

Summary of Environmental Transgressions mentioned in the Final Directive issued by DEA on Transnet

Summary of key environmental issues raised in directive:

1. Transnet's water sampling study (done by Metago in 2008) indicates that Manganese, Iron and Aluminium measured in soils, groundwater and surface water are at elevated concentrations. The presence of manganese in groundwater is linked to surface water runoff from the site and leachate from manganese dust that has deposited in the stormwater canal/stream south of the site. The possibility of contamination reaching the beach is confirmed.
2. Metago study (6 January 2009): concentrations of manganese, copper, zinc and chrome VI exceed DWA acceptable environmental risk (AER) levels (manganese exceeds AER by 166 times)
3. Metago study (11 February 2009): manganese levels measured in boreholes are elevated, probably because of seepage from on site manganese ore stockpiles.
4. Black fill was noted in an area south of the site, and in area between the Kings Beach carpark and the site. It is expected that this is as a result of runoff from the Manganese ore facility and Fuel Tank storage at the harbour. At the time of issuing the directive, Transnet could not provide results to indicate the contrary. The most recent letter written by DEA on Transnet's compliance with conditions of the directive states that they are busy doing tests and results will be available shortly.
5. Metago report suggests that boreholes be sunk outside of site boundaries to determine the extent of aquifer contamination or to verify contamination of the shallow aquifer underling the site. These were not included in the plan presented in the Water Quality Monitoring Procedure (28 February 2010) done by Transnet. The frequency of monitoring also needs to be verified to DEA, as conflicting information was provided by Transnet in this regard
6. Metago report states that boreholes (BH3, BH4 and BH5) must be reinstated/repared.
7. No evidence has been provided by Transnet that the walls and floors of storage bins are properly sealed to prevent manganese leachate into groundwater. This is highly problematic since Transnet's stormwater management plan diverts all surface water to these bins. It is expected by Transnet that effluent collected in these bins will evaporate. No provision is made for disposal of effluent or separation of clean and dirty water. During a high rainfall event, these bins may fill and overflow on to the site, which is unbunded, thereby increasing the risk of contamination spreading into the stream and off-site