

5 MASTER PLAN RESPONSE



5 Master Plan Response

The Master Plan responds to a detailed assessment of opportunities and constraints and past studies that remain very valid in many ways.

Many of the recommendations of the previous FMP and 2014 Master Plan can be drawn through into this plan, albeit with some modern interpretation based on recent community feedback and minor amendments.

This section describes the approach being considered in recognition of the proposed role of Coogee Beach and following six design principles, as follows:

- Encourage a healthier environment;
- Integrate uses and places of significance;
- Respond to coastal hazards;
- Prioritise people;
- Reduce the impact of traffic; and
- A local and natural sense of place.

5.1 The Role of Coogee Beach

Coogee Beach is loved for its low-key, natural experience. A majority of participants prefer to recognise Coogee Beach as a district node; a place of natural environmental value and a local family destination. This is somewhat at odds with its existing visitation base and the facilities and amenities already available, which are typical of regional nodes.

Many in the community recognised this and acknowledged that the facilities and amenities could be upgraded, albeit remain in a similar style, and most definitely not a highly urbanised, paved and developed foreshore.

In discussion through engagement, it is clear that it is the existing character of the place that is valued. That character is a place of recreation value, natural, intimate, shady, low cost and with many places and spaces to gather. Notwithstanding, the community also strongly desire the area to be made safer, more accessible and provide more on offer for young people and families once there.

An assessment of coastal nodes in the region identified Coogee Beach as being one of the most well serviced locations between Fremantle and Rockingham. Despite coastal concerns, Coogee Beach also has the flexibility to grow and improve over time.

For this reason, the Land Use Master Plan identifies Coogee Beach as a place that shall be **designed and planned as a Regional Coastal Node with a distinctive and memorable ‘District’ feel and character.**

The design should ensure a celebration of the historical stories of the past and embed principles of connection, conservation, recreation and relaxation. Coogee Beach will be a natural, low scale, low-key environment, welcoming to all ages and abilities.

5.2 Encourage a Healthier Environment

The natural environment underpins the community's love of Coogee Beach and is an essential part of the character of the precinct. Although the landscaped elements of the foreshore are most well used, the dunal vegetation and scrub is as much a part of Coogee Beach as the Norfolk pines and grassed areas.

However, a review of existing conditions and future constraints has identified a number of measures that should underpin the Master Plan, and that will contribute to the overall amenity of the study area. This includes drainage and vegetation improvements and careful consideration of the site from a bush fire management perspective.

Section 5.2.1 to Section 5.2.4 describe the proposed Master Plan approach to encourage a healthier environment.

Table 5 provides a summary of the actions and implications including funding, resources and multi-Action synergies.

5.2.1 Rationalisation of assets and walking paths in the dunes

Whilst access to the foreshore is a non-negotiable for Coogee Beach, dune vegetation encourages retention of sand along the shoreline and has the effect of mitigating against storm events to some extent. Retaining and cohesive vegetated dune system is encouraged where erosion is present and likely to increase.

For this reason, the FMP recommends a number of actions to improve dune health.

This includes the closure of several beach tracks, as beach tracks can interrupt natural vegetation growth even when fenced.

Four beach tracks were recommended for closure in the FMP (Table 6-1) and shown in *Figure 20*, and this recommendation is followed through in this Master Plan:

- Track 5 (centre of northern car park);
- Track 7 (access to beach from recreation area);
- Track 10 (Discovery Parks Coogee Beach North); and
- Track 13 (Small walking track from CBICF).

Any of these tracks could be closed immediately, as they are very close to nearby access points, however, Track 5 is within 25 metres of its nearest track and the Track 13 is within 45m of its nearest access point and near to the main access point for the SLSC which is an easier point of access and is also in a location that is in great need of dune repair.

Track 7 and 10 should also be considered for closure in the short term. It would be fortuitous to close track 10 during construction of the new caravan park cabins, when other disruption is likely to force behaviour change within the park.

It is recommended that the dune edge fencing be maintained in good order, and bolstered through additional fencing wires between uprights or a constructing a low wall to limit the movement of people through the dunes.

Shade cloth or brush fencing should also be considered on the beach front side of the dunes, to discourage beach goers from finding nooks within the dune to avoid wind. It is, however, recognised that such fencing is high maintenance, and so it is recommended that this occur in tandem with a strong communication and education program, helping the community to understand the need to stay off the dunes.

5.2.2 Minimising disruption to existing local vegetation

The vast majority of the study area comprises very high quality native vegetation, some of which is believed to be original (endemic - not planted). Where non native or planted vegetation exists, that too is of high quality, with the exception of some ageing trees in the northern part of the foreshore near the Powell Road access.

The Master Plan does not propose to remove trees if at all possible. In the few cases where it may be necessary, trees can be planted in the short term to provide new canopy well in advance of the proposed removal.

Minor areas of clearing are proposed to support access arrangements in the southern part of the study area, although much of the proposed area is already partially cleared.

In addition, it is recommended that additional vegetation be planted along the toe of the dune system (land side) to bolster the existing dunes and prepare for increasing damage associated with coastal hazards.

Increased planting of larger trees is proposed in the short term, although more dense vegetation is recommended in the longer term in association with the removal of some infrastructure at the end of design life.

It is further recommended that all car parking areas be provided with additional tree planting, recognising that adequate lighting for safety also needs to be considered.

Retention of Railway Reserve vegetation

In the 2014 Master Plan, and in the FMP, a recommendation was made and then actioned for the City to create additional reserve land through transfer of Unallocated Crown Land adjacent to Cockburn Road. The land was previously identified as Railways Reserve, is heavily vegetated, and provides an excellent screen to the Cockburn Road edge of the Foreshore.

This has been complete and is now vested in the City. However, it is the intention of this Master Plan to seek to retain this area for ecological functions, and avoid any clearing of this area if possible.

5.2.3 Responding to the needs for bushfire zone management

The bush fire hazard levels within the study area are relatively high, owing to the substantial vegetation throughout. The cafe and caravan park are impacted by lower levels of bush fire risk, and adjacent Coogee Common has some hazard risk in proximity. The SLSC is also impacted.

The Land Use Master Plan proposes to increase vegetation throughout the foreshore, which will require a considered approach to bushfire management, including proper access to exit points both north and south. For this reason, it is recommended that the caravan park provide a formal access point from the lease area going both north and south of the park, and that all residents be informed of emergency exits during check in.

The future location of the Cafe is likely to be in an area of reduced risk from the current location. Nevertheless, it is recommended that the bush fire risk be determined upon construction and appropriate design measures taken, including suitable water pressure for fire fighting.

Other minor infrastructure should be at acceptable risk levels.

NB: a Bush Fire Risk Assessment and Management Plan will be completed for the final Master Plan.

5.2.4 Creating larger pockets of vegetation in the north

The long term development of the Coogee Beach foreshore provides a ideal opportunity to increase vegetation in the northern area and generally improve overall ecological health of the reserve.

The existing northern car park is located within the coastal hazard zone and it is recommended for retreat in the FMP. It is also an unusual shape and inefficient for achieving parking.

This Master Plan reflects the FMP recommendation in the medium to long term, suggesting that parking areas will be consolidated further away from the dunes by the middle of the century. The longer term removal of the car park, likely staged from west to east, provides an opportunity for gradual increase in parkland and planting east of the dunes, and a reconsideration of the existing weed infested drainage area which abuts Cockburn Road.

This can be commenced in the short term, as the existing cross section can be improved to make way for both dune edge planting and a new coastal path linking to Perlente View.

In the longer term it is anticipated that additional parking will be provided in the foreshore south of the Powell Road access, and informal overflow parking will be secured. A detailed landscape plan will be required to layout grassed areas, planting, drainage and play infrastructure, which may also include nature play.

Table 5 Master Plan Responses for Encouraging a Healthier Environment

	Action	Implications	Time
HE1	Close Track 5 & 7	Following broad communication of proposal, remove of existing fences and program of planting and revegetation of dune system to replenish denuded dune areas. Seek grant funding for planting and partner with local coast care groups.	S
HE2	Close Track 10 during construction of new caravan park cabins.		S
HE3	Close Track 7 within 10 years		S-M
HE4	Dune edge fencing or low wall (land side and beach side)	Add fencing or wall to asset management program and deliver at replacement of current assets. Seek grant funding for assets if required.	S-M
HE5	Educational signage, wayfinding strategy and communication program in alignment with the broader Woodman Point area	Prepare a wayfinding and signage layout strategy and prepare a suite of educational signage regarding importance of dune vegetation and keeping off the dunes. Partner with DBCA and local coast care groups.	S
HE6	Prepare a 10 year program of planting	Deliver planting program, including new trees at the toe of the dunes, to car parks, along Cockburn Road and adjacent to future access routes and pathways, where trees will be removed. Implementation as part of normal park management. Renew after 10 years.	O
HE7	Design any new buildings in accordance with the Bush Fire Management Plan	Design per the Bush Fire Management Plan. Ensure lease provisions adequately advise potential lessees of requirements.	O
HE8	Ensure caravan park has adequate emergency exit routes	Ensure exit points both north and south during development assessment and in partnership with lessee.	S
HE9	Prepare a landscape plan for the long term relocation of the northern car park	Prepare a detailed landscape and staging plan including development of new pathways, drainage and parkland. Seek grant funding for upgrades.	M

HE = Healthy Environment

S = Short Term (0-10yrs) M = Medium Term (10-25 yrs) L = Long term (25-50 yrs) O = Ongoing/as required

5.3 Integrate Uses and Places of Significance

Coogee Beach has a rich history and a dedicated long term community. Its character is embedded in that history, but links and references are limited on site and can be much improved.

Section 5.3.1 to Section 5.3.4 describe the proposed Master Plan approach to encourage integrating uses and places of significance.

Table 6 provides a summary of the actions and implications including funding, resources and multi-Action synergies.

5.3.1 Creating a welcoming space

Coogee Beach is a family destination that is open and accessible to all people without limitation. However, there is little to reference the pre-colony experience of the area, and it is recommended that the Master Plan integrate stories and knowledge about Aboriginal history.

In addition, it is recognised that a broader story of the history of the site since colonisation, including links between the jetty and Coogee Common, reflecting the long term festival nature of the area and acknowledging the industrial past could be told to new visitors.

It is recommended that a welcome area with education signage be included in the study area, in the northern area close to the primary access location. Further, this could be enhanced by a yarning circle, should ongoing engagement identify an appropriate site.

Further, the medium term modifications to the cafe and access area provides an opportunity to improve visual and physical connectivity to the Coogee Common and old Limestone Kilns on the eastern side of Cockburn Road.

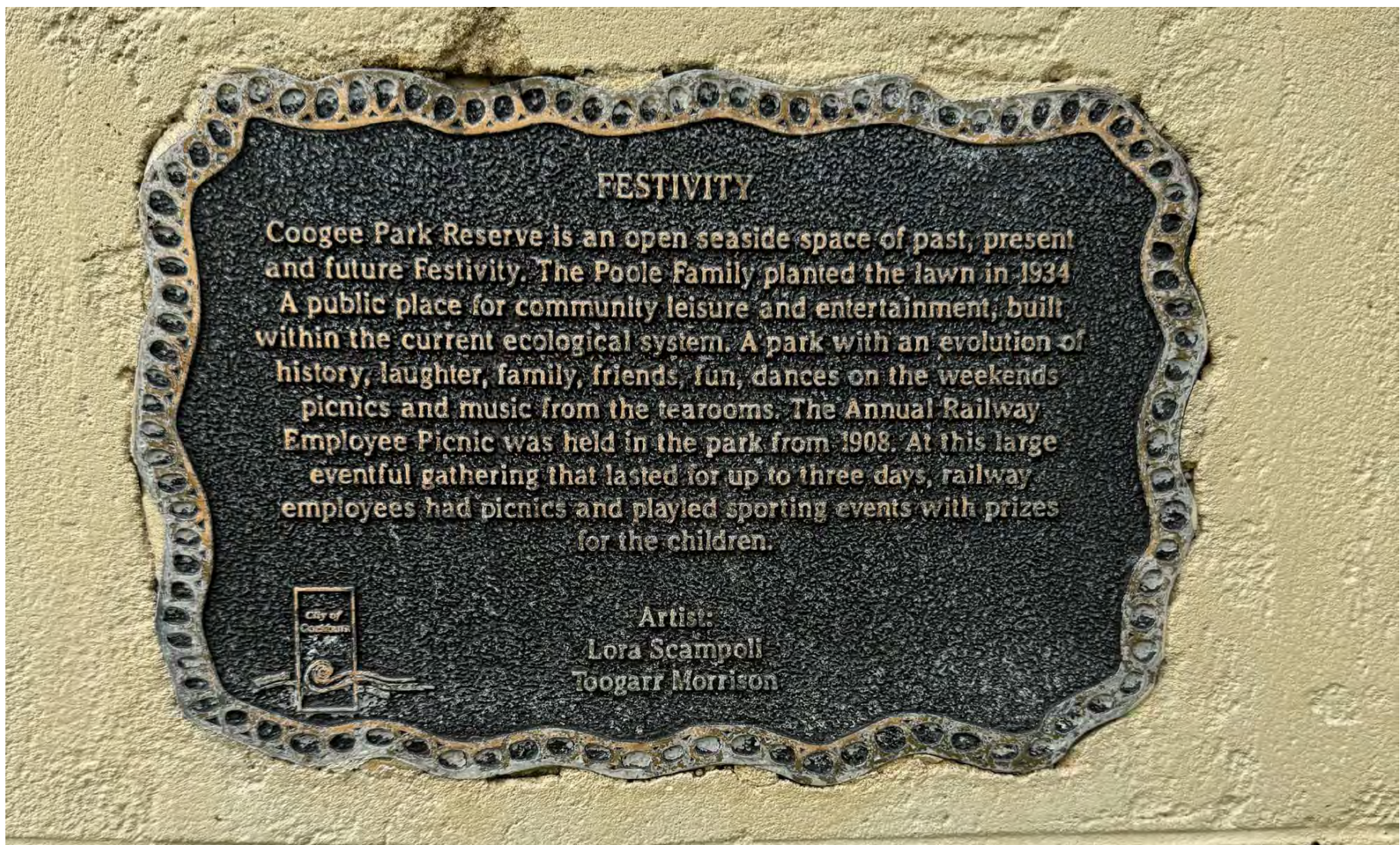
This includes better orientation of sight lines across the road and improved pedestrian access. A new signalised crossing near Coogee Common will facilitate this immediately, but is also recommended that additional median refuge islands be installed on Cockburn Road near the kilns so that direct access is provided and is safe. Bus stops are also proposed to be relocated to support these connections.

5.3.2 Centralising key functions at gathering places

The FMP identified a number of structures that would be located in the coastal hazard area within the next 30-50 years and recommended retreat of the structures. This includes ageing infrastructure such as the café and toilet block, both of which are identified as inadequate by the community.

The Master Plan provides the opportunity to locate these structures out of the coastal hazard zone and in areas where they are more central to the core use of the foreshore.

The café has reached the end of its design life as a building, and required replacement. Given its location is identified as at risk, it is pertinent to identify a new location and consider long term design for it.



The café is proposed further away from the coast than its current location, in an improved location for sight lines and access, and with more capacity for consolidation of key functions such as toilets and showers.

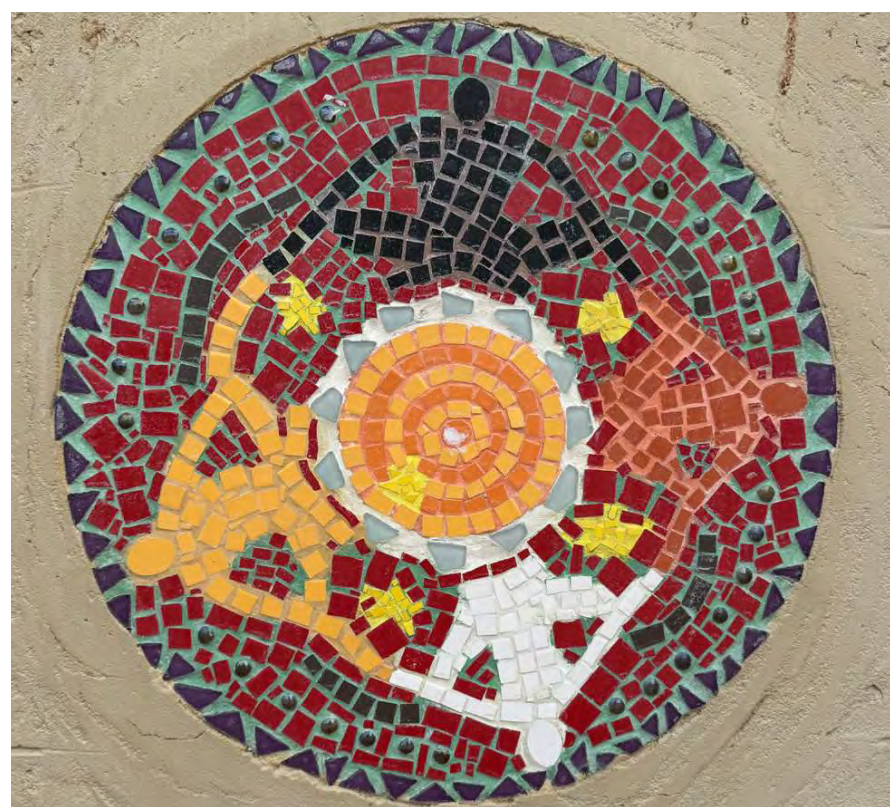
A new building could facilitate new toilets and showers, change rooms, café and deli functions as well as a second storey viewing area for alfresco eating with views to the jetty.

A lease to a café vendor may also include an opportunity for shared construction costs, if lease conditions are suitable.

This central hub in the north should include bicycling facilities and enhanced parkland and play spaces alongside an opportunity for all-abilities changing places and other potential pop-up foreshore functions.

It is assumed that the central area would enable events to continue to occur in the foreshore, including through the provision of suitable power supply.

At the end of design life for shelters and tables in the foreshore, relocate these facilities to support the new central hub.



5.3.3 Providing a regional level of foreshore amenity

The Coogee Beach foreshore area comprises substantial infrastructure and attracts regional visitation. However, it is apparent that ageing infrastructure and the absence of some key functions detracts from the foreshore experience.

The renewal of both the café and the caravan park will improve this somewhat over the next 10-15 years, however, the service offering of both cafés on site (north and south), as well as the function facilities at the SLSC and the integration of the caravan park should be considered as part of a cohesive plan for activating the foreshore area in a way that adheres to the overall philosophy of a regional facility with a local character.

This will require improved disability access to the beach and into the foreshore area, including better access to the beach and greater availability of ACROD parking bays.

This also includes an improved aesthetic for the SLSC which is unwelcoming and hard to navigate into and through, and greater levels of access through the caravan park as it is redeveloped through formal pathways connecting to broader path and transport networks.

Other improvements have already been identified, such as improved playgrounds, updated toilet and shower facilities, and better paths and connections through the site. The safe swimming barrier and swimming pontoons are proposed to be maintained over time as required.

Greater connectivity would also be desirable outside of the study area, with obvious connections to Len McTaggart Park and the Coogee Community Hall to support reciprocal youth and community activation of the foreshore.

5.3.4 Link the caravan park and Surf Life Saving Club

The lack of connectivity between the SLSC and the northern park land is obvious, and earlier recommendations provide for a suitable solution. However, the close physical link between the SLSC and the caravan park is not taken advantage of, and the boundary of the caravan park to the south is in need of improvement.

The Master Plan suggests the caravan park take advantage of its upcoming redevelopment, and its need for a separate exit for bush fire management purposes, to formalise the southern access point in the short term through the existing car park.

In the long term, the Land Use Master Plan strongly encourages the caravan park to consider a long term reorientation of the caravan park main point of entry to the south. This outcome would have the effect of removing conflicts between caravan park uses and children families in the north and creating much stronger ties to the SLSC function centre and adjoining cafe. This could encourage expansion of the southern offer on site, as the SLSC is the only licensed operator in the study area.

Table 6 Master Plan Responses for Integrating Uses and Places of Significance

	Action	Implications	Time
PS1	Prepare educational signage and wayfinding strategy	See Implications at HE5. Reflect local history including Aboriginal stories and more recent history, food, recreation and cultural stories of the site.	S
PS2	Seek expressions of interest for a café operator and potential construction partner	City to undertake project planning and budgeting for investment in the central activity hub (café etc) and thereafter seek expressions of interest. Ensure lease conditions allow for other pop-up activities (not linked to operator). May require detailed design of a facility and grant funding to deliver.	S
PS3	Introduce bicycle racks	Seek grant funding for bicycle infrastructure in line with Long Term Cycle Network planning.	S
PS4	Replace playground and recreation facilities at end of design life	Add playground and exercise equipment to asset management program and replace current assets within new activity hub when replacement required. Seek grant funding for assets if required.	M
PS5	Encourage ongoing renewal of the caravan park	Lease conditions and negotiations to improve the overall amenity of the foreshore. Includes negotiations by the lessee with long term caravan park site owners.	S
PS6	Upgrade landscape surrounding the SLSC facility for improved amenity and wayfinding	Undertake a community based place making activation in liaison with the SLSC, cafe tenant, caravan park, Coogee Beach Progress Association and others to provide a much needed facelift for the SLSC facility.	S
PS7	Improve pathways to nearby facilities	Progressively upgrade or introduce pathways between the foreshore, Coogee Common, the kilns, Len McTaggart Park and Coogee Community Hall.	M
PS8	Formalise the southern exit point at the caravan park	Upgrade the current access point and prepare a plan for long term reorientation of the caravan park main access to the south including more formal access point near the SLSC and new road access loop.	S-M

PS = Places of Significance

S = Short Term (0-10yrs) M = Medium Term (10-25 yrs) L = Long term (25-50 yrs) O = Ongoing/as required

5.4 Respond to Coastal Hazards

The Master Plan proposes a series of interventions to improve the natural environmental capacity to protect the foreshore from coastal hazards, as well as a number of managed actions to remove assets from harm.

The majority of assets will naturally reach the end of design life before being impacted by coastal hazards, and can thus be removed/relocated in a sustainable and cost effective manner.

However, there are a number of significant assets that require careful relocation.

Section 5.4.1 to Section 5.4.3 describe the proposed Master Plan approach to encourage response to coastal hazards.

Table 7 provides a summary of the actions and implications including funding, resources and multi-Action synergies

5.4.1 Upgrading infrastructure in a staged manner

By 2040 some assets within the reserve are at high risk and the primary response is to effect a managed retreat of assets over time as they reach end of life.

Monitoring of the shoreline recession, as identified in the CAP, will identify how soon or how long some of the assets have before becoming vulnerable at a level that is intolerable. Whilst beach nourishment and dune management and revegetation is also proposed, planning will need to commence for the relocation of shelters and picnic tables, showers and some of the existing public artworks (limestone columns) on site.

For all minor infrastructure, such as shelters, seating and exercise equipment near the dunes, it is recommended that an increased setback from the toe of the dunes be implemented in conjunction with the previously recommended toe revegetation and planting (Action HE6).

Assets placed close to the dune could be of more natural materials and provide natural barriers to discourage people from walking across the dunes.

Over the next 10 years, it is also recommended that improved signage be placed throughout the site to educate the community on the long term plans for coastal retreat (see also Actions HE5 and PS1).

5.4.2 Using the opportunity to plan for best use and layout of the site

Major infrastructure is also at risk and requires relocation over the long term. The Master Plan is an opportunity to relocate significant assets to improved locations and designed to withstand the coastal environment over the longer term. The proposed approach is consistent with the recommendations of the CAP and the FMP.

Northern Hub Redevelopment

As has been noted previously, the café is proposed to be relocated. It is currently at the end of its design life and Action PS2 recommends renewal of the facility in a location outside of the long term hazard zone.

It is recommended that the design of the building include or be co-located with new toilet, shower and change facilities, as these are also in the hazard zone and vulnerable in a short-medium time frame.

A new playground can also be located in conjunction with this area, when the current playground reaches the end of its design life (Action PS4). Action PS3 suggests the inclusion of bicycle infrastructure, which would be ideally located alongside the new hub.

It will be important to design this new activity hub so that elements can be added as they reach the end of their design life in existing locations, whilst not affecting existing functions that do not need to be upgraded in the short term. This may include staging such as:

- Immediate term re-routing of access point to caravan park (*Figure 29*) to introduce changes for foreshore users to get familiar with. This can be trialled in the short term using water filled barriers with only very minor amendments to the existing central car park area and no loss of bays.
- Relocation of playground facility to existing café surrounds (*Figure 30*).
- Provide ‘Changing Places’ facility in existing café surrounds (can be a temporary facility or permanent) (*Figure 30*).
- Modification of beach access point to align with new Cockburn Road crossing point (*Figure 31*), and re-use of limestone retaining walls from planters.



Figure 29 Modified access to caravan park



Figure 30 Playground relocation and changing places facility



Figure 31 Modified beach access and pathway

- Modify road layout to suit ultimate design and ensure adequate space for activity hub (*Figure 32*). Include zebra or wombat pedestrian crossings in high movement areas (especially new beach access pathway to Cockburn Road).
- Convert tennis courts to parking (approximately 42 bays) and close 30 bays adjacent to new activity hub for construction laydown and continued circulation (*Figure 33*).
- Development of new activity hub including café, toilet, showers and changerooms. Construct new ACROD bays in proximity. Upgrades or minor relocation of services during construction (if required) (*Figure 34*). The café is envisaged as a ground floor with amenities to one side and café/delicatessen to the other with a walkway through to the beach between. The upper floor is proposed as an alfresco area and viewing deck, provide shade and shelter to the walkway below.
- Formalisation of parking and access roads following activity hub construction.
- Demolition of café and replace with parkland and revegetation.
- Full renewal of playground at end of life in agreed location

As noted, retaining walls currently used to bound the planted areas along the path to the beach can be repurposed and used as new path edge treatment, dune edge treatment, rustic seating or as part of modified parking and access ways to reduce parking on verges in the foreshore.



Figure 32 Modify road layout to support ultimate



Figure 33 Car park development followed by existing car park closure

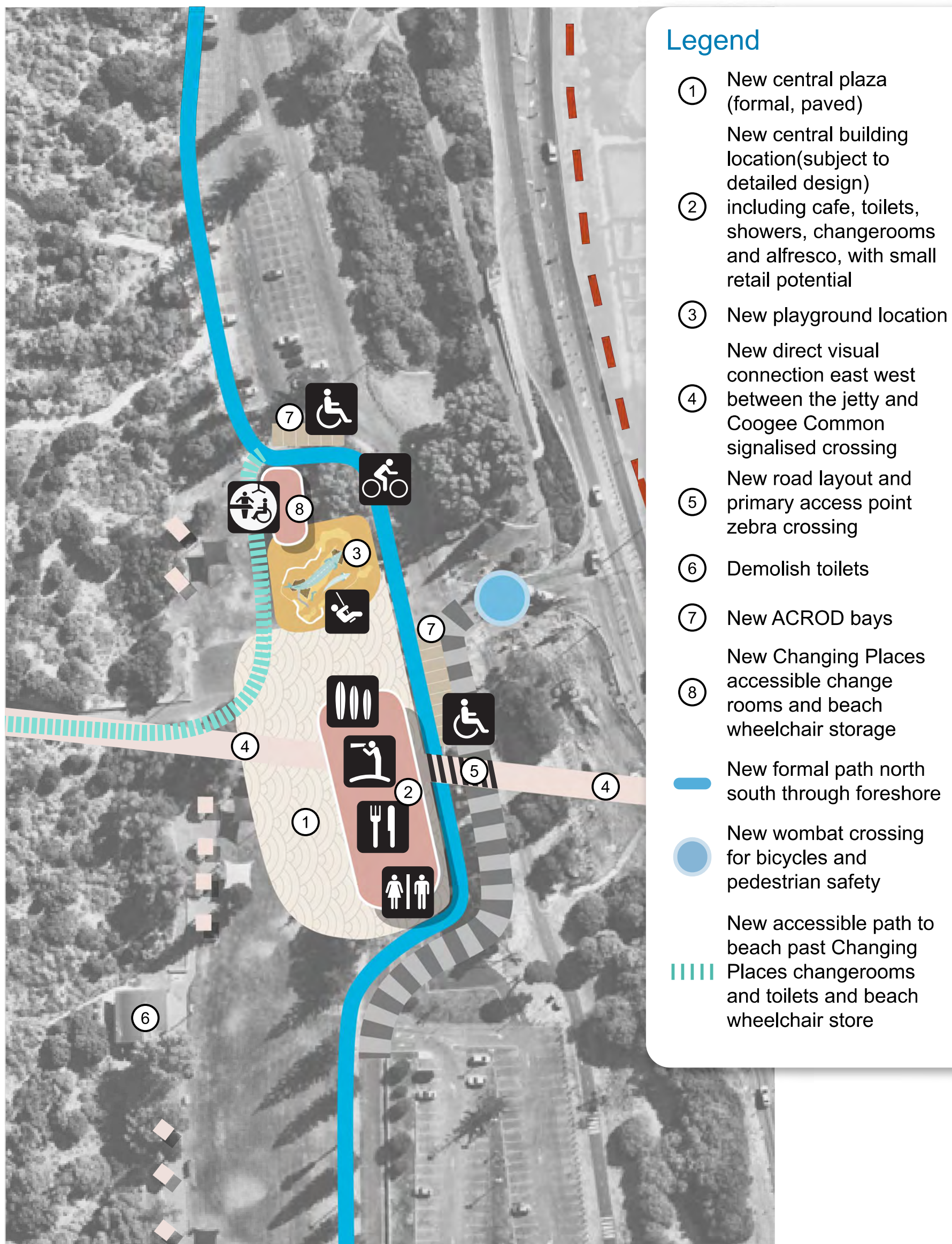


Figure 34 New northern activity hub concept

Northern car park

The car park north of Powell Road is an odd shape and as a result is a challenge to navigate. It's two entry points contribute to an overall confusion for new users. Bicyclists and pedestrians have no formal pathway and there are resultant conflicts. In addition, the car park is likely to be impacted by coastal hazards by the middle of the century.

The Master Plan provides the opportunity to re imagine this space whilst also considering the long term parking needs of the precinct. There are currently 119 bays in this location, which are often fully used. As noted in the previous section, the northern activity hub area can be redeveloped with a net increase of parking capacity over time, although this is likely to only be in the order of an additional 25-30 bays including new ACROD and short term drop off bays.

The Master Plan recommends slowly retreating from the dunes as overall parking in the northern area is consolidated, designs improved, and current overflow parking is more formalised over time. Improved line marking and a slight modification of the landscaped edge in the area could allow for the dune edge car bays to be relocated in the short term for a net balance of bays in the area (see example layout modifications in *Figure 35*).

This would enable the provision of improved path network for bicyclists and pedestrians and allow for new revegetation at the toe of the dunes as per Action HE6.

This action is not urgent, and can be taken as the asset required maintenance, upgrade or new line marking.

Additional bays will remain available in overflow parking areas, and it is intended these are better managed for peak usage. It is noted that the majority of these are on the eastern verge of Cockburn Road.



Figure 35 Concept for short term car park retreat

SLSC and carpark

The SLSC is located immediately adjacent to the shoreline, which is typical of surf clubs. However, the proximity to the coast and the predicted coastal hazards are likely to directly impact the functionality of the surf club over time.

This may include inundation from the coast during high seas which may impact the lower floor storage and vehicle parking area in addition to expected loss of dunes immediately in front of the club, exposing the retaining structures.

Whilst it is possible to protect the surf club, this should be carefully weighed up against the impacts that protect options such as seawalls may have on adjacent shoreline; where the likely impact to adjacent shorelines is increased erosion (referred to as terminal scour).

Protecting the whole Coogee Beach shoreline is also not recommended, as the outcome of hard structures such as seawalls or groynes along the length of the beach will have a significant negative impact on the enjoyment of the beach as it is currently valued by users. The foreshore also has substantial capacity for retreat, and for this reason, the CAP and FMP suggest longer term relocation of the SLSC and integrated community facility.

Notwithstanding, the SLSC facility is a new facility, and is estimated to have some 30-50 years worth of building life remaining. This falls generally outside of the time frame of the Master Plan, however, does not preclude good planning.

The long term proposal for the SLSC is for managed retreat at the end of the building design life. Whilst the SLSC is surrounded by excellent quality and valuable natural vegetation, there are some obvious locations within the local environment that would be suited for the long term location of the SLSC; being the two nearby car parks already fully developed.

The immediate car park adjacent to the foreshore is the most suitable, as it will still provide proximity to the water for necessary SLSC patrol functions, but allow for the necessary retreat (see *Figure 36*). Design will need to consider ongoing coastal hazard adaptation to avoid the current situation from repeating.

The loss of car parking in the vicinity of the SLSC may seem untenable at the current time, given the demand already existing on peak days. However, by the time the relocation is proposed it is likely that travel types will have changed, and adequate overflow parking will be formalised, so that the loss of parking will be compensated.

The SLSC relocation is proposed in the context of other proposed actions from this Master Plan, including HE6 (revegetation), HE9 & PS8 (caravan park southern access) and PS6 (landscape improvements). In the short term, the conceptual layout proposed in this plan should guide infrastructure upgrades.

In the longer term, an overall detailed design plan is required (approximately 20 year timeframe), so that any infrastructure upgrades proposed in the medium term are located to avoid any long term conflicts.

Caravan and Holiday Park Consolidation

As noted in Section 5.2.2, the FMP previously suggested the expansion of the caravan park into the Railways Reserve to account for retreat plans on the western (coastal) side of the site.

However, investigations as part of this Master Plan suggest the area in question is of very high ecological quality and is also bush fire prone. At this stage the operator does not proposed to expand into the area, and this plan recommends against the expansion proposal.

Instead, this plan suggests that the caravan park consolidate holiday accommodation through the use of two storey accommodation facilities at the eastern edge of the site and ongoing redevelopment of transportable accommodation on the western edge. Transportable accommodation on the western edge is currently being proposed by the operator.

Further, it is suggested that additional revegetation of the dunes and closure of some paths in front of the caravan park be progressed, in line with Actions HE1 & HE2 (paths), HE4 (fencing) and HE6 (planting).

Any redevelopment of the caravan park should be done considering access and exit arrangements to the south (Action PS8) and new paths and planting. Some consideration of paths east-west through the caravan park has also been included in the plan, to encourage permeability.

5.4.3 Relocating infrastructure that will be impacted by coastal hazards

The jetty and safe swimming barrier are highly valued but will both need replacement over the time frame of this plan due to coastal hazards and sea level rise, each of which requires a foreshore relocation. In addition, the safe swimming barrier requires regular maintenance and replacement which will occur during the life time of this plan.

Coogee Beach Jetty

Upgrades to jetty access are likely to be required in response to sea level rise. This will impact the tie-in location of the existing jetty and may also include loss of sand underneath the jetty leading to safety concerns.

The jetty should continue to be monitored and upgrades undertaken as needed.

In addition, the SLSC would also like to see improved accessibility beyond the jetty to the safe swimming barrier for patrol purposes, which may be a benefit of any jetty upgrades.

Safe Swimming Barrier

The Master Plan recommends retention and maintenance/replacement of the safe swimming barrier as needed. It is noted that over the longer term, sea level rise may necessitate a change to the tie in locations on the beach. This should be considered by the provider at any period of maintenance and replacement.



Figure 36 Long term southern activity hub modifications

Table 7 Master Plan Responses for Responding to Coastal Hazards

	Action	Implications	Time
CH1	Signage and Wayfinding strategy	See Implications at HE5 and PS1. Include information markers showing possible future shoreline recession line and indicating actions the City will be taking over the next 30 years to plan responsibly.	S
CH2	Detailed design of new northern activity hub and prepare staging plan	See Implications at PS2. Should include detailed staging and analysis of costs for each stage. May require detailed design of a facility and grant funding to deliver.	S
CH3	Asset renewal plan for car park north of Powell Road	Design to consider bus parking and ACROD bays in context of other changes in the foreshore. Changes to the existing car park to occur as assets are being maintained or renewed. Any modifications should provide a new coastal path. See also Implications at HE9	S-M
CH4	Plan for long term relocation of SLSC	Prepare a detailed plan for the relocation of the SLSC and reflect actions taken regarding revegetation, caravan park southern access point and landscape improvements undertaken. See also Implications at HE6, HE9, PS6 and PS8.	M
CH5	Long term consolidation of caravan park and retreat from coast	Continue to manage lease arrangement to deliver retreat planning of the caravan park. See also Implications at HE1, HE2, HE4, HE6 and PS8.	S-M
CH6	Upgrades to Coogee Beach Jetty	Monitor coastal erosion with regard to impacts to jetty access/jetty structure tie-ins. Any upgrades should deliver improved functionality for the SLSC.	M
CH7	Maintain Safe Swimming Barrier	Maintenance/replacement of the safe swimming barrier as needed. Monitor need for changed tie-in locations on beach and liaise with provider for relocation if required.	M
CH8	Relocate SLSC	Relocate the SLSC and consolidate parking in the southern activity area.	L

CH = Responding to Coastal Hazards

S = Short Term (0-10yrs) M = Medium Term (10-25 yrs) L = Long term (25-50 yrs) O = Ongoing/as required

5.5 Prioritise People

As a location identified for low-key family friendly activities, the priority of ‘people’ is a fundamental design approach. This section describes the approach to prioritising people (Section 5.5.1 to Section 5.5.6).

Table 8 provides a summary of the actions and implications including funding, resources and multi-Action synergies.

5.5.1 All user accessibility focus

The community clearly value the accessibility of the foreshore for all users. The Master Plan proposes a number of measures to ensure accessibility for all, many elements of which have been presented already. These include:

- Inclusion of a ‘Changing Places’ facility - a facility provided under the auspices of a national organisation to enable safe changing facilities for people with a disability. A Changing Places facility can be provided either in a temporary transportable format or in a more permanent structure but must be registered with the organisation (<https://changingplaces.org.au/>).
- Increased provision of ACROD parking, especially close to major activity nodes.
- Improved disability compliant access to the beach and into the water through the inclusion of suitable paths and a wheelchair storage facility (within the northern activity hub).
- Opportunity for all abilities playground equipment.

- Improved formalised coastal paths for all abilities movement through the study area where paths are not currently provided (in the northern car park and in the central area between the caravan park and the dunes).
- Better wayfinding signage providing the location of accessibility features in the foreshore and best points of access for users with limited mobility.

All new development will also need to be disability access compliant. The new northern hub in particular will provide an easy-to-navigate central location for all users needs, and enhanced parking will ensure ACROD users are prioritised and are located immediately adjacent to their destination (no road crossing).

5.5.2 Considering how people can safely cross Cockburn Road

Cockburn Road is busy and harsh for users, with very little amenity, especially in the large vacant eastern road verge which is set aside for widening. This can be improved considerably in both the short and long term.

The recently completed signalised pedestrian crossing near Coogee Common will need to be monitored to determine effectiveness, however, it is expected to substantially improve the journey to the foreshore for some users. Those coming from further south are likely to continue crossing Cockburn Road at unsafe locations and it is recommended that additional refuge islands be installed on Cockburn Road at key crossing points.

New medians should be located at places currently observed as desire lines by informal tracks and bus stop locations, and will contribute to a welcoming arrival experience. It would be ideal if these refuge points have canopy coverage, noting that this requires ongoing liaison with Main Roads WA (MRWA) as the operator and manager of the road and MRWA does not support trees in their road reservation without the presence of a tree removal strategy in case of widening requirements.

This is consistent with past traffic studies that suggest establishment of a median on Cockburn Road by 2031 to accommodate right turn movements at both Powell Road and Beach Road in accordance with MRWA long term plans, and MRWA's own long term plan providing for significant upgrades.

Over the long term it is highly desirable to reconsider the type of road environment that exists. Based on the number of vehicles per day (between 10-19,000), and the high use of the foreshore area, it is recommended that the design of Cockburn Road be fully re imagined as an urban road environment - an important place with access (movement) functions subservient rather than a road with people as second.

This plan recommends adopting a road design in the long term that is suited to approximately 15-20,000 vehicles per day. Examples can be seen in Hampton Road, South Fremantle and Guildford Road in Guildford - both roads that carry greater numbers of vehicles in an urban context.

Figure 37 illustrates a proposed concept for a re-imagined Cockburn Road.

It shows a separated carriageway with space for trees in the centre and on both verges. Tree planting assumed that widening is unlikely in the future. Notwithstanding, in the short term, trees should only be planted outside of the current road widening plan alignment.

A shoulder/buffer is shown on each side separating a dedicated bicycle lane, and separate pedestrian paths. The cross section could also be reduced by four metres if the bicycle network is retained within the foreshore as is currently provided. The central median width will allow for turning pockets.

Whilst wider than the current road carriageway, the amenity improvements would be exceptional for facilitating east west connections to neighbouring locations. Bus stops in the location would be much more attractive, and the walking and bicycling journey would be pleasant.

5.5.3 Relocating bus stops to better integrate with the site

As indicated in 5.5.2, bus stops require substantial improvement to increase amenity and encourage better usage. The current stop locations provide little attraction to users due to their locations, which appear to be at an unnecessary distances from foreshore attractions (the northern and southern hubs).

Bus stops on both sides should be relocated as recommended in the Master Plan. In addition, shelter and linking paths should be adequately provided. The City should also advocate for improved bus frequency for the weekend peak.

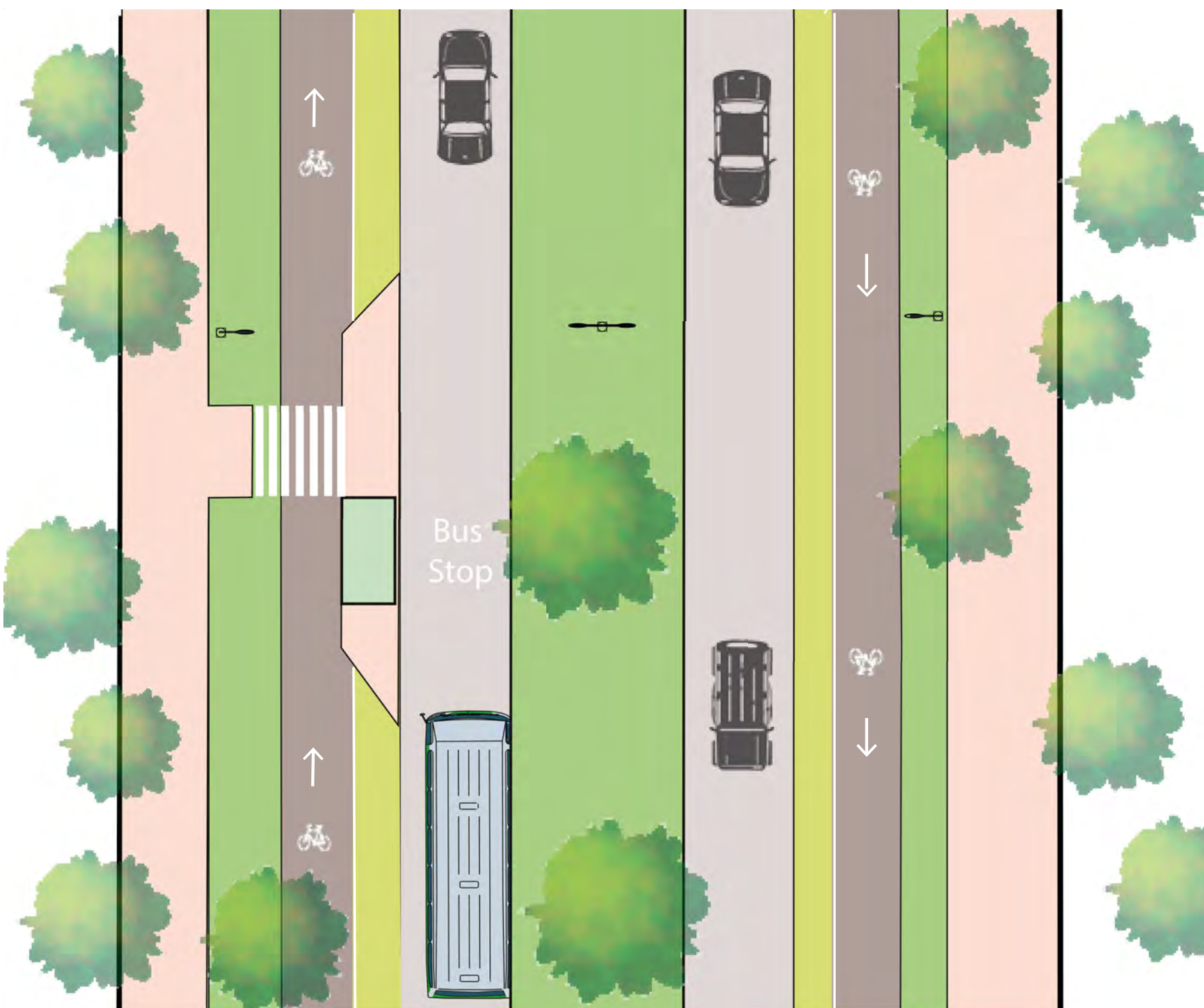
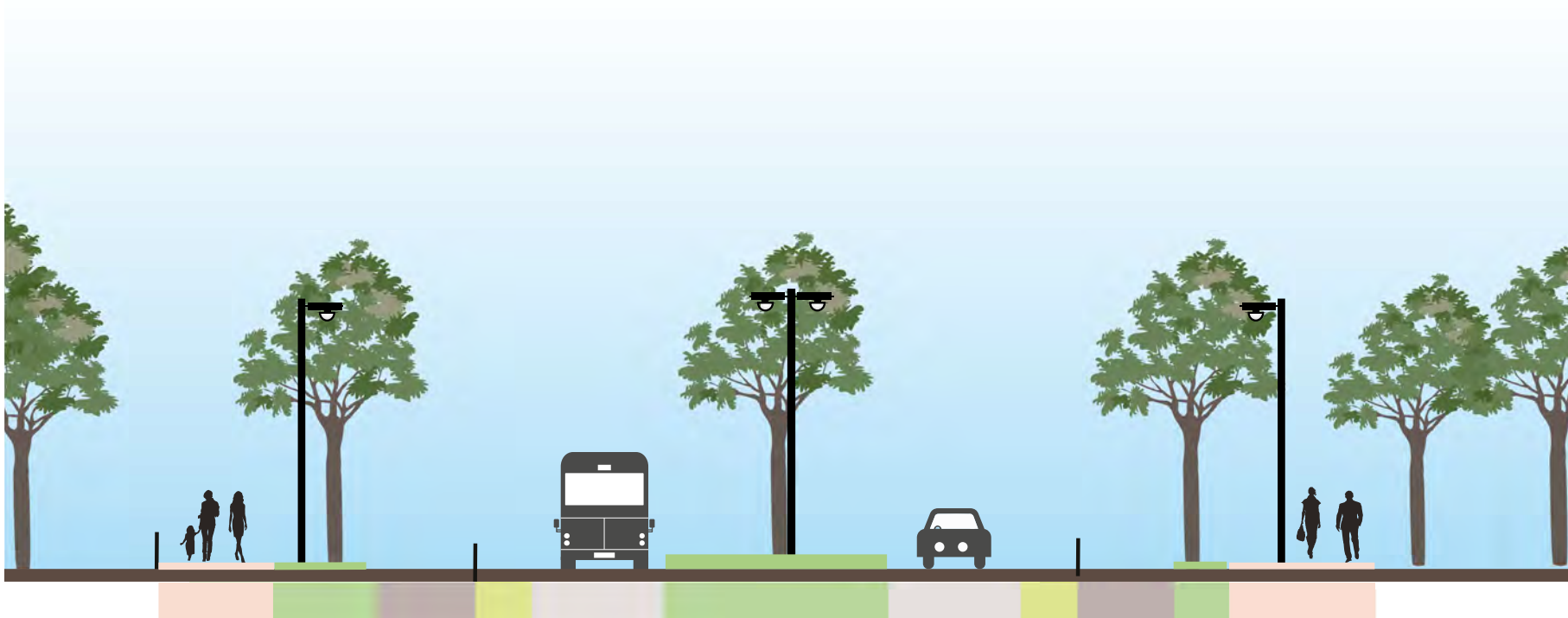


Figure 37 Conceptual urban street treatment for Cockburn Road (modified Integrator Arterial B, Liveable Neighbourhoods Draft 2015, DPLH)

5.5.4 Facilitating north-to-south movement through the site

North south movement through the site is currently poorly signed and pathways either end abruptly or direct users away from the coast.

Improved connections have been recommended as part of Actions HE9, CH2, CH3, CH4, CH5, CH6, and in this section. These include specific new coastal paths that are located nearer the coast but still setback to provide room for coastal hazards, and better access to the beach at the jetty.

North south movement is also encouraged through improvements suggested to access in the caravan park for those users, with a southern access point and general improvements recommended in Actions HE8, PS5, PS8 and CH5. In addition, minor east-west connection improvements within the foreshore are also proposed.

5.5.5 Better linking with the surrounding streets

To help neighbouring residents comfortably walk or ride to the site, the Master Plan recommends links be enhanced to Coogee Common and more formal links be developed to address the kilns, Coogee Community Hall and Len McTaggart Park.

New or enhanced paths should be planted to provided long term canopy cover for shade. Particular pathway linkages to the Coogee Community Hall will also provide additional accessibility for parking.

5.5.6 Improving Safety and Security

A substantial amount of feedback was provided from the community that the area tends to feel unsafe, particularly at night. The Master Plan suggests a number of approaches.

Improved activation

Several people noted that some safety concerns relate to apparently ‘bored’ young people. The plan suggests stronger links to recreation functions such as those found at Len McTaggart Park, with a recommendation to fully develop the existing part-court basketball facility. This upgraded facility could be enhanced by the inclusion of other recreation facilities such as a climbing wall or pump track.

Further investigation into the demand for recreation facilities should be undertaken, noting also that the plan proposes removal of the tennis courts which are underutilised.

The area should be kept well cleaned/maintained with ample access to bins (waste and recycling).

Improved design for crime prevention

All future landscape and building design should carefully avoid dark corners and areas with low visibility through. Paths should be designed to have long view lines and be well lit. Caravan park security is a challenge to be considered in ongoing redevelopment plans, although high unwelcoming fences should be avoided in the foreshore.

SLSC overflow carpark

The SLSC overflow car park is perceived as particularly dangerous at night, due to its enclosure with dense vegetation. The plan suggests providing a second point of vehicle access through the car park area from the southern end of the caravan park, essentially creating an improved traffic loop at the SLSC, and enhancing safety.

CCTV and lighting

CCTV and increased lighting is proposed throughout the foreshore area. Tree canopy should be well maintained and pruned to ensure light coverage and visibility over distances at pedestrian scale.

Table 8 Master Plan Responses for Prioritising People

	Action	Implications	Time
PP1	Provision of all accessibility features	Install Changing Places facility, increased ACROD parking, all-abilities beach and jetty access, play equipment, coastal paths and wayfinding signage to provide accessibility information.	S
PP2	Provide median crossing points to Cockburn Road	Advocate for short term median crossing points for pedestrians at key crossing points to increase safety and reduce the risk of pedestrian accidents.	S
PP3	Bus stop improvements	Work with the Public Transport Authority (PTA) to agree to improved bus stop location and to provide improved amenity for all bus stops in the study area.	S
PP4	Develop a program for establishing new path connections	Implement new north south path connections and improve caravan park connections. Develop improved path connections to neighbouring areas. See also Implications at HE6, HE8, HE9, PS5, PS6, PS8, CH2, CH3, CH4, CH5, CH6,	S-M
PP5	Review local recreation facilities	Undertake a community facility assessment to determine what additional recreation may be suitable for the Coogee Beach area (including Len McTaggart Park)	S
PP6	Ensure future design considers safety and security	Review future planning from a safety and security perspective. Ensure foreshore planting is well managed and security technology is well maintained.	O
PP7	Advocate for urban street typology on Cockburn Road	Advocate to MRWA to upgrade Cockburn Road as a more urban environment for pedestrian safety and community amenity. Prepare concepts for upgrade.	M-L

PP = Prioritising People
S = Short Term (0-10yrs) M = Medium Term (10-25 yrs) L = Long term (25-50 yrs) O = Ongoing/as required

5.6 Reduce the Impact of Traffic

The circulation of vehicles in and around the foreshore area creates repeated conflicts for the community. A number of approaches to improve this have been proposed in earlier sections of this chapter. This section generally confirms those previously identified actions.

However, this section also discusses the more strategic approach to long term access arrangements into the foreshore area. The approach to reducing the impact of traffic is described in (Section 5.6.1 to Section 5.6.5).

Table 9 provides a summary of the actions and implications including funding, resources and multi-Action synergies.

5.6.1 Cockburn Road Access

Access into the foreshore from Cockburn is currently at technically acceptable levels, notwithstanding that the community would prefer easier turning movements out of the foreshore and less conflicts upon entry.

MRWA has an existing concept design which is a complex upgrade with t-intersections at Powell Road (slightly north of the existing) and Beach Road (signalised), and a four way signalised intersection at Amity Boulevard, from which an access road runs along the boundary of the caravan park lease heading north to join Powell Road (see *Figure 38*).

It is not clear whether there is any merit in the long access leg along the edge of the caravan park, or in the plan more generally.

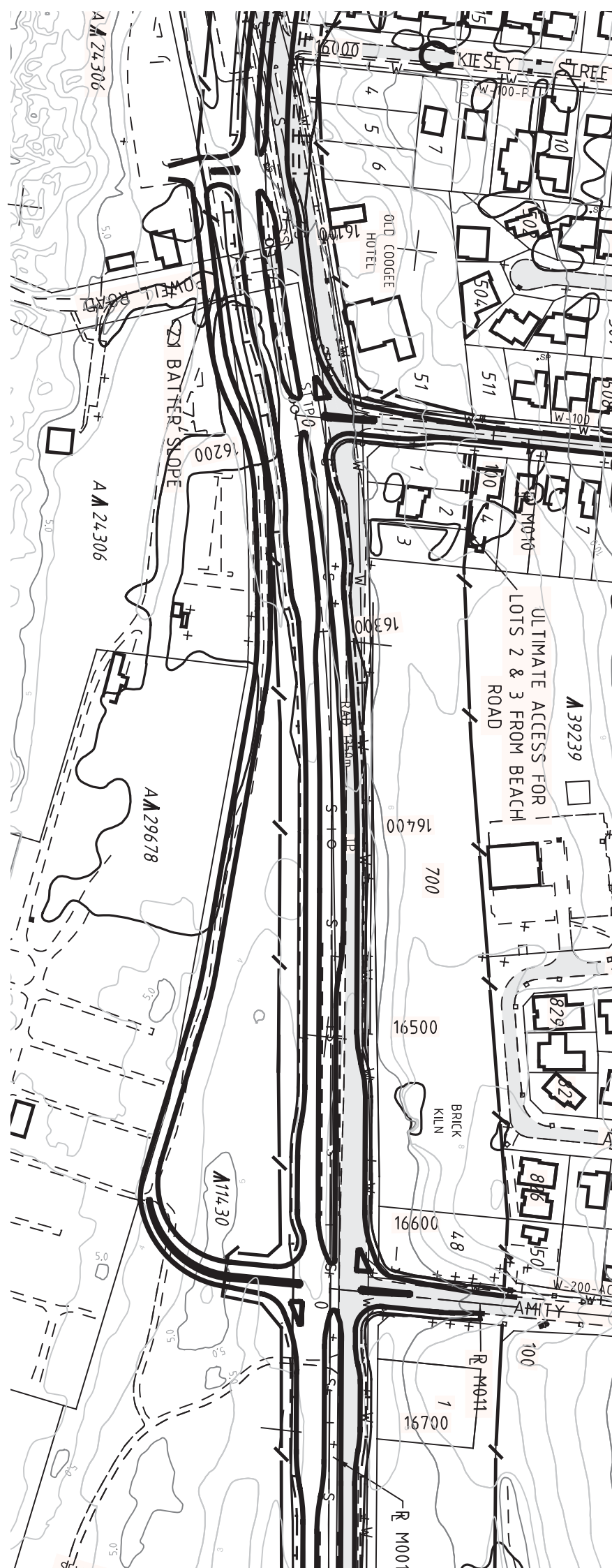


Figure 38 MRWA Carriageway Pattern Plan

The plan was designed in 1997 and authorised in 1999. It is almost certain to be out of date and not considered in the context of the current regional road network. Notwithstanding, MRWA advice is that the design is valid.

No change to access is required to achieve foreshore outcomes in the short to medium term. However, longer term planning would preference less infrastructure in the foreshore given the ever decreasing land available for foreshore functions. The MRWA plan also proposes the clearing of substantial vegetation, which is contradictory to the overall approach for the foreshore area.

The Master Plan does not need to resolve the long term design requirements of MRWA in the context of their higher level strategic road planning role. As such the plan adopts the MRWA plan, with the following comments:

- Short term safety improvements can still be effected in the context of the MRWA plan (e.g median refuge islands).
- The Master Plan preferred approach would be to provide a single access point via a four way intersection with Beach Road. If signalised, this intersection would provide all necessary access functions into the northern precinct and remove excessive infrastructure at Powell Road, at Amity Boulevard, running north south, and will reduce clearing of high quality native vegetation.
- The short term redevelopment plans for the foreshore do not need to impinge on the MRWA preferred carriageway design location and can avoid the Primary Regional Road Reserve to achieve the most suitable design in the short term.
- It is anticipated that the MRWA plan will be significantly refined over the coming 10-25 years, well before any new access arrangements become necessary or desirable. It would be financially irresponsible for the City to undertake the necessary traffic studies and investigations to redesign the road and achieve approval from MRWA, when it is highly likely MRWA will need to review the plan within the critical timeframe.
- It is anticipated due to vehicle movement trends on Cockburn Road and the future Outer Harbour port project, that a future road design for Cockburn Road will be substantially reduced in scale and complexity. Access from the existing Powell Road point or a four way intersection at Beach Road can both be accommodated in the proposed Master Plan.
- Future reviews of the Master Plan will revisit the matter of access design on Cockburn Road (in the medium term - approximately 10-25 years).

An alternative access design concept for the preferred four way Beach Road intersection design is provided in Part One to illustrate how this option could be facilitated.

5.6.2 Consolidate Parking

Previous sections describe the proposed intent and justification for upgrades and consolidation of parking throughout the foreshore.

Northern Consolidation

There are 331 formal bays and approximate capacity for a further 28-33 vehicles in the northern foreshore area. Proposed consolidation within the foreshore should result in a neutral parking supply in the short to medium term.

However, once the car park north of Powell Road is fully closed, it is expected that there will be approximately 100 bays less in this area. This loss of car parking will need to be offset over time with use of the foreshore event space for overflow parking, more active management including timed bays in the foreshore and managed overflow parking east of Cockburn Road for peak days. Ordinary weekend days outside of summer will have adequate supply.

The transport study identifies more than 350 overflow parking bays in proximity to the jetty on the eastern verge of Cockburn Road and via verge side parking. Modifications to pedestrian crossings should make these bays more accessible.

Southern Consolidation

There are 283 formal bays and an approximate capacity of a further 40-47 bays in the southern foreshore area near the SLSC. Whilst no change is proposed in the short term, long term redevelopment of the SLSC will reduce capacity.

Planning for any potential redevelopment should consider how to integrate parking, for example, by providing undercroft parking in the design which might double as a coastal hazard management measure for occasional coastal inundation events.

The loss of any car parking in the vicinity of the SLSC may seem untenable at the current time, however, there is adequate time available to plan for better management of fixed and overflow parking for peak days.

The transport study identifies more than 480 overflow parking bays in proximity to the SLSC on the eastern verge of Cockburn Road and via verge side parking. Modifications to pedestrian crossings should make these bays more accessible.

Overflow Parking

There is space for between 830 and 1,000 additional parking bays on road verges and in reserved land, particularly the nearly 50 metre wide Cockburn Road widening reserve.

Due to the changed demands on the regional network, and as noted previously, it is not anticipated that substantial widening of Cockburn Road will be necessary in the future. As such, it is expected that this large corridor will remain permanently vacant. Given the pressures of retreat on the foreshore, it is logical to consider the area east of Cockburn Road as part of the foreshore environment.

In order to utilise the area productively, it is recommended in this Master Plan that the road widening area is used for overflow parking.

This can be formally managed during peak times (Coogee Live Event or Australia Day etc), and remain informal at other times of the year in much the same way as currently occurs.

Whilst no formalised parking is proposed in the Primary Regional Road Reserve (asphalt, marked bays etc), it is recommended that some enhancement be made of a sacrificial or short term nature, including:

- Introduction of bollards along the edge of Cockburn Road to stop vehicles crossing into the verge in an uncontrolled manner. Bollards can be treated pine to match the similar low-key style on the western side of Cockburn Road and may help to provide some organisation during days with high levels of unmanaged informal parking.
- Planting of trees along the edge of Cockburn Road.
- Planting trees within the Cockburn Road east reservation at locations that may be appropriate for long term formal parking design.
- Provision of a formal pedestrian access way through the eastern Road Reserve to Len McTaggart Park and the Coogee Community Hall to connect with formal parking in that location.

These recommendations acknowledge that MRWA does not support trees in their road reservation without the presence of a tree removal strategy in case of widening requirements.

Behaviour change

Behaviour change will be encouraged by this plan through significant improvements to public transport, walking and bicycling infrastructure. The City is further encouraged to advocate for broader community adoption of active and public transport through whole-of local Government behaviour change programs and incentives.

5.6.3 Improve public transport, walking and bicycling

Substantial improvements for walking and bicycling as well as public transport infrastructure upgrades are already recommended by this Master Plan through a variety of Actions. Implementation of those Actions will vastly improve permeability and accessibility for all users.

The installation of bicycle parking is an immediate action, with the near absence of bicycle parking apparent in the foreshore by bikes chained to fences and light poles.

In addition, this plan recommends the siting of many paths in such a way as conflicts with road traffic do not occur. The principal bicycle path cannot be completely separated from road traffic, however, it is recommended that extensive introduction of wombat crossing treatments to slow traffic be installed at key locations. Zebra crossings are also recommended for high pedestrian volume areas.

The City should also advocate for increased public transport services for the weekend peak.

5.6.4 Design multi-purpose spaces

All car park spaces should be considered as multi-purpose spaces and provided with infrastructure accordingly, including the ability for pop-up vendors to connect to power (and potentially water).

Parking areas should be easy to close off with safety barriers during event periods if required (e.g. Hostile vehicle management).

5.6.5 Relocating caravan movement to the south

As previously noted, in the long term it is recommended that caravan park access be located at the southern end of the caravan park, to remove conflicts in the heavily constrained and narrowing northern activity hub. This may not be required during the life of this plan, but should inform ongoing redevelopment of the caravan park.

Table 9 Master Plan Responses for Reducing the Impact of Traffic

	Action	Implications	Time
IT1	Avoid Cockburn Road alignment	Ensure future road modifications do not impinge on the MRWA Cockburn Road design.	O
IT2	Consolidate parking	Consolidate parking throughout. See Implications at CH2 and CH3.	S-L
IT3	Manage overflow parking areas	Undertake trials of formal management of overflow parking during peak periods. Count and analyse parking capacity/demand for future assessment.	S
IT4	Introduce safe crossing zones	Introduce safe crossing points during upgrades to internal road network including wombat crossings for bicycle paths and zebra crossing for pedestrian areas.	S-L
IT5	Temporary traffic management	Introduce features in the eastern road reserve of Cockburn Road including tree planting, bollards and a new pedestrian path. Prepare a Tree Removal Strategy.	S
IT6	Increase public transport services	Advocate for increased public transport services on weekend peak days. Liaise with PTA. See also Implications at PP3.	S-M
IT7	Signage and Wayfinding	See Implications at CH1, HE5 and PS1. Include signage for better parking management (automatic displays).	S
IT8	New path connections	See Implications at HE6, HE8, HE9, PS5, PS6, PS8, CH2, CH3, CH4, CH5, CH6 and PP4.	S-M
IT9	Southern caravan park access	Plan for long term reorientation of the caravan park. See Implications at PS8.	S

IT = Reducing the Impact of Traffic

S = Short Term (0-10yrs) M = Medium Term (10-25 yrs) L = Long term (25-50 yrs) O = Ongoing/as required

5.7 A Local and Natural Sense of Place

All Actions recommended in this Master Plan are intended to embed the local sense of place, by enhancing the existing natural beauty of the foreshore and extending existing design features such as limestone walls and low-key fencing and bollards. This section describes some of specific actions proposed.

5.7.1 Preserve the leafy green, low - key nature of the foreshore

Planting should reflect existing on-site species and provide adequate canopy throughout. As there will be areas redeveloped on site in the future, it is recommended that the planting program begin to plant trees ‘for the future’. This can be done in conjunction with the community via tree planting days.

During such events, the Master Plan should be displayed, further engaging the community in the long term planning of the foreshore, illustrating the City’s long term

commitment to the foreshore and showing the level of forward thinking.

Planting should be undertaken with recognition of safety and security needs of the site and should also only include species suited to a coastal environment.

5.7.2 Upgrade nearby attractions

Connections to the kilns, Coogee Common and Len McTaggart Park and the Coogee Community Hall are proposed as part of this Master Plan.

As part of this approach it is also recommended that the City upgrade the offer at the Kilns and at Len McTaggart Park, celebrating the broader history and community of the area. Funding may be available for some interpretive elements at the kilns, as well as recreation based funding for any upgrades to Len McTaggart Park. A separate strategy for these two locations is recommended.

Table 10 Master Plan Responses for retaining the Local and Natural Sense of Place

	Action	Implications	Time
SP1	Increased planting	Begin the long term planting program for the foreshore, in advance of clearing other trees and encourage canopy coverage and protect the foreshore from coastal hazards. See Implications at HE6.	S-M
SP2	Upgrade kilns area	Seek funding to prepare and plan for interpretive use of the kilns as part of the foreshore activation. Seek heritage grants.	S-M
SP3	Upgrade Len McTaggart Park	Review recreation needs in the Coogee area and increase recreation facilities in Len McTaggart accordingly. Seek recreation grants. Maintain Coogee Community Hall.	M-L

SP = Local and Natural Sense of Place

S = Short Term (0-10yrs) M = Medium Term (10-25 yrs) L = Long term (25-50 yrs) O = Ongoing/as required