

**13 January 2015**

### **Sea lettuce in Knysna estuary not toilet paper**

Following complaints from citizens that toilet paper was seen floating in the estuary, Professor Brian Allanson of the Knysna Basin Project reported on the cause of the evident sea lettuce/ macro-algae to the Knysna Pollution Action Committee (SANParks, Knysna Municipality, Eden District Municipality and the Knysna Basin Project).

Sea lettuce (*Ulva lactuca*) is a form of green algae that comes from the sea (often seen free floating) and can be consumed by herbivorous fish, sea animals, slugs and others. It is bright green in colour but can be white or black when dry.

Although more studies are underway, Prof's report in a nutshell explains how dead and decaying algae push up the greyish, oxidized algae to the surface. He suspects increased hydrogen and phosphate levels in the water which led to last year's red tide, have led to this year's visible sea lettuce.

'December's strong easterly winds might have pushed the large quantities of nitrogen and phosphate mixed with warm water to intertidal shores.' It is mainly along the North shore of Ashmead in the vicinity of Costa Sarda and Monk's Caravan Park.

Why does it look like toilet paper? 'The surfacing of sea lettuce to its current level is a natural phenomenon and not related to the Water Treatment Works at all. In fact as the tide rises, fragments of these sheets are lifted and float to the surface from where they are transported onto the saltmarsh under the stress of winds. With ebb tide the fragments are caught on the tops of the saltmarsh where they dry out and create the appearance of 'loo paper.'

So says Johan de Klerk, Area Manager of the Knysna section of the Garden Route National Park (GRNP): 'The analysis Prof has shared with SANParks will assist the decision whether to remove it or not. It is a natural process but where there is a bloom of sea lettuce, it can prevent sunlight from reaching vegetation such as eelgrass. When it dies, bacteria feeding on it can use up vast amounts of oxygen but the upside is that this can also give rise to a large population of invertebrates.'

Although sea lettuce is edible in other countries, authorities are cautioning against this as more studies must still be conducted.