

Response to the Media Enquiry relating to the Opening of the Touw River mouth on 09 April 2024

- [Why was the mouth not opened earlier, with the first weather warnings at the start of the weekend on 5 April?](#)

The artificial breaching of the Touw River is executed under the Environmental authorisation (authorisation numbers 12/12/20/610/4/7 and DEAT/EIA/5652/2009) granted by the Department of Environmental Affairs and Tourism (DEAT) in 2010 and takes place under certain conditions as described in Park Management plan of the Garden Route National Park (GRNP) (2020 to 2029). These operating principles and protocols are described in the Estuarine Management Programme of the Management Plan of the GRNP. The review of this Management Plan in 2019 was informed by public participation processes that were conducted across the Garden Route.

All operating principles and protocols were applied and in place during the last breaching incident of the Touw River mouth in the early morning hours of 09 April 2024. The following actions can be confirmed.

- A preparatory channel was in place (constructed in March 2024) as a proactive measure.
- An excavator was put on standby at the Touw river mouth from Friday 05 April 2024, as well as an operator accommodated at Ebb & Flow Rest Camp in reaction to the impact based weather warnings that were received, as summarised below:
 - The first weather warning was issued on Friday 05 April 2024 at 14h00. This was a Level 4 warning for the 24 hours from Sunday, 07 April 2024 00h00 to Monday, 08 April 2024 00h00. This level 4 warning indicated a low likelihood and a significant impact with the Garden Route likely to receive rain on Monday with expected totals between 30 to 50 mm with some mountainous areas receiving up to 60 mm.
 - A second Level 4 weather warning was issued on Monday 08 April 2024 at 08h00 for the period 10h00 to 23h00 of the same day, with the same amount of rain as the first warning.
 - A third Level 4 weather warning was issued on Monday 08 April 2024 at 08h22 for the period 09 April 2024 00h00 to 14h00 with a rainfall prediction of 20 to 40mm but up to 60mm of rain over the extreme eastern parts of the Garden Route. These were all taken note of throughout the alert period.

The amount of rain that however fell on 09 April from 00h00 to early morning hours, as recorded in the catchment, was 160mm – far more than what was forecast in the weather warnings.

- Estuary breaching was done at 06h20 after the water level had risen rapidly around 06h00 (the rise of the water level was closely monitored throughout the night). The breaching was during the receding spring high tide, which was just after 04h00 on the morning of 09 April 2024, the preferable time according to the guiding principles. Breaching during a falling tide reduces the probability of marine sediments being deposited in the estuary mouth through tidal inflows, and maximises the outflow of water and hence also the erosion of accumulated sediments thereby leading to a more effective breaching. If the mouth had been opened during the spring high tide, and the sea deposited sediment back into the mouth it could have reduced the rate of outflow of runoff water to the sea and potentially increasing the water level in the estuary. This could have caused more severe flooding on the estuarine floodplain as the higher water level in the estuary caused by the incoming tide would have been met by

the large volume of water rushing down from the catchment. Breaching was thus timed to maximise the outflow of water.

All principles and protocols according to the management plan were applied. The weather incident that occurred on 09 April 2024 from 00h00 to the early morning hours of the same day, was far more severe with 167% more rain than initially predicted, in a much shorter time period, and breaching was undertaken to manage the higher than expected water run-off as efficiently as possible.

- Why was the mouth only monitored, while all the personnel and equipment were in place to do the job?

The explanation above provides answers to this question including the monitoring conducted.

- Are you aware that some residents consider legal action because of the flood damage to their property?

The weather occurrence over the mentioned periods above was not restricted to the Touw River catchment but was widespread across the coastline of the Western Cape and adjacent areas, where widespread flooding and damage was also recorded. SANParks cannot stop the residents should they see the need to take legal action.

- Any other comment regarding the situation will be appreciated.

The dynamics and complexities of the Touw estuarine ecosystem necessitates a high level of responsible management.

Under natural conditions the sandbar at the estuary mouth can potentially build up to 3.5m above mean sea level (amsl). However, if the water levels were to build up to this height it would result in the flooding of multiple buildings and structures (including private houses and SANParks' Ebb & Flow rest camp) built on the estuarine floodplain, particularly along the Touw Estuary. Consequently, the estuary mouth is artificially breached at water levels between 2.1 and 2.4m amsl, to reduce the risk of flooding man-made infrastructure, with deviations from this only when specific conditions apply. However, this lower than natural breaching results in significant changes in the physical and biological functioning of the entire lake system. To manage a balance for the good of all situations, breaching is done in a responsible manner according to a set of guidelines that have been legislated.

Early breaching when the head of water in the estuary is below naturally achievable levels can result in reduced sediment scour in the estuary mouth and hence potential sediment accumulation and premature estuary closure. Records of breaching heights and times of opening and closure of the Touw Estuary have shown periods of reduced breaching heights, frequently below the prescribed minimum, and shorter open phases over the same period. For example, running averages show that in the early 1990s estuary open periods after breaching could be up to four months, where this is now typically only one month or less. Greater adherence to prescribed breaching heights in recent years is potentially altering this trend.

Early breaching has in the past been largely a consequence of persistent pressure from the public and disaster management agencies to breach early in the belief that it would prevent flooding of residential areas, though without apparent due consideration of the long-term detrimental social and biological impacts of sediment accumulation in the estuary mouth, and substantially reduced marine-estuarine connectivity.