

Update on South Maroubra Stormwater drain, kids pools and the leachate seeping from landfill on Malabar Headland, by Claire Bettington.

General information as advised by Adrian Kirk of DoFD (Department of Finance and Deregulation – the Commonwealth Government landowner of the Headland) at a Community Forum on Wednesday 16th January 2013.

After extensive investigations by DoFD, they have concluded that leachate seeping from the landfill *is* contaminating the stormwater which flows from the Council's drain outlet at South Maroubra beach. This toxic cocktail then flows into the kids pools, and it is not safe to swim there.

The solution DoFD are proposing is to **completely separate the leachate from the stormwater, by extending the lined channel from the outlet of the stormwater drain all the way to the sea, avoiding the kids pools. The channel will be lined with geotextile, which forms a barrier against seeping leachate. Most or all of this lined channel will be constructed on Commonwealth land at the back of the beach. A pipe will be built at the end of the channel to take the stormwater out to sea.**

The leachate will be collected at the base of the landfill with a large collection pipe placed in a deep trench on bedrock, which is 6m under the surface in some places. A filtration plant will partially treat the leachate, and then a pump will discharge it into a much enlarged collection pond. There will be reed beds in the pond to further filter the water.

(The eventual long-term plan is to pump this partially treated leachate up to a new pond to be constructed on top of the rifle range, where it will form an evaporation pond with extensive reed beds and wetland for wildlife. This can only happen after remediation and proper capping of the entire landfill.)

The enlarged pond at the base of the landfill will also collect the surface water from rain that falls on the surface of the rifle range, as it does now. The pond water will discharge into the sea in the same way as it does now, to the south and east of the kids pools.

Adrian says that when this work is complete (by June 30th 2013) the water in the kids pools will be safe.

In my opinion, all the above is good, but the stormwater itself is still untreated, and gross pollutants will still end up in the sea. This is the Council's responsibility.

Diagrammatic maps:

Please see below for diagrammatic maps superimposed on an aerial photo of the South Maroubra beach area, near the edge of the landfill on the Rifle Range. (Original aerial photo courtesy of NSW govt through their "SIX" portal.)

The diagrams show:

- General layout of the various ponds, the property boundary between Council and Commonwealth land, and the kids rock pools;
- Council's stormwater drain and the flow of stormwater;
- The surface water flows of rainwater from the Rifle Range on top of the landfill, down the gabion steps to the pond and reedbeds;
- The leachate collection pond, the pond overflow route, and the general flow of leachate seepage; and
- **Diagram of works proposed by DoFD for the next 6 months.**

STORMWATER DIAGRAM



SURFACE WATER DIAGRAM



LEACHATE FROM THE LANDFILL DIAGRAM



COMPOSITE DIAGRAM OF STORMWATER, SURFACE WATER AND LEACHATE



WORKS PROPOSED to be done by DoFD in the next six months, beginning end of January 2013: positions of proposed works are approximate only.

