



## Managing Beach Accessways – A Rational Approach

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NSW Coastal Conference May 31 2022






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### Why are Beach Accessways so important to manage?

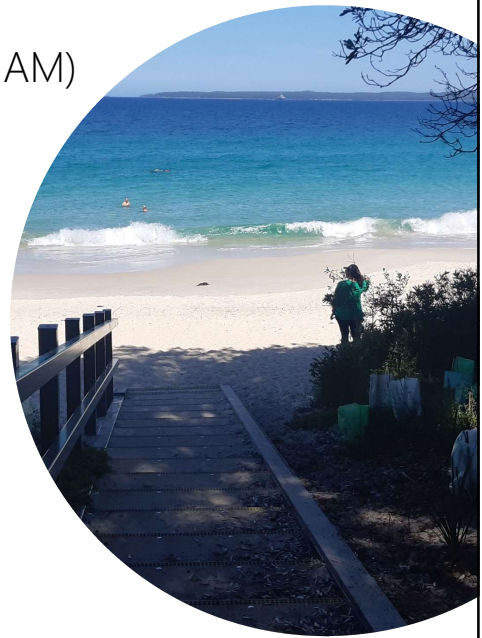
- Highly valued by local communities
- Assets include gates, fences, paths, stairs, signage and viewing areas
- Subject to harsh conditions, many are reaching the end of their design life
- Councils responsible – duty of care, safety, community need, environmental impact.

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## Coastal Accessway Management Tool (CAM)

- 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?



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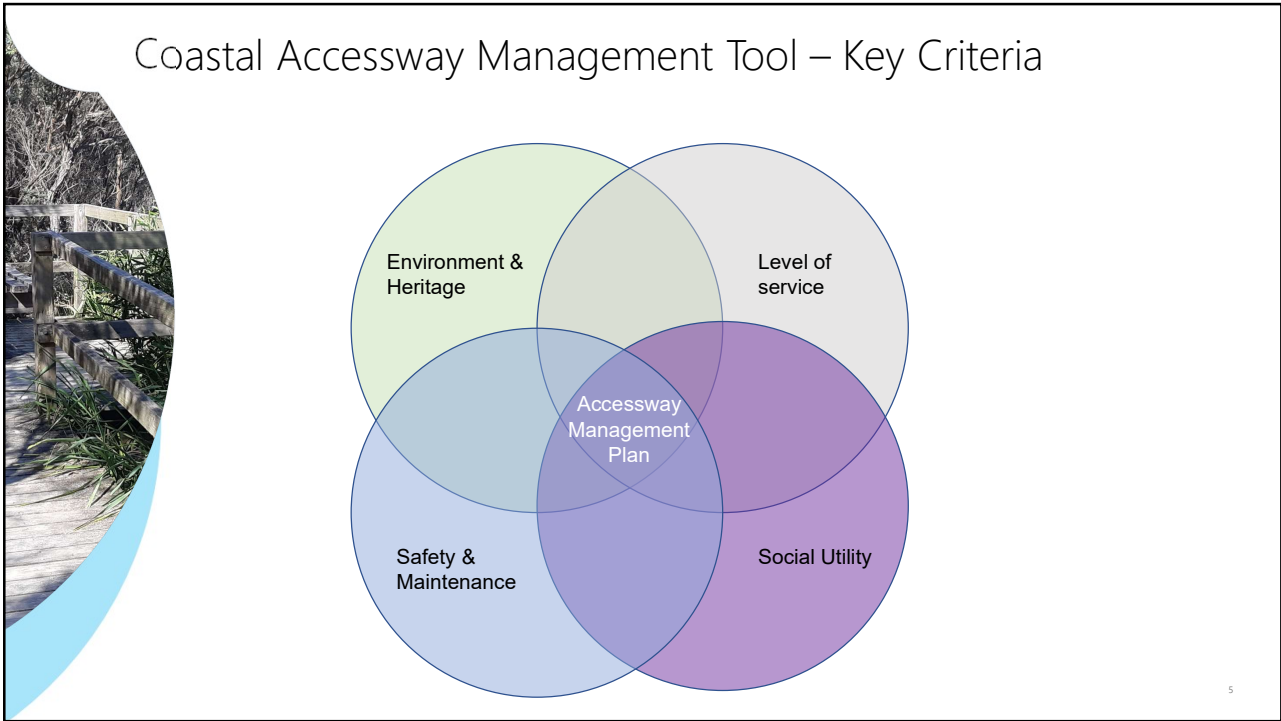
## Coastal Accessway Management Tool - CAM



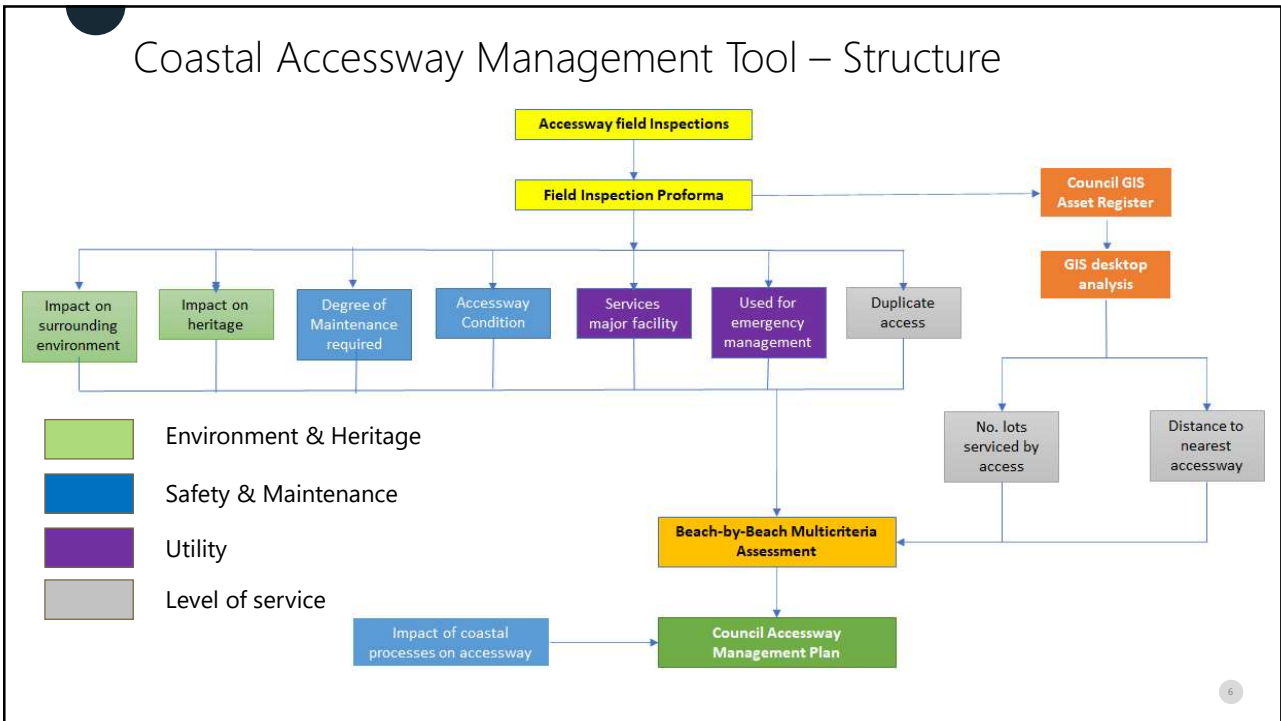
- Risk-based tool for coastal councils
- Rapid field inspections, standardised field inspection proforma
- Documents coastal processes impacting the asset
- Documents ideas for actions
- Link to GIS asset register
- Standardised multicriteria assessment

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# Field Inspections

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

**5 - Excellent, as new.**



**Collingwood Beach.**

**4 - Good.**



**Berrara Creek**

**3 - Fair.**



**Mollymook**

**2 - Poor.**



**Gannet Beach**

**1 - Failed/Very Poor.**



**Burrill Beach, The Spit**

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# Multi-criteria Assessment

## Criteria for Accessway Rationalisation

Shoalhaven Heads	Asset No.	Score 1-5	Score 1-5	Score 1-5	Score 1-5	Score 1-5	Score 1-5	Score 1-5	Score 1-5	Score 1-5	Score 1-5
Condition rating from field assessment	141110	4	4	1	2	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
Walking distance to nearest walkway at landward end (m)	752	4	37	0	37	0	290	3	290	3	11
Duplicate walkway servicing same area (Y/N)	N	5	Y	0	Y	0	N	5	N	5	N
Accessway services SLSC (Y/N)	Y	5	N	0	Y	5	N	0	N	0	N
Accessway used for or suitable for emergency access (e.g. flood control) (Y/N)	N	0	N	0	Y	5	N	0	N	0	Y
Estimated ongoing maintenance required (low, medium, high)	Low	5	Medium	3	High	0	Medium	3	Medium	3	Low
Impact of accessway on surrounding beach environment (low, medium, high)	High	0	Medium	3	Medium	3	Medium	3	Low	5	Low
Impact of accessway on surrounding heritage items (low, medium, high)	Low	5	Low	5	Low	5	Low	5	Low	5	Low
Services major development or facility (e.g. caravan park) (Y/N)	Y	5	N	0	Y	5	Y	5	N	0	N
Estimated no. lots serviced by accessway	756	5	0	0	453	5	1	1	1	312	5
Accessway used to access off-leash dog walking area (Y/N)	N	0	N	0	N	0	N	0	N	0	Y
<b>Accessway Score</b>		41	12	6	30	30.5	4	3	32.5	34.5	30.5
<b>Accessway ranking</b>		1	8	6	4	7	2	4	2	4	7
<b>Recommendation - Retain, remove or repair</b>		Retain	Remove	Repair	Retain	Retain	Retain	Retain	Retain	Retain	Retain

Access currently closed due: Main access for surf club to erosion, unsafe and day visitors  
 Rehabilitation would damage the dune, other alternative access available nearby. Could be turned into a viewing platform set back from beach.  
 Retain as only access to dune foreshore, currently used for birdwatching.

### Comments

Overall Beach Assessment	
Beach length serviced by accessways (km)	2.5
No. accessways (existing)	8
No. accessways per km length of beach (existing)	3.20
No. accessways recommended to be retained	7
No. accessways per km length of beach (proposed)	2.80

### Scoring Criteria

- Condition rating from field assessment**  
1 (1), 2 (2), 3 (3), 4 (4), 5 (5)
- Distance along beach to nearest accessway**  
>1km (5), 500m - 1km (4), 200m - 500m (3), 100m - 200m (2), 50m - 100m (1), <50m (0)
- Walking distance to nearest walkway at landward end**  
>1km (5), 500m - 1km (4), 200m - 500m (3), 100m - 200m (2), 50m - 100m (1), <50m (0)
- Duplicate walkway servicing same area**  
Yes (0), No (5)
- Accessway services SLSC (Y/N)**  
Yes (5), No (0)
- Accessway used for or suitable for emergency access (e.g. flood control) (Y/N)**  
Yes (5), No (0)
- Estimated ongoing maintenance required (low, medium, high)**  
low (5), medium (3), high (0)
- Impact of accessway on surrounding beach environment (low, medium, high)**  
low (5), medium (3), high (0)
- Impact of accessway on surrounding heritage items (low, medium, high)**  
low (5), medium (3), high (0)
- Services major development or facility (e.g. caravan park) (Y/N)**  
Yes (5), No (0)
- Estimated no. lots serviced by accessway (within 2km walking distance)**  
>100 (5), 50-100 (4), 25-50 (3), 10-25 (2), 1-10 (1), 0 (0)

- Environment & Heritage
- Safety & Maintenance
- Utility
- Level of service

**AJvisian** Shoalhaven Asset Management System - Field Inspection Form

Asset ID: 14110/1263  
 Asset Name: Shoalhaven Heads (Golf course)  
 Asset Type: Sand path  
 Asset Location: Sand path  
 GPS Coordinates: 33° 11.50am  
 Date/Time: Fine, low/badly eroded  
 Inspector: CFB  
 Asset Description (road and chain, driveway, gravel path, etc.):  
 Board and Chain Accessway  
 Driveway  
 Sand pathway  
 Timber boardwalk  
 Gravel Path  
 Concrete Path  
 Other  
 Notes on Asset Condition (road or its condition, driveway, driveway, gate, comment on safety, retaining walls, etc.):  
 Good condition, some vegetation encroaching but not impeding access.  
 Notes on asset safety (if it consistently occurs, does it appear to be well used, are there alternative accessways, safety facilities associated with accessway):  
 Need to walk through Golf course to get to accessway.

Notes on coastal processes affecting asset:  
 erosion  
 sand drift  
 stormwater  
 wind  
 wave action  
 other  
 Dune on either side has been eroded but accessway unaffected.

Notes on impact of asset on surrounding beach (e.g. sand drift, dune erosion, impact on adjacent vegetation):  
 No impact of accessway on beach processes.

Notes on recommended actions to improve or maintain asset (e.g. revegetation, pruning, mowing, signage, ground vegetation, retaining walls, etc.):  
 revegetation  
 fencing  
 mowing  
 modify alignment  
 other  
 Maintain vegetation control spread off weeds from golf course.

Photo ID:  
 Track only requires minimal maintenance. Signage in good condition but not currently located as need to walk thru golf course.

Other Comments (sandstone or presence of nearby cultural heritage, presence of weeds, notes on observed usage, condition of adjacent vegetation, etc.):

## 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



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## Common Accessway Failure Mechanisms

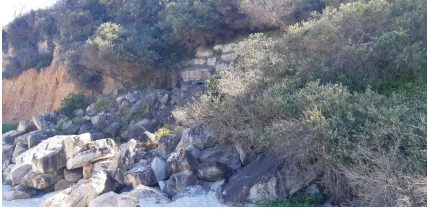
- Erosion at the base of the accessways
- Stormwater erosion
- Slope instability
- General Maintenance/vegetation encroachment
- Damage to dune vegetation and spread of weeds
- Lowering of the base of the accessways relative to the surrounding dune
- Difficult/remote access
- Creek bank erosion



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## Key Issues - examples



Nelson Beach – slope stability, stormwater outflow



Berrara - Erosion due to runoff



Callala Bay – no formal dinghy storage



Cunjurong – erosion impacts due to presence of track

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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 Barleur 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

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## Project Outcomes

- a suite of recommendations for Council's coastal accessway assets
- a register that can be used by Council as a tool to repeat the assessment in the future, and
- a framework to assess other key Council-owned coastal assets.



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## Future Directions

- Streamline the usability and functionality of the tool, to enable other Councils to apply the approach easily and more consistently
- Automate the process into a Decision Support Tool (DST)
- link the field proforma directly with the multicriteria assessment spreadsheet
- develop the multicriteria spreadsheet further so that generic management actions are suggested based on the responses from the field proforma
- technical documentation (e.g. as part of the online coastal management toolkit)



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