

### 1. Host location and contact information

Tijuana River National Estuarine Research Reserve (NERR)  
301 Caspian Way, Imperial Beach, CA 91932  
ph: 619 575 3613  
website: trnerr.org

### 2. Names of fellowship supervisor(s)

Dr. Kristen Goodrich, Tijuana River NERR  
Dr. Shimi Rii, He'eia NERR  
Dr. Sylvia Yang, Padilla Bay NERR

### 3. Position description

Plastic pollution is ubiquitous in the environment, but the transport and transformation of plastic and other debris through watersheds and in estuaries are understudied. Through its multi-sector approach and strong network of partners, the National Estuarine Research Reserve System (NERRS) has an opportunity to fill a unique niche in both understanding and addressing marine debris and plastic pollution in estuaries. In a recent survey, Reserves expressed an overwhelming desire to work across sectors on this issue, and develop coordinated long-term monitoring and public messaging to promote understanding, behavior-change, and policy actions.

We seek the participation and leadership of a California Sea Grant Fellow in the implementation of a [NERRS Science Collaborative](#) (NSC) transfer project (if awarded) to develop and organize a series of knowledge transfer workshops across Reserves and with the greater Debris Community of Practice (DCoP) to develop a draft Strategic Plan to address plastic issues in estuaries. The Plan will align goals, actions, and metrics of individual Reserve efforts with a System-wide vision and mission, and will complement ongoing efforts in the DCoP. The Fellow will also organize cross-NERRS sector workshops around an integrated set of proposed toolkits such as an estuarine module for aquatic-bound debris monitoring, an education/stewardship toolkit to promote community involvement, and a coastal decision-maker engagement plan that addresses behavior change and policy actions.

Anticipated project outputs include but are not limited to the following:

- Three hybrid and two virtual opportunities for knowledge transfer and networking among Reserves and the greater DCoP
- Elements of a draft NERRS Strategic Plan for implementing a cross-sector, national effort to address the debris issue in estuaries, including:
  - System-wide mission and vision for addressing aquatic-bound debris
  - A roadmap for developing and implementing an estuarine module for aquatic-bound debris monitoring that complements existing efforts
  - A plan for designing and disseminating one or more educational or stewardship toolkits that promote community participation in monitoring and stewardship of debris issues in estuaries
  - A plan for coastal decision-maker engagement that will support behavior change and policy analysis/action for managing or preventing debris pollution at multiple levels
  - Integrated materials and guides for a strategic planning process adapted from the NOAA Marine Debris Program Strategic Action Plan
  - Sharing of the draft Strategic Plan and strategic planning process across the broader NERRS through the proposed five Knowledge Transfer workshops and at a NERRS Annual Meeting

Anticipated project outcomes include, but are not limited to the following:

- Knowledge Transfer workshops provide venues for information transfer and dissemination frameworks that allow for strengthened relationships and collaborations (i) between Reserves and DCoP addressing debris in estuaries; and (ii) among Reserve sectors through purposeful and deliberate engagement towards common goals
- Increased understanding and a strategic roadmap to further advance the NERRS' niche in the DCoP
- Synergy between process and impact of programs in the Reserves and within the DCoP, resulting in increased level of awareness within the DCoP
- Innovative responses by individual Reserves to local debris issues that complement system-wide initiatives
- Application of lessons learned amongst Reserves and also amongst the greater DCoP regarding establishing a monitoring module, educational toolkit, and engagement plan
- Creation of a draft Aquatic-Bound Debris Strategic Action Planning network that will inform development of national initiatives and ultimately

impact Reserve-specific and national debris and contaminant management strategies

We anticipate that the Fellow will gain professional experience by interfacing with (1) NOAA's Office for Coastal Management and the national Reserve system; (2) the unique federal-state (and at TRNERR, also -non-profit) partnerships at the three NERRs that conceptualized this project and lead the NERRS Plastics Workgroup; and (3) NOAA's Marine Debris Program (MDP). In addition, this transfer project will involve both California Sea Grant and Hawaii Sea Grant as core collaborators and advisors and ideally build upon a previous California Sea Grant fellowship with NOAA's MDP. The Fellow will also have the opportunity to engage with related marine debris prevention and removal efforts funded by the U.S.-Mexico-Canada Agreement Implementation Act.