January Article

Plastic bags and plastic water bottles littering the streets I travel are a pet peeve of mine. Why? I find them unsightly and it makes me feel outnumbered and overwhelmed, surrounded by these containers discarded everywhere I look. Plastic bags are in trees; water bottles are in gutters, in parks or on the side of the road at every highway exit.

Both plastic bags and plastic water bottles are a convenience in our hectic lives, but when did we become so dependant on them? Why do some people carelessly toss them away? Unfortunately all of us must come to terms that there is no such thing as "away." My visual distaste for plastic littering is just the beginning of a much larger global problem.

Landfills
Plastics in a landfill are devoid of air and sunlight and it is estimated that it takes centuries for these items to decompose.

Oceans
Plastic that has blown out of recycling bins, or escaped during the hauling process to recycling facilities (or regrettably to landfills or waste-to-energy plants) begins its journey to the ocean. Yes, that's right, the ocean! Litter is blown into rivers, lakes, and oceans and can also enter the ocean by storm drains. It is estimated that 20% of the plastic that ends up in the ocean comes from ships, offshore platforms and intentional dumping; the other 80%

originates from land use. The sun breaks down these plastic bags, bottles and containers that make it into our oceans into smaller pieces over a span of 10 – 20 years. However, the most common plastic pollutants are small pellets called nurdles that are feedstock for plastic manufacturers. These nurdles escape during the storage and transportation process by carelessness or adverse weather conditions. This plastic in the Pacific Ocean is known as the Great Pacific Garbage Patch. Rotating currents funnel the marine debris into this area creating the largest landfill in the world. Scientists are working on ways to clean up this mess. However, trying to get rid of the small pellets is costly and complicated by the potential harm this process may bring to plankton, an essential food in the ocean's ecosystem.

Hazards

Tiny plastic pieces in the ocean resemble plankton that small fish and birds eat. When plastic enters the food web it is poisonous and remains in the digestive tract that can be carried up the food chain. Plastic secretes phthalates and BPA and absorbs hydrophobic chemicals, such as PCP's and DDT. These toxic chemicals are lethal to marine life. Also, plastic stays in the digestive tract of birds and fish resulting in choking and starvation.

Solutions

- Recycle all your plastic containers and packaging, but don't overfill the bin. On a windy day this promotes littering.

- Recycle all plastic bags at grocery stores in bins located by the front doors, **not curbside.**
- Don't litter.
- Don't use plastic grocery bags. Use reusable shopping bags.
- Don't buy plastic water bottles. Use reusable.
- Go above and beyond and pick up plastic litter in the street, preventing it from entering the ocean.
- Volunteer for a shoreline clean up and pick up plastic debris before it breaks down into smaller pieces.
- Limit your purchases of plastic items; especially single use servings or merchandise in excess packaging.
- Consider supporting the updated bottle bill. Enough signatures were collected to place it on the ballot this November and if passed it will go into effect April 2015.

These small changes in your daily habits will help reduce plastic pollution, keeping marine wildlife and our oceans healthy. My New Year's resolution will be to follow my list of solutions. I might not comply 100%, but every little bit counts and if you see me picking up plastic bottles or bags off the streets of Belmont, don't think I'm crazy, but give me a green shout out or better yet, join me!

A great wave of change can be started by the small actions of many people – let's make a positive difference in our world for the future.

Any questions or suggestions, please contact Mary Beth Calnan, Belmont Recycling Coordinator, at mcalnan@belmont-ma.gov or 617-993-2689.