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San Diego Association of Governments (SANDAG) Memorandum of Understanding (MOU) #5004552

Strategic Removal of Invasive Weed Species *3rd Quarter Report - FY 2015-16: Report #6 for Project*

January 1, 2016 – March 31, 2016

Project: County of San Diego, Department of Agriculture, Weights & Measures –
Strategic Removal of Invasive Weed Species

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Project:

Invasive plants are considered one of the biggest threats to endangered species and their habitats. A strategic plan for managing non-native invasive plant species in San Diego County was completed in 2012 through a SANDAG contract to the Conservation Biology Institute (CBI) (<http://sdmmp.com>). The Invasive Plant Strategic Plan (IPSP) is designed to develop a strategic approach towards the eradication and management of invasive plants in the San Diego region. The IPSP is meant to work in conjunction with the Management Strategic Plan for Conserved Lands in Western San Diego County (MSP) ([Management Strategic Plan](#)).

This Scope of Work will require the contractor to focus on the management of invasive plants identified in Levels 1, 2, and 3 of the IPSP. The following tasks have been identified as necessary to implement this effort:

TASK 1 – Invasive Plant Species Coordinator:

Level of Effort: (25%) of overall contract

Right of Entry (ROE) Work:

A small amount of work was expended on obtaining ROE agreements and coordinating with property owners this quarter.

The coordinator worked at five field sites: completing tasks including monitoring field crews, assessing treatment success, hand pulling plants, and mapping and surveying target plants. .

Euphorbia terracina (carnation spurge):

Populations #1 and #3 were visited (near highway 56 Carmel Valley). Some plants were pulled by hand if they were scattered. Preparation for next quarter control occurred.

Limonium ramosissimum (Algerian sea lavender):

Site #5 at La Costa Ave was visited. Very few live plants were observed.

Site #4 at Batiquitos was visited with treatment crew. All areas were re-treated.

Site # 12 at Chula Vista owned by the Unified Port of San Diego was surveyed, assessed and treatments supervised. This is a very large site (>28 acres) with both Algerian and European sea lavender.

Limonium duriusculum (European sea lavender):

Site #2 at Solana Beach was visited. Scattered seedlings were present.

Carrichtera annua (Ward's weed):

Ward's weed at La Costa Greens was visited multiple times to assess conditions and plants were hand pulled from the western portion of the site and landscaped areas. Coordination with CNLM occurred, they pulled and sprayed the lower portion of the site.

Hypericum canariense (Canary Island St. John's wort):

Initial treatments at Lake Murray were started and completed. There were coordination meetings with City staff. Monitoring of crews and treatment areas occurred.

TASK 2 – AWM: Invasive Plant Level 1 Management

Level of Effort: (<10%) of overall contract

No work occurred on this task this quarter.

TASK 3 – AWM: Invasive Plant Level 2 Management.

Level of Effort: (>40%) of overall contract

AWM IPC crews did not bill any work to SANDAG this quarter. Work did occur at sect sites, but it was paid for by the County of San Diego.

Crews surveyed and treated, 2 invasive weed species at 4 sites this quarter, European sea lavender, Algerian sea lavender, and Canary Island St. John's wort site. AWM IPC made optimal pesticide applications, protected the natural environment by preventing off-site movement of pesticides, and utilized Best Management Practices (BMPs) that prevented unintentional discharges to surface waters. For each site, AWM IPC followed the following procedures:

1. Identified the pest species to be treated.
2. Reviewed site conditions, such as soil texture, slope, standing water, irrigation or storm drains.
3. Identified and avoided streamside management areas and surface waters to prevent drift and application of pesticides not labeled for aquatic use onto surface waters.
4. Identified most appropriate method of control based on integrated pest management methods, designed to minimize the scale and number of pesticide applications.
5. Applied the least persistent and least toxic pesticide that effectively mitigates the target pest.

Table 1. Summary of treatments performed by AWM on Level 2 species this quarter.

| Scientific Name | Common Name | # of Sites Worked | Acres Surveyed | Acres Treated | Plants treated |
|--|---|-------------------|----------------|---------------|----------------|
| <i>Hypericum canariense</i> | Canary Island St. John's wort | 1 | 15 | 5 | >7,000 |
| <i>Limonium duriusculum</i> & <i>Limonium ramosissimum</i> | European sea lavender & Algerian sea lavender | 2 | 20 | 5 | >10,000 |

Hypericum canariense (Canary Island St. John's wort):

Table 2. Summary of surveys and treatments by site.

| Site Name | Common Name | # of Visits | Acres Surveyed | Acres Treated | Plants treated |
|----------------------|-------------------------------|-------------|----------------|---------------|----------------|
| Site #2: Lake Murray | Canary Island St. John's wort | 1 | 15 | 5 | >7,000 |

A round of initial treatments was completed at the second largest Canary Island St. John's wort population in the County located at Lake Murray. Most plants were treated using the cut stump

treatment method. These shrubs were typically 4’ to 6’ high. Cut biomass was hauled by crews to roll-off containers provided by the City Public Works Department.



Limonium ramosissimum (Algerian sea lavender):

Table 3. Summary of surveys and treatments by site.

| Site Name | Common Name | # of Visits | Acres Surveyed | Acres Treated | Plants treated |
|----------------------------|-----------------------|-------------|----------------|---------------|----------------|
| Site #4: Batiquitos Lagoon | Algerian sea lavender | 1 | 0.17 | 0.08 | >5,000 |

Re-treatment of the Batiquitos site occurred. All areas were re-treated except the island and a small patch that is across a tidal channel (south west portion of site). Initial treatments were highly effective on the eastern portion of the site >75% kill and moderately effective on the north part of the site >50% kill.

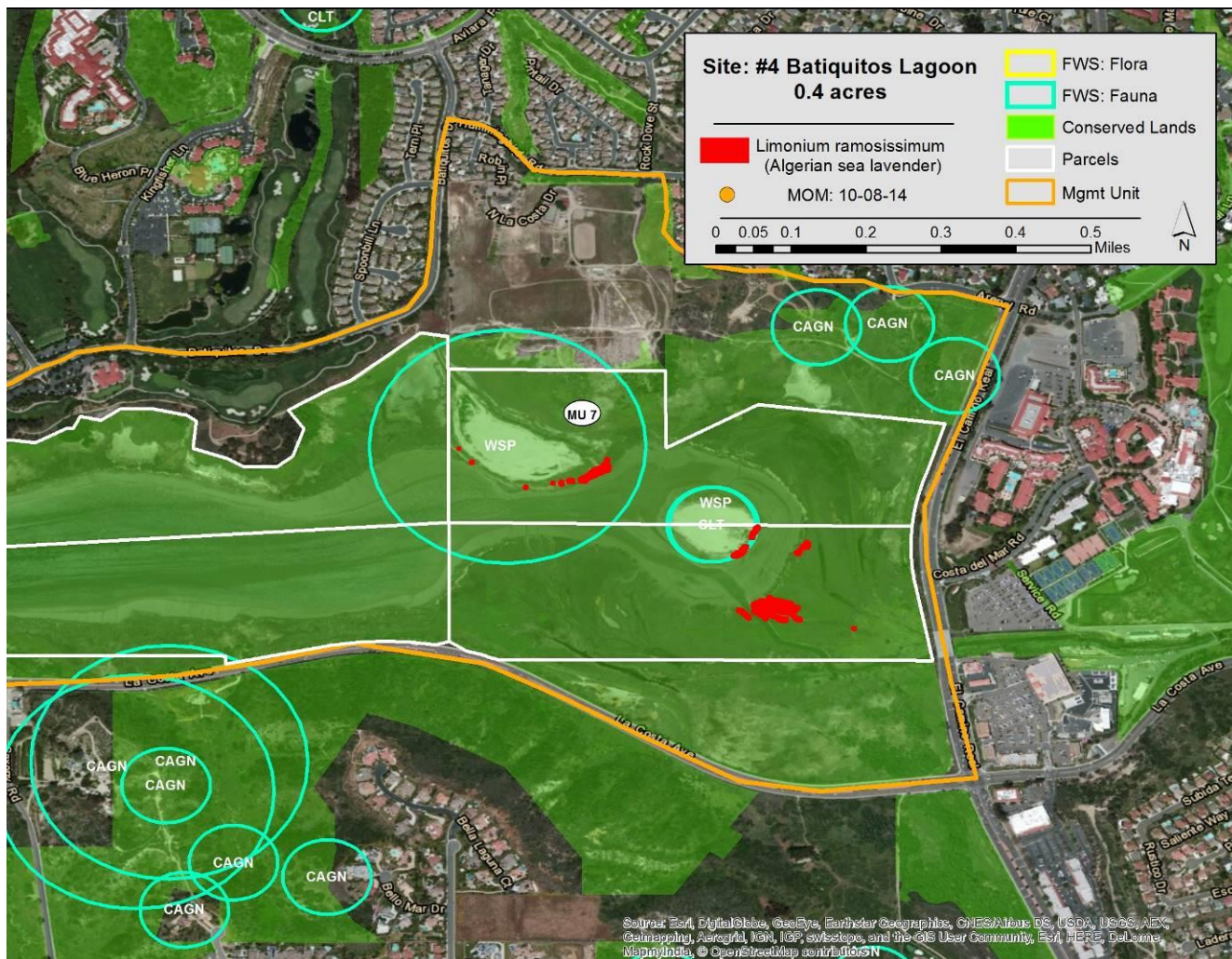


Table 4. Summary of surveys and treatments by site.

| Site Name | Common Name | # of Visits | Acres Surveyed | Acres Treated | Plants treated |
|---|----------------------------------|-------------|----------------|---------------|----------------|
| Site #12: Chula Vista Nature Reserve, SD Port | Algerian & European sea lavender | 1 | 28.21 | 4.61 | >200,000 |

Site #12 Chula Vista Nature Reserve was re-treated. This site has both European and Algerian Sea Lavender. The site has high quality estuary, least tern breeding areas, and degraded upland areas where a power plant was decommissioned. Initial treatments were variable- some areas had >90% while other areas had about >50% kill. This variability has been found on other sea lavender treatment sites. After re-treatments control should climb above 90%. The site has multiple sensitive avian species breeding and nesting, so re-visitation will not occur until late summer/fall 2016. Work included Site #11 J Street Marsh and the European Sea Lavender areas on the Site #4 map (western sites).



TASK 4 – AWM: Invasive Plant Level 3 Management.

Level of Effort: (<20%) of overall contract

- No charges during this quarter.

TASK 5 – Coordinator: Tracking and Updating Invasive Species for Priority Removal.

Level of Effort: (5%) of overall contract

- A presentation was prepared for SDMMMP to provide to regulators giving an update on work to date.
- A San Diego County Weed Management Area (WMA) steering committee meeting was attended. UC co-operative Extension (Chris McDonnel) is facilitating/leading the meeting. The County of San Diego is supporting the WMA by providing meeting space and web site support. EDRR materials will be available at the web site. A sub-committee will be formed to help coordinate and involve the region in detection and reporting of EDRR species.
- Information was pulled together for a new invasive plant threat Moroccan Knapweed (*Volutaria tubuliflora*). This plant occurs in Anza Borrego and Orange County (Newport Bay). Work with these regions on mapping, ID and distribution occurred.

Work Anticipated for 3rd Quarter Period, April 1, 2016 – June 30, 2016:

Task 1 – Invasive Plant Species Coordinator:

- Update work plan if needed.
- Coordinate ROE work with AWM, update database.
- Monitor and coordinate with AWM during implementation.
- Survey sites as needed.

Task 2 – AWM: Invasive Plant Level 1 Management.

- Survey, map, and treat any reported sightings of target Level 1 plants.
- Supervision of staff, provide training, guidance, and preparation for field work.
- Collect GIS points of targeted weeds, if found.

Task 3 – AWM: Invasive Plant Level 2 Management.

- Re-treatment of sites.
- Supervision of staff, provide training, guidance, and preparation for field work.
- Coordinate and finalize tracking methods for work completed.
- Initiate and continue work outlined in work plan.

- Obtain signed ROEs.
- Collect GIS points of targeted weeds.

Task 4 – AWM: Invasive Plant Level 3 Management.

- No work planned.

Task 5 – Coordinator: Tracking and Updating Invasive Species for Priority Removal.

- Continue coordination with Department of Defense, California Department of Parks and Recreation, and the Weed Management Area.
- Continue to aggregate data and track new prospective EDRR target species.
- Increase the number of EDRR identification sheets for priority species (for land managers and regional biologists).