



CENTRAL COAST INFRASTRUCTURE PRIORITIES 2016



A MESSAGE FROM THE CHAIR

The population of the Central Coast is expected to grow by 70,000 to around 409,000 over the next 20 years. This substantial growth will require over 30,000 new jobs to be created over the next 15 years.

To respond to this demand, Regional Development Australia Central Coast has coordinated the development of the 2016 Central Coast Infrastructure Priorities List, which provides an agreed list of the key-enabling infrastructure needed on the Central Coast to create local jobs, drive further investment and to assist in unlocking the full economic potential of the region.

The Central Coast Infrastructure Priorities List has been prepared and informed by ongoing collaboration between members of the Regional Economic Development and Employment Strategy (REDES) Strategy Implementation Group, which includes:

- Regional Development Australia Central Coast
- Department of Premier and Cabinet
- NSW Department of Industry
- Former Gosford City Council
- Former Wyong Shire Council
- Central Coast Regional Development Corporation
- NSW Business Chamber
- Central Coast Tourism

The following criteria was utilised by members of the group to form the 2014 / 2015 infrastructure priority list.

1. The project can be delivered within 4 years (of funding approval).
2. The project is achievable, i.e. scope defined, cost established, planning approval in place or process
3. Project funding has not already been committed.
4. Timing of infrastructure aligns with funding opportunities.
5. The infrastructure must enable the delivery of additional and new regional benefit, ie one investment delivers multiple outcomes.
6. The request for funding must be at a realistic and achievable level.

The projects contained on the Infrastructure Priority List will lay a strong foundation for further growth and investment and will directly assist in generating required jobs within our region over the next decade.

Please note that this infrastructure list is a dynamic document that will be reviewed regularly to ensure that projects reflect the changing priorities and opportunities within the region and we look forward to working with the newly formed Central Coast Council to deliver these essential enabling infrastructure priorities.

Phil Walker
Chair – Regional Development Australia
Central Coast

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REGIONAL ROADS & TRANSPORT



REGIONAL ROADS & TRANSPORT

BUS RAPID TRANSPORT - GOSFORD TO TERRIGAL

What's needed?

Transport for NSW work in conjunction with Central Coast Council to complete the necessary planning processes and adopt a programme to fund and construct the route.

What's been done?

Discussions with Transport NSW have commenced.

Development of a Gosford CBD parking strategy has commenced.

Description

A Bus Rapid Transit route between Gosford, Erina and Terrigal would travel along the Central Coast Highway and Terrigal Drive with multiple parking stations along the route.

It is anticipated that the development of this bus route would lessen the parking congestion in the Gosford CBD and provide easy transportation for residents and tourist/visitors.

The project is aligned with the Central Coast Draft Regional Plan which outlines a regional economic corridor from Somersby to Erina.

What's needed?

State Government:

- Support for Central Coast Council in any discussions and dealings with State and Federal Government agencies relating to the planning and approval.
- Government funding of \$20m to support the upgrade of essential road and services infrastructure.
- Assist Central Coast Council with managing any environmental and ecological issues which may arise for the site.
- Undertake a review of the Warnervale Airport Restrictions Act 1996.

Local Government:

- Capital contribution of \$20m to support the development of aviation business subdivisions on the airport.
- Capital contribution of \$15m to upgrade the existing airfield.

REGIONAL ROADS & TRANSPORT

CENTRAL COAST AIRPORT

Description

This is a Central Coast Council catalyst project to stimulate regional investment and employment growth, particularly in the higher skilled and professional sectors. The airport development will attract investment and jobs in the aerospace and aeronautical technology sectors.

After extensive investigations, Council has adopted the phased development of Warnervale Aerodrome as the most financially viable option to develop the Central Coast Airport.

The Central Coast Airport Warnervale will give local and international aviation businesses access to a regional general aviation and passenger airport close to Sydney with existing major road and rail infrastructure links. Council proposes to upgrade the existing aerodrome incrementally in line with real demand from the aviation industry.

The new Central Coast Airport will provide accessible commercial general aviation re/location options close to Sydney. It will also be able to facilitate, in time, regional passenger flights to intra/inter-state cities and towns.



What's been done?

Central Coast Council owns airport land.

Description (cont.)

There will be a range of commercial general aviation and investment opportunities in the surrounding university, business parks, industrial and business zoned land that will develop because of the airport business and its economic activities. Airports generate around five indirect jobs for every direct job on the airport and are one of the key drivers of the economy in business development, economic activity and tourism.

The Central Coast Airport will be targeted at general aviation businesses potentially including aircraft charter, maintenance, manufacture, emergency services operations, airborne survey, surveillance and geo-sensing, helicopter operations, commercial flying colleges, corporate and private aircraft. It will also cater for commercial passenger aircraft once fully operational.



What's needed?

The NSW Government is requested to work collaboratively with Central Coast Council to develop infrastructure improvement plans for State owned infrastructure that support Council's CBD objectives.

Key stakeholders include Central Coast Local Health District, Roads and Maritime Service, Department of Planning, Transport for NSW and NSW Department of Education and Communities.

Central Coast Council will provide project development resources and oversee infrastructure operation and maintenance arrangements. Central Coast Council is in a favourable position for the development of multi-agency submissions for State and Federal government funding opportunities.

REGIONAL ROADS & TRANSPORT

ETNA STREET & DONNISON STREET BRIDGES

Description

Key road and bridge improvements within Gosford CBD are critical to the growth, development, functioning and operation of the Gosford City centre. Improvements to CBD road infrastructure will reinforce the city's relationship to its landscape setting, improving urban amenity, providing safe and efficient roads and pedestrian access.

Recent changes in the location of key amenities such as the relocation of the Gosford Public School has meant that traffic flows over the Etna Street and Donnison Street bridges is currently nearing capacity. The increased population growth and the locations adjacent to Gosford Train Station have also increased the traffic flow in this area. Estimated budget for this project is \$150 million.

Issues surrounding traffic management in the Gosford CBD are expected to be compounded with increased traffic flow expected due to:

- Additional staff and patients with the redevelopment of Gosford Hospital.
- Establishment of the Central Coast Medical School & Research Institute.
- Revitalisation of the Gosford Waterfront and Gosford CBD.
- Construction of the Regional Performing Arts & Conference Centre.



REGIONAL ROADS & TRANSPORT

LINK ROAD, WATANOBBI TO SPARKS ROAD

What's needed?

State Government:

- Provide funding for the design and construction of the project.
- Assist Central Coast Council with the management of ecological issues which may arise.

Central Coast Council will:

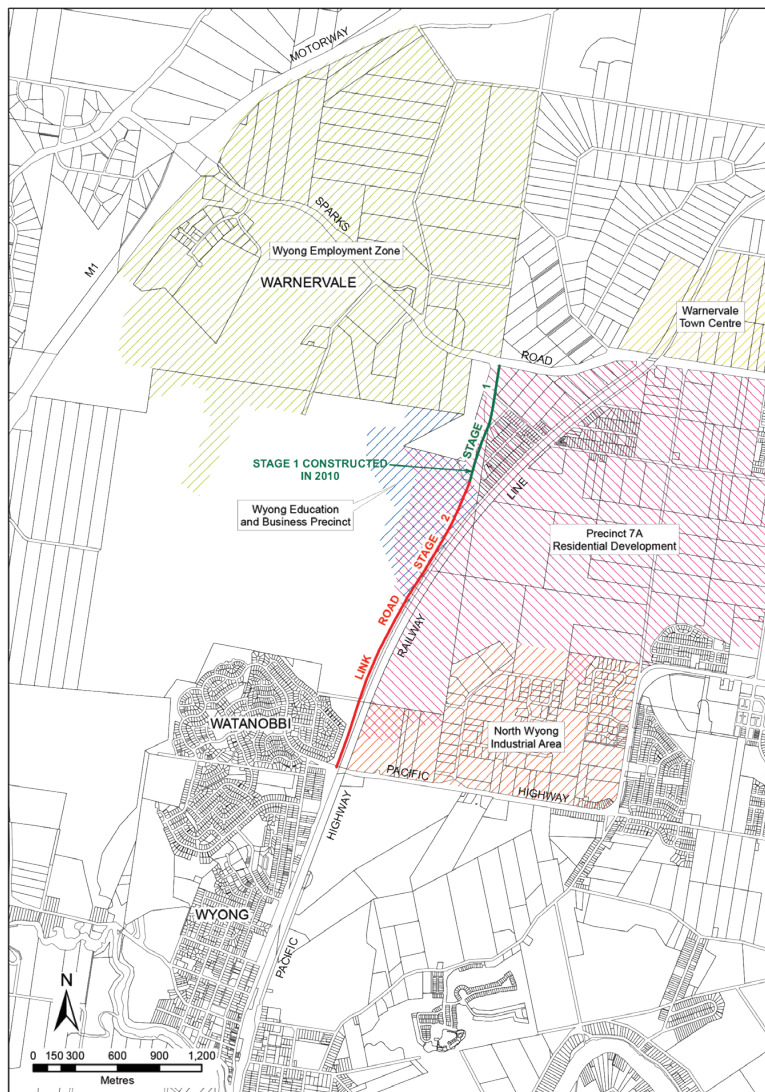
- Provide and dedicate the necessary road reserve.
- Consult with relevant stakeholders including Transport for NSW, RMS and Ausgrid.

Description

The Link Road is a new direct connection from the Pacific Highway, Watanobbi, to Sparks Road, Warnervale that will improve access between Wyong Town Centre and the expanding Warnervale Growth Area, as well as provide easier access to the M1 Motorway.

The road is critical to the expansion of employment, business, housing and education opportunities in the Warnervale Growth Area, including future development of the Wyong Employment Zone, the Wyong Education and Business Precinct, residential development at Warnervale, and the new Warnervale Town Centre.

Together these developments will provide around 8,500 jobs and housing for up to 4,200 people. The estimated cost of the Link Road is \$200m with an expected construction time of 18 months.



What's been done?

The first stage at the northern end from Sparks Road has been constructed by Central Coast Council at the cost of \$17.3m with \$6.5m of Federal Government funding. RMS is proceeding with the design of the remainder of the road. The NSW Government has committed to invest \$25m on the Warnervale Link Road (2015-19 Election Commitment).

Benefits

The Link Road will:

- Stimulate development and create jobs.
- Reduce traffic and create spare capacity on the existing Pacific Highway.
- Extend the life of existing roads and provide more efficient bus servicing.
- Halve local travel times.



REGIONAL ROADS & TRANSPORT

PROPOSED NEW WARNERVALE RAILWAY STATION
UPGRADING OF EXISTING WARNERVALE STATION

What's needed?

State Government to complete the necessary planning processes and adopt a programme to fund and construct the Town Centre railway station.

Alternatively, the State Government to provide \$10m funding for the upgrading of the existing Warnervale Railway Station.

Description

The North Warnervale Railway Station, to be located at the Warnervale Town Centre, will provide improved access to rail services for residents living in the northern part of Wyong. The proposed station will be integrated with the commercial, employment, retail, entertainment and housing uses that will make up the Warnervale Town Centre.

A concept design has been completed for the proposed railway station. Initial cost estimates for the new station are in the order of \$43m.

Central Coast Council is focused on developing a University on land it currently owns west of the existing Warnervale Station. For this to occur the station needs to be upgraded to full service (8 car set).

The approximate cost to upgrade the existing Warnervale Station is \$10m.



Benefits

- Provides improved access to rail services for residents in the growing Warnervale Release Area.
- Provides for an integrated rail and bus interchange as part of the new Warnervale Town Centre.
- Will reduce car dependence.

What's been done?

- The Warnervale Town Centre Development Control Plan and a Section 94 Contributions Plan have been approved.
- Major Road infrastructure has been completed to provide access into the new Town Centre, with significant funding provided by the State Government.
- Development Approvals have been issued to Woolworths, UrbanGrowth NSW and Yeramba Estates for new development in the town centre.
- Central Coast Council has installed new water and sewerage infrastructure to service development within the Town Centre.



REGIONAL ROADS & TRANSPORT

PACIFIC HIGHWAY WIDENING, WYONG TOWN CENTRE

What's needed?

State Government funding for the construction.

What's been done?

Proposed strategic design has been completed and exhibited. RMS is reviewing the strategic design in light of community and stakeholder feedback in preparation for development of concept design. Environmental assessment has been completed and detailed design has commenced.

Description

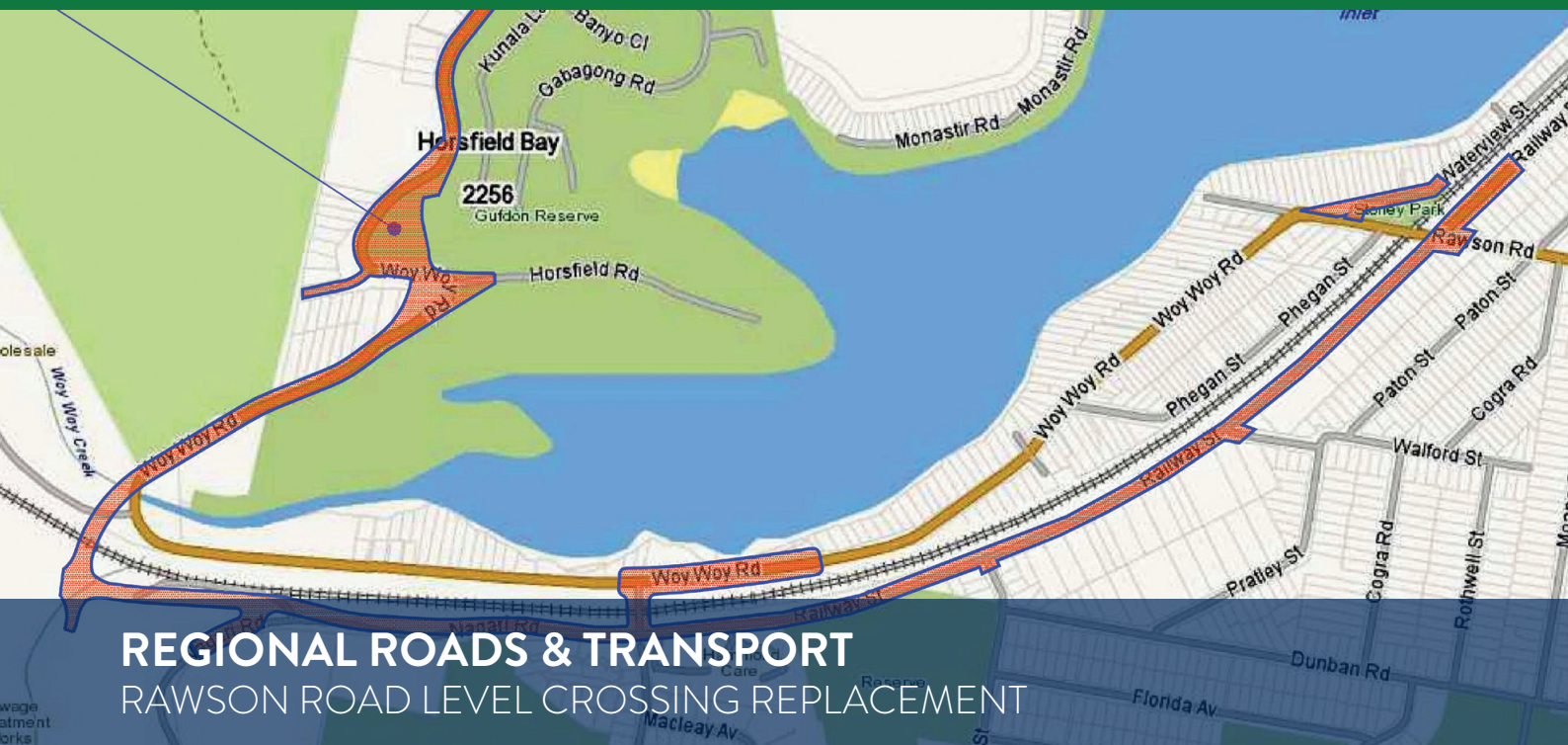
Widening of the old Pacific Highway through Wyong Town Centre to provide two lanes in each direction and improving the operation of a number of intersections, will improve intra-regional road transport, enhance traffic efficiency and safety, provide better bus access to the railway station and enhance amenity of Wyong Town Centre.

The existing Pacific Highway through Wyong Town Centre is single lane in each direction and heavily affected by traffic congestion.

An estimate of costs will be prepared by RMS when an approved concept design is available.

Benefits

- Improved Intra-Regional road transport.
- Improved road safety and efficiency.
- Better access to the railway station.



REGIONAL ROADS & TRANSPORT

RAWSON ROAD LEVEL CROSSING REPLACEMENT

What's needed?

Federal or State Government funding.

What's been done?

Detailed road design completed, early works completed to establish new road formation for rail bridge approach road.

Description

The Rawson Road Underpass project involves replacing the level crossing with a new rail underpass including upgrading and extending Railway Street and Nagari Road and a new bridge over Woy Woy Creek at Bulls Hill. Current project funding is \$52 million.

Roads and Maritime Services has advised the total project cost estimate to replace the level crossing at Woy Woy could be up to \$115 million. This is based upon:

- Advice and design by Transport for NSW for work within the rail corridor
- Work associated with removing existing infrastructure at the level crossing
- Roadwork that Council would need to carry out to complete the project together with costs expended to date.

Benefits

- Removal of significant risk to rail corridor.
- Improved emergency evacuation route during natural disaster events.
- Improved vehicle access to Woy Woy and southern beach areas.
- Reduce commuter travel time.
- Improved access to Woy Woy waste facility for heavy vehicles.



What's needed?

State Government:

- A detailed corridor study to identify the impact of expected growth on traffic movements along the corridor and to prioritise potential road improvements.
- A financial contribution towards the cost of the improvements.
- Central Coast Council will work with Roads and Maritime Services to facilitate planning, funding and construction of the required improvements.

What's been done?

- Wyong Shire Council has completed preliminary investigations of the improvements that may be required.
- RMS has prepared a concept plan between the M1 and Pacific Highway.

REGIONAL ROADS & TRANSPORT

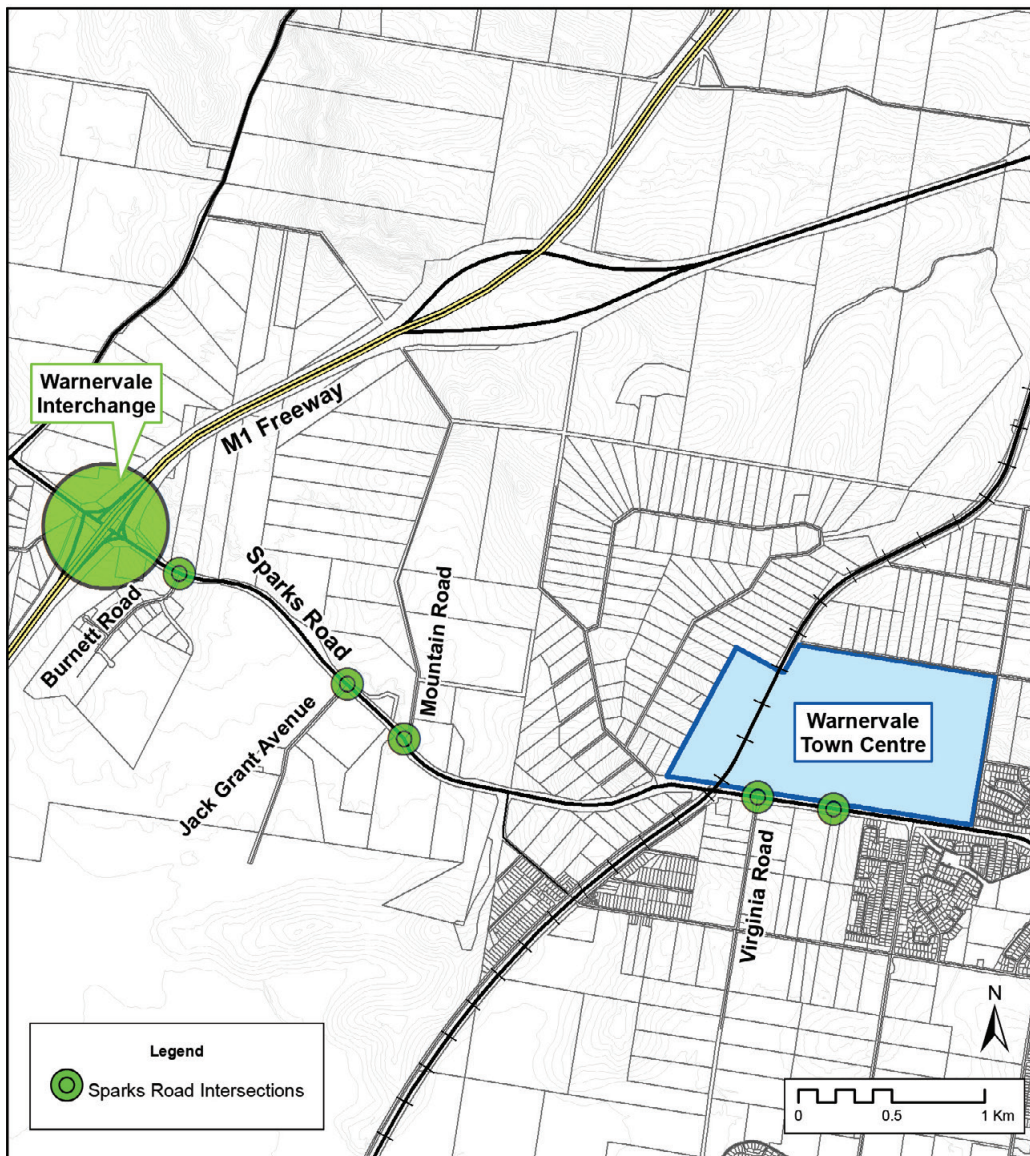
SPARKS ROAD IMPROVEMENT PLAN

Description

Sparks Road is a major road corridor in an area of expanding development, employment and business opportunities which has a major intersection with the M1 motorway. Strategic improvements will be required to Sparks Road and associated roads to facilitate growth in the Wyong Employment Zone (WEZ), the Warnervale Town Centre, Precinct 7A-Warnervale, the proposed Australian Chinese Theme Park and the developing Central Coast Airport.

RMS has prepared a Sparks Road Improvement Concept Plan that will enable upgrade priorities to be confirmed, identify costs and enable an implementation strategy to be developed. This work will be funded in part by a Special Infrastructure Contribution levied on new development by the NSW Government.

Preliminary investigations by Wyong Shire Council have identified that the various intersections along Sparks Road may need improvement with the aim of consolidating the number of intersection upgrades.



Description (cont.)

Wyong Shire Council has indicated improvements to Sparks Road may cost approximately \$40m, this amount will need to be confirmed in the preparation of the Improvement Plan. The M1 Productivity Improvement Package, which has been announced by Federal and State governments, includes widening of the M1 between Tuggerah and Doyalson. This project will consider any upgrade work required to the Warnervale interchange.

Benefits

- Stimulate new businesses and job creation.
- Reduce travel times for business and residents.
- Stimulate economic growth.
- Provide access to new residential and employment areas to accommodate population growth.



Key Issues

- Lack of adequate parking facilities at Ourimbah and Tuggerah railway stations.
- Lack of passenger lifts at both Ourimbah and Tuggerah railway stations to provide accessibility for disabled and elderly passengers.

Project Plan/Timelines

Commence negotiation.
Commencement of additional carparking and installation of lifts could be staged over three years if required.

Costs/budget

- \$10m to provide additional 250 space multi-level carpark at Tuggerah.
- This does not include land costs.
- \$2m funding to install lifts at Tuggerah and Ourimbah stations.

REGIONAL ROADS & TRANSPORT TUGGERAH & OURIMBAH RAILWAY STATION

Description

The Sydney and Newcastle rail line is a key link for travel with more than 7,500 people travelling by train daily to work in Sydney. Commuter carparks provide Central Coast residents with convenient and ready access to the rail network providing for ease of travel, especially for the 25% of Central Coast residents who commute outside the region.

Since 2014 the demand for parking at key transport interchanges such as Wyong, Ourimbah and Tuggerah stations has significantly exceeded capacity affecting a large number of Central Coast commuters who rely on rail transport on a daily basis. Tuggerah station is the main transport interchange in the Wyong and Tuggerah area servicing both car and bus travel.

The vision for Tuggerah station is to develop a Transport Orientated Development and commuter hub. In the shorter term the provision of commuter carparking infrastructure, the provision of lifts at Tuggerah station is essential to improve accessibility and improve commuter customer satisfaction.



What's needed?

Government:

- Some of the carparking is on Council land and some is on Transport for NSW's land. Council is seeking funding to construct carparks. Some land acquisition may be required.
- A commitment of funding to install lifts at Ourimbah and Tuggerah railway stations.

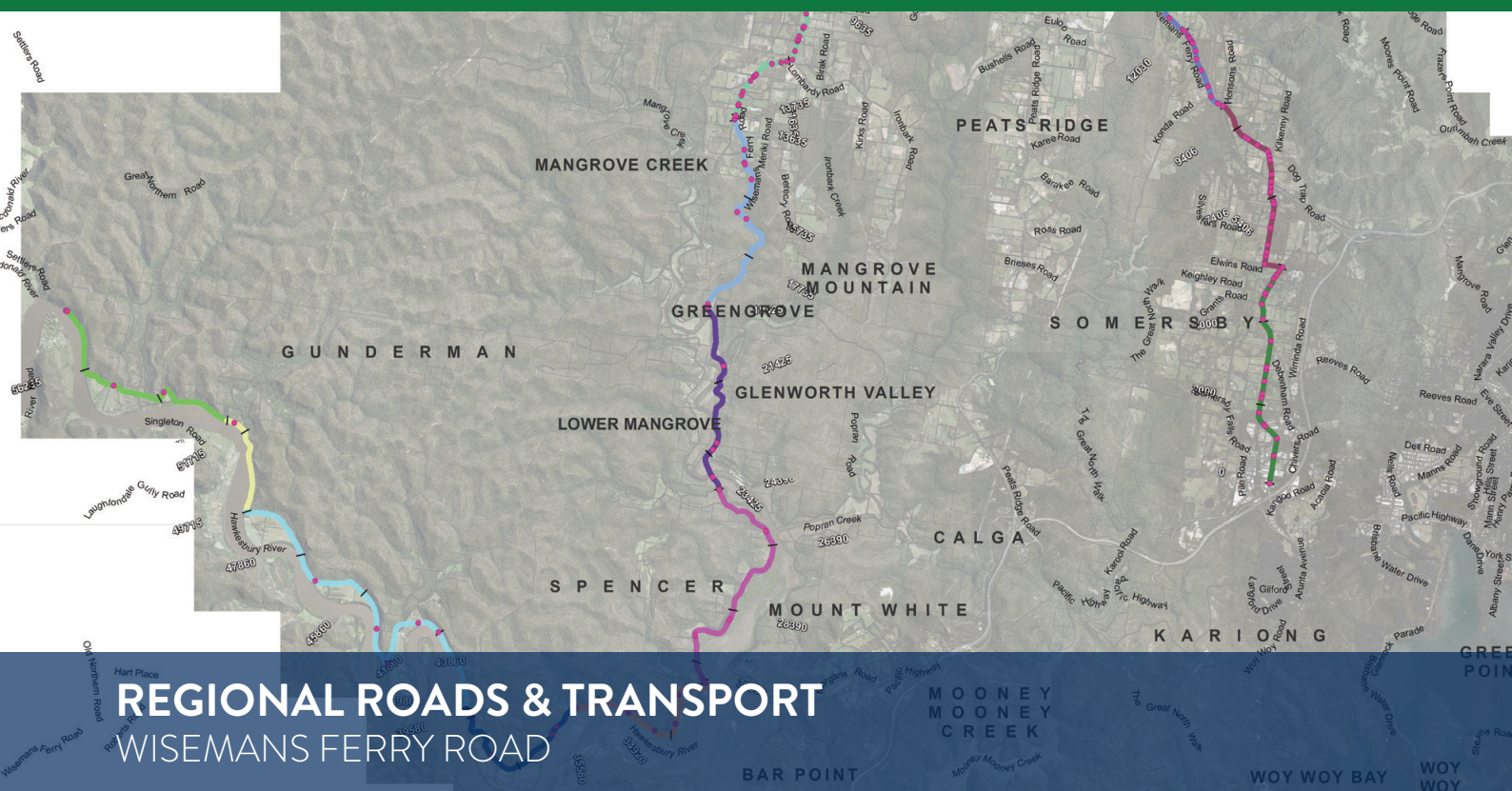
Benefits

Better availability of commuter carparking will assist in achieving a meaningful and sustainable shift to public transport for Central Coast commuters.

Reduced fuel costs and emissions through a shift in car based commuting trips to public transport.

Enhanced road safety through a reduction in the number of car based commuter trips on the M1 Pacific Motorway.

Appropriate access to public transport can help to address social exclusion amongst people with disability, those on low incomes and both younger and older people who are more likely to have some limits on their mobility.



REGIONAL ROADS & TRANSPORT

WISEMANS FERRY ROAD

What's needed?

Federal or State Government funding.

What's been done?

Safety Audit by GHD, 2011.

Tender documents for the full restoration of two travel lanes on Wisemans Ferry Road, Gunderman at both embankment failure sites WF44 and WF45 have been developed.

Description

Wisemans Ferry Road is a two lane road that connects M1 Pacific Motorway at Kariong to the ferry crossing over Hawkesbury River at Wisemans Ferry.

Apart from the Hawkesbury River Bridge on the M1 Pacific Motorway and the adjacent Pacific Highway Bridge, the Wisemans Ferry Road ferry crossing is the only other crossing point on the Hawkesbury River for vehicles. The total length of Wisemans Ferry Road is approx. 70km and includes 42 intersections.

In February 2012, two sections of road embankment failed on Wisemans Ferry Road at Gunderman. As a result of the high cost of reinstating the two travel lanes a semi-permanent closure of one lane at both sites is now in place.

Estimated costs for the repair of the failed sections of road to reopen two lanes of traffic is \$7 million. Major road reconstruction is needed along the 50km of the Wisemans Ferry Road with an estimated cost in excess of \$200 million.



REGIONAL ROADS & TRANSPORT

WOY WOY WHARF

What's needed?

State and Federal Government funding support.

Design approval from Roads and Maritime Services and the Office of Environment and Heritage.

Central Coast Council will assist by providing project development and project management resources. The Council will take full responsibility for ongoing maintenance requirements following commissioning. Central Coast Council is well placed to provide a multi-agency coordination role for concept and design, development and delivery of the project.

Description

Upgrading the Woy Woy wharf will provide an improved facility for recreational and commercial access to Brisbane Water. The wharf will be able to operate in all weather and tide conditions enabling water access for public and commercial users, including the local ferry service. Associated works to the adjacent road and pedestrian facilities will encourage safe and convenient access to the waterway from Woy Woy town centre and the local train station.

The new wharf facility is estimated to require an investment of \$4 million. Construction could commence within 6 months of funding approval with a construction period of approximately 6 months.

Benefits

- Improved commuter access across Brisbane Water to key public transport linkages.
- Economic benefits from commercial use of wharf facilities.
- Increased visitor numbers and accompanying economic growth resulting from improved tourism potential.
- Commercial opportunities created for land use adjacent to the new wharf facilities.
- Employment benefits during construction and flow on employment benefits from increased commercial usage of wharf and local businesses.



SPORT & CULTURE: VISITOR ECONOMY



SPORT & CULTURE: VISITOR ECONOMY

ADCOCK PARK REGIONAL SPORTS FACILITY REDEVELOPMENT

What's needed?

Federal or State Government funding for the construction.

What's been done?

Consultation has been undertaken with key stakeholders and the community which identified issues with existing infrastructure, traffic congestion, pedestrian safety and parking limitations.

Council, in conjunction with the key users of the facility and the community, have developed a Masterplan to guide the redevelopment of the reserve.

Description

The Adcock Park Regional Sports Facility Redevelopment aims to upgrade this regionally significant sporting facility to provide a higher quality, safer and more accessible facility. The proposed infrastructure improvements will not only support increased usage by regular formal and informal users of the reserve, but will also assist in drawing additional visitors through the ability to promote the venue for inter-regional and state level competitions thereby providing a direct economic benefit to the regional community through visitor spend.

The Adcock Park Regional Sports Facility Redevelopment will deliver the following, including items as detailed in the Adcock Park Masterplan:

- Demolition of three amenities buildings as required by Council's Building Audit
- Construction of multi-purpose clubhouse/amenities building (approx. 1020 sqm)
- Construction of additional carpark and off street car parking spaces (573 spaces)
- Upgrade of existing access roads (630 m)
- Relocation and re configuration of field (eight full sized touch football fields, one AFL field and three cricket fields).

Construction cost associated with the Adcock Park Regional Sports Facility Redevelopment totals \$4,016,400.



Benefits

The Adcock Park Regional Sports Facility Redevelopment will provide the many benefits for users of the site and the community as a whole. The redevelopment will create economic opportunity and employment through the direct injection of project funding into the local economy and subsequent increase of visitors to the region through sports tourism opportunities. Other benefits include:

Recreation

- Improved condition and availability of low cost recreational facilities for sporting groups and community use.
- Provision of purpose built infrastructure to support the increase in formal sporting participation across the area.
- Provision of designated facilities and areas for formalised socialisation opportunities.
- Provision of infrastructure allows for effective operation of training and competition and is attractive to event organisers.

Tourism/Economic

- Improved infrastructure to attract and support extensive use of the sporting facility for regional, state and national sporting events.
- Increased direct spend at the redeveloped facility providing additional income through booking fees and canteen/kiosk sales to provide additional income streams for sporting groups and facility maintenance.
- Increased indirect expenditure throughout the region through increased rates of visitation as a result of sporting events.

Access

- Improved pedestrian and bicycle access and safety within the sporting precinct
- Improved vehicular access and carparking.
- Provision of bus loading and drop off zone to assist with supporting school gala days and sporting events
- Improved circulation and reduced congestion.



SPORT & CULTURE: VISITOR ECONOMY

AVOCA BEACH FORESHORE

What's needed?

Federal or State Government funding for Stage 2 construction.

What's been done?

Central Coast Council has developed a Master Plan for the redevelopment of the reserve which was adopted by Council in 2012.

Business case and economic impact assessment has been completed in 2016.

Description

The iconic Avoca Beach Southern Foreshore is heavily used by the public, but is in poor condition and does not have the infrastructure required to support the level of utilisation. The vision of the project is to provide sustainable economic growth and local job opportunities.

Stage One of the project will be completed in the 2016/17 year with the embellishment of Hunter Park. Stage Two will deliver the following items as detailed in the Master Plan:

- Foreshore stabilisation and landscaping works
- Relocate storm water outlet to discharge beyond the rock pool
- Construction of extended pathways to improve pedestrian access and observation area
- Formalised stairs and seating to improve access and surveillance of rock pool
- Upgrade of the beach access ramp to allow for wheelchair access.

The project budget is \$2,115,200.

Benefits

The Avoca Beach Foreshore Redevelopment will provide the following benefits:

Economics

- New deck area will increase café capacity by 50 – 60 patrons, employing 2 more staff and extending business hours.
- Opportunity to host special events will increase local café business by 20%.
- Increased opportunity for events therefore increasing reserve hire income by 10%.
- Increased overnight stays through 5 Lands Walk/Tastes of Avoca weekend in July.

Access

- Improved beach access for a broad cross section of the community including accessible ramp and stairs with dual purpose access and seating.
- Improved pedestrian and cycle access around Avoca Beach Foreshore to encourage vehicle-free access.
- Improved access to the rock pool which is well utilised by young families.
- Improved capacity to facilitate special events.

Safety

- Improved safety through the provision of highly functional infrastructure.
- Provision of safe designated public space for passive use.
- Improved pedestrian safety through controlled vehicular access and formalisation of carparking in designated area away from high pedestrian thoroughfares.

Public Amenity

- Provision of infrastructure that meets identified community needs.
- Provision of infrastructure that creates ways for the community to engage with the natural environment/passive open space areas.
- Improved aesthetic value and functionality of the existing ageing foreshore stabilisation infrastructure.

Tourism

- Significantly improved foreshore facility that is better able to manage the high number of visitors to the area over peak holiday periods and weekends.
- Increased park furniture and ancillary facilities.
- Increased visitor appeal to the area through the provision of a functional, aesthetic place to visit capitalising on the natural resources of the area and coastal village feel.
- Improved accessibility for all abilities.

Environment

- Greatly improved stabilisation of the foreshore to address erosion and storm water issues.
- Provision of infrastructure that reduces human impact on the environment.

Community

- Increased access to Avoca Beach Foreshore reserve.
- Maximised foreshore greenspace.
- Greatly improved market position of Avoca Beach as a tourist destination.
- Provision of free, accessible passive recreation areas encouraging active lifestyles.

Aesthetic Value

- Greatly improved aesthetic value of the Avoca Beach Foreshore reserve.
- Seamless interaction between the built environment and natural environment.



SPORT & CULTURE: VISITOR ECONOMY

WINNEY BAY CLIFFTOP WALKWAY

What's needed?

Federal or State Government funding for construction.

Description

The Winney Bay Clifftop Walkway is part of the overall 5 Lands Coastal Walkway masterplan prepared by Central Coast Council.

These works seek to provide a permanent walking trail that connects the five coastal communities of Macmasters Beach, Copacabana, Avoca Beach, North Avoca and Terrigal.

A whale-themed bridge and lookout will be the jewel in the crown of the 5 Lands Coastal Pathway unlocking spectacular views. To improve the appeal to visitors the pathways include market stall platforms which would be available for public hire for events such as food tastings, destination weddings and festivals.

The scope of the project generally includes:

- Site preparation and bulk earth works
- 114m² steel feature viewing platform
- 22m long steel feature foot bridge
- Suspended steel walkways
- 4m x 4m wide concrete market stall platforms
- Mass sandstone retaining walls
- Approx. 300m x 3m wide trafficable concrete path and
- Approx. 700m x 1.8m to 2.4m wide shared concrete footpath

Detailed independent cost estimates have been prepared with the total budget \$5,169,998.



What's been done?

A business case outlining the benefits of the Winney Bay Clifftop Walkway has been developed and informed by the following background reports:

- The 5 Lands Coastal Walk masterplan
- Concept Masterplan, series drawings and plans
- A Flora and Fauna Report
- Aboriginal and Historical Archaeological and Cultural Heritage Assessment Report
- Geotechnical Assessment report
- Concept design cost estimate prepared by Muller Partnership (29 April 2016)

Benefits

The construction of the Winney Bay Clifftop Walkway aims to grow the physical capacity of the tourism infrastructure of the Central Coast and act as a catalyst for the continued development of a walking trail along our spectacular coastline. We believe that this project will contribute to the economic development of the Central Coast by providing infrastructure to encourage increased day trips and overnight stays with consequent visitor spending to the benefit of our community.

The economic effect on the Central Coast visitor economy is significant with a conservative estimate of 49,850 additional visitors resulting in \$4,837,444 of additional visitor spend per annum, with 67 additional Full-Time Equivalent (FTE) jobs created.



**REGIONAL
WATER SECURITY
& SEWER UPGRADES**



REGIONAL WATER SECURITY & SEWER UPGRADES

GOSFORD CBD TRUNK SEWER RELOCATION

What's needed?

State Government financial assistance is sought to fund relocation costs.

Central Coast Council will project manage the design and delivery of the sewer relocations.

In addition Council, through the implementation of Developer Services Plans, will bear the cost to increase the capacity of sewer pump stations and water supply systems within the Gosford CBD, at an estimated total cost of \$8.43 million.

What's been done?

Central Coast Council has completed preliminary design work.

Description

Existing trunk sewer mains within Gosford CBD need to be relocated to enable efficient and sustainable redevelopment to occur within the Regional City.

Gosford is the Regional City for the Central Coast. The CBD is able to accommodate significant redevelopment to build upon its central location, attractive setting, transport links and access to health, education and government services. However, development within the CBD is being constrained by the location of ageing trunk sewer infrastructure, the majority of which was constructed when the CBD consisted of residential development on small blocks of land.

As the CBD progressively developed, sewer mains were built over without consideration for potential future large scale development. As a consequence, large scale redevelopment over multiple parcels of land is being constrained by the need to maintain the sewer service upstream of proposed development sites.



Description (cont.)

It is intended to relocate approximately 885 metres of the trunk sewer system into road reserves to enable the CBD to develop in an efficient and environmentally sustainable manner.

The estimated cost is \$4.5m. The works would need to be undertaken outside business hours and be constrained by other utilities. Works would be undertaken within two years of receipt of funding.

Benefits

- New development will be fostered creating a stronger economic environment and employment.
- Improved land usage / large scale development.
- Maximise usage of existing utility infrastructure.
- Increase local employment opportunities and reduce the need for locals to commute for work.
- Improve the local economy.



REGIONAL WATER SECURITY & SEWER UPGRADES

MANGROVE CREEK DAM PROBABLE MAXIMUM FLOOD UPGRADE

What's needed?

State Government:

- Funding of \$6m for the project.
- Central Coast Council will undertake the management of the project.

What's been done?

A preliminary concept design has been developed by Council for the construction of a parapet wall and spillway.

Description

Construction of an upgraded spillway and parapet wall at the Mangrove Creek Dam (MCD) will increase water storage by 38,000ml and ensure dam safety.

Mangrove Creek Dam (MCD) is the key water storage for the Central Coast and with a capacity of 190,000ml, represents approximately 94% of the total storage capacity for the Central Coast. Revised flood analysis has identified that the dam cannot meet the current NSW Dam Safety Committee flood requirements for the Probable Maximum Flood (PMF). The dam is currently not permitted to be filled beyond 80% of capacity, as this allows a flood to be buffered in the airspace of the unfilled portion of the dam to an extent that the PMF can safely pass through the existing spillway.



Description (cont.)

Construction of a parapet wall and spillway improvements will allow the PMF to pass and increase capability storage to 100%. This will ensure the safety of the dam and the downstream community and provide an additional 38,000ml of storage, the equivalent of 15 months water supply.

Design and procurement will take 18 months with construction a further 9 months.

Benefits

- Increase water storage capacity of the Central Coast (15 months additional supply at current demand).
- Increase the ability to supply water to the Hunter under the Hunter Central Coast Pipeline agreement which is a key element of the State Government's Lower Hunter Water Plan.
- Greater utilisation of existing infrastructure and investments.
- Increased potential for enhanced environmental flows (enhanced environmental flow rules apply when total Central Coast storage levels exceed 60%).



REGIONAL WATER SECURITY & SEWER UPDATES

MARDI WATER TREATMENT PLANT, NATURAL ORGANIC MATERIAL REMOVAL

What's needed?

State Government funding for the project to a maximum of \$15m.

Central Coast Council will undertake the management of the project and fund any difference in the cost of the upgrade above funds provided by the State Government.

What's been done?

An Investigation and Options Analysis undertaken in early 2015 identified the need to construct additional settling tanks. Concept design of these works will be undertaken in 2016.

Description

An upgrade of the Mardi Water Treatment Plant is required to remove Natural Organic Material (NOM) from raw water sourced from local catchments.

The Mardi Plant provides approximately half of all treated water to the Central Coast and all water transferred to the Hunter from the Central Coast. The treatment plant was constructed in the early 1980s and is of the direct filtration type.

This type of treatment process has a limited capability to remove dissolved natural organic material from the raw water sourced from local catchments. Whilst dissolved NOM is not in itself a health issue for drinking water, it does impact on the ability to maintain residual chlorine in the reticulated water supply as the chlorine is readily consumed by the NOM.

NSW Health is progressively increasing its standards for the achievement and maintenance of minimum residual chlorine levels throughout the reticulation system, out to the extremities of the system.



Description (cont.)

The introduction of environmental flow requirements associated with Water Sharing Plans has resulted in reduced water extractions during low and medium river flows and a corresponding increase in high flow extractions. This has resulted in having to extract lower quality river water which contains more NOM and is also more difficult to treat with the current treatment facilities.

Whilst water from Mardi water treatment plant meets health requirements for residual chlorine levels (disinfection) on leaving the plant, it is soon consumed within the reticulation system. Council currently manages this by enhanced inspections and manual chlorine dosing.

It is estimated the necessary upgrade would cost approximately \$15M. Approvals, design and construction would typically take 3 years for an upgrade to a water treatment plant.

Benefits

- Better meet NSW Health expectations for residual chlorine and associated disinfection by-products.
- Achieve enhanced drinking water quality.
- Reduced potential for boiled water alerts
- Reduced risk of water contamination.



REGIONAL WATER SECURITY & SEWER UPGRADES

UNSERVICED DEVELOPMENT AREAS – SEWER, GOSFORD

What's needed?

Due to the significant cost associated with provision of reticulated sewerage systems, state government financial assistance is sought to fund the capital cost of the project.

Central Coast Council shall project manage the design and delivery of the reticulation systems.

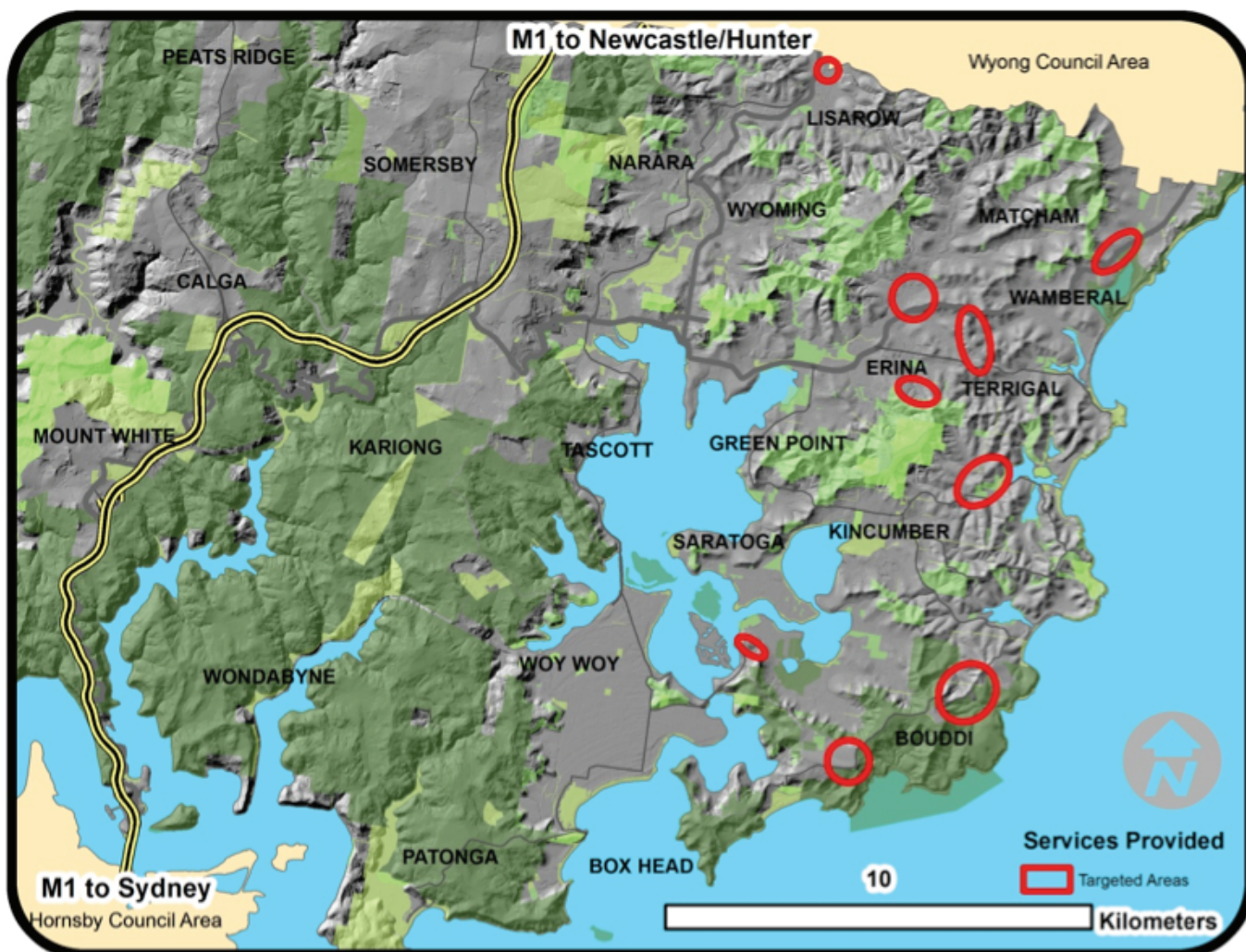
Description

Nine locations containing approximately 435 existing properties do not have reticulated sewer systems. The provision of sewer services would remove existing risks to the environment and replace costly on-site and pump-out systems.

The areas to be serviced are:

- Maitland Bay Drive, Killcare Heights
- Graham Drive, Macmasters Beach
- Scenic Drive, Avoca
- Tuggerah Street, Lisarow
- Central Coast Highway/ Serpentine Road/ (Terrigal Drive), Erina Heights
- Kings Avenue, Terrigal
- Arundel Road / Central Coast Highway, Erina Heights
- Central Coast Highway/ Tumby Road, Wamberal
- Empire Bay Drive, Daleys Point

The estimated capital cost to service these areas with a reticulated sewerage is approximately \$13 million. Works will be undertaken within three years of receipt of funding. The cost of internal works within each property shall be borne by the respective owners of serviced properties.



Benefits

- Improve environmental outcomes.
- Increase local development opportunities.
- Cost benefit to consumer.



EDUCATION

Project/Timelines

- The SMARTS Hub to be the first stage, followed by the university and retail spaces.
- 2016 – The Masterplan has been submitted to Department of Planning and Environment for gateway approval.
- 2016 – Conclude agreement with university partner.
- 2017 – Commencement of the SMARTS Hub.
- Link Road can occur concurrently with any stage of the development, but will be required prior to the Integrated Business Park.

What's needed?

- University and Education Infrastructure: \$240m (500 operational jobs). Initial Phase-\$100m funding.
- SMARTS Hub knowledge and community centre: \$10m funding.

Future stages: Student Accommodation, 1,500 units: \$200m.

EDUCATION

CENTRAL COAST UNIVERSITY AT WARNERVILLE
/ SMARTS HUB AT CENTRAL COAST UNIVERSITY

Description

There is currently only one tertiary campus with limited courses on the NSW Central Coast. The proposed Central Coast world class campus would cater for 7,000 students and create 500 permanent jobs and include a SMARTS Hub knowledge and community centre for students and the broader community to assist in developing their skills, supporting employment and business initiatives and making connections.

The strategically integrated Business Park on the site will foster development of strong links with local industry and the potential for a further 1,000 jobs. The site would be located along the Link Road and train line to support access.



Key Issues

- Interest received from several national universities.
- Cost and staging of infrastructure including the upgrade of Link Road, as well as water, sewer and electricity to support the development.
- Gaining endorsement/support from relevant statutory/government bodies.
- Securing private investment.

Benefits

The Warnervale Education and Business Precinct will be the first integrated educational hub in a regional area which suffers from significant social disadvantage.

It will bring jobs and investment into the Wyong area and support increasing education levels in our community.

It will provide a much needed extra tertiary education facility to service 800,000 current residents of the greater Central Coast and Hunter regions and cater for 260,000 people expected to move to the area over the next 18 years.

Attracting a university to the north of Wyong will provide broader tertiary education courses and provide the Central Coast with its own university.

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This brochure has been produced by
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Additional information can be found at: www.rdacc.org.au/InfrastructurePriorities

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