

## Stormwater Subcommittee Update for 10 April 2025 River Commission Meeting

After discussion, the subcommittee decide to focus on erosion control as an initial effort. A good deal of the most obvious degradation of the river, river bank, and surrounding riparian area is due to incision, gully formation, and addition of sediment eroded into the river system. We decided to start with rills and other incipient erosion features degrading the steep banks to the river. These rills wash sediment into the river bed, uproot vegetation, and create scars in the landscape. We conducted some research and asked experienced folks on how to address these and found that we could make improvements with fairly simple structures like media luna (arcuate arrangement of stone to deflect runoff and limit further incision and rock check dams along the length of a rill). We also agreed that we would try to do this as volunteer community work facilitated by the existing community efforts.

15 February 2025: We met with Lisa Ferrand to identify possible sites for a first round of erosion control work. Lisa is the river steward for the Frenchy's to Siler stretch of the river and who has organized many river restoration activities including trash pickup, weeding, invasive species removal and re-seeding. We developed a plan for work and with Lisa's leadership organized for a work day on 15 March 2025.

15 March 2025: Combination weeding, reseeding and erosion control volunteer event, 10am-2pm. There is great synergy between these efforts as weeding reveals erosion problems and reseeding in combination with media luna and rock check dams can create more permanent, natural vegetation slope stabilization. Here are the highlights from the volunteer effort:

- We had 21 volunteers that included a group of 6 or 7 very energetic AmeriCorps volunteers who are stationed up in Abiquiu and heard about the event from SF Watershed. We worked downriver starting from Frenchy's bridge for about a 1/4 mile.
- We cleared about 500' of thick tumbleweeds that were choking a raised bank on the other side of the sidewalk from the river (against walls for some horse farms). We also cleared a lesser amount of weeds in this same stretch from the river-side of the sidewalk. We filled an entire large trailer with crushed weeds, a really big load.
- We raked and put seed down on this elevated bank and spread mushroom compost.
- Upstream from the tumbleweed weeding area, we worked to stabilize the steep slope below the sheep farm by creating a mid-slope slot/trench, placing rock in the trench and spreading seed and compost into the trench.
- Just a bit further upstream from the sheep farm on this same embankment, there were two deep, erosion gashes (bigger than rills) which we stabilized with rock, scattering seed and mulch between rows of rock anchors.
- Near Frenchy's bridge, we stabilized the lower slope adjacent to a footpath by spreading seed and compost and filling with a rock layer.
- Downstream from this location, we blocked off a footpath down to the riverbed that was deeply eroded and defined an alternative route with rock outline.
- Further downstream, we created media luna and rock fill with seed and compost in two side-by-side rills.
- We used about 4 lbs of seed in this work.
- Among the volunteers were 3 River commissioners (Bill C, Jim R. and Bill H.).
- Photos:



We encourage all Commission members to join these volunteer events. They are fun and it is great to make physical improvements to the river.

4 March 2025: Bill Carey attended a community meeting on planned city work to restore river bed grade controls in the stretch of river between Ricardo Street and Camino Alire. This damage resulted from storm flooding in 2018. A suggestion made during the meeting was for the contractor to remove Siberian elms as part of the restoration. It would be good idea to pursue this possibility. (Zoë can speak to this as she is running or is one of the leads on the project.) Here are some photos of some of the damage that I took showing how the existing structures were undercut:



The plan is to create grouted boulder ramps similar to those installed further downstream which were installed in 2020 and 2022. These have been found to be much more stable than the ungrouted, gabion-style structures supported by geotextiles. Grade of 0.4% will be established between the boulder ramps. This will help raise and restore the river bed.