

Challenging today. Reinventing tomorrow.

## **Discounting Long-List Actions CAA**

CAP Workshop 29<sup>th</sup> June 2023

## **Refining list of Actions**

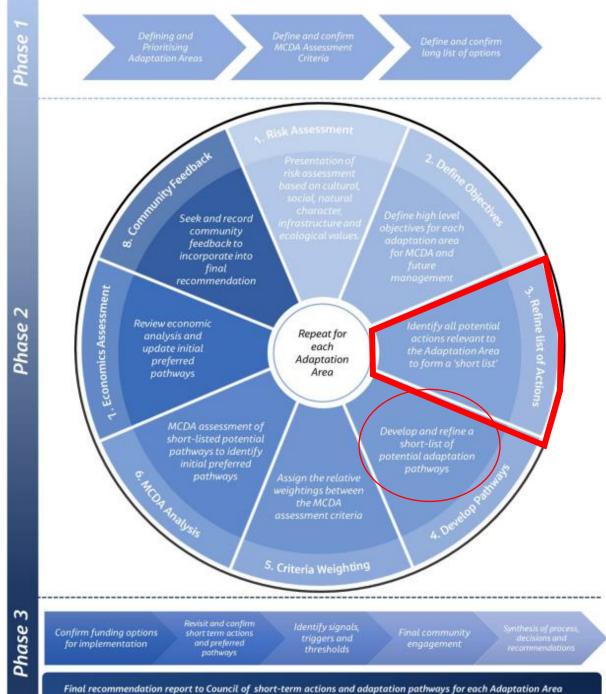
The purpose of this session is to discount options from the long-list that the CAP consider to not be suitable for the Central Adaptation Area – based on knowledge of the area and communities, and objectives formed in the previous session of this workshop.

The TAG have undertaken a pre-discounting of the options to get the CAP started, based on whether actions would be technically feasible, or were likely to succeed.

The following reasons for discounting should be considered and recorded in the Table. If there are reasons other than these, then they should also be recorded:

- A. Will not provide for the objectives defined by CAP
- B. Does not have a good track record of being successful in this environment
- C. Insufficient or limited space to implement the action
- D. Not suitable for the environment it is being applied to
- E. It is not a practical solution
- F. Limited benefits
- G. Other

The remaining actions deemed relevant for application within the Adaption Area by the CAP will form the 'short list' of actions, which can then be used to form adaptation pathways (Phase 2, Step 4).



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# **OPTIONS**

## **ENHANCE**

### ACCOMODATE

### PROTECT

We keep the hazard away

#### RETREAT

#### **AVOID**

We maintain and improve what we are already doing



- Enhance existing erosion ٠ protection structures
- Enhance existing inundation protection
- Enhance access and ramps
- Dune and wetland enhancement/resilience
- Emergency management
- Environmental monitoring
- Community education and risk awareness
- Private owners' ٠ responsibility

We live with the hazard



- Relocatable buildings
- Raising floor levels
- Flood-proofing buildings
- Flood proofing ٠ infrastructure

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- - - Groynes ٠

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Vertical permeable sills ٠

interlocking)

Soft Engineering (Erosion)

Beach drainage

Beach scraping

Renourishment

Hard Engineering (Erosion) Sea walls (vertical,

revetment, buried,

Detached breakwater ٠

#### Inundation controls

- Controlled/planned mouth openings of lagoons or rivers
- Culvert outfalls ٠
- Flood gates .
- Storm surge barriers ٠
- Stopbanks
- Earth bunds
- Pump stations

We move away from the hazard



- **Buyouts/Land Acquisition**
- Future Interests
- Land Swaps
- Leasebacks ٠

We don't move into the way of the hazard in the first place



Raising minimum floor levels of new builds

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- Reduce further intensification or development
- Trigger-based or time limited ٠ land use consents
- Zoning and setback controls •
- Transferable development rights

# ACTIONS

S			TAG Discounting		
<b>OPTIONS</b>	ENHANCE	ACCOMODATE	PROTECT	RETREAT	AVOID
	We maintain and improve what we are already doing	We live with the hazard	We keep the hazard away	We move away from the hazard	We don't move into the way of th hazard in the first place
ACTIONS	<ul> <li>Enhance existing erosion protection structures</li> <li>Enhance existing inundation protection</li> <li>Enhance access and ramps</li> <li>Dune and wetland enhancement/resilience</li> <li>Emergency management</li> <li>Environmental monitoring</li> <li>Community education and risk awareness</li> <li>Private owners' responsibility</li> </ul>	<ul> <li>Relocatable buildings</li> <li>Raising floor levels</li> <li>Flood-proofing buildings</li> <li>Flood proofing infrastructure</li> </ul>	<ul> <li>Soft Engineering (Erosion) <ul> <li>Beach drainage (B, F)</li> <li>Beach scraping</li> <li>Renourishment</li> </ul> </li> <li>Hard Engineering (Erosion) <ul> <li>Sea walls (vertical, revetment, buried, interlocking)</li> <li>Groynes (E)</li> <li>Vertical permeable sills (B, D)</li> </ul> </li> <li>Detached breakwater (submerged, exposed)</li> </ul> Inundation controls <ul> <li>Controlled/planned mouth openings of lagoons or rivers (D, F)</li> <li>Flapped culvert outfalls</li> <li>Flood gates</li> </ul>	<ul> <li>Buyouts/Land Acquisition</li> <li>Future Interests</li> <li>Land Swaps</li> <li>Leasebacks</li> </ul> It is recommended that retreat is considered as a broad option by the CAP, and the details of the actions to implement the retreat are considered further in the pathways formation process and with further discussion by CAP and Council.	<ul> <li>Raising minimum floor levels of new builds</li> <li>Reduce further intensification or development</li> <li>Trigger-based or time limited land use consents</li> <li>Zoning and setback controls</li> <li>Transferable development rights (E)</li> </ul>

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Stopbanks

. Earth bunds

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