Rangewide Salt Marsh Bird's Beak Mapping & Adaptive Management

Tijuana Estuary to Morro Bay

Client:
Friends of Colorado Lagoon

Contact:
Christine Whitcraft, President
562-985-4820, cwhitcra@gmail.com

Project Type: Endangered species mapping, and non-native plant management

Project Staff:
Eric Zahn – Principal Restoration Ecologist
Mark Hannaford – Operations Manager
Daniel North, Marcelo Ceballos – Ecologists
Raiven Greenberg - Assistant Project Manager

Contract Period: May 2018 – June 2019

Project Overview:
Friends of Colorado Lagoon entered into contract with the California Department of Fish and Wildlife and shortly thereafter contracted Tidal Influence to do a majority of their work mapping all 7 populations of the endangered salt marsh bird's beak (SMBB) in Southern California, ranging from Tijuana to Morro Bay. This includes several sites in Santa Barbara and San Luis Obispo Counties.

Tidal Influence travels between locations and monitors SMBB through each stage of its phenology using standardized monitoring and mapping protocol. Each population is visited 2-3 times per season and is mapped by use of a Trimble GPS unit. Maps are created using ArcMap and are distributed to the respective marsh managers.

Tidal Influence controls nonnative invasive plants, such as *Limonium* spp. (lavender), *Carpobrotus* spp. (sea-fig) and nonnative grasses at each of the 7 marshes as well. These populations are controlled and removed using hand tools (i.e., rakes, hoes) and mechanical methods. Mechanical methods include lawn mowers, weed whackers, and solarization (with

tarps). If these methods are not successful, appropriate herbicides may be considered as an alternative method for nonnative plant removal.

In addition, Tidal Influence provides marsh managers with updates as to the status of SMBB in their marshes, as well as plans for adaptive management to rid the areas of nonnative invasive plants and to help SMBB thrive.

Our involvement in this project is indicative of Tidal Influence's ability to work closely and mindfully with endangered species, as well as to conduct detailed ecological monitoring. It also demonstrates our knowledge of working in and around Santa Barbara County, as well as our ability to coordinate and maintain communications with a plethora of land managers and other stakeholders. Tidal Influence being chosen for this project showcases our expertise with salt marsh bird's beak.