

#### 4.4.4 Zone 4: Dune Cordon

This management zone acknowledges the prominent dune ridges that occur in a north-south orientation across the coastal plain as a noticeable topographic feature. On the coast the dunes support coastal forest, subtropical dune thicket and subtropical seashore vegetation. The dune cordon is slightly fragmented in this zone, comprising the northern dune cordon area, the central dune cordon area and the southern dune cordon area. The central dune cordon comprises of port-related activities, including the Richards Bay Coal Terminal and various liquid chemical and petroleum storage facilities. The area is dissected by an extensive rail network.

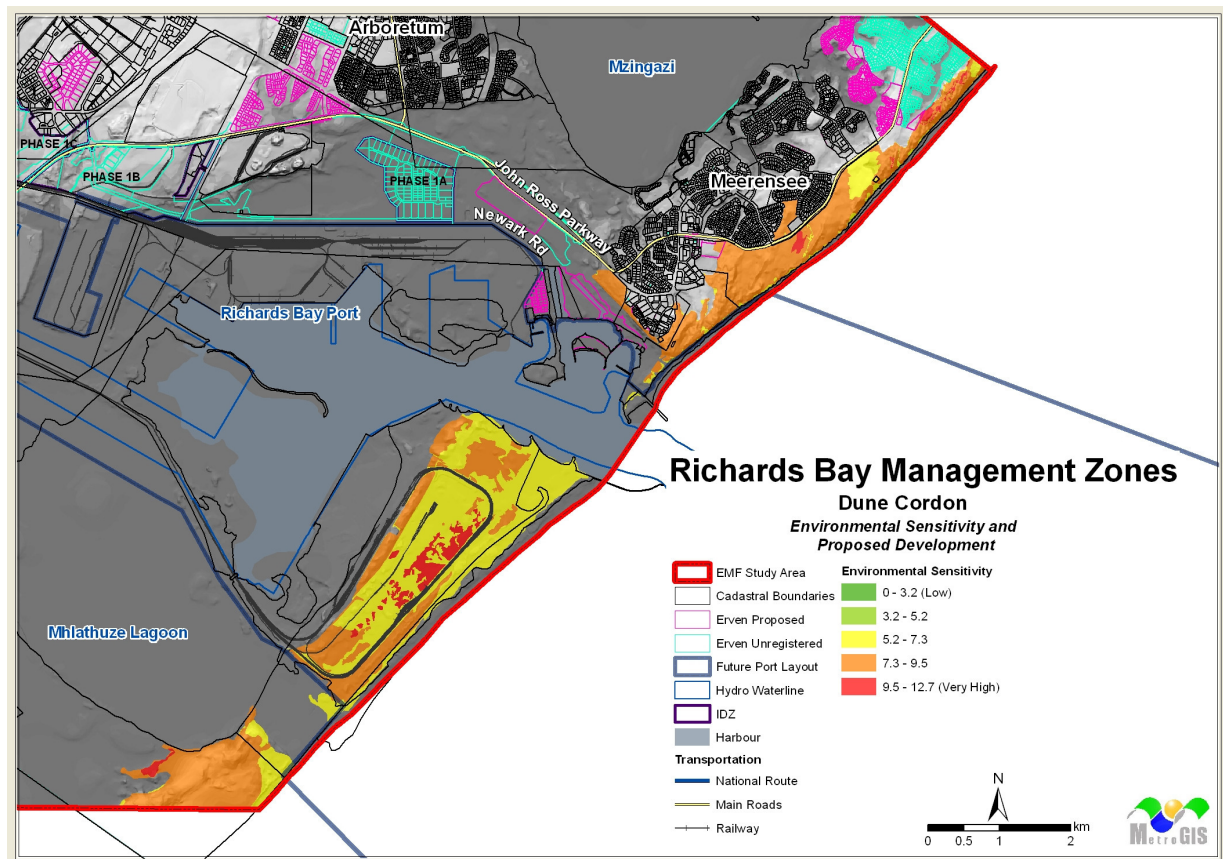


Figure 54: ZONE 4: Dune Cordon (Environmental Sensitivity and Proposed Land Use)

#### CONSTRAINTS IN THIS ZONE:

Coastal dunes are prominent landscape features that support coastal dune forest, a regionally important vegetation type with a high conservation value. Subtropical seashore vegetation is specialized vegetation found on the foredunes on which primary succession of dunes is initiated. On the frontal dunes between Lake Mzingazi and the Indian Ocean there has been mining activity that has reshaped the dunes in the area. There has also been a substantial degree of beach erosion that has caused considerable instability along the coast which has been caused by the lack of sediment production and heavy seas. Much of the erosion occurs where there is a low permeable layer (Port Durnford) at or near sea level causing perching of the watertable along the coastal dune face that daylight on the beach. This is particularly prevalent along the Esikhaweni coast where substantial slumping has occurred. This can have constraints on the potential mining options along the coastal dunes. Future mining of the coastal dunes to the south of the area is a threat. Industrial activities in the zone contribute to ambient air quality.

**OPPORTUNITIES IN THIS ZONE:**

The dune area immediately adjacent to the Sanctuary estuary has been earmarked for conservation. The northern dune cordon area in the study area also presents opportunities for conservation. The central dune cordon of the area is highly fragmented and transformed and is extensively used by port-related activities.

**POTENTIAL CONFLICTS BETWEEN OPPORTUNITIES:**

There is a potential conflict between conservation of the dune vs development in the north.