

REPORT TO THE GENERAL MANAGER

Date: 24 October 2023

From: Chloe Dowsett, Coast & Biodiversity Coordinator

Subject: Monitoring Report of Access track at North Beach under Sub-licence (under RI1564194) – 13 and 23 October 2023.

File #: E2023/107313

Purpose:

This report has been produced for the General Manager on the monitoring of the condition of the access track at North Beach used for commercial horse-riding activities under the Sub-Licence for Zephyr Equine Pty Ltd (**Zephyr Horses**). The report has been produced by Chloe Dowsett (BSc) Coast and Biodiversity Coordinator at Byron Shire Council to provide an account of the condition of the access track as of 13 and 23 October 2023.

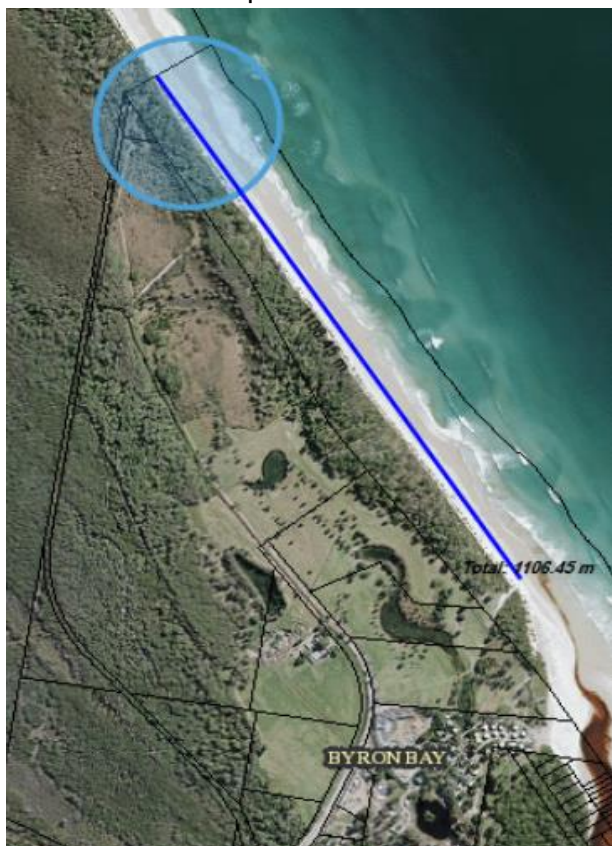
Information/Background:

On Friday 13 October 2023 I completed a site visit to monitor the access track presently being used by Zephyr Horses for their commercial activities (trail rides) on North Beach/Tyagarah, Byron Bay. Council has issued Zephyr Horses a Temporary Sub-licence (under R1564194) for access through Crown land Lot 407 DP 729057. The licence commenced 1 July 2017.

1. Description and Location

Access track for use by Zephyr Horses is located off a Private Property Rd (within Elements Resort) at the north/west end of the Crown land as shown in the map below. It is understood that Zephyr Horses are the sole users of this track along with a small amount of the general pedestrian public.

The access track passes from the Coast Fire Trail at the point where the trail enters Tyagarah Nature Reserve



over a large dune and through dune vegetation (grasses, banksia and casuarinas) to the ocean. The track goes up a gentle incline on the landward side and then down a steep and narrow (<2 m width) sand track on the seaward side. The track crosses the dune at right angles to the beach and is exposed to the prevailing onshore winds which have caused wind funnelling at the seaward entrance. Due to undercutting on either side of the track (and risk to vegetation) and lowering of the sand track due to horses, stabilisation of sides of the track with sandbags was completed on 12 February 2018 by the Licensee. Since this time, repairs have been undertaken with replacement sandbags installed - the dates unknown.

At the entrance to the access track is a large Casuarina tree. This tree is the most prominent feature along this stretch of coastline as it is the largest tree between Belongil and Brunswick Heads. It is most likely a key perching tree for the White-bellied Sea Eagle (*Haliaeetus leucogaster*), Eastern Osprey (*Pandion cristatus*) and Brahminy Kite (*Haliastur indus*).

REPORT TO THE GENERAL MANAGER*Track Condition*

- **Seaward access track**

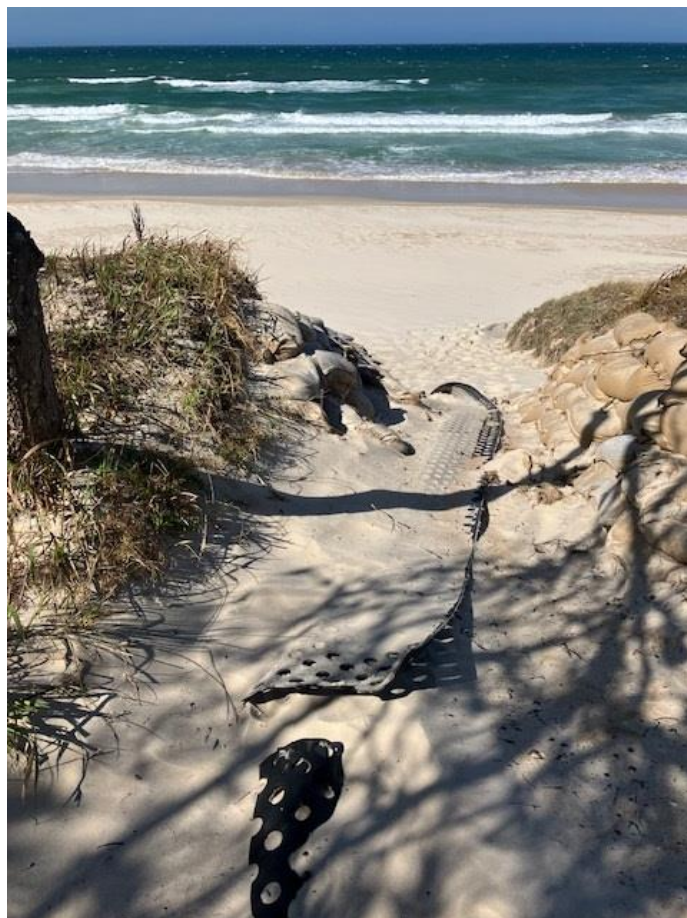
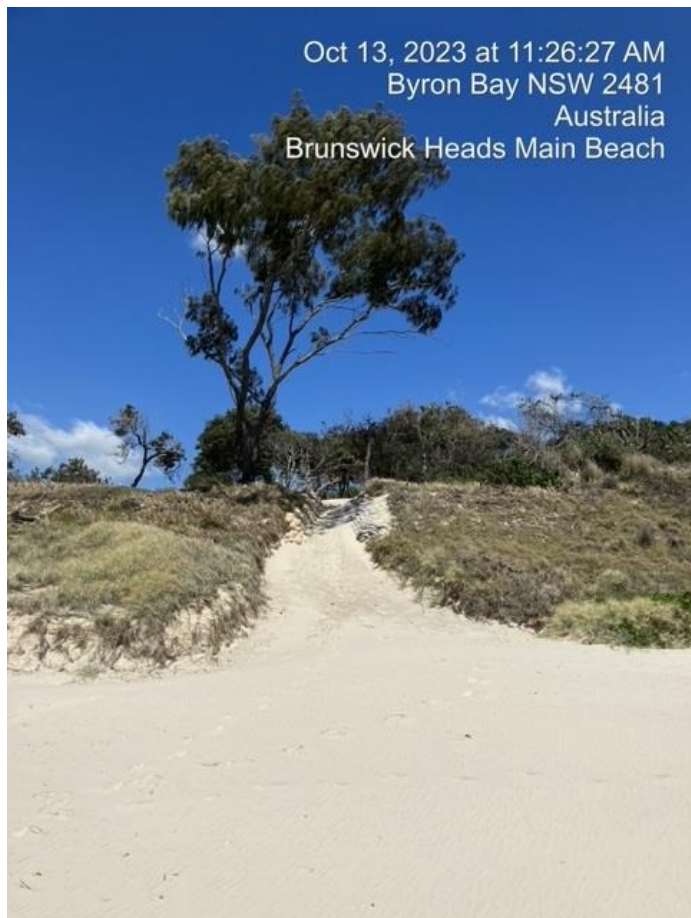


Photo 1: Seaward access track (Oct 13)

Photo 2: Seaward beach track (Oct 24)

The seaward entrance to the track is very steep (photo 1) with plastic matting exposed from wind shift (photo 2). The plastic matting is assumed to have been installed to assist with stabilisation/slippage of sand on the track. It is extremely slippery (in boots) however assumably provides some traction for horses.

The present state of the beach at the time of inspection was quite flat due to recent southerly swell. There is clear lowering of the track in comparison to the normal dune profile, however, this is not too different to previous years. The use of the track by horses, has an impact on the height and width of the dune track over time, and this needs to be managed sympathetically to the surrounding environment.

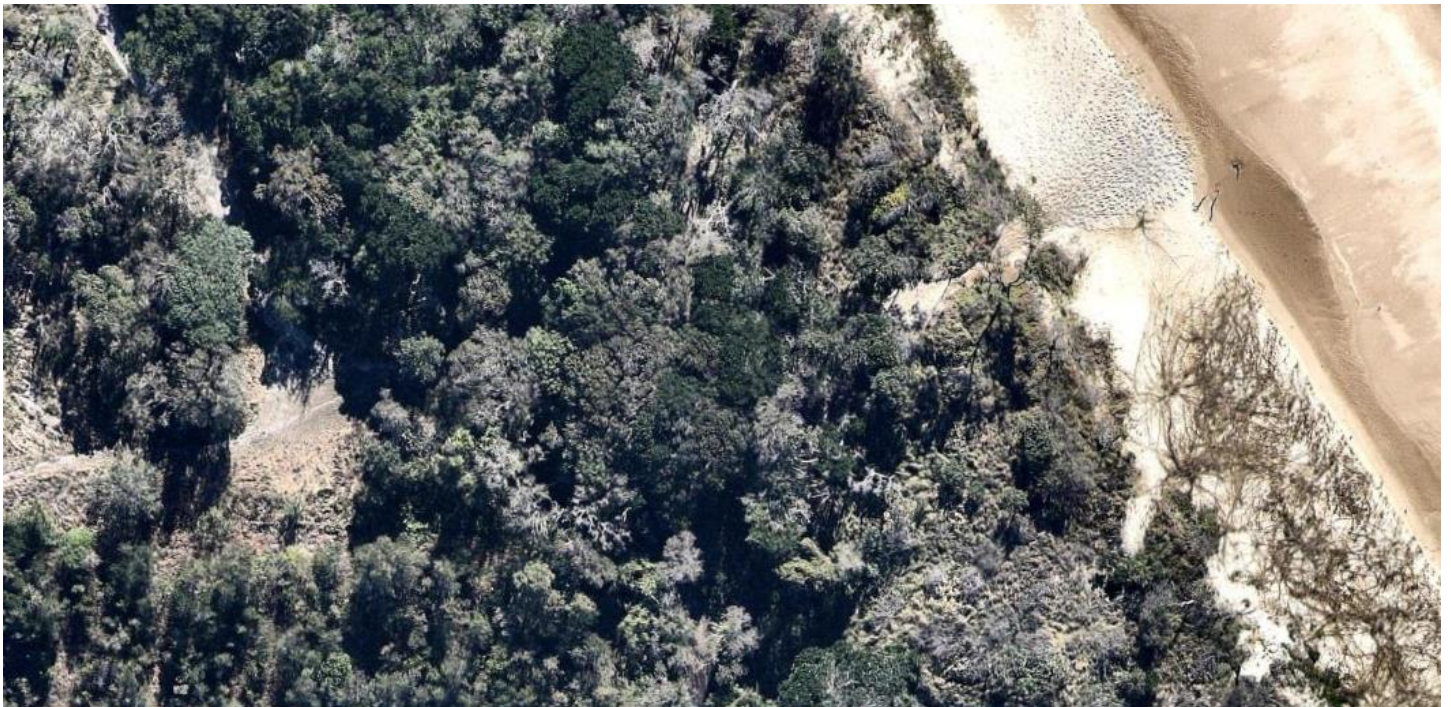
The track is narrow at the crest of the dune and widens as it goes towards the beach. There were no horse tracks on the days of inspection, however, due to the northerly winds and sand movement, tracks are covered realitvely fast. There has been good growth of grass either side of the track and over the frontal dune in general since the last inspection (as shown in the near maps images below). The large Casuarina tree appears to be in good condition.

The access track appears to be more visible from above, with less vegetation foliage covering parts of the sandy track (as shown in the near maps images below). On the second day of inspection (23/10/23) areas on the western (north) side of the track had been impacted by the bushfire in the Tyagarah Nature Reserve (photos 3 & 4).

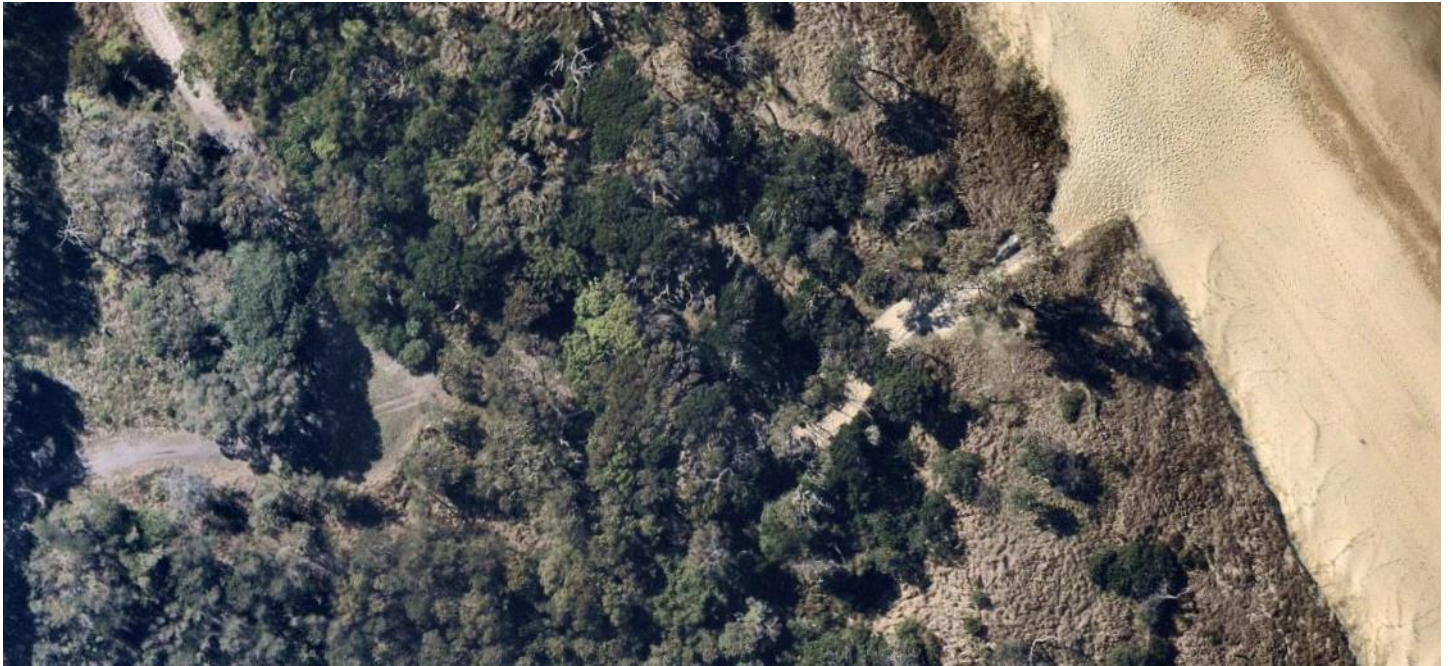


Photo 3: Dune adjacent the track on the north/western side.

Photo 4: Coastal heath impacted by bushfire (23/10/23).



Near Maps image (14 July 2018) – central part of access track not visible and sparse vegetation on the frontal dune



Near Maps image (16 September 2023) – access track more clear and significant vegetation growth on frontal dune

The original sandbags were installed in 2018. Over the years, due to consistent lowering of the track and exposure of the bags, they have become unstable and fallen out of place, or degraded due to exposure of the material. It is evident that replacement of the original sandbag wall on the LHS and RHS of the track (facing the ocean) has been undertaken (refer photos 5 to 8). The new sandbags are different to the original bags, have not been placed very well in an inter-locking nature and may slip and fall with time should sand levels lower. It is unknown whether any of the old sandbags were removed from the location, are still part of the structures or are buried under the sand within the dune. Discussion with the Licensee may be beneficial to understand the maintenance that has undertaken and when.



Photo 5: LHS of track – sandbags exposed (21/06/18)

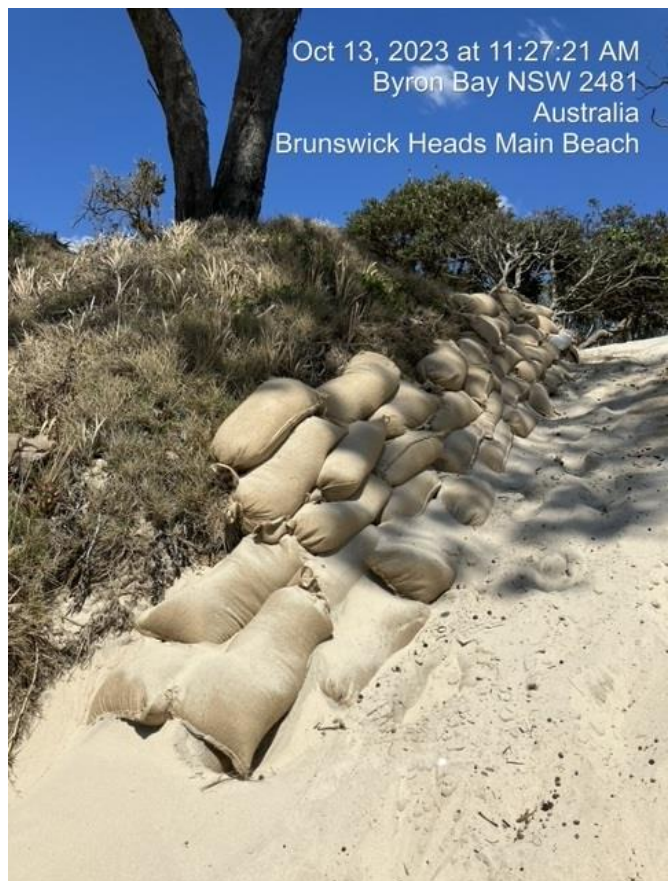


Photo 6: Replacement sand bags on LHS (date unknown)



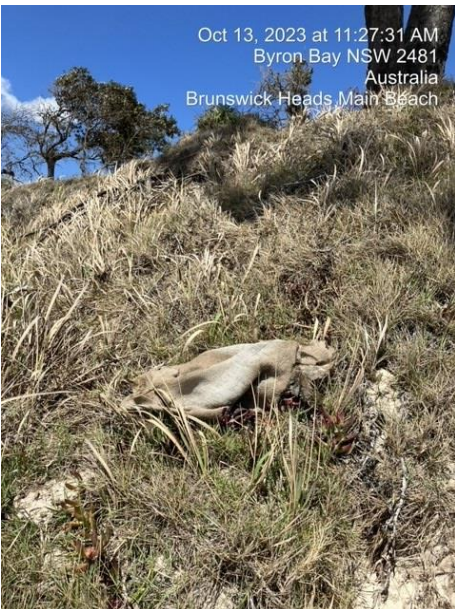
Photo 6: RHS of track – sandbags installed (13/02/18)



Photo 8: RHS of track – new sandbags installed (date unknown)

The necessity of the sandbags for stabilisation of the track edges and large tree is not too important now due to vegetation growth on the edges of the track and overall dune recovery. If the track was only being used intermittently and by people, there would be no need for the sandbags to remain. The large Casuarina tree is stable and dune vegetation has extended over the sides of the track. The beach is in accretion phase and northerlies will continue to blow sand up the track. Further stabilisation of the sides of the track will likely occur through vegetation recruitment and grass establishment.

Sandbags are a temporary measure. The bags are not well interlocked, and overtime disintegrate. It is recommended that as these bags break open, they are removed from site. There has been some sand bags that have broken down and these should be removed from the location. At present they have been placed in a pile in the adjacent vegetation (photo 9, 10 & 11). If the sandbag walls unravel or need replacement/repairs - this should only be undertaken after inspection by Council and with approval.



Photos 9, 10 & 11: Degraded sandbags to be removed from site

Complete removal of the sandbags at this stage is not recommended. The sandbags provide a clear delineation of the track which is beneficial. If sandbags are completely removed, horses may stray to either side, thereby widening the track. Over time and outside of beach building conditions, the track will be lowered, and the sides may be undercut, thereby triggering the need for stabilisation. While horse riding is an approved activity at this location, it makes sense to keep some of the sandbags in place until further remediation measures are contemplated.

Landward access track

The landward access track was originally stabilised with pine timber logs to create steps along the track and regular intervals logs across in 2018 to prevent further lowering of the track and exposure of vegetation roots (photo 12). There has been an additional attempt to stabilise the track with black plastic matting (photo 13). It is unknown how much matting has been added to the track, assumed to be present at certain sections only. The matting is likely attached in place with large pegs and may be covered or uncovered by sand depending on wind conditions and traffic (horses, use of track). Some of the matting has peeled up at the edges.



Photo 12: Landward access track and steps (21/06/18) (13/10/23)



Photo 13: Landward access track plastic matting (edges peeling up)

On the first day of inspection (13/10) only the matting on the landward access track was visible, with most of the matting covered by sand (only the edges visible). However, on the second day of inspection (23/10) the seaward matting was visible (photo 14).



Photo 14: Seaward track matting visible (23/10/23)

Crest of dune

The crest of the dune has seen some growth and stabilisation of grasses on either side of the track. The area very wide with uncovered sand from sand drift (wind) mounding up at the crest (photo 15).



Photo 15: Seaward track matting visible (23/10/23)

No horse poo was observed on the track or beach on the day of monitoring. Horse poo is collected and put into a pile in the private property for removal.

Outcome:

Of concern, is the steepness of the seaward track and lowering of sand from slippage. Some kind of stabilisation is recommended similar to the landward access track. It is recommended that pine timber logs are considered by the Licensee on the seaward track before the track becomes too steep, and cut too deep into the dune. This may include removal or lifting up the plastic matting to construct the steps.

Recommendations:

1. That the Licensee provide information to Council regarding maintenance and replacement of sandbags undertaken on the track – works/materials and dates.
2. That the Licensee remove all failed sandbags from the site and waste.
3. That the Licensee consider construction of pine timber logs steps on the seaward track to stabilise.
4. That the Licensee notify Council for authorisation of any proposed works including replacement or addition of sandbags. Staff will subsequently advise if the works are necessary depending on conditions at the site.
5. That Council continues to monitor the condition of the track on a regular basis.
6. Should the Licensee not adhere to all conditions of the permit, then Council terminate the Licence.

Consultation: Leasing Coordinator - Paula Telford.

Director / Executive Manager's Recommendation:

Communicate to: