



March 24, 2017

Assemblymember Mark Stone  
State Capitol  
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**Re: AB 319 Plastic Bottle Caps Retention. – Support**

Dear Assemblymember Stone,

We would like to express our support for your Assembly Bill 319.

The Northern California Recycling Association (NCRA) is a non-profit organization founded in 1978, primarily to promote environmentally sound discards management practices, including waste reduction, reuse, recycling, and composting. Our 200 members include recycling businesses, employees, entrepreneurs, and individuals supportive of various Bay Area and State Zero Waste initiatives.

AB 319 would prohibit a retailer from selling or offering for sale a single-use plastic beverage container with a cap that is not tethered to or contiguously affixed to the beverage container. This bill is particularly important for a number of reasons.

**Plastic beverage caps contribute to the increasing plastic pollution problem in inland, coast and ocean waters.** A recent report by the World Economic Forum and Ellen MacArthur Foundation, if plastic litter reaching the world's oceans is unabated, by 2050 there will be more plastic in the ocean than fish (by mass).<sup>i</sup> Bottle caps contribute to this massive discharge of plastics from land-based sources. Bottle caps and lids are the #3 item found on California beaches during Coastal Cleanup Day.<sup>ii</sup> Marine debris is a human-induced global problem with adverse effects on coral reef ecosystems and marine wildlife, but large-scale removals are only a temporary solution.

**Plastic bottle caps are among the most highly littered items impacting sea life, particularly threatening the Laysan Albatros with extinction.** The Midway Atoll, part of the Papahānaumokuākea Marine National Monument (PMNM), including the entire Hawaiian Archipelago, is home to 3 million Laysan Albatross. A two-year study funded by the EPA reported that of the 500,000 Albatross chicks born on Midway Atoll each year, 200,000 died, with many having twice as many plastic pieces in their stomachs as those that died from other causes. Although adults can regurgitate the plastic, chicks cannot, and die from dehydration, starvation, or injury when sharp edges of degraded plastic puncture internal organs.<sup>iii</sup> In a research project, from April 12 to May 13, 2016, shoreline marine debris was removed from five different islands/atolls in the PMNM. A total of 24,123 lbs. of marine debris were primarily derelict fishing gear and plastics, including 1,468 plastic beverage bottles and 4,457 bottle caps. The Laysan Albatros, a California species, is a poster child for this marine debris problem, but 90% of all seabird species are impacted.<sup>iv</sup>

**Plastic Debris threatens Human Health.** Recent studies by the San Francisco Estuary Institute indicate that littered consumer plastics contribute to the increasing load of microplastics in the San Francisco Bay.<sup>v</sup> This likely happens in all waterbodies that receive urban runoff. Research demonstrates that plastic debris attracts pollutants from seawater, particularly persistent organic pollutants like PCBs and PAHs, and concentrates them on the surface. Research also shows that some fish sold in California markets have ingested plastic debris in their guts.<sup>vi</sup> Therefore, degraded plastics are polluting seafood consumed by people, posing potential health risks.

**Taxpayers are footing the bill.** All California municipalities must eliminate the discharge of trash to storm drains by 2022<sup>vii</sup> The enormous costs associated with trash cleanup and capture are being borne by taxpayers.

**Recyclers want the plastic and the technology exists to leash the lid.** Many recyclers already have the technology to separate the various plastics after they are ground.<sup>viii</sup> Caps are typically polypropylene-PP, and bottles are polyethylene terephthalate-PET. The PP bottle caps have value. Many variations of tethered or integrated caps already exist.<sup>ix</sup>

Given the uncertain outlook for the Federal EPA, it is increasingly important for California to take a leadership role in promoting and employing common sense, practical solutions through legislation, regulation, policy changes and public education to mitigate the scourge of land and marine debris pollution within achievable time-frames.

NCRA is pleased to add our SUPPORT for AB 319, and we thank you for introducing this important measure to keep the lid leashed to the bottle.

Regards,

*K. D. Brooms*

K. Douglas Brooms

NCRA Board of Directors, Co-chair Zero Waste Advocacy Committee

i. <https://www.ellenmacarthurfoundation.org/publications/the-new-plastics-economy-rethinking-the-future-of-plastics>

ii. Based on 1989-2014 results. <https://www.coastal.ca.gov/publiced/ccd/history.html>. Caps were 9% of the items collected.

iii. <http://news.nationalgeographic.com/2015/09/15092-plastic-seabirds-albatross-australia/>

iv. Wilcox, Chris et al, *Threat of plastic pollution to seabirds is global, pervasive, and increasing*, Proceedings of National Academy of Sciences of the USA, Vol 112, No 36, 11896-11904.

v. The SF Estuary Institute and Regional Monitoring Program found billions of pieces of micro-plastics in the SF Bay, much of it resulting from breakdown of bottles, bottle caps, and other macro-plastic products. <http://www.sfei.org/projects/microplastic-pollution#sthash.oYf28jjj.TbWQfDQr.dpbs>

vi. 67% of the seafood sampled from California vendors had plastic in their guts – Rochman, Chelsea, et al, *Anthropogenic debris in seafood: Plastic debris and fibers from textiles in fish and bivalves sold for human consumption*, *Scientific Reports* 5, Article number: 14340 (2015)

vii. [http://www.waterboards.ca.gov/water\\_issues/programs/trash\\_control/](http://www.waterboards.ca.gov/water_issues/programs/trash_control/)

viii. <https://www.plasticmakeitpossible.com/plastics-recycling/how-to-recycle/at-home/keep-your-top-on/>  
<https://www.inabottle.it/en/news/recycling-plastic-bottles-now-its-better-cap>

ix. <http://www.packagingdigest.com/closures/te-sports-closure-opens-with-push-of-button1611> and  
<https://www.plasticstoday.com/packaging/inside-innovative-avantage-cap/59782755147363>

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