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Central Coastal Management Program Advisory Committee

Meeting Date:Tuesday, 19 October, 2021Location:Council Chambers, City Administrative Centre, Bridge Road, Nowra

Minutes Attachments

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Shoalhaven Beaches Asset Management



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October 2021







advisian.com





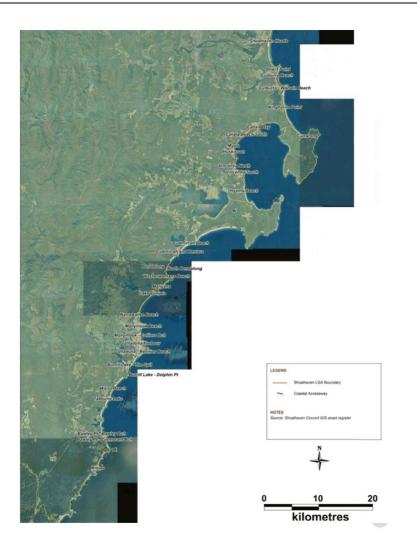
Why does Council need a Beach Access Management Strategy?

- Council manages over 220 beach access points at 40 beaches throughout the LGA
- Assets include gates, fences, paths, stairs, signage and viewing areas
- Subject to harsh conditions, many are reaching the end of their design life
- Council needs to manage the accessways based on safety, community need, environmental impact.



How was the Management Plan developed?

- Visual inspection and assessment of each accessway
- Provide a condition rating for each asset
- Identify infrastructure requiring repair/replacement
- Beach-by-beach assessment of beach access in each locality
- Develop basis for rationalising accessways
- Recommendations for each specific area methods for repair, are accessways appropriately located?





Field Inspections

Asset Condition – A condition rating from 1 to 5 is applied in the field to each asset



Collingwood Beach.

Berrara Creek

Mollymook

Gannet Beach

Burrill Beach, The Spit





Field Inspections

- Notes on Asset Utility conveniently located, appears to be well used, alternative accessways nearby, what ancillary facilities are associated with each accessway.
- Notes on coastal processes affecting asset –The coastal processes include erosion, sand drift, stormwater, wind, wave action, etc.
- Notes on impact of coastal asset on surrounding beach – This field captures whether the accessway itself is having an adverse impact on the surrounding environment.
- Notes on recommended actions to improve or rationalise asset based on the experience of the field officer and visual assessment.





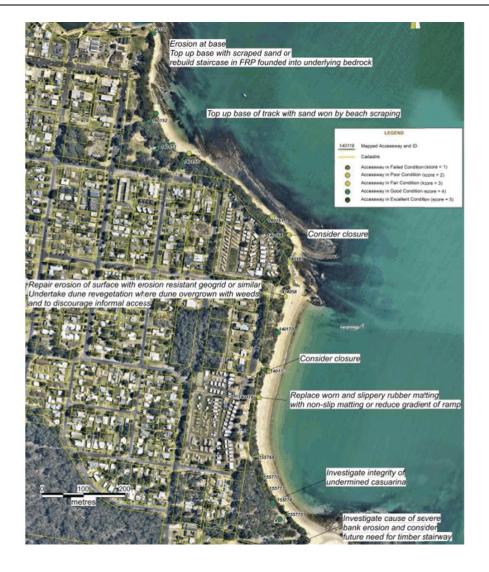
Callala Bay



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Huskisson

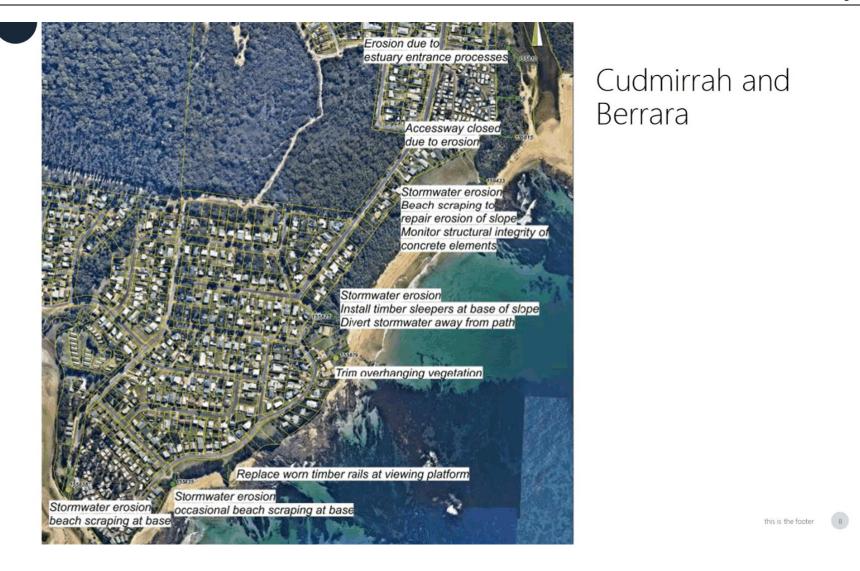


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Beach-by-beach Assessment

- Number of accessways available per linear distance in each particular locality
- Location of accessways in relation to key local amenities and accessibility
- Safety based on site assessments
- Environmental impacts of each accessway







Beach by Beach Assessment – Criteria for assessment

- condition rating from the field inspection
- distance along the beach to the nearest accessway
- walking distance on the landward side between accessways
- duplicate access servicing the same area
- accessway services Surf Life Saving Club (SLSC)
- accessway used for or suitable for emergency access (e.g. flood control)
- Estimated ongoing maintenance required
- Impact on environment and heritage
- Services major development or facility
- Estimated number of lots serviced by accessway
- Number of accessways per kilometre length of beach





Beach by Beach Assessment

Criteria for Accessway Rationalisation

| Shoalhaven Heads | | Score 1-5 | | Score 1-5 | | Score 1-5 | | Score 1-5 | | Score 1-5 | | Score 1-5 | | Score 1-5 | | Score 1-5 |
|--|----------|-----------|--------|-----------|--------|---------------|--------|-----------|--------|-----------|--------|-----------|-----|-----------|---------------|-----------|
| Asset No. | . 141110 | | 140118 | | 140121 | | 140127 | | 140133 | | 140136 | | 664 | | 140142/140139 | |
| Condition rating from field assessment | 4 | 4 | 1 | 1 | 2 | 2 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Distance along beach to nearest accessway (m) | 318 | 3 | 35 | 0 | 35 | 0 | 190 | 2 | 190 | 2 | 82 | 1 | 82 | 1 | 89 | 1 |
| Walking distance to nearest walkway at landward end (m) | | 4 | 37 | 0 | 37 | 0 | 290 | 3 | 290 | 3 | 11 | 0 | 11 | 0 | 90 | 1 |
| Duplicate walkway servicing same area (Y/N) | N | 5 | Y | 0 | Y | 0 | N | 5 | N | 5 | N | 5 | N | 5 | N | 5 |
| Accessway services SLSC (Y/N) | Y | 5 | N | 0 | Y | 5 | N | 0 | N | 0 | N | 0 | N | 0 | N | 0 |
| Accessway used for or suitable for emergency access (e.g. flood control) (Y/N) | N | 0 | N | 0 | Y | 5 | N | 0 | N | 0 | N | 0 | Y | 5 | N | 0 |
| Estimated ongoing maintenance required (low, medium, high) | Low | 5 | Medium | 3 | High | 0 | Medium | 3 | Medium | 3 | Low | 5 | Low | 5 | Low | 5 |
| Impact of accessway on surrounding beach environment (low, medium, high) | High | 0 | Medium | 3 | Medium | 3 | Medium | 3 | Low | 5 | Low | 5 | Low | 5 | Low | 5 |
| Impact of accessway on surrounding heritage items (low, medium, high) | Low | 5 | Low | 5 | Low | 5 | Low | 5 | Low | 5 | Low | 5 | Low | 5 | Low | 5 |
| Services major development or facility (e.g caravan park) (Y/N) | Y | 5 | N | 0 | Y | 5 | Y | 5 | Y | 5 | N | 0 | N | 0 | N | 0 |
| Estimated no. lots serviced by accessway | 756 | 5 | 0 | 0 | 453 | 5 | 1 | 1 | 1 | 1 | 312 | 5 | 1 | 1 | 1 | 1 |
| Accessway used to access off-leash dog walking area (Y/N) | N | 0 | N | 0 | N | 0 | N | 0 | N | 0 | Y | 5 | N | 0 | N | 0 |
| Accessway Score | | 41 | | 12 | | 30 | | 30.5 | | 32.5 | | 34.5 | | 30.5 | | 26.5 |
| Accessway ranking | | 1 | | 8 | 6 | | 4 | | | 3 7 | | 2 | 4 | | 7 | |
| Recommendation - Retain, remove or repair Retain | | Retain | Remove | | | Repair Retain | | Retain | | Retain | | Retain | | Retain | | |
| Access currently closed due Main access for sulf club Retain as only access to river | | | | | | | | | | | | | | | | |

and day visitors

Retain as only access to river foreshore, currently used for birdwatching

to erosion, unsafe. Rehabilitation would

damage the dune, other alternative access

available nearby. Could be

turned into a viewing platform set back from

| | Comments | |
|--|----------|---|
| Overall Beach Assessment | | |
| Beach length serviced by accessways (km) | 2. | 5 |
| No. accessways (existing) | | 8 |
| No. accessways per km length of beach (existing) | 3.2 | 0 |
| No. accessways recommended to be retained | | 7 |
| No. accessways per km length of beach (proposed) | 2.8 | 0 |

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Summary - Central



| Area Total accessways (existing) | | Accessways recommended to be retained or upgraded | Key Issues | | | | | |
|--|----|--|--|--|--|--|--|--|
| Shoalhaven Heads | 8 | 7 | Wind-blown dune stability Beach erosion | | | | | |
| Culburra | 23 | 19 | Multiple accessways servicing same area No all-ability access to beach Erosion at base of access | | | | | |
| Warrain | 11 | 8 | Informal access Erosion at base of access | | | | | |
| Currarong | 13 | 9 | Multiple accessways servicing same area No all-ability access to beach Beach erosion | | | | | |
| Callala Bay | 9 | 6 | Erosion at base Dinghy access and storage Lowering of accessways relative to dune | | | | | |
| Callala Beach/Myola | 18 | 16 | Dune vegetation damage Multiple accessways servicing same area Lowering of accessways relative to dune Creek bank erosion (Myola) | | | | | |
| Huskisson (Shark Net and Huskisson Beach) | 16 | 13 | Erosion at base Multiple accessways servicing same area Creek bank erosion (Moona Moona Creek) | | | | | |
| Collingwood Beach | 14 | 10 | Dune vegetation damage Lowering of accessways relative to dune Stormwater erosion | | | | | |
| Orion and Barfleur Beaches | 7 | 6 | Stormwater drainage Slope stability | | | | | |
| Nelson and Blenheim Beaches | 8 | 7 | Slope stability Erosion at base Stormwater erosion | | | | | |
| Hyams Beach | 3 | 3 | Erosion at base | | | | | |
| Sussex Inlet | 3 | 3 | Wind-blown dune stability | | | | | |
| Curmirrah and Berrara | 8 | 7 | Stormwater erosion Slope stability | | | | | |
| Bendalong | 12 | 10 | Track safety due to lack of maintenance/bushfire impact Erosion at base Stormwater erosion | | | | | |
| Manyana | 5 | 4 | Stormwater erosion | | | | | |
| Cunjurong Point | 5 | 3 | Slope stability Stormwater erosion | | | | | |



Key Issues - Central



Nelson Beach – slope stability, stormwater outflow



Callala Bay – no formal dinghy storage



Berrara - Erosion due to runoff



Cunjurong - erosion impacts due to presence of track



Key Issues - Central



Myola – erosion of dune caused by track



Hyams Beach – erosion of base of walkway



Myola - erosion of creek bank impacting on access



Collingwood Beach - stormwater erosion



Issues - Central



Path eroded by stormwater at Cunjurong Point



Undermined stairway affected by slope instability at Cunjurong Point



Damaged and overgrown stairway at Bendalong



Specific management responses at each accessway

| Action ID | Location | Site/asset ID | Recommendation | Asset Condition | Priority | Comment | | | | | |
|----------------------------|--------------------|-------------------|-------------------|-----------------|--|--|--|--|--|--|--|
| CND | Charle Net Dearth | 140152 | Maiataia | (1-5) | 1 | Understation and intermediate and in a consider an with Court illing an intermediate the | | | | | |
| SN2 | Shark Net Beach | 140152 | Maintain | 4 | Low | Undertake routine maintenance in accordance with Council's maintenance schedule | | | | | |
| SN3 Shark Net Beach 140153 | | Minor maintenance | 4.5 | Low | Repair erosion at base of track, weeding. Beach scraping and dune revegetation at the base | | | | | | |
| | | | | | | of tracks 140153 and 140155 where minor erosion is occurring. | | | | | |
| SN4 | Shark Net Beach | 140155 | Minor maintenance | 3.5 | Low | Repair erosion at base of track, weeding. Beach scraping and dune revegetation at the base | | | | | |
| | | | | | - | of tracks 140153 and 140155 where minor erosion is occurring. | | | | | |
| H1 | Huskisson Beach | 140161 | Maintain | 3 | Low | Undertake routine maintenance in accordance with Council's maintenance schedule | | | | | |
| H2 | Huskisson Beach | 140164 | Close | 3 | Low | Duplicate accessway, overgrown, remove and rehabilitate | | | | | |
| H3 | Huskisson Beach | 140167 | Requires repair | 3 | Medium | Top up with sand, remove damaged board and chain, provide vertical timber "steps" to | | | | | |
| 115 | Huskisson beach | 140107 | Requires repair | 3 | Wediam | reduce erosion | | | | | |
| | | 404058 | Minor maintenance | 3 | Medium | Main access to beach, repair erosion/top up with sand, weeding, repair damaged | | | | | |
| H4 | Huskisson Beach | | | | | surface/refill stairs with sand/cement/gravel mix, revegetation to discourage informal | | | | | |
| | | | | | | access | | | | | |
| H5 | Huskisson Beach | 140170 | Maintain | 4 | Low | Undertake routine maintenance in accordance with Council's maintenance schedule | | | | | |
| H6 | Huskisson Beach | 140173 | Close | 2 | Medium | Duplicate accessway in poor condition, remove and rehabilitate | | | | | |
| | Liveliesen Desek | 140176 | Deguires repair | 3 | Ulinh | Main access for caravan park. Remove or replace rubberised surface, very slippery, | | | | | |
| H/ | H7 Huskisson Beach | | Requires repair | 5 | High | otherwise flatten grade to improve safety | | | | | |
| H8 | Huskisson Beach | 155768 | Maintain | 3 | Low | Main access to playground and second access to caravan park. Undertake routine | | | | | |
| по | Huskisson beach | 155706 | Maintain | 5 | LOW | maintenance in accordance with Council's maintenance schedule | | | | | |
| H9 | Huskisson Beach | 155770 | Maintain | 5 | Low | Undertake routine maintenance in accordance with Council's maintenance schedule | | | | | |
| H10 | Huskisson Beach | 155773 | Close | 0 | Low | Closed path, remove from asset register | | | | | |
| H11 | Huskisson Beach | 155774 | Maintain | 4 | Low | Undertake routine maintenance in accordance with Council's maintenance schedule | | | | | |
| H12 | Huskisson Beach | 155775 | Requires repair | 4 | Medium | Repair fencing, investigate stability of trees at base | | | | | |
| | | Creek access | | | | Repair erosion at adjacent bank; consider removal of stairway as ample adjacent access | | | | | |
| H13 | Huskisson Beach | | Close | 4 | High | available | | | | | |
| COL1 | Collingwood Beach | 557 | Close | 0 | Low | Closed path, remove from asset register | | | | | |
| COL2 | Collingwood Beach | 140281 | Maintain | 4 | Low | Undertake routine maintenance in accordance with Council's maintenance schedule | | | | | |
| COL3 | Collingwood Beach | 140283 | Minor maintenance | 4 | Low | Revegetate damaged dune | | | | | |
| COL4 | Collingwood Beach | 140286 | Close | 4 | Low | Duplicate track, remove and rehabilitate | | | | | |
| COL5 | Collingwood Beach | 140289 | Maintain | 4 | Low | Undertake routine maintenance in accordance with Council's maintenance schedule | | | | | |
| COL6 | Collingwood Beach | 140292 | Close | 4 | low | Duplicate track, remove and rehabilitate | | | | | |

List of accessways, recommendations and comments

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Common Issues across Shoalhaven

- Erosion at the base of the accessways
- Stormwater erosion
- Slope instability
- General Maintenance/vegetation encroachment
- Damage to dune vegetation and spread of weeds
- Lowering of the base of the accessways relative to the surrounding dune
- Difficult/remote access
- Creek bank erosion



Figure 5-1 – Erosion at base of track (Hyams Beach). Consider reorienting track so it doesn't face south and is more perpendicular to the beach, and consider installation of timber sleepers at base to reduce the effects of this erosion.

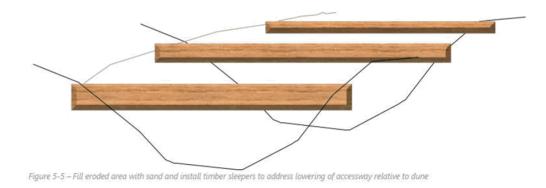


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Proposed Solutions – reduce lowering of track relative to dune





These can be treated by topping up with sand to restore the accessway elevation relative to the dune, and placement of timber sleepers to maintain the accessway level



Reduce erosion due to rainfall/runoff



Figure 3-10 – Example of drainage control "hump" in gravel path, Mollymook Beach, March 2021.



Repair of eroded track bases





Figure 5-4 - Recommended treatment for erosion at base of access, where gradient is low - moderate (see examples above)



Typical repair of undermined staircase





Figure 5-6 – Example undermined staircase and potential treatment



Creek bank erosion



Figure 3-39 – Severe bank erosion at Moona Moona Creek adjacent to timber stairway (February 2021)



Moona Moona Creek

- Investigate cause and repair bank erosion
- Consider repairing bank erosion with gravel and placed boulders.

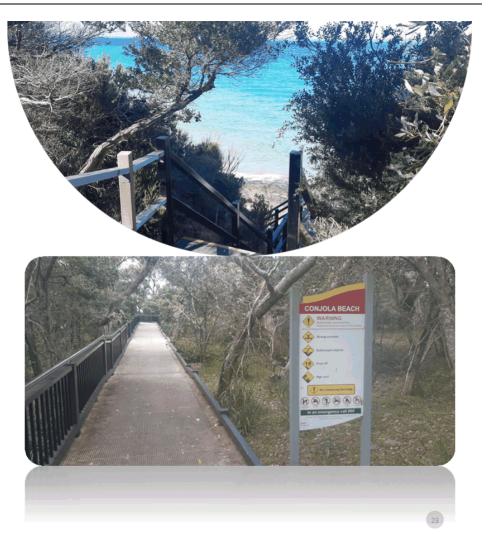
Currambene Creek, Myola

- Investigate the root cause of severe erosion at Currambene Creek and consider mitigation measures (e.g. bank protection, or modification/removal of the old training wall).
- Consider deeper foundations for the stairway at its current location, or moving the main foreshore access close to the root of the existing breakwater where bank erosion is less severe.



Conclusions and Next steps

- Most accessways in the Shoalhaven are in serviceable condition, a small number require maintenance and are unsafe.
- Standard Council designs for the existing accessways are appropriate for the setting of the accessway and have considered local coastal processes.
- A methodology has been developed to rationalise beach access based on environmental, social and economic risks
- General and specific recommendations to assist Council to manage beach accessways into the future





Closure of accessways – case study

- Why we have recommended some be closed?
- Reduce no. of accessways and focus resources
- Can polarise communities e.g. backlash from proposed closing of excess accessways at northern end of Callala Beach – need to do best thing for broader community





Example – track at Currarong recommended for closure

140483

Overgrown