

7/29/13

Dear Board,

I understand that you talked about the upcoming Forest Meadow rotation in your meeting. I have some concerns and recommendations.

1) Please prioritize a water supply for the Middle Meadow. We can easily move the herd back and forth between the Middle Meadow and the Forest Meadow during our time there - e.g. 3 days FM, 2 days MM, 2 days FM, 3 days MM, 2 days FM, 2 days MM - IF we have a separate water trough and a tank on wheels. Wakean says EBMUD suggested we might rent one. This will automatically give the whole herd some de-tox time, should any of the horses need it.

2) Please install a temporary fence around the area near the spring where the horses have gone after the hemlock root crowns, to keep the horses off.

3) Control of the hemlock in the vicinity of the FM spring: we should change our strategy for this area by not mowing until the plants mature; let these particular plants keep growing until they flower in Spring/Summer/Fall, and cut them with mower or weedeater - most likely two cuttings. The moisture content must be contributing to our problem here - it likely makes the root crown more attractive to the horses, and the plants have a longer season than their cousins on the drier slope above. Our strategy should adjust for these plants in particular.

The hemlock control program on the drier part of the slope has been successful - the successive mowings combined with hand control have greatly reduced the number of plants, allowed grass to compete successfully, and kept down the amount of palatable hemlock greens when the horses are grazing here.

Conditions appear to be different in the vicinity of the FM spring. We should cut these plants later, when they are unable to grow back. The thing with hemlock is that once the plant goes to seed it dies. Hemlock's whole strategy for invasion is seeds, and fortunately, these seeds do not remain viable for more than about 3 years. The trick for control is to cut the plant when it has flowered before it has dropped seed, at the point in its cycle when it does not have resources to re-grow. It is biennial, it sends up its stalk for flowers/seed in its second year. It will then die a natural death. If the flowering stalk is cut before the seeds fully develop, no more seed will be added to the surrounding plant community.

It's true that we did not mow these particular plants the first year or maybe even two, but early season mowings are probably not as successful on the plants near the FM spring - they are not sufficiently stressed, they are too tasty, and they have the resources to come back after we can no longer mow. Let's let them just grow like crazy early on until they commit to flowering, THEN take them out. (We do have success with this strategy elsewhere.) We just have to keep the horses out of the drama in this particular area with some temporary fencing.

The horses have access to hemlock in all the upper pastures and all the corral enclosures - this contributes to our management problem and to the horses developing a taste for the stuff. It is a struggle waged on several fronts and lots of members are active in the campaigns. One of the hemlock areas that the herd has access to through all the long Pond and Plateau rotations is right next to the green tub supplying water for Pond and Plateau, and the horses do frequent it. I think our goal is eradication, and I think it is achievable. Right now our focus is on the Forest Meadow.

The Forest Meadow is part of a remarkable ecosystem that has been under observation by botanists and biologists for some time. When we first suggested mowing here with John Fouhy's rig, they would not let us touch any ground 10 feet beyond the fireroad. When we first got permission to mow, Fish and Wildlife biologists surveyed the ground each time two days before we could begin. We now have a degree of trust with Fish and Wildlife, but I think Roundup is not an option here, even if it were effective. It is prime red-legged frog habitat.

The ground around the spring has several massively invasive species – hemlock, milk thistle, italian thistle, mustard – but it also has grasses ready to move in. It is hotly contested and there is a large reserve of many kinds of seed. The first wave after the area was cleared was the native grass wildrye – *Leymus triticoides* - sprouting up in the understory. It is still there waiting. It spreads by rhizomes and is evident as the coarse grass in the wet meadow beyond the spring. It will fill in with half a chance, and is an aggressive grass. There are wonderful brome grasses that are gently filling in from the south and east edges by the two springs.

- Erica

Resources:

*California Invasive Plant Council (Cal-IPC)* – see articles & links on our website!

*Sheila Barry, UC Coop Extension, Livestock and Rangeland Advisor*

And, as any expert will tell you, *our own observations and experience.*