The Trouble with Trash

Trash. Junk. Rubbish. It's something we all generate, but do we consider the impact it has on our health and environment? Most would agree that trash left on the ground is unsightly and unsanitary, but it is also a source of pollution to our waterways. In urban areas with separate storm sewer systems (MS4s), stormwater runoff is one of the most common ways that trash is transported from our yards, parking lots and streets to our creeks, streams and rivers.

What are the impacts? Trash negatively impacts stream health because it can alter natural stream flow, destabilizing stream banks and accelerating erosion. This introduces excess sediment into the stream system which is a water quality concern. It also clogs streams and piping, causing ponding and flooding. Trash in streams is often mistaken by wildlife as food. When ingested it may cause injury, illness or starvation. Wildlife may also become injured when they become entangled in it. The presence of trash in streams decreases its recreational appeal and people who enter streams containing litter are at increased risk for cuts and puncture wounds.

Trash goes with the flow. Pieces of trash that are not trapped by vegetation or buried in stream sediment make their way to the oceans. The US EPA estimates that almost 80% of the trash found on beaches and in marine systems is generated on land. So there is a good chance that trash on the sidewalk you walked by today will end up in our waterways. Some of the most commonly littered items are cigarette butts, food wrappers and packaging, straws and stirrers, and plastic bottles. Much of the plastic waste collected in beach clean-ups is recyclable.

What can I do?

- *Refuse* single use plastics like straws, cups, beverage bottles, coffee cup lids and plastic cutlery.
- *Reduce* use of food packaging and plastic wraps and bags. Explore the bulk food aisle on your next trip to the grocery for alternatives to individually wrapped items.
- Choose *reusable* containers and bags over disposable ones. Carry your coffee cup, water bottle, and shopping bags with you.
- *Recycle* whatever you can.
- Pick it up! Properly dispose of trash in a waste receptacle, including cigarette butts.

Be willing to go the extra mile. Pick up litter left on the ground or organize a litter clean-up. We all need to work together to keep our waterways trash free.

Link to CES Pubs

AEN-119 Keeping Trash out of Streams

http://www2.ca.uky.edu/agcomm/pubs/AEN/AEN119/AEN119.pdf

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HENV-101 Household Waste Management: Reduce
http://www2.ca.uky.edu/agcomm/pubs/henv/henv101/henv101.pdf

HENV-102 Household Waste Management: Reuse
http://www2.ca.uky.edu/agcomm/pubs/henv/henv102/henv102.pdf

HENV-103 Household Waste Management: Recycle
http://www2.ca.uky.edu/agcomm/pubs/henv/henv103/henv103.pdf

HENV-104: Household Waste Management: Hazardous Waste
http://www2.ca.uky.edu/agcomm/pubs/henv/henv104/henv104.pdf

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Additional References for this article:
US EPA trash free waters: https://www.epa.gov/trash-free-waters
Ocean Conservancy: https://oceanconservancy.org/trash-free-seas/
Export of Plastic Debris by Rivers into the Sea https://doi.org/10.1021/acs.est.7b02368
ES&T 2017512112246-12253
NOAA Marine Debris Program: https://marinedebris.noaa.gov/info/patch.html

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