

*Draft - Minutes*

**Arana Gulch Adaptive Management Working Group Meeting  
9:00 a.m. – 12:00 p.m. on September 11, 2024**

**MEETING**

Working Group Members present:

Mike Godsy, City of SC Dept. of Parks and Recreation  
Blake Woessner, City of SC Dept. of Parks and Recreation  
Ako Culver, City of SC Dept. of Parks and Recreation  
Kathy Lyons, Biotic Resources Group  
Suzanne Schettler, CA Native Plant Society  
Gray Hayes, CA Native Plant Society  
Sylvie Childress, UCSC Greenhouses  
Rachel Pausch, CA Coastal Commission  
Teresa Locatelli, Rancher  
Mandy Culpepper, CA Department of Fish and Wildlife

AMWG Members Absent:

Devii Rao, USDA; notified will be replaced in 2025, name TBD  
Todd Lemein, US Fish and Wildlife Service  
Bill Davilla, EcoSystems West

Other Attendees:

Justin Davilla, Ecosystems West

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The meeting was held at the Santa Cruz Bible Church coffee room (9:00 -10:30) then at Arana Gulch (10:30 – 12:00). Rachel Pausch facilitated the meeting.

**Meeting at SC Bible Church**

**Welcome and Meeting Objectives.** Mike Godsy opened the meeting. Mike announced that he is the new Parks superintendent and this is his first AMWG meeting. He expects to take over AMWG facilitation after this initial meeting.

The minutes from the May 2024 meeting had not been circulated to the AMWG members prior to the meeting, so no action was taken. Mike indicated that the May 2024 minutes will be emailed to members for review and comment.

1. Public Comments. As the meeting was not noticed to the public, there were no public attendees and no public comments.

2. Revisit Arana Gulch Habitat Management Plan (HMP) Goals and Objectives. Rachel facilitated a review of the goals and objectives of the HMP through a PowerPoint presentation. The PowerPoint will be distributed to AMWAG members.
  - a. Recent history of the Arana Gulch property was presented. Gray indicated that prior to rancho-period grazing (point-of-contact), the site was historically burned and grazing was a massive shift in grassland management.
  - b. Review of Coast Development Permit (CDP) conditions:
    - i. Informal paths: not all have been abandoned as required in the CDP.
    - ii. Hagemann Gulch management: some work done on invasive plant removal and fuel reduction, but limited. Kathy reported that polygons of invasive plant species are periodically updated; Gray suggested more data on progress be prepared/presented. Rachel suggested monitoring to detect a trend in decreasing invasive plant cover in treated areas.
    - iii. Arana Gulch Creek: main stressors identified in the HMP are sedimentation and erosion. There is no longer coordination with the Resource Conservation District (RCD) or an Arana Creek group; the status of that program is unknown. Blake reported that the City has been focused on removal of homeless encampments and they have done some willow planting and fencing in areas to restore areas affected by the encampments. The City has also done ice plant removal from the marsh plain. There was discussion on engaging the RCD on Arana Creek issues and better monitoring of progress. Rachel suggested monitoring to detect a trend in decreasing invasive plant cover in treated areas.
  - c. Coastal Prairie Management Area: Major threats were discussed. Gray opined that there has been a change in prairie hydrology and the shallow water table is being drained by the trail cuts. Kathy opined a major threat is lack of bare ground for native plant recruitment. Goals of the coastal prairie and the Santa Cruz tarplant (SCT) were discussed. Suzanne suggested more analysis of soil properties. There was discussion on the cattle grazing and the desire to more closely monitor cattle movement to determine grazing duration and intensity and effects on the prairie and SCT. Air tags were discussed as well as a QR Code for citizens to submit photos of where cattle were on various days to help document grazing patterns. Mowing actions were reviewed and discussed. Ako and Blake reported that mowing in Area A is by a rotary mower set at 8-10" height, as per previous AMWG meeting recommendations. Use of the flail mower would be at a low height (approx. 2 inches) and has not been used. There was a discussion on mowing and grazing in Area A South for fall/spring 2024/25. Summary of 2024 SCT Out Planting. Kathy reported on the SCT census to date,

presenting a handout on number of SCT on site and map of distribution. Total SCT of 4,140 plants, most in Area A SE. Lower number of self-recruited SCT in Area A SW than in 2023, which she attributes to dense grass growth and thatch. High survival rate of 2024 SCT outplantings in Area A SE. Almost all other SCT were observed in previous (i.e., 2023) outplanting sites, as evidenced by the presence of previously placed wood chips.

3. **Field Meeting.** Group reconvened in field with a focus on Area A South and SCT and grassland management. Existing site condition (grass growth, canopy height, and thatch) were discussed and SCT plants observed in both Area A SW and SE. There was a discussion on management actions for fall 2024 and spring 2025, with the following consensus:

- a. In October/November 2024 (after first 1-inch of rain), graze Area A SW. Teresa indicated that would be fine. Supplemental feed (alfalfa and molasses tubs) will be placed in Area A SW to encourage cows to be in this area (water trough is in Area A North). Add broom brushes to one or two existing metal posts to encourage cattle to congregate/create bare ground. Allow cattle to remain in Area A SW until SCT plants bolt in spring 2025 (i.e., October 2024 – April 2025). Remove cows after first nipping of SCT plants is observed (this would not apply to 2025 SCT outplantings).
- b. Prior to rain in October/November 2024, collect SCT seed from the 2024 outplantings and hand broadcast into Area A SW to boost ray/disk achenes.
- c. In spring 2025 continue to mow Area A SW and SE with a rotary mower whenever grass height meets or exceeds 8 inches. Mow both areas at the same time.
- d. Conduct an experimental flail mowing of a portion of Area A SE. Flail mow the area at same schedule as rotary-mowed areas. Document RDM, canopy height, plant cover, and thatch in this mowed strip and compare to data from rotary mowed areas. Gray reports that flail mowing has little/no RDM.
- e. SCT Outplantings. Continue to have UCSC grow SCT plants for outplanting. Install SCT outplantings in Area A SW, Area A SE and Area C (cattle exclosure). Install SCT outplantings in equal numbers in Area A SW and Area A SE and spread out plantings throughout the pastures (use randomly placed 10'x10' plots; use of wood chip mulch in okay).
- f. Area C SCT Cattle Exclosure: Allow cows into this area in mid-September; allow cattle to trample/graze and vector SCT seeds within and outside of exclosure.
- g. SCT Seed Collection: Consensus is for UCSC to do SCT seed collection in 2024 for additional seed increase.

**Next Meeting:** Not determined, but expected to be in spring 2025.

**Experimental questions to be answered with Fall 2024-2025 (or previous) data:**

- Does a cattle grazing + mowing treatment result in different SCT recruitment/performance (height, flowers, etc.) than just mowing?
  - Is SCT outplant performance different between grazing+mowing regime vs. mowing regime?
- Is native grass performance different between grazing+mowing vs. mowing regime?
- What is the invasive plant cover before, directly after, and months after community invasive removal (Hagemann Gulch or Arana Creek)?

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**Action items for coming year:**

- Fall-Winter 2024
  - Approve AG AMWG minutes from May 2024 (AMWG)
  - Circulate data (e.g., polygons) on invasive cover in Hagemann Gulch and Arana Creek; if no data, develop (simple) protocol to implement baseline and following community work in winter? (KL) [Data and mps to be included in Annual Report](#)
  - Open fence to Area C to allow cattle in (KL)
  - Maintain height of grasses at 8-10" with rotary mower on both sides of north/south fence in south Area A (BW, AC) [Continue to ~~Stop~~ mow on both sides mowing SW area when cows arrive.](#)
  - Maintain test strip of grass in southeast Area A mowed with flail mower (BW, AC)
  - Engage with RCD about HMP goals for Arana Creek (appoint RCD AMWG member; potential sediment/steelhead/tidal reach/Greenbelt Gully projects; see HMP) (BW, MG)
  - Spread SCT plant material/seed from southeast Area A to southwest Area A following [introduction of cows](#) ~~mowing (preceding rain?)~~ (KL)
  - Add broom brushes, molasses, other attractants in [south](#)west Area A, discuss cost with City for reimbursement (T. Locatelli)
  - Move cattle into [south](#)west Area A after first inch of rain (T. Locatelli)
  - Move attractants around [south](#)west Area A as halos of bare ground form around barrels (T. Locatelli)
  - Develop QR code and site to upload community science photos of cattle position (BW, MG, KL, RP?) [or consider installation of wildlife cameras](#)
  - ~~◦ Maintain test strip of grass in Area A mowed with flail mower (BW, AC)~~
  - Collect SCT seed (SC)
  - Outplanting of UCSC SCT in [south](#)east and [south](#)west Area A (SC)
- Spring 2025

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- Remove cattle from southwest Area A when SCT bolts or cows begin nipping SCT (T. Locatelli)