

Senate Standing Committee on Environment and Communications
Legislation Committee
Answers to questions on notice
Environment portfolio

Question No: 210

Hearing: Additional Budget Estimates

Outcome: Agency

Programme: Great Barrier Reef Marine Park Authority

Topic: Sediment on the Reef

Hansard Page: N/A

Question Date: 24 February 2014

Question Type: Written

Senator Waters asked: 1. What's the estimated annual natural or pre-colonial loads of sediment into the Great Barrier Reef from the Great Barrier Reef catchments? 2. What is the current estimated load added from agriculture? 3. Please provide a table that outlines estimates of annual sediment loads to the Great Barrier Reef from each of 'natural' (pre colonial) contributors, agricultural sources and offshore dumping (capital and maintenance) for each calendar year for the last decade.

Answer:

1. 3,112 ktonnes per year.
2. 14,101 ktonnes per year.

Source Catchments model outputs indicates that 44 per cent of the current total suspended solids load is from grazing lands (hillslope and gully erosion), with a further 34 per cent from stream bank erosion. Assuming the majority of the streambank erosion is from the extensive grazing areas in the Great Barrier Reef catchment, then the results support previous findings that approximately three quarters of the current total suspended solids load (20 micrometres) to the Great Barrier Reef is from grazing lands. An additional 16 per cent is from nature conservation and sugarcane with the remainder from cropping, forestry, horticulture and urban areas. However, the total suspended solids load per unit area is higher from inland cropping lands compared to grazing.

3. Dredging and offshore disposal of dredge material does not introduce new loads of sediment into the marine environment. The material is already a part of the cumulative volume of sediment within the Great Barrier Reef World Heritage Area (GBRWHA). By contrast, catchment run-off introduces new sediment loads into the GBRWHA. Modelled results for sediment delivered to the GBRWHA are only available for the years 2009 - 2011 and only for total loads:

Sediment source	Baseline	2009	2010	2011
Total	17 213	17 213	16 869	16 180
(ktonnes/yr)			(- 2%)	(- 6%)