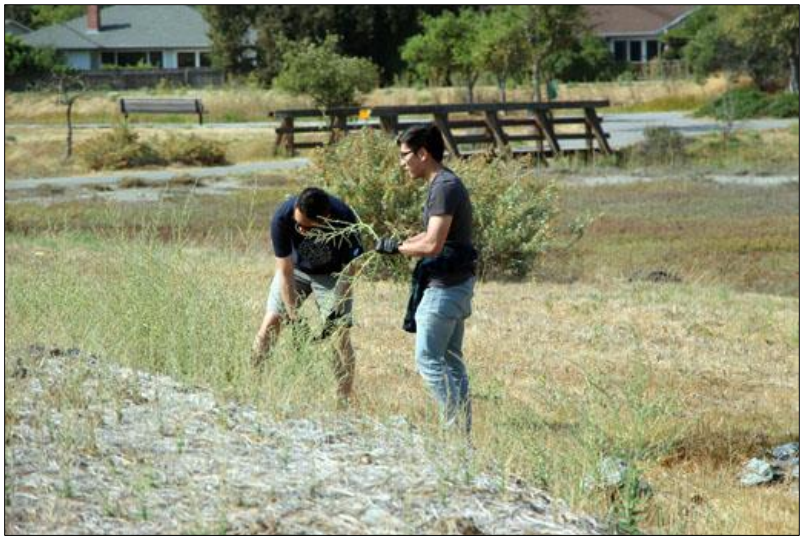
The Dirt on Hal Brown Park

by Charles Kennard
2018

It was a text-book case of a quick response to an invasive weed—except that the text book was still being written.

Last September several truck-loads of soil were brought to Hal Brown Park from Candlestick Point in San Francisco, to replace stony soil that had been dumped into the marsh decades ago and was inconducive to the growth of marsh plants. The recent action was part of a project implemented by Marin County Parks to compensate for the impacts to tidal marsh habitat during construction of the pedestrian/bicycle bridge across East Sir Francis Drake Boulevard, officially the Central Marin Ferry Connection.

In preparation for a volunteer workday at the park, Kirk Schroeder of Marin County Parks noticed that the area where the dirt had been stockpiled before its use in the marsh was bristling with a patch of three-foot-high plants that had sprung up and were unknown to him. One of his colleagues identified the plant as an invasive weed originating in Eurasia with the delightfully expressive name five-horned smotherweed, or *Bassia hyssopifolia*. Over the years it has been accidentally introduced to many parts of the western half of the continent, and is also recorded from Ignacio, along the railroad—a typical habitat for weeds, that have an advantage in disturbed and well-travelled routes.



Volunteers from Salesforce at Hal Brown Park pull up five-horned smotherweed before it can spread around the marsh. Photo by Kirk Schroeder

The very next day, a volunteer crew of Salesforce employees was put to work pulling and bagging the weed, to prevent it from spreading.

Such an "Early Detection and Rapid Response" to invasive plants is the model of programs being developed by public land managers around the Bay Area, on the principle of a stitch in time saves nine. One ecologist has calculated that the financial benefit of catching weeds early is actually more like 1 to 34. In Marin, the Tamalpais Lands Collaborative (TLC, or OneTam) has developed a protocol for surveying, recording and monitoring the occurrences of invasive plants, especially new populations. In the long term, it is more effective to eradicate these than to attempt to tackle, say, an established five-acre patch of French broom. So the TLC has drawn up a list of 21 priority small-population or anticipated invasive plants that have the potential to cause a big problem if they are not dealt with rapidly, and another list of 40 invasive plants that are already well-established and very hard to make a dent in. Examples in the first group are Chinese tree-of-heaven, Portuguese broom, gorse, large-flowered St. John's wort, and several grasses. A few of those in the second group are black acacia, pampas grass, French broom, cotoneaster, fennel, English ivy, and many other familiar species.

Of course, the detection of these invasive plants must be followed by effective treatment to eradicate or control them, and this is where volunteers can be most useful. In our watershed, MMWD and Marin County Parks have well-developed programs for volunteers; the San Anselmo Open Space Committee has embarked on a broom-removal and trail project on Red Hill; and Friends has periodic workdays on its restoration sites.

The recent events at Hal Brown park have an aspect of déjà-vu. Forty years ago, a cordgrass was brought from Humboldt Bay to the marsh at Hal Brown Park, intentionally, as part of a restoration project. It turned out to be an invasive species, *Spartina densiflora*, native to Chile, and Friends has spent much time and money over the past decade, sup-ported by the bay-wide Invasive Spartina Project, to rid our estuary of the plant. We have had considerable success, but it would have been so much easier if the problem had been spotted at its inception.