SHEET 1 TO 3 – ADAPTATION ACTIONS – COASTAL REGION-WIDE INITATIVES TO ENHANCE ADAPTATIVE CAPACITY

SHEET 3 - MONITORING

Targeted monitoring provides a means to assess how the coastal environment is changing over time, and the effectiveness of adaptation options in mitigating the risk of coastal hazards.

The development and implementation of a targeted monitoring program to inform adaptive management is an important component of all adaptation strategies.

A useful approach to monitoring coastal environments may include:

- Simple and frequent photo point monitoring and on-ground observations suitable for community participation
- Event based monitoring (beach profile elevations)
- More detailed surveys (on-ground or aerial) every 5 – 10 years.

Monitoring observations may include:

> Dune movement
> Erosion extent
> Sand characteristics (colour, grain-size, composition)
> Sand coverage / beach shape
> Vegetation coverage, type, density and health
> High water mark
> Flood extent
> Exposure of rock
> Exposure of structures (ie. footings, foundations)

Initiatives and activities that Council may undertake as part of a coastal monitoring program include to:

- Establish a photo point monitoring system
- Confirm a program of monitoring actions
- Create a platform and process for data management
- Tailor the monitoring program to align with / inform a 5 - 10 year review of adaptation response and options.

Photo point monitoring
Photos posts with a defined outlook/viewpoint can be installed to enable photos to be captured from the same perspective each time. Systems use an email address or online app to help collect and collate photos, creating a photo record over time. This approach provides a simple way for community members and visitors to contribute to monitoring of the beach. Formal or informal versions of this system can be estabslihed for any section of coast.

Periodic aerial imagery / drone survey can be added to provide an aerial perspective of shoreline changes over time. The drone surveys can also provide elevation data that can be analysed to quantify changes in the beach profile over time (ie. dune width, slope, toe position, berm height). Elevation surveys can also be undertaken with on-ground equipment (survey stations and GPS).

Relevant and priority areas
Targeted monitoring is a priority action across all localities.

Monitoring		
	Monitoring changes in coastal hazard risk and effectiveness of adaptation	Photo point monitoring
Cooloola (Estuarine frontage)		
Cooloola (Ocean frontage)		
Cooloola Cove		
Inskip Point South		
Inskip Point Spit		
Rainbow Beach (Estuarine frontage)		
Rainbow Beach (Ocean frontage)		
Tin Can Bay		

Relevant / feasible
Priority
Not applicable