



1 Million T-Shirt a Year. Microplastics into our oceans and waterways.

General Facts

Definition Outfall: the place where a river, drain, or sewer empties into the sea, a river, or a lake.

We used to think an outfall allowed chemicals to disperse. Now we know many chemicals don't just go away. These toxins and pollutants enter the food chain and can bioaccumulate affecting marine life and humans as well.

Australia has 193 coastal outfalls

Inland NSW has 214 inland waterway outfalls

Inland waterways - rest of Australia unknown.

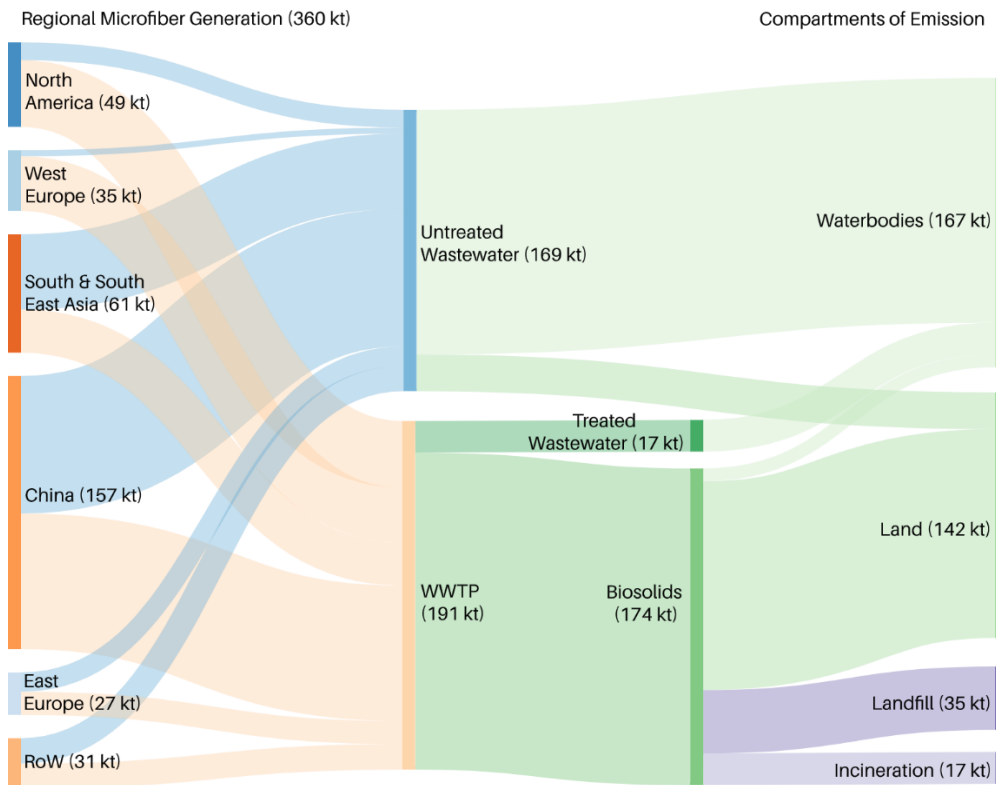
Microplastics:

Outfalls dumps the equivalent of 1 million T-Shirts in the form of microplastic fibres each year into Australian oceans each year

Outfalls dump into our oceans up to 400 tonnes of microfibre plastic per year.

Based on figure from "Synthetic microfiber emissions to land rival those to waterbodies and are growing Jenna Gavigan, Timnit Kefela, Ilan Macadam-Somer, Sangwon Suh, Roland Geyer"

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0237839>



ROW (M) Rest of the World microfibre discharge = 31 ktn

Latin America, Africa, the Middle East, and Australasia (Oceania)

Calculate based on population for each region.

Population (Google)

Latin America 666 million

Africa: 1216million

Middle East : 411 million

Oceania (Aus , NZ and other PIN) = 44million

Total population Rest of World TOTAL P (ROW) = (666+1216+411+44)

Australia: 26 million P (AUS)

Tonnage Australian Microfibres =



$P(\text{AUS}) / \text{World TOTAL } P(\text{ROW}) \times (\text{ROW } (M))$

$26 / (666 + 1216 + 411 + 44) \times 31\text{ktn} = 344 \text{ tonne per year}$

Plastic microfibrils from Australian outfalls : Equivalent T-Shirts

@ .35kg Estimate weight of T-Shirt

$344 \times 1000 / 0.35 = 982, 857 \text{ T Shirts (1 Million)}$