

MICROPLASTICS & FRESHWATER ENVIRONMENTS

What are microplastics?

Microplastics are small pieces of plastic that can be harmful to the environment. They are smaller than **5 millimeters** in size and often invisible to the naked eye.

- **Primary microplastics** - used in larger plastics like containers and furniture.
- **Secondary microplastics** - bigger pieces of plastics, like single-use items, that break down over time.



How are microplastics created?

Microplastics can come from places like our houses, factories, and roads. Larger pieces of plastics can become microplastics if not recycled properly. The chemical compounds that are used to create plastics have strong bonds and can take thousands of years to break down.

Types of Microplastics



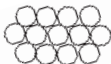
Pellets come from raw materials of larger plastic products (nurdles) and microbeads in beauty products.



Fibers come from synthetic materials like clothes.



Fragments come from road debris, tires and large plastics.



Foam come from single-use plastics like styrofoam.



Film come from plastic bags and wrappers.

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What are the impacts of microplastics on freshwater environments?

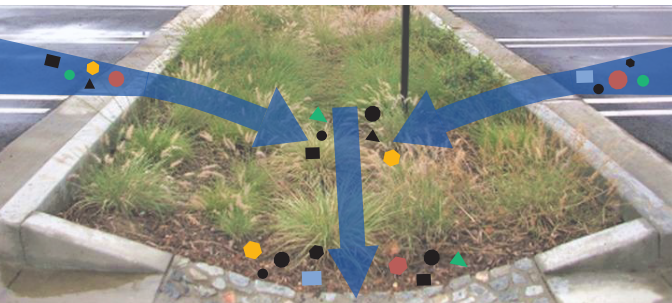
Harming aquatic species and humans

- Microplastics can be eaten by small aquatic animals, blocking digestive systems and causing mortality.
- Microplastics can be passed up the food chain when eaten by aquatic animals and even affect humans.

Contamination

- Contaminants can stick to microplastics, which are then absorbed by animals, making them toxic to eat.
- Microplastics can contaminate our drinking water supplies when they enter our lakes and rivers.

Scientists are still researching all the impacts of microplastics on humans and animals!



Bioswale diagram with microplastics.

What can we do about microplastics?

Changes in how we live, work and play, can reduce and prevent microplastic pollution.

- Reducing our plastic consumption can help prevent microplastics in our environment.
- Managing stormwater can help prevent microplastics moving from our roads to our lakes and rivers.
- Bioswales are a form of stormwater management that use plants and soil to help capture up to 90% of microplastics.



Want to learn more?

Visit us at:

<https://www.coastalaction.org/microplastics>



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