



GENERAL SERVICES ADMINISTRATION

INVASIVE SPECIES MANAGEMENT

Edwards Air Force Base, California

PROJECT HIGHLIGHTS

CLIENT PROFILE

The General Services Administration (GSA) was formed to help manage and support the basic functions of federal agencies by providing centralized procurement for the government. Designated as the Air Force Flight Test Center (AFFTC), Edwards AFB is the Air Force Materiel Command's Center of Excellence for research, development, and test and evaluation of aerospace systems for the United States and its allies.

PROJECT OVERVIEW

This task order was awarded under a GSA blanket purchase agreement to support the Air Force Civil Engineer Center's (AFCEC) mission. With nearly 470 square miles of Mojave Desert uplands, riparian natural lands, and developed areas. Edwards AFB supports a variety of flora and fauna, including some federal and state-protected species. To manage desert uplands and riparian natural lands, Edwards AFB conducts surveys and develops eradication and management techniques for invasive plant species to reduce negative influence on natural communities and supported wildlife.

CHALLENGES

- Allowing adequate time to acquire clearances for access to restricted areas (flight line, NASA) and maintaining the project schedule
- Employing biological controls during invasive species survey activities to avoid further spread of seeds or plant parts on clothing or vehicles
- Developing a Sahara mustard treatment that considered chemical and mechanical treatments and the biological cycle of desert tortoises (eggs and young tortoises are at risk from chemical treatments, so timing was critical)
- Conducting tamarisk treatment (mechanical removal/chemical application) outside of bird nesting season

THE MSE GROUP APPROACH

During the contract's base year, MSE prepared an invasive species management work plan that specified survey methodologies and GIS data collection requirements within a defined project area for two prevalent invasive species at Edwards AFB: Sahara mustard (*Brassica tournefortii*) and tamarisk (*Tamarix* spp.). Activities included survey for/development of specific treatment plans for invasive species eradication. Year One activities will include approved treatments for those invasive species and additional surveys to document further spread and effectiveness of treatments. The project's 4-year treatment goal is to reduce and/or eliminate the seed source for both species.

ACCOMPLISHMENTS

- Compiled and used existing data to aid in focused survey efforts, resulting in efficient field surveys
- Integrated Edwards AFB grid system, resulting in data collection continuity with prior and future collection efforts
- Created ordinal system of data collection for feedback on species cover, allowing treatment schedule to prioritize most heavily infested areas that will result in greatest decline of species cover during Year One treatment
- Developed treatment plan methodologies to avoid impacts to protected desert tortoises, burrows, and eggs

AREAS OF EXPERTISE

- GIS database management
- Invasive plant species surveys in critical habitat areas and management through treatment plan development
- Protected wildlife species management



Team member removing tamarisk



Mechanical removal of Sahara mustard