Minutes
Arana Gulch Adaptive Management Working Group Meeting
Arana Gulch
9:00 a.m. – 12:30 p.m. on March 14, 2016

PARTICIPANTS:
Kate Huckelbridge, Ecologist, CA Coastal Commission
Kathy Lyons, Biotic Resources Group
Noah Downing, Planner, City of Santa Cruz Dept of Parks and Recreation
Mike Ferry, Planner, City of Santa Cruz Dept of Planning and Community Development
Grey Hayes, CNPS
Suzanne Schettler (CNPS alternate)
Devii Rao, Livestock and Natural Resources Advisor, University of California Extension

ABSENT:
Susan Bainbridge, Researcher, University and Jepson Herbarium
Lena Chang, USFWS
Melissa Farinha, Biologist, CDFW

AGENDA ITEMS AND DISCUSSION TOPICS:

1. **Cape and English ivy removal**
   Cape ivy removal is most effective when a ten foot buffer area is created around the entire ivy location to limit future spread and removal is focused inward from the buffer zone. A fly is being tested that feeds on the ivy and may effectively kill ivy if the practice is approved. However, the study has been ongoing for 10 years and it is not clear if or when the practice can be used. Given the extensive scope of the cape ivy removal project, it may be better to control outlying patches first which are more manageable. The English ivy can be clipped near the ground to prevent future seeding. Removal of broom and other invasive brush is important for fire management.

2. **Mowing Area B**
   The mowing regiment follows the Watsonville Airport protocol of 3 times per year. The group decided to mow at more regular intervals to keep the grass height down until Santa Cruz tarplant growing season begins in mid-June.

3. **Creating a barrier between the pathway and Area B**
   Public comments were received regarding bicyclists and pedestrians walking off the path onto Area B. At the November 2015 meeting, the group had discussed a possible

solution to place limbs or install split rail fencing to keep people outside of the area. The group inspected the area and plants were identified that grow under similar conditions of the Santa Cruz tarplant. Group members discussed that it would be better to monitor the location for Santa Cruz tarplant instead of placing structures or limbs on top of the soil which may prevent Santa Cruz tarplant from growing. The disturbance may be helping the SC tarplant. If Santa Cruz tarplant grows in the area, a temporary fence and interpretive signage will be installed to educate visitors and protect the plants.

4. Waterbars on Coastal Loop Trail near Area A

A community member raised concerns that some water bars had been dug in to the trail to shed water off the trail onto the adjacent hillside. The group members discussed that it was a common practice along trails and helps prevent rutting of the pathway and loss of sedimentation and more should be installed. A potential volunteer project was identified to remove the bunch grasses growing in the middle of the trail and replant them on the side of the trail.

5. Thistle Abatement

Noah described that the areas with thistles were being weed wacked frequently. The group discussed allowing the grasses to grow taller than the thistles before cutting them because it will prevent many thistles from growing, and the weed wacking can occur after the thistles bolt, thereby reducing the amount of staff time necessary to control the population.

6. **Perimeter Mowing Timing**

The bird nesting season conficts with the perimeter mowing season. Last year, a biologist performed a survey of the area before mowing began. However, the height of the grass may make it difficult to identify all the nests. The Parks Maintenance Worker is scheduled to be trained in identifying bird nests. Additionally, a list of birds found onsite by birders can be found on ebird and can at least give us an indication of which ground nesting birds are currently nesting, when, and what to look for. In addition to a biologist, the City can look into contacting the local birding clubs to see if there are any volunteers that can be enlisted to help search for bird nests. The nests would be identified and a buffer zone could be flagged before mowing begins. An alternative option could be to mow early in the season before nesting begins and to keep grass low to deter nesting in the area. However, the large expanses of grassland would be difficult to staff and fund mowing on a regular basis. The northeast stretch of grassland that is adjacent to the dirt road at the end of Agnes Street can be mowed at the same time as the perimeter mowing.

7. Molasses or Salt and Mineral Block timing and locations.

Placing molasses and salt and mineral block locations is not as effective during the rainy season when the wet grass has more sugar and the grass has more salt from its coastal location. The rancher typically uses molasses and salt and mineral blocks later in the season. The group discussed placing rubbing posts in the field. They could be dug deeper in the ground so as not to require concrete support. The cows rub on the posts and would help create bare ground in the area. An existing post was observed performing this similar function in grazing Area A.

8. Trail section on slope by cotoneaster removal area.

The path is in poor shape and a new ad-hoc trail has been created to bypass the area. Water seeps out of the hillside onto the trail and creates a muddy surface that is not a preferable choice to walk on. The trail can be improved by creating water bars to shed the water off the trail and by placing layers of crushed rock to create a walking surface that is free from mud and still allows water to flow off the trail. The water bars will be located near the hillside water seepage to capture the water and redirect it off the trail. The trees have recently been pruned but some additional pruning can be undertaken to provide for a more comfortable space to walk.

9. Sedimentation and Erosion Issues in Arana Creek

Barry Hecht and Jason Parke, Balanced Hydrologics, led a tour of lower reach of Arana Creek. They described the work they had done throughout the years and the fascinating history of the creek. Much of the bank destabilization is occurring because the bends of the river do not accommodate the increase in water flow and the widening of the creek which has resulted from land-use patterns upstream. Given that the creek is not currently formed to support the flow pattern, erosion will occur until the curves straighten out over the next four decades. The group identified a few areas that can be corrected more immediately. First, water, most likely from the wetland area immediately above, is flowing down to the creek and is causing a channel to form on the banks edge. A large berm can be placed along the edge of the wetland to slow the flow of the water. Additionally, the ad-hoc trail that connects Area D to the creek is causing erosion as water flows down from the coastal loop trail to the creek. A berm can be placed in this area to disperse the water flow into the surrounding vegetation. Signage can be placed in this location indicating the need to obtain restoration goals of revegetating the area. The Himalaya blackberry should remain on the creek edge as it helps prevent further expansion of the ad-hoc trail. Graffiti was observed on the

opposite side of the creek and on the tree. The City has a graffiti hotline that can be called to remove graffiti.

They described that the drought had weakened root systems for the plants and trees which had held up the banks. Arana Creek is one of the only sandy watersheds in Santa Cruz and it is difficult to derive a conclusive sediment budget because there is a large deposit every 5 to 15 years. They described that the 2002 Arana Creek Watershed Enhancement Plan is a comprehensive document on Arana Creek and the City will post it on the AMWG's website. They also mentioned a memo on the effects of the tsunami and another study from 1982 that can also be posted on the website.

10. Wetland Near Area D

The trail near the wetland area is muddy and wet and is in a poor location. An additional berm is needed to prevent water from eroding Arana Creek. Potential improvements to this area could be to add a raised platform so people do not expand the trail footprint to try to avoid the mud.

11. Hydrological Concerns

The multi-use path along the hillside had been raised as a potential hydrological concerns as water was observed running along-side the trail and not over the trail as originally intended. The trail was designed with drainage rock 24 inches on both side of the trail and drainage rock underneath the trail. The intention of the design was to allow for water to flow down through the drainage rock on the upslope side of the trail, then under the trail, and out the downslope side. Check dams were installed at intervals underneath the trail to make sure water did not flow directly under the trail and was instead redirected downslope. The Parks and Rec Department removed soil from the top of the drain rock and installed drain rock capture basins. Fabric was installed beneath the rock and on the sides. Larger drain rock was placed at the bottom with smaller rocks on top. The purpose was to filter the sediment so it doesn't clog. They appeared to be working and more will be added next year at the start of the rainy season.

12. Public Comments:

Public comments were discussed during the field trip and no additional public comments were received during the public comment period.

13. Additional Amenities

The City has received feedback from a recent educational tour of the site that there is a need for restroom facilities. The group discussed the possible location of porta-potty near the Agnes Street entrance. Additionally, the Parks and Recreation Department has a memorial bench program where people can purchase memorial benches to place at the park. Noah described that one idea would be to create a semi-circle amphitheater such as exists near the entrance to Neary Lagoon to help with educational tours such as will be pursued with the Natural History Museum and hopefully others in the future. The Agnes Street entrance area has been discussed as non-critical habitat and may be a good site to locate the amphitheater. The City will work with the Coastal Commission to determine if these additional amenities require additional permitting.

14. AMWG Membership

The group had discussed reexamining the format to determine how the process can be most effective to members in the future. Given the amount of time members dedicate, it is important that the annual report communicate the achievements made throughout the year so as to clearly illustrate the progress made. Given that the program is up and running, it may be good to discuss if any changes are needed in the time commitment or format to ensure the meetings are productive and do not become perfunctory. Additionally, the City and CCC will search for an additional land manager and wildlife biologist to become a group member.

NEXT STEPS:

- The City will continue to implement the weed management plan.
- The City will check-in with the Coastal Commission about the permitting process for adding a berm and raised walkway to the wetland area and for the potential use of a porta-potty of additional of benches to create a learning area near Agnes Street.
- The City will add a berm to the ad-hoc path that connects the coastal loop trail to Arana Creek.
- The City will identify cape ivy locations within Hagemann Gulch and begin English ivy removal efforts along the Marsh Vista Trail and Hagemann Gulch.
- The City will continue to keep down grass height in Area B until mid-June.
- The City will work with the bird clubs to help identify nests before the perimeter mowing in Early June.
- The City will install posts for the cattle to rub on after the tarplant growing season ends.
- The City will post hydrological reports to website.
- The City will fix trail section on slope near cotoneaster removal area.
- The City will install catch basins along multi-use trail to improve drainage.
- The City will work with the Coastal Commission on finding new members.