

Pakefield Monthly Monitoring Report

Date & Time of Survey: January 25, 2022 08:52

Time of Low Tide: 08.25

Height of Low Tide: -0.8 m ODN

Inspector: Keith Roper

Reason for Inspection: Scheduled

Monthly inspection of Pakefield's coastal frontage. Survey extent is from ~Grand Avenue in the north, to Pontins in the south. The purpose is to check signage, flag any hazards relating to public health and safety, identify imminent risk to property, and to monitor geomorphological changes. This report is used to inform coastal management decision-making and will be shared with the community. For best access, inspections should be done within +/- 3 hours low tide and with due regard to the weather and sea state.

Current and antecedent metocean conditions:

Persistent anticyclonic conditions with calm seas immediately preceding and during this latest inspection. 5th January, however, saw increased high tide level and significant swell waves from a northeasterly direction, reaching cliff bases and dune face causing additional erosion. Similar sea conditions also occurred more recently on 19th and 20th January leading to further erosion impacts. No periods of significant onshore winds since the last inspection of December 2021.

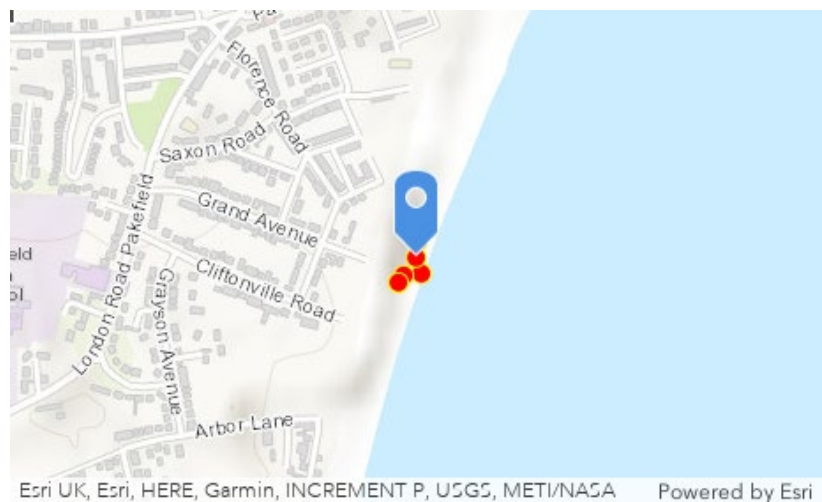
Beach cliff - Tracking the development of the beach cliff and dune scarping over the northern section of Pakefield beach.

Northern extent of beach cliff:
Seaward of Grand Avenue. Recent conditions described above have caused beach cliff erosion to seaward and south side of Cliftonville Road.

Maximum height of beach cliff face: 2 m

Comments on beach cliff:

Erosion continuing where beaches are relatively narrow and therefore vulnerable to increased tide levels or significant wave action.



Paces from ESC warning sign to beach cliff edge: 0

Photos of beach cliff:



Signage

Condition of signage: Signage necessary is in good condition.

Comments on signage:

The original large sign with two posts is now close to the eroding front edge of the beach cliff. The fallen sign on northern paling fence has been replaced. Beach signage below former rifle range has been removed. New signs regarding recent timber stake theft have been installed and are in place. Loss of timber stakes appears to have stopped.

Images of signage:





Intertidal shoreline change

Impression of intertidal beach volume: Moderately greater

Comments on change in beach geomorphology:

Upper beaches remain relatively healthy. Intertidal beaches have recently been improved by deposition of shingle rich material seaward from mean high water mark.

Photos of intertidal beach:



Supratidal/back beach change:

Impression of supratidal beach volume: In most southern areas, fallen cliff material is tending to maintain upper beach levels. Upper beach gradient is being maintained by material adjacent dune faces.

Photos of supratidal beach:



Risk to property:

Comments on threat to cliff-top assets:

Temporary concrete walling has created a cliff face promontory by reducing erosion. Erosion has however encroached behind the southern end walling section which itself is now cracked centrally, probably due to movement caused by waves. Cliff face loss to north side of walling has increased with falls in some areas now as high as the cliff top. Remaining cliff face in this area is likely to be unstable due to its steep angle. Note overhanging vegetation partially obscuring extent of erosion in places.

Photos of 'The Cliffs' properties:



Photos of cliff section beneath 'The Rosary':





Photos of cliff section beneath Pakefield Caravan Park (PCP):



Pakefield Cliffs:

Comments on changes to Pakefield Cliffs:

Cliffs from Pontins south benefitting from increasing beach width. Northern cliffs remain vulnerable to increased sea levels and significant wave action.

Conditions earlier this month, described above, have caused significantly more cliff erosion and loss.

Impression of beach volume in front of cliffs: No change

Change to northern cliffs:

- Evident cliff top recession

- Overhanging cliffs
- Cliff toe recession
- Active cliff erosion supplying supratidal beach material
- Severe continued erosion of cliff face
- Natural regrading of cliff face
- Slumping
- Sliding
- Topples and falls
- Active scree slope
- Accretionary wedge at cliff toe
- New debris exposed on cliff face
- New vegetation at base of cliff

Photos of cliffs north of rifle range wall:



Change to southern cliffs:

- Beach cliff meeting unvegetated cliff face
- Evident cliff top recession
- Overhanging cliffs
- Cliff toe recession
- Active cliff erosion supplying supratidal beach material
- Severe continued erosion of cliff face
- Natural regrading of cliff face
- Slumping
- Sliding
- Topples and falls
- Active scree slope
- Accretionary wedge at cliff toe
- New vegetation at base of cliff

Photos of cliffs south of rifle range wall:



South Pakefield - Pontins frontage and Benacre Ness

Comments on the southern frontage from Pontins to Benacre Ness:

Pontins benefitting from increasing beach width immediately north of migrating Ness with upper beach at base of cliff stabilising and becoming colonised by marram grass. Surface water drainage outflow at Pontins access currently unable to maintain clear channel across beach to sea. Extreme north end of Ness appears possibly narrowed towards cliffs.

Photo of Benacre Ness and Pontins frontage:



Hazards and/or Debris:

Comments on hazards and/or debris:

Some cliff faces vertical and yet to attain more stable angle of repose and much fallen vegetation remains on beaches. Large concrete slab on beach below the south end of Pakefield Caravan Park (PCP) is now exposed and has old fixings projections. Various materials continue to fall from PCP cliff top assets; however, PCP are understood to be clearing debris and have been removing vulnerable assets near cliff edge. Risk from previously overhanging concrete slab now greatly reduced. Current relatively healthy beach levels probably bury more debris than is visible, although many pieces of corroded steel are exposed. Fallen material on north side of concrete walling includes barbed wire. Overhang of

southern masonry exposed in cliff face, not worse. Temporary bag defences continue to deteriorate in condition.

Images of hazards and/or debris





