Creek, which will provide an additional source of water during main breaks.

7.1.2 Existing Wastewater Infrastructure

The indicative sewerage system is illustrated in Figure 7.1. The new Waste Water Treatment Plant (WWTP) was established to the west of the township off Altona Road which has a capacity to treat 6 megalitres per day, equivalent to 25,000 people. The WWTP which services Kingscliff, Fingal, Chinderah, Cudgen, South Kingscliff (Salt), and Casuarina utilises a chemically enhanced biological nutrient removal (CEBNR) process results in a high quality of the discharged effluent. A small percentage of the A Class treated effluent is reused for irrigation purposes at the nearby Golf Course. The remaining treated effluent is discharged into the Tweed River.

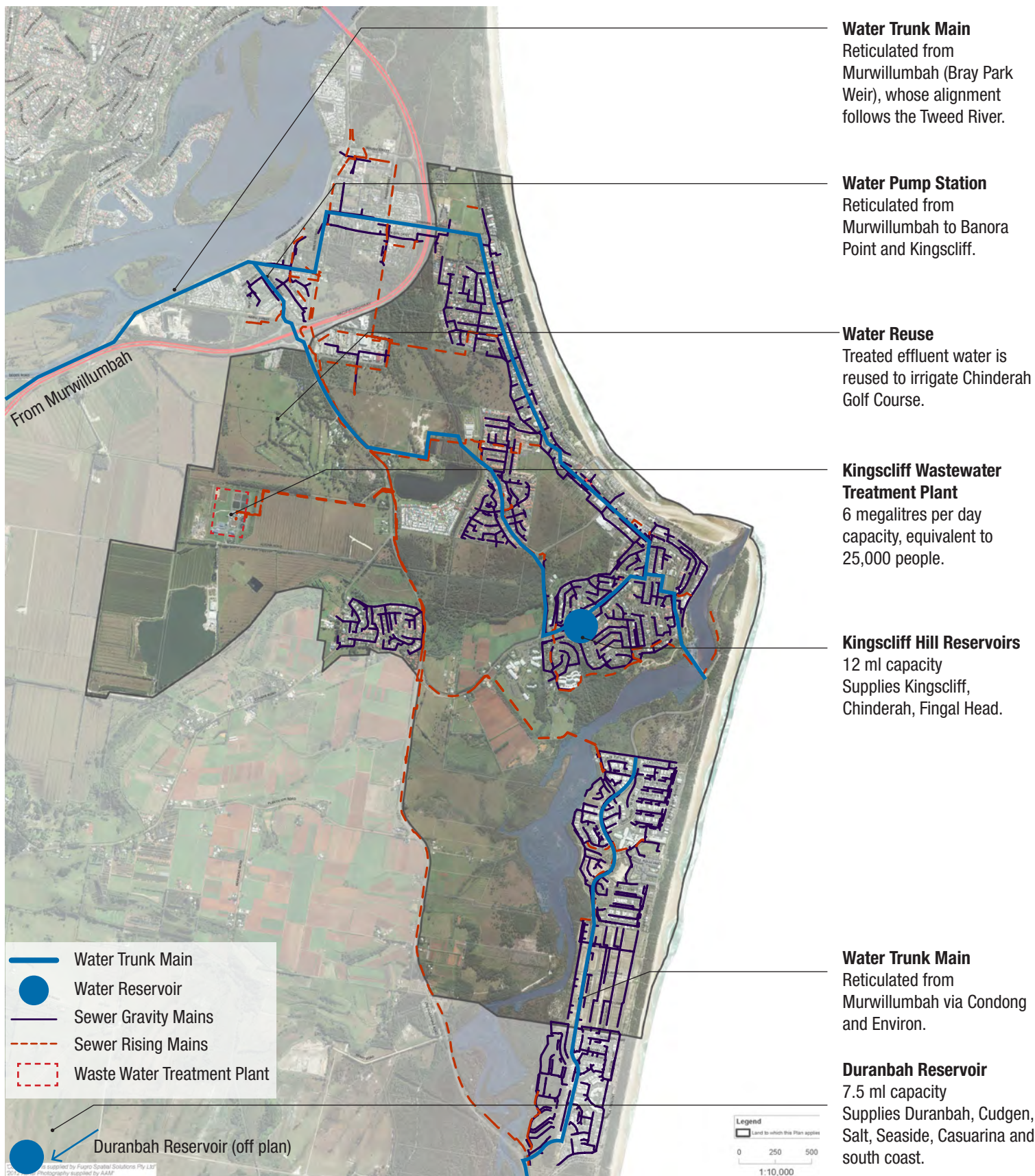


Figure 7.1 - Kingscliff Water and Sewer Infrastructure

7.1.3 Existing Electrical Infrastructure

Essential Energy is a NSW Government-owned corporation, with Delivery Partners for building, operating and maintaining the electricity network with numerous service providers facilitating individual connections. There are currently no planned service upgrades programmed for the Kingscliff locality in the immediate future. The further extension of electrical infrastructure as part of staged release of future development sites will be designed and planned as part of the development approvals process.

7.1.4 Existing telecommunication and NBN Infrastructure

Once a Government-owned corporation, Telstra which owns, builds, maintains and operates telecommunications networks is now a public company. This network includes Kingscliff's predominantly above ground pole infrastructure. Since the privatisation of Telstra and the deregulation of telecommunications service there are then numerous telecommunication and internet service providers facilitating individual connections.

The National Broadband Network (NBN) is a national open-access data network which is under development and roll out across Australia. It is based on the premise that fixed line and wireless broadband connections are sold to retail service providers (RSP), who then sell Internet access and other services to consumers. Currently, the NBN Co is planning to acquire and build up to 20 fixed wireless facilities across the Tweed Shire including Kingscliff. The fixed wireless system use cellular technology to transmit radio signals to and from a small antenna fixed on the outside of a home or business, which is pointed directly towards the fixed wireless facility (antenna).

7.2 Service Infrastructure Issues

The ultimate capacity will be to provide for a district population catchment of 50,000 people which will include the Kings Forest release area. The existing water and sewer systems will therefore require increased capacities and staged future planning and upgrades to meet this projected population. In addition to new infrastructure servicing new release areas, the existing water and sewer infrastructure, particularly within older residential estates will also require staged upgrading and improvement to ensure efficient services capable of meeting increased demand.

7.3 Service Infrastructure Opportunities

- The construction of a trunk main to connect the areas north and south of Cudgen Creek, which will provide an additional source of water during main breaks. Opportunity to increase water supply capacity at Durambah Reservoir and to meet future population needs.
- Opportunity for developers to incorporate demand management into their developments, such as third pipe and other reuse strategies, to reduce water demand.
- Opportunity to expand existing Kingscliff Wastewater Treatment Plant to meet future population needs.
- Opportunity for appropriate sites to reuse the Kingscliff Wastewater Treatment Plant A Class water and biosolids.
- Greenfield development sites to incorporate NBN ready infrastructure.

7.4 Infrastructure Strategies

1. Progressively implement the design and construction of essential services, including the replacement of aging infrastructure for Kingscliff and Cudgen and ensure coordinated and efficient delivery.
2. Design and planning of service infrastructure to be a key consideration to be integrated within the early design phases of the greenfield development sites.
3. Co-ordinate and integrate water reuse and water sensitive urban design solutions within green field development sites and where possible existing urban areas.
4. Maintain a 500m buffer surrounding the waste water treatment plant restricting any residential development within that buffer. Plant a 10m wide landscape buffer to interface edges.

