

San Diego Association of Governments
Quarterly Progress Report #7
Reporting Period: Quarter 1 (January 1st to March 31st) 2023
SANDAG Contract Number: S833005 – Nature Collective Invasive Plant Treatment

Work Performed This Period:

Task 1- Project Management, Admin and Meetings

Nature Collective communicated with SANDAG, partners, contractors, and consultants to ensure compliance with agreements and contracts. Field contractors are under contract and registered under the labor compliance program. We are invoicing and completing quarterly reports to SANDAG. We have reviewed and signed MOUs, ROEs, and other agreements required for this project. We have held meetings, prepared for field work, and continued work on Tasks 2, 3 & 4.

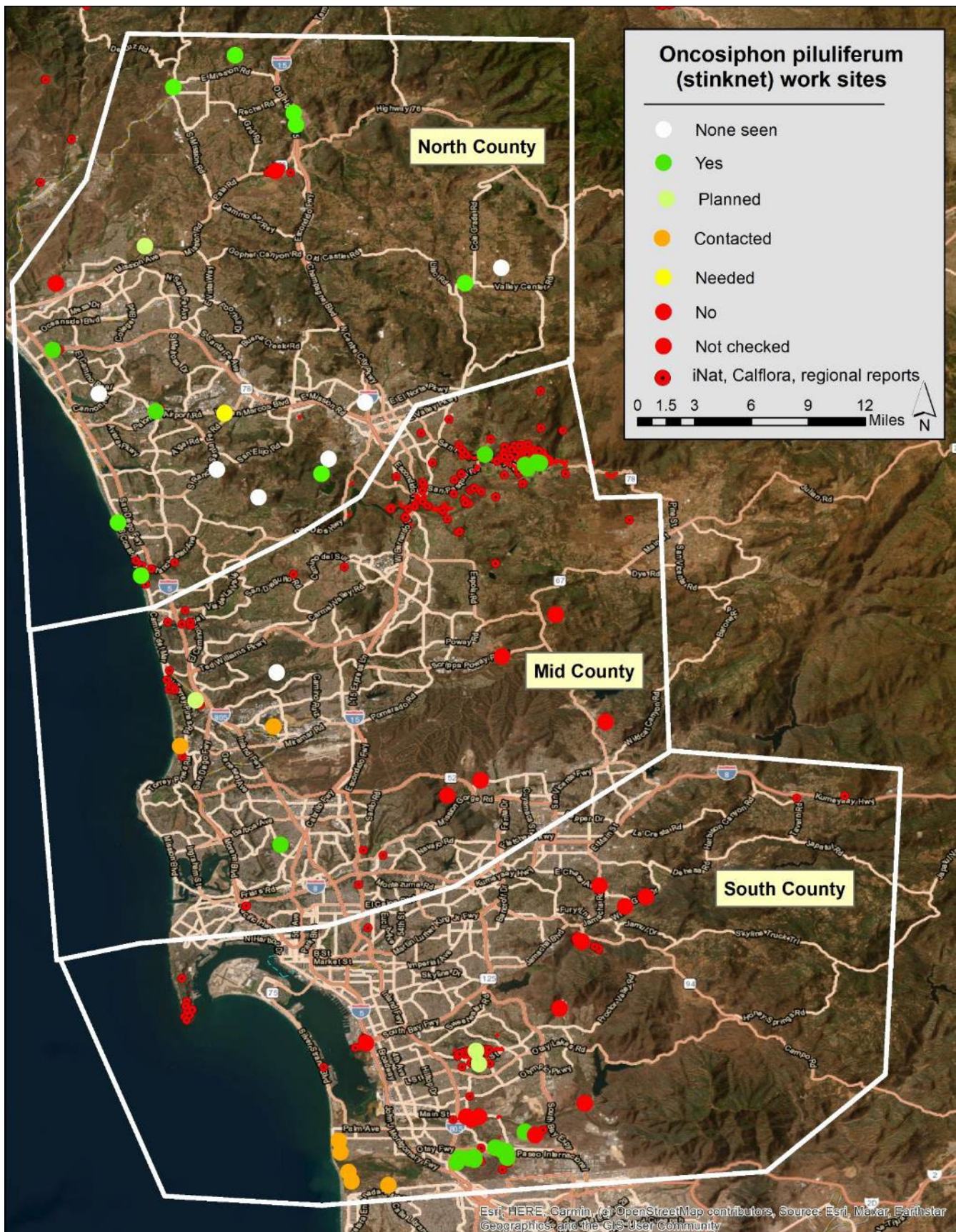
Task 2- Stinknet (*Oncosiphon piliferum*) Treatment for Priority Species

Co-ordination and planning:

Set up treatments: apply Gallery pre-emergent where possible or apply mix of pre- and post-emergent. Small occurrences were hand pulled (Map 1). We are actively tracking approximately 64 sites based on iNaturalist, Calflora, regional and field observations. The sites vary in size from no plants observed to large infested areas.

- 1) North County: 20 sites are being followed. North County is the least invaded portion of the County and sites are typically small patches of plants under 0.25 acre in size, most of which have been controlled this season. The two larger sites in North County include Caltrans 76 and City of Oceanside San Luis Rey. Unfortunately, these 1-to-5-acre sites were not controlled to date, however conversations continue between both entities.
- 2) Mid County: 15 sites are being followed. These sites include coastal areas that are typically smaller sites, many of these are being treated. We believe it may be possible to manage stinknet in this area. The San Pasqual area is of course heavily invaded, thus far the focus in San Pasqual Valley has been State Parks, a single JPA holding, and portions of Wild Animal Park. The broader area of San Pasqual/San Dieguito cannot be completely controlled, the objective is containment of the species and to manage sites that have heavy public use. Areas south of that area still need better field verification, which is planned to occur in May.

- 3) South County: 29 sites are being followed. Sites vary in size, with many areas across the region being fairly large sites with plants spread over portions of the landscape. The focus has been Otay Mesa which has had initial control of most sites. Several sites have heavy commercial use and are considered high risk for spreading. One of the heavy commercial use sites is a trailer rental facility, this facility was treated in Q1. Tijuana Estuary will be surveyed more extensively, it is likely that this area can also be managed. The population in Chula Vista is quite extensive, and the ROE process has taken over 9 months to complete but it may be possible to do selected late season treatments. We predict that Sweetwater River (City of SD and Chula Vista) may be complicated to obtain ROEs for, we will pursue permissions mid-2023. There are also multiple private parcels in the Jamacha/Steele Canyon area, effort will soon be put into getting ROEs. There is a cement plant and other heavy use sites in South County that have stinknet populations that could be spreading the species.



Map 1: Approximately 64 stinknet sites, varying in size, that are being visited to date

ROE or MOU work:

We submitted maps and ROE forms to various public and private landowners. This included City of Chula Vista, where the entry agreement process has gone through multiple steps and was just recently completed on April 19, 2023. Many of the private properties require on site visits to obtain permission.

Field work:

Seven sites were treated by crews in Q1 2023 (Map 2). Batiquitos Lagoon had plants in disturbed areas along an access road (Map 3). This was a pre (Gallery) and post emergent application. We coordinated with the CDFW Reserve Manager prior to initiation of work. We conducted spot treatments (pre and post emergent application) with backpacks at Carlsbad Oaks (Map 4). We coordinated with CNLM prior to work. We re-treated (pre and post emergent application) at two sites, State Parks (Photo 1-3, Map 5) and a JPA Parcel (Map 6). Both areas had good control from last year's applications of pre-emergent. We conducted treatments of pre and post emergent at a new site in Kearny Mesa (City of SD property), a BMX facility (Map 7). We worked with facility to gain access to the work areas. We re-treated City of San Diego properties at Otay Mesa with a pre and post emergent (Map 8). We coordinated with City of San Diego managers for assistance and access of two additional sites for first time treatments (Map 9).



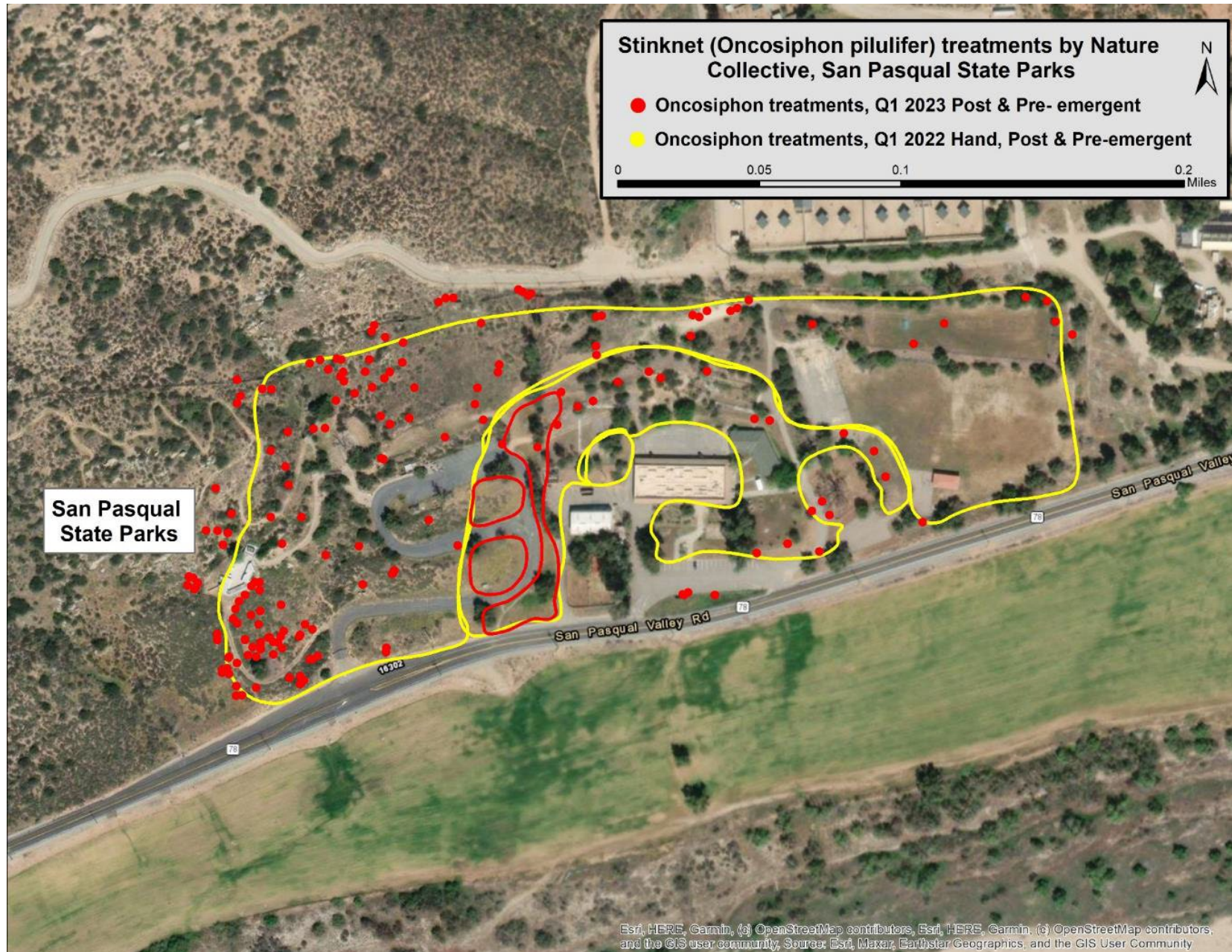
Map 2. Stinknet treatments by field crew in San Diego County



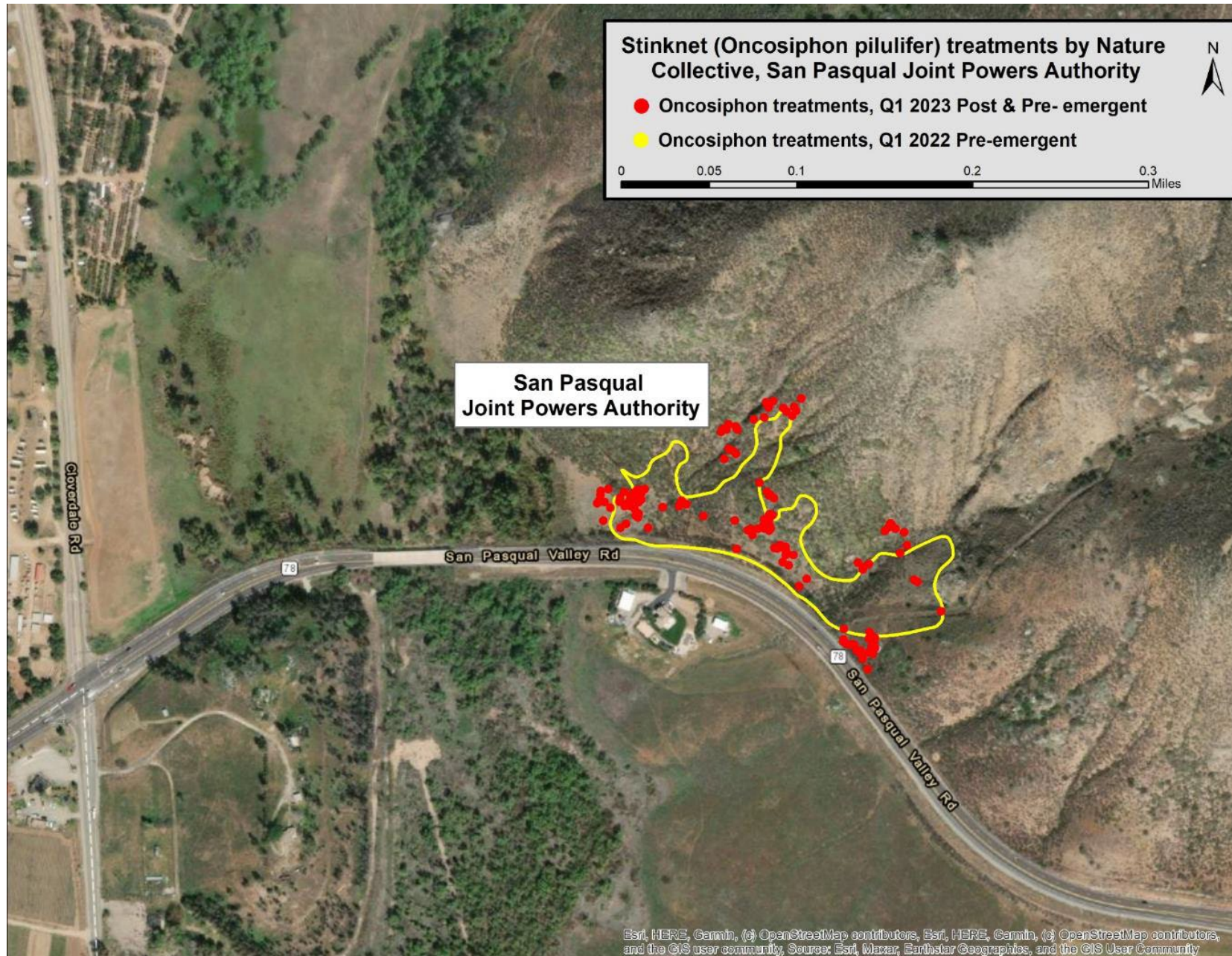
Map 3. Stinknet treatments by field crew at Buena Vista Lagoon



Map 4. Stinknet treatments by field crew at Carlsbad Oaks Preserve



Map 5. Stinknet treatments by field crew at San Pasqual State Parks



Map 6. Stinknet treatments by field crew San Pasqual Joint Powers Authority



Map 7. Stinknet treatments by field crew at Kearny Mesa Preserve

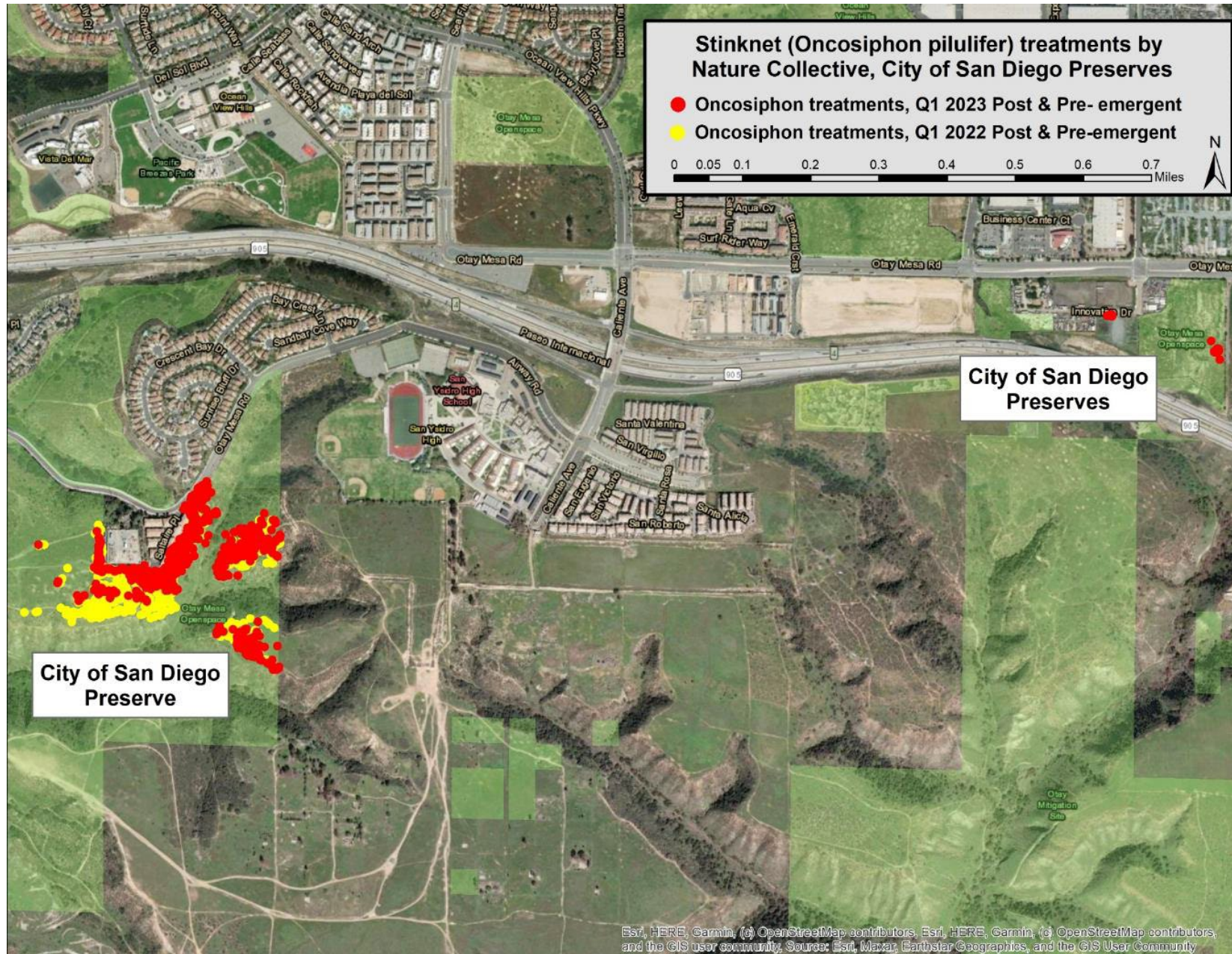




Photo 1: 2-2023 Stinknet and Fiddleneck in area that was treated with post emergent only last year.



Photo 2: 2-2023 Erodium, grasses and shrubs (little stinknet) in area that was treated with pre-emergent only last year.



Photo 3: 2-2023 Area on left has little stinknet or other forbs (treated with Gallery last year) area on right was treated with post emergent only (heavy stinknet cover).



Photo 4: Small new patch of stinknet found in the West Basin of San Elijo Lagoon.

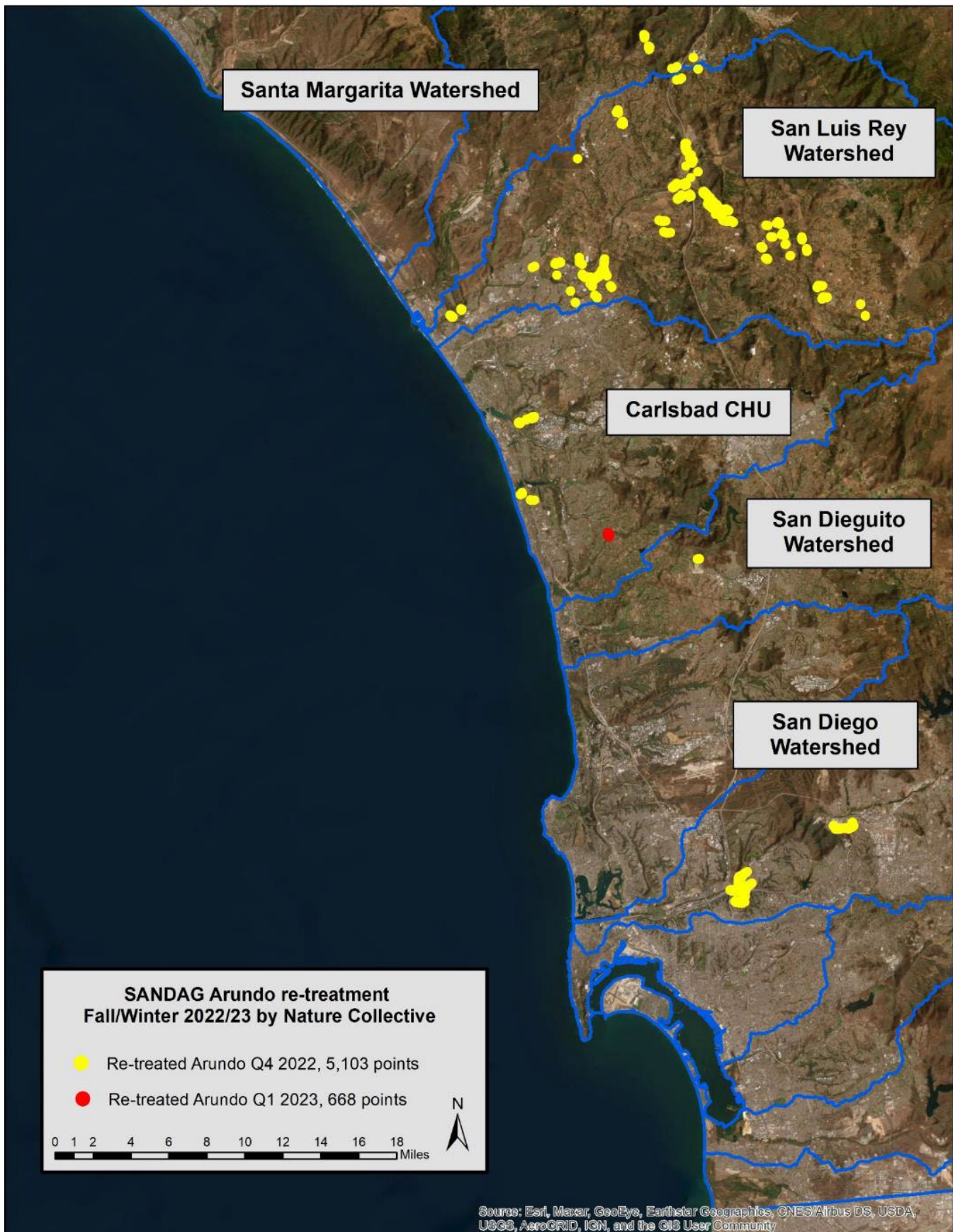
Task 3- Arundo (*Arundo donax*) Re-treatment

Co-ordination and planning:

We coordinated with contractor crews for additional late season treatments. We treated a total of 0.44 acres (1,796 sq m) of Arundo at Val Sereno Preserve using cut stump methods, cut canes were hauled and chipped. Although the stumps were treated with a backpack sprayer shortly after initial cuts additional follow-up foliar treatments are anticipated for early April 2023. The follow-up treatments will be most effective when the Arundo is about 4-6ft tall, when water and nutrients are actively being transported throughout the plant, thus the herbicide will translocate to the rhizomes where it can be most effective in killing the plant. Arundo re-treatments for Q1 are summarized in Map 9.

Carlsbad HU:

We conducted Arundo re-treatments at Val Sereno Preserve (Map 10).



Map 9. Arundo re-treatments in San Diego County winter 2022-2023

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Task 4- EDRR Level 2 sites

Co-ordination and planning:

We set up a new Ward's weed site for treatment at San Elijo Hills. We obtained an ROE from the management company.

Field work:

We treated Ward's weed areas with a pre and post emergent (Map 11 & Photo 4-5). This site has dense cover of Ward's weed.





Photo 5: 3-2023 Ward's weed hand pulled along trail, San Elijo Hills.



Photo 6: 3-2023 Ward's weed treated by crew, San Elijo Hills.

Work Anticipated Next Period: Q2 2023

Task 1- Project Management, Admin and Meetings

We will continue to coordinate meetings, obtain ROEs and prepare for field work.

Task 2- Oncosiphon Treatment for Priority Species

We will continue to obtain ROEs for additional treatment sites. We will conduct treatments at several sites with a pre and post emergent. Chula Vista sites will be a priority.

Task 3- Arundo Re-treatment

We may begin an CEQA NOE and CDFW SAA (maintenance work) application on covering the entire county for Arundo re-treatments.

Task 4- EDRR Level 2 sites

We will scout and conduct treatments for multiple sites including purple loosestrife (*Lythrum salicaria*), sea lavender (*Limonium spp.*), rattlebox (*Sesbania punicea*), and other difficult to access areas.