

Minutes
Arana Gulch Adaptive Management Working Group Meeting
Fredrick Street/Broadway Avenue Park Entrance to Arana Gulch
9-4 pm April 15, 2015

PARTICIPANTS:

Kate Huckelbridge, Ecologist, CA Coastal Commission
Kathy Lyons, Biotic Resources Group
Suzanne Schettler (CNPS alternate)
Susan Bainbridge, Researcher, University and Jepson Herbarium
Lena Chang, USFWS
Douglass Cooper, USFWS
Devii Rao, Livestock and Natural Resources Advisor, UC Cooperative Extension
Alison Stanton, Research Botanist
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
Mauro Garcia, Parks Superintendent, City of Santa Cruz
Grey Hayes, CNPS
Melissa Farinha, Biologist, CDFW

ABSENT:

Tim Hyland, Ecologist, CA State Parks

AGENDA ITEMS AND DISCUSSION TOPICS:

1. Public input received.

Noah summarized the public comments that had been received since the last AMWG meeting in January, including reports of vandalism, fence cuttings, and off-leash dog issues; an inquiry about the City's plans for the removal of the remnant concrete slabs; and concern that the planned removal of the oak trees encroaching on the coastal prairie may create opposition to the grazing program.

2. Grassland delineation and woody plant removal discussion along the Coastal Loop Trail from Hagemann Bridge to the overlook above the harbor.

The group stopped at intervals along the trail to discuss the grassland delineation and the planned woody plant removal. Members agreed that the trail is an appropriate boundary for this segment of the coastal prairie and confirmed that any tree less than 6 inches dbh would need to be removed at a future date. Sue commented that the purple needle grass between the trail and the fences may be a good photo opportunity to post

on the webpage. The discussion of woody plant removal was deferred until the Invasive Species Removal discussion later in the agenda.

3. Grazing recommendations.

The group discussed the current grazing approach with the rancher. It is difficult to assess the appropriate grazing regime during the first year of grazing a new site. The rancher informed the group that the rate of grass growth at other grazing sites is nowhere near the rate at Arana Gulch. Presently, seven cows are located in Grazing Area A and seven are located in Grazing Area C. The cattle are not catching-up to the grass growth in either area. Additionally, Grazing Area C, near Agnes Street, is full of weeds which the cattle do not eat. The weeds could be sprayed with molasses later in the season after they dry-up, mowed now before they seed, or grazed by goats or sheep. The group discussed the possibility of bringing additional cattle to the site to catch-up and the issues associated with it. The group decided that it would be best to keep all 14 cows in grazing Area A since it has the most potential to restore the SC Tarplant population. More cattle can be added at a later date to Grazing Areas C and D. Additionally, the group recommended to mow the weeds in Grazing Area C. Next year, more cattle can be placed in the grazing areas to keep pace with the grass growth. All in all, the group agreed that it is important to allow flexibility to the rancher for determining the best course of action.

The group also discussed the end of the grazing period and how to maximize benefits to the SC Tarplant. Keeping the cattle onsite after the SC Tarplant has been spotted is not an issue. Protective fencing is not needed to prevent the cattle from disturbing the SC Tarplant.

4. Timing and locations of perimeter mowing.

The timing and locations of perimeter mowing discussion was moved up on the agenda. The group decided that the perimeter grassland should be mowed once per year in late-May or early-June but only after a botanist inspects the site to assure that native plants, especially mariposa lilies, would not be adversely affected. The group re-affirmed that mowing should take place with a flail mower to break up thatch so that it decomposes better.

5. Continue the grassland delineation and woody plant removal discussion from the overlook above the harbor to the Coastal Loop Trail near Area D.

The group stopped at intervals along the Coastal Loop Trail to discuss the grassland delineation and the planned woody plant removal. For the most part, the trail was an appropriate delineator for the coastal prairie. However, two open areas, on the harbor

side of the trail near the overlook, are important to maintain as coastal prairie, especially given the view corridor to the harbor. The group agreed that an aerial photograph would be used to delineate the grassland boundary for future management reference.

6. Observe erosion issues resulting from the use of an ad-hoc trail at Arana Creek.

The group discussed the erosion issues. The City shared concerns that closing the connection to Arana Creek, although an un-permitted trail, may lead to adverse impacts and additional public criticism. The ad-hoc trail is heavily used, and closing it may lead to additional trails being created and additional erosion challenges. One idea would be to add erosion control measures and improve access. However, there may be permitting issues with that approach. Some members expressed interest that the trail should be closed. The City will try to identify minor changes that may be able to occur within the permit condition framework and will need the group to help determine if they demonstrate a positive benefit to the restoration effort. The Coastal Commission will also need to review the measures and determine if they can be allowed. The group reiterated the need for a wildlife biologist on the AMWG, as this type of expertise is needed to inform issues such as this, where recreation may conflict with wildlife.

7. Continue the grassland delineation and woody plant removal discussion to the NE section of the grassland.

The group stopped at intervals along the Coastal Loop Trail to discuss the grassland delineation and planned woody plant removal. The trail segment adjacent to the Marsh Vista Trail is an appropriate delineator. The group then walked to the three scrape plot areas in the NE area. No native plants were found. The group will continue to monitor the scrape plots to see if any native plants grow before determining whether or not to include the NE area as part of the coastal prairie. No additional vegetation point intercept transects will be added in this area and no additional scrape plots are necessary.

Debbie Bulger, CNPS, discussed a potential volunteer planting effort to plant locally collected coast live oak trees along Agnes Street. There was some concern about the location and alternatives were discussed. The City will work with Debbie and the group on finding a location for the trees.

8. Discussion Topic Added, Grazing trough locations.

The group discussed the location of the grazing trough in Area A. The close proximity of the grazing trough to the fence-line creates use conflicts. The cattle spend a lot of time near the grazing area and unsavory smells linger around the bike trail. Additionally, the

cattle are more vulnerable to dog confrontations because owners tend to spend time there. The City and rancher discussed the possibility of extending the water line 100 to 150 ft into Area A. The group discussed the benefit of increasing the bare ground in other areas of the grazing site. Since cattle are going to create bare ground from walking along the fence-line anyway, the water trough can be relocated as a means to create additional bare ground away from the fence. The City will move forward with the project after the cattle have been removed.

9. Updates on establishing a reference site for Arana Gulch.

The group discussed collecting and analyzing data from other coastal prairie sites to create more precise targets in the HMP. Group members will send Kate contact information for others collecting coastal prairie data, so she can maintain a reference site spreadsheet to be used in the assessment. In future studies, it is important to include the standard of error and range, as well as to stratify the areas which were previously disturbed or native prairie. Additionally, it is important to consider the original plant list so diversity does not decline. A no management zone will not be pursued.

10. Grassland monitoring.

Alison will be re-sampling the vegetation transects this week. This year will essentially represent a third year of baseline data, as the vegetation has not had a chance to respond to the grazing. The higher precipitation may make this a more representative year. This year's data will be incorporated into the cumulative baseline assessment report which describes all data analysis methods.

Alison also has identified about 25 photopoint locations. The group would like to have the photos presented in a way which enables cross comparison between years.

The main purpose of measuring canopy height was explained to help determine how height at different times of the year corresponds to native plants repopulating. Alison already measures canopy height during the April vegetation transect monitoring. Alison and the City will from here out measure canopy height using a plastic dinner plate anchored on a pin flag in February and August. The City will need to work with the group to determine which transects to be used for monitoring.

The discussion of the RDM methodology raised questions as to how the site should be managed and the trade-offs between ensuring a sustainable grazing operation by allowing grass heights to recover versus establishing as much bare ground as possible to help the native wildflowers. Devii Rao discussed RDM strategies ranging from photos illustrating low, medium, and high scenarios to measuring grass clippings to quantify

pounds per acre. Alison will work with Devii on developing an approach to RDM monitoring sometime between the end of September and October and then train staff members on the measurement method.

11. Work plan for invasive species removal.

Noah discussed the creation of a work plan to remove invasive weeds. It will focus on the high priority invasives in the coastal prairie near grazing areas A and D and then evolve into other areas. It is intended to be a straight-forward document to help coordinate work crews and volunteers. It will identify the species, location, method of removal, timing of removal, and monitoring of regrowth. Grey suggested beginning with a 3 year time timeframe and to also focus on any areas with Bermuda grass or cape ivy. Additionally, the group had previously identified Himalayan blackberry, cotoneaster, French broom, thistles, and medusa head as priority invasive plants. Noah will work with Kathy on the creation of the first phase of the plan and then send it to the AMWG for review and approval.

The group discussed woody plant removal. Jean Brocklebank, a member of the public, expressed concern that the City would lose support of the project because the public had endured so much change in the previous year. Holding-off for one more year to remove the trees would not be an issue as the rate of encroachment is slow. Members of the group asked for the City's confirmation that funding would still be available if the group decided to hold-off for one year. The City stated that funding would not be an issue. The group decided to hold-off with the Oak removals but to still remove the cotoneaster and blackberry as planned.

12. Discussion Topic Added, Signage.

The group discussed adding small SC Tarplant signs to be placed near the small grazing area signs. Debbie Bulger, CNPS, will send the group the wording to place on the signs. Noah will work with a sign vendor to create the signs.

NEXT STEPS:

- Noah will send out a doodle request for scheduling the next AMWG meeting in November.
- Noah will coordinate the next mowing of Area B and the off-site removal of the grass clippings.
- Noah will coordinate with Parks maintenance personnel to continue to mow along the bike path.

- Noah will hire a contractor to remove the cotoneaster and blackberry and mow the weeds in Grazing Area C.
- Debbie will email sign language to the group for review. Noah will work with a sign vendor on the signage.
- Noah will continue to work with the rancher to meet the grass height goals and will send updates to the group.
- Kathy will monitor the grazing areas for SC Tarplants.
- Alison will complete the transect study and the reference photo points.
- AMWG members will send SC Tarplant reference site data to Kate for inclusion in a master spreadsheet to inform the targets.
- Noah will hire a contractor to mow the grassland outside of the grazing areas and within Grazing Area C in late-May or early-June.
- Kathy will work with Noah to create a work plan for invasive species removal. The draft of the first phase will be sent to the AMWG for review and comments via email.
- Noah will create a map of the final grassland delineation.
- Noah will coordinate the work to be performed on the waterline extension for the water trough in Area A. The work will occur after the cattle have been removed from the site, only after it has been determined that no SC Tarplants have been identified in the area.
- Noah will work with Debbie on the identification of a location within Arana Gulch for a volunteer effort to plant the 30 coast live oak trees collected onsite as acorns.
- Noah will use a plastic 10" dinner plate to measure grass height along transects in August.