Trash Free Waters/Urban Waters/NEP Integration Proposal
Santa Monica Bay Clean Bay Certified Restaurant Source Reduction Program

Every year an estimated 8 million tons of plastic are discharged into the world's oceans (Scientific American) - 10 metric tons of this plastic comes from the Los Angeles area, daily (Center for Biological Diversity). Up to two-thirds of marine debris cataloged on beaches comes from single-use, disposable plastic packaging from food and beverage-related goods and services (EPA). With roughly 50 percent of plastic being used only once and then disposed of, a tremendous opportunity for source reduction and plastic pollution prevention is presented (EcoWatch).

The Santa Monica Bay National Estuary Program (SMBNEP) will undertake this source reduction project to reduce trash in our waterways and marine debris through a two-pronged approach. First, its existing Clean Bay Certified (CBC) Restaurant Program will engage participating restaurants to reduce single-use disposable items. This effort builds upon two successful programs, CBC and ReThink Disposable. CBC started in 2008 and has been recognized as a leader in the watershed receiving an Innovation SoCal Environmental Excellence Development Award. ReThink Disposable, a technical assistance program that helps food businesses reduce the use of disposable foodware, was incubated with EPA grant funds in 2012 in the San Francisco Bay Area with the goal of growing a national program. We are adopting the tools developed by ReThink Disposable for a Los Angeles based source reduction program. The Los Angeles area is leader in addressing trash in waterways. Efforts to date have focused on trash controls, including TMDLs and MS4 regulations. Activities in this proposal will build on those efforts focusing on source control. Second, SMBNEP will work with one Santa Monica Bay Watershed city to analyze volumetric trash data that will serve to simultaneously demonstrate the impact that plastic bag and EPS bans have had on the environment, and help target future locations for where SMBNEP's source reduction program will make the biggest impact.

The SMBNEP has a strong relationship with 450 restaurants in the Santa Monica Bay Watershed through CBC. We work with 11 cities (Malibu, Santa Monica, Culver City, Inglewood, Manhattan Beach, Redondo Beach, Hermosa Beach, Torrance, Rancho Palos Verdes, Rolling Hills Estates, and Palos Verdes Estates) to inspect and certify restaurants that voluntarily implement initiatives to reduce stormwater pollution and protect the environment. Our established partnerships with cities and restaurants provides a solid foundation to implement our source reduction program. In addition, SMBNEP staff will work with a CBC city or cities to analyze data that describes the amounts and types of debris collected from stormdrain and Hydrodynamic Separators. These analyses may produce quantifiable values describing reductions in the volume of debris produced from high trash generation zones (i.e., commercial districts) as a result of past plastic bag and polystyrene bans. Accordingly, these analyses could be scaled up to model the benefits if CBC could enact similar bans or related approaches to rethink the use of disposables across the 450 restaurants currently participating in the program. See page 2 for additional details on tasks, outputs, and outcomes.

Dollar amount requested: $45,000.00 (scalable upon request); Grant #: CE-99T51301

Mandatory Criteria:
- This project is integrating TFW in a NEP CCMP study area.
- The money will be reprogrammed into the Santa Monica NEP's Clean Water Act 320 FY 2017 grant.

Non-mandatory Criteria:
- **Tech Transfer/Info Sharing/Transferability:** SMBNEP will engage businesses and cities in the watershed. Presentations will be made to the NEP governing board as well as the national NEP tech transfer meeting. The products developed under this project as well as the lessons learned will be transferred to other geographic areas in both the Los Angeles area and other communities working to reduce trash in their waterbodies. This project builds on a similar effort incubated in the San Francisco Bay area.
- The project is already in the NEP's work plan, but was underfunded. It is in 1 of the 10 areas described by Emma Maschal on the last TFW call, and is focused on source reduction a.k.a. trash prevention.

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Tasks, Outputs, and Outcomes Summary

Tasks	Outputs	Outcomes
● Contact Santa Monica Bay Watershed cities and obtain trash data ● Collaborate with program partners to develop implementation plan, may include staff training on source reduction strategies ● Compile pre and post EPS and plastic bag ban volumetric data from stormdrain and separator unit cleanouts for one Santa Monica Bay Watershed city ● Analyze trash data ● Characterize trash collected from stormdrains in target areas, pre and post source reduction program ● Analyze data for a correlation between restaurants and high density trash zones ● Educate 450 CBC restaurants on plastic pollution and marine debris ● Conduct targeted engagement at 10 CBC restaurants in the Santa Monica Bay Watershed on plastic pollution ● Of these ten restaurants, work with three to implement a source reduction plan and provide hands on assistance to reduce disposables and increase the use of durables at each establishment ● Audit existing purchasing and trash hauling costs, research durable material vendors, provide financial incentive to subsidize transition to durable foodware ● Train restaurant staff to implement source reduction program ● Develop outreach materials necessary to educate restaurant patrons on the benefits of source reduction ● Distribute outreach materials to all CBC restaurants ● Analyze purchases of disposables (pre-program) versus reusables and determine cost savings and landfill/marine debris prevention over time ● Develop report on project results and create three videos to share case study findings	● Report on program results including: findings from analysis of pre and post ban trash data; number of disposable items eliminated such as utensils, cups, plates, bowls, food trays, straws, individually wrapped condiment packets, and napkins from food service operations on an annual basis by participating restaurants based on baseline metrics collected via pre-program surveys; weight and volume of trash diverted from landfills ● List of 10 restaurants for future program engagement ● Three source reduction plans, which will include audit results ● Public engagement materials (e.g., table tents, messaging on flatware dispensers) used to engage restaurant patrons on plastic pollution ● Three video case studies created for public engagement and program marketing ● One press release and bi-weekly social media outreach ● Updated CBC checklist and handbook with source reduction as a criterion	Short-Term (1-5 Years) ● Educating and shifting the behavior of three restaurants in the Santa Monica Bay Watershed ● Participating restaurants achieve a 30-50% reduction of disposable foodware items that were targeted for reduction through a program audit ● Average of ~$3,000 saved at each participating restaurant ● Transferable model for plastics reduction program at food serving establishments Long-Term (5-20 Years) ● All 450 CBC restaurants will participate and achieve a 50% reduction of disposable foodware items that were targeted for reduction through a program audit ● Assist in meeting City of Los Angeles Zero Waste Plan to divert 90% of its waste from landfills by 2025 ● Assist in meeting Trash TMDL's for Ballona Creek and Los Angeles River ● Assist watershed cities in meeting MS4 permitting requirements

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