



Progress Report to Valley Water
 Burrowing Owl - Alviso Planting Project
 July 16 - December 31, 2022

The following report outlines activities from July 16th - December 31st, 2022 at the San Jose - Santa Clara Regional Wastewater Facility (RWF). During this timeframe Valley Water provided funding for native plant care, invasive plant management, monitoring, and volunteer events.

The chart below is a summary of key outcomes funded by Valley Water PO-0000039276 from November 2021 - December 2022. Beginning in January 2023, Valley Water funded activities will be charged to PO-121302. Additionally, Santa Clara Valley Habitat Agency is providing funding to supplement native plant maintenance and invasive plant management.

Grassroots Ecology has met or exceeded all proposed deliverables for PO-0000039276.

| | Proposed | Actual (Total) | July - December 2022 | November 2021 - June 2022 |
|---|-----------------|-----------------------|---|--|
| Community Workdays | 6 | 9 | 2 | 7 |
| Volunteers | 100 | 117 | 20 | 97 |
| Volunteer hours | | 390 | 60 | 330 |
| Intern and Americorps Workdays | | 2 | 0 | 2 |
| Plants | 500 | 721 | 0 | 721 |
| Area of habitat improved including invasive removal | 10,000 sq ft | 0.5 acres* | - 0.5 acres of invasive managed by hand pulling | - 10,000 sq ft revegetation - 0.5 acres of invasive managed by hand pulling |

*The revegetation area is within the 0.5 managed for invasives

Community Engagement

Grassroots Ecology hosted two volunteer events between August - December 2022:

- In August, 10 community volunteers helped to water the native habitat islands by filling up buckets using the recycled water stored onsite in 275-gallon tanks. Volunteers also removed stinkwort along the perimeter of the planting area and along the service road. The native planting area was in full bloom which delighted many of the volunteers who had helped plant them in the winter.

- In October, 10 community volunteers helped water the native habitat islands and remove stinkwort. Stinkwort removal was focused in the seasonal wet area as well as along the service road. One volunteer traveled from the central valley to come to this event!

Native Plant Maintenance

- The plants in the habitat islands are generally doing well with some species seeing rapid growth and many species blooming. The main cause of plant loss is due to ground squirrel activity, this seems to be slowing down now that the plants are well established. Removal of weeds from the planting rows has been successful and we are seeing a significant amount of alkali mallow naturally recruiting in the islands.
- Photo right: volunteers bucket watering California buckwheat in full bloom within the habitat islands.
- Plants in the upland habitat islands were watered twice a month - once by Purple Pipe, and a second time by Grassroots Ecology staff and volunteers using water stored in tanks onsite.
- The “seasonally wet area” where we planted marsh baccharis and marsh goldenrod in small island groups is thriving (photos below), and as of late summer plants were blooming and spreading. The 16 narrowleaf milkweed planted in this area did not survive, most likely due to the saline conditions.



Invasive Plant Management

- The primary target invasive plant during late summer and fall was stinkwort. Volunteers helped to remove stinkwort from the service road surrounding the planting area and between the planting area and the main gate where vehicles regularly travel and have the potential of being a vector.
- Two staff days were spent removing stinkwort from the “seasonally wet area”. This area has seen a decrease in stinkwort compared to last year.
- All stinkwort removed was either bagged and removed from the site or pulled before flower buds formed.
- Yellow starthistle was removed from within the upland habitat islands and surrounding areas.



- During the 2022 season 0.5 acres were managed by hand pulling invasive plants with a focus on yellow starthistle and stinkwort. Roadways and revegetation areas were prioritized to help protect native biodiversity and limit the spread of invasive propagules.

Monitoring

- In July, Grassroots Ecology naturalist interns spent a morning using the bioblitz model to monitor the upland habitat islands for insect presence. Observations were uploaded to iNaturalist. During two 30-minute bioblitz sessions 76 observations were logged on iNaturalist with 28 distinct species observed. The full species list, as well as photos can be seen [here](#).
- In November, staff did an unofficial survivability count of the habitat islands. Across all three islands plant survival was around 50%. Plants that survived are robust and have flowered and spread in their first year. The plants that did the best were: California sagebrush, California buckwheat, California aster and hairy gum plant. Most of the plants that died were due to predation from gophers and ground squirrels.

Field Photos



The October volunteer group celebrating after completing the watering of the habitat islands



Volunteers removing stinkwort from the roads.



An alligator lizard taking refuge in the tool tarp



California fuchsia in bloom in the upland habitat islands



One of the elderberry trees is really taking off!



Staff admiring the extra large California asters



Habitat islands saw some plant loss due to gopher activity but the plants that remain are big and healthy



Many species installed this winter in the habitat islands are flowering and attracting pollinators like this narrowleaf milkweed



The California rose is blooming and some of the rose hips are still on the plant



Marsh goldenrod blooming in the seasonally wet area



Project Manager Claire showing off a patch of marsh baccharis in the seasonally wet area

Field Log

| Date | Tasks | Notes and Field Observations |
|----------|---|---|
| 7/26/22 | <ul style="list-style-type: none">- Purple Pipe filled tanks and watered all upland habitat islands- GrE staff removed stinkwort from the road surrounding upland planting zone | |
| 8/12/22 | <ul style="list-style-type: none">- community volunteer workday with 10 volunteers- bucket watered habitat islands and test plots- removed stinkwort from road | <ul style="list-style-type: none">- Cal buckwheat and Cal fuschia is blooming- many repeat volunteers |
| 8/25/22 | <ul style="list-style-type: none">- Purple Pipe filled tanks and watered all upland habitat islands- GrE staff removed stinkwort from the road surrounding upland planting zone | |
| 9/21/22 | <ul style="list-style-type: none">- GrE staff and interns bucket waters all plants- site cleanup- tool organization and inventory- decommission upland seed test plot "C"- construct small "fence" using wooden stakes and flagging tape to delineate work area from mulch area | <ul style="list-style-type: none">- alligator lizard is living in the tool tarp- all straw has been used in the planting areas- lots of plants still blooming with moths and bees present |
| 10/13/22 | <ul style="list-style-type: none">- Purple Pipe filled tanks and watered all upland habitat islands- GrE staff bucket watered all elderberry trees with 2 buckets each- scouted marsh planting area to look at the success of native plantings and plan stinkwort removal | |
| 10/26/22 | <ul style="list-style-type: none">- community volunteer workday with 10 volunteers- bucket watered all habitat islands and upland test plots- removed all stinkwort from seasonally wet zone and road around upland planting zone | <ul style="list-style-type: none">- buckwheat still blooming! |

| | | |
|----------|---|---|
| 11/20/22 | <ul style="list-style-type: none">- site visit with Nathan Hale from the SCVHA- evaluated habitat islands for plant survivability to plan for infill planting- identified locations for 2 milkweed seeding test plots in the upland planting zone- seeded Ca poppies in and between habitat islands- watered about 1/2 plants to use up water in tanks before PP comes- removed stinkwort along service road | <ul style="list-style-type: none">- buckwheat and aster are seeding- lots of bluebirds- 2 coyotes seen out by owl burrows |
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