

Winter/Early Spring Restoration Update



March 11

Dan Mummey

Native species sown last fall sprouted in February. This photo shows an area where weedy forbs were abundant last fall. We expect that natives will displace exotic forbs after a second growth year.



Cover Crops

Unlike last year, our winter wheat cover crop survived the winter in most areas. Wheat in this photo is denser than most areas. Wheat establishment was better in flatter or south-facing areas.



Orchard House Hill and North Orchard

We expect that weedy forbs will be a problem in this area and planted only grasses last fall to facilitate forb control. Emerging native grasses are abundant in areas. We suspect that seeds were washed out of furrows on steep slopes or buried too deep to emerge. Although it is early to evaluate seeding success, we will reseed these areas if native seedlings don't emerge soon. We will spray weedy forbs later in the spring. We will seed native forbs and shrubs in the fall.

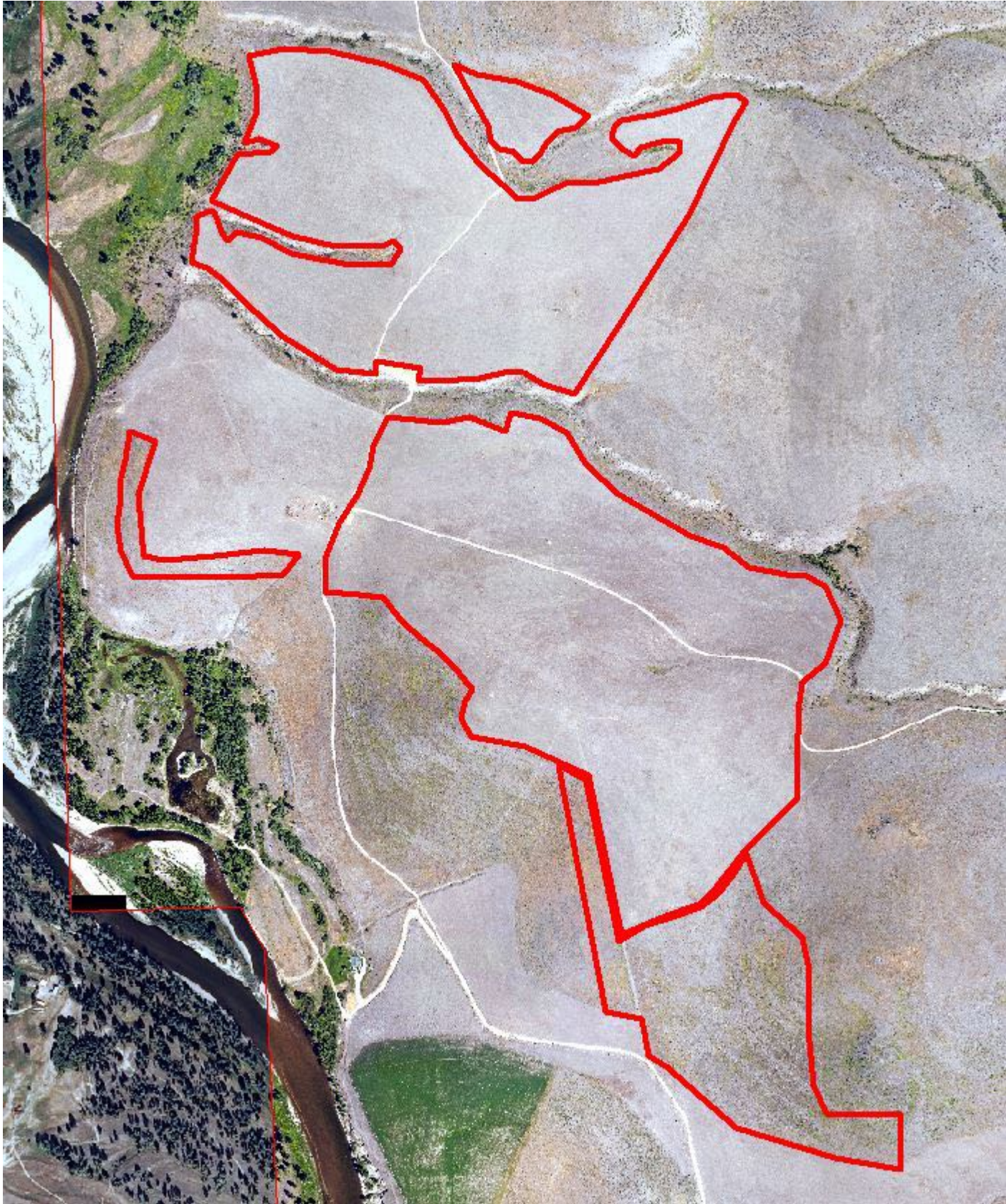


Wheat and native grasses emerge through moss and dead plant crowns in crested wheatgrass conversion areas. We expect rapid moss recovery in areas where erosion isn't a problem.



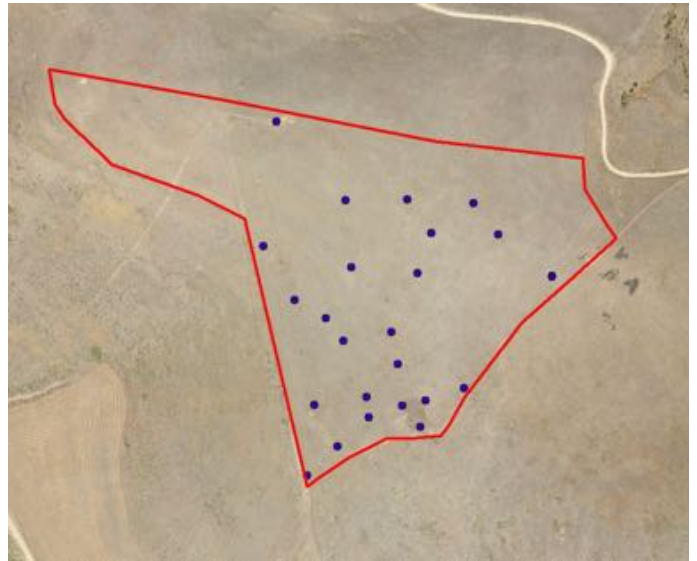
Spring Drill Seeding Areas

Warm weather in February allowed us to start seeding a month earlier than expected. We finished drill-seeding 252 acres. The climate remains favorable for seeding and our focus shifted to seeding roadsides, diversity islands and sagebrush stands.



South Indian Ridge Seeding

We finished drill-seeding 29 acres on the south side of Indian Ridge. We seeded twice to increase coverage and eliminate obvious drill-rows. This south-facing area is the warmest spring seeding area and the first to be seeded this year. We planted diversity islands (blue dots) using locally collected seed, or commercial seed we want to establish in patches.



A work crew planted 9 species in each diversity island. Sown species included pussytoes, blanketflower, rabbitbrush, winterfat, shaggy fleabane, Oregon sunshine, lomatium species, and needle and thread grass.

Sheepcamp Seeding

We drill-seeded short-statured species on 89 acres in the lower Sheepcamp area for curlew habitat. I am curious to see how curlews like their new summer home.



North Indian Ridge Seeding

Our seed mix for this north-facing area included 20 lbs of penstemon and 50 lbs of rough and Idaho fescue.



Lower North Indian Ridge

This area lies between the North Indian Ridge and Sheepcamp seeding areas. We combined plant species the short statured species from the Sheep Camp seeding and the tall grasses from the Indian Ridge seeding to create a diversity gradient.



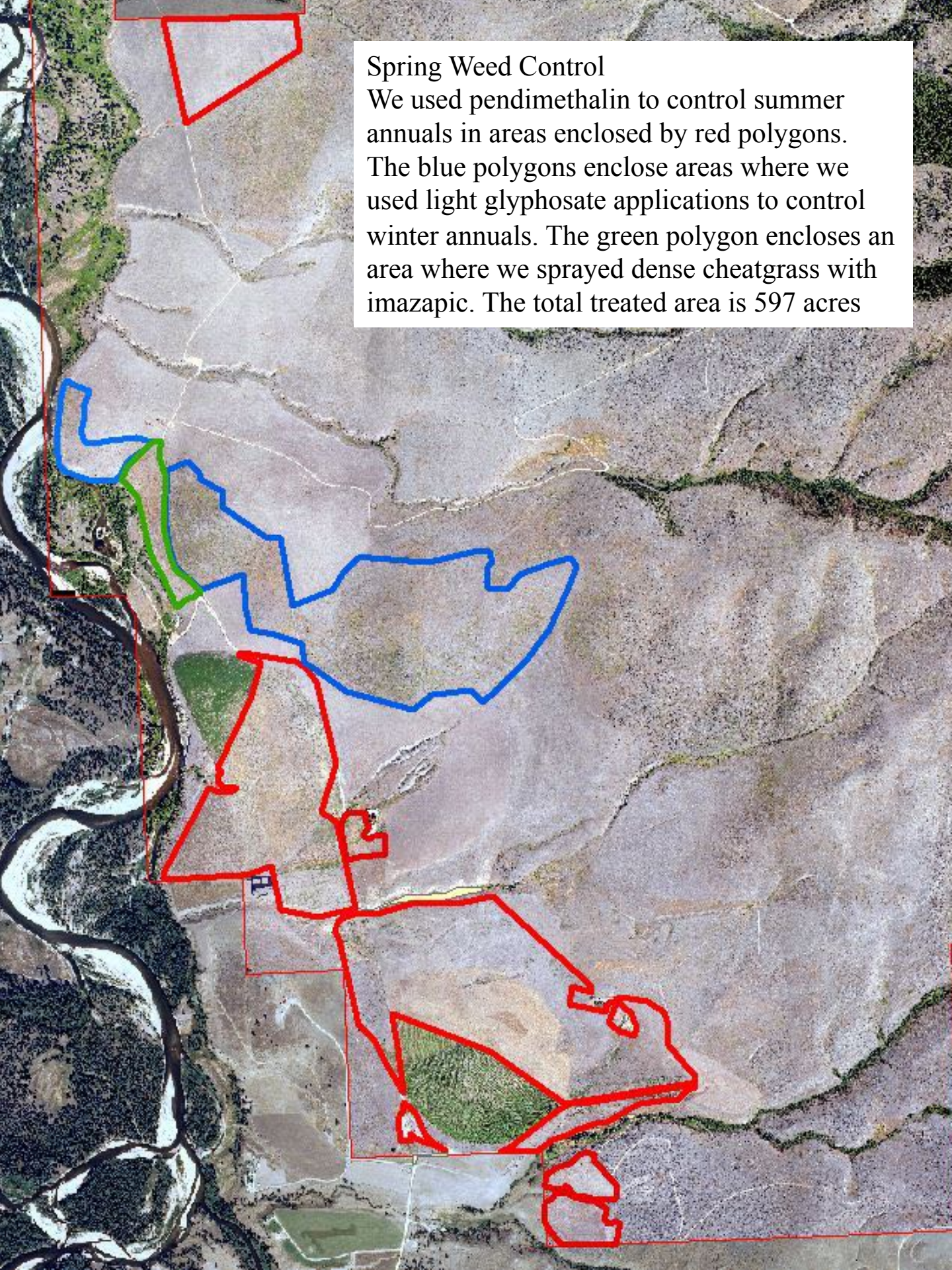
South-central Indian Ridge

Weed control was sufficient to risk seeding to help capture the site. We seeded winter wheat, slender wheatgrass, Snake River wheatgrass, and longer-lived forbs and grass species at a high rate (71 seeds per foot).



Spring Weed Control

We used pendimethalin to control summer annuals in areas enclosed by red polygons. The blue polygons enclose areas where we used light glyphosate applications to control winter annuals. The green polygon encloses an area where we sprayed dense cheatgrass with imazapic. The total treated area is 597 acres



Lower Sheepcamp and Tounge Creek Draws

We spot-sprayed cheatgrass patches in Lower Sheepcamp and Tounge Creek draws and seeded with Rocky Mountain beeplant, annual sunflowers, Alberta penstemon, Sandberg bluegrass, and Canadian wildrye.



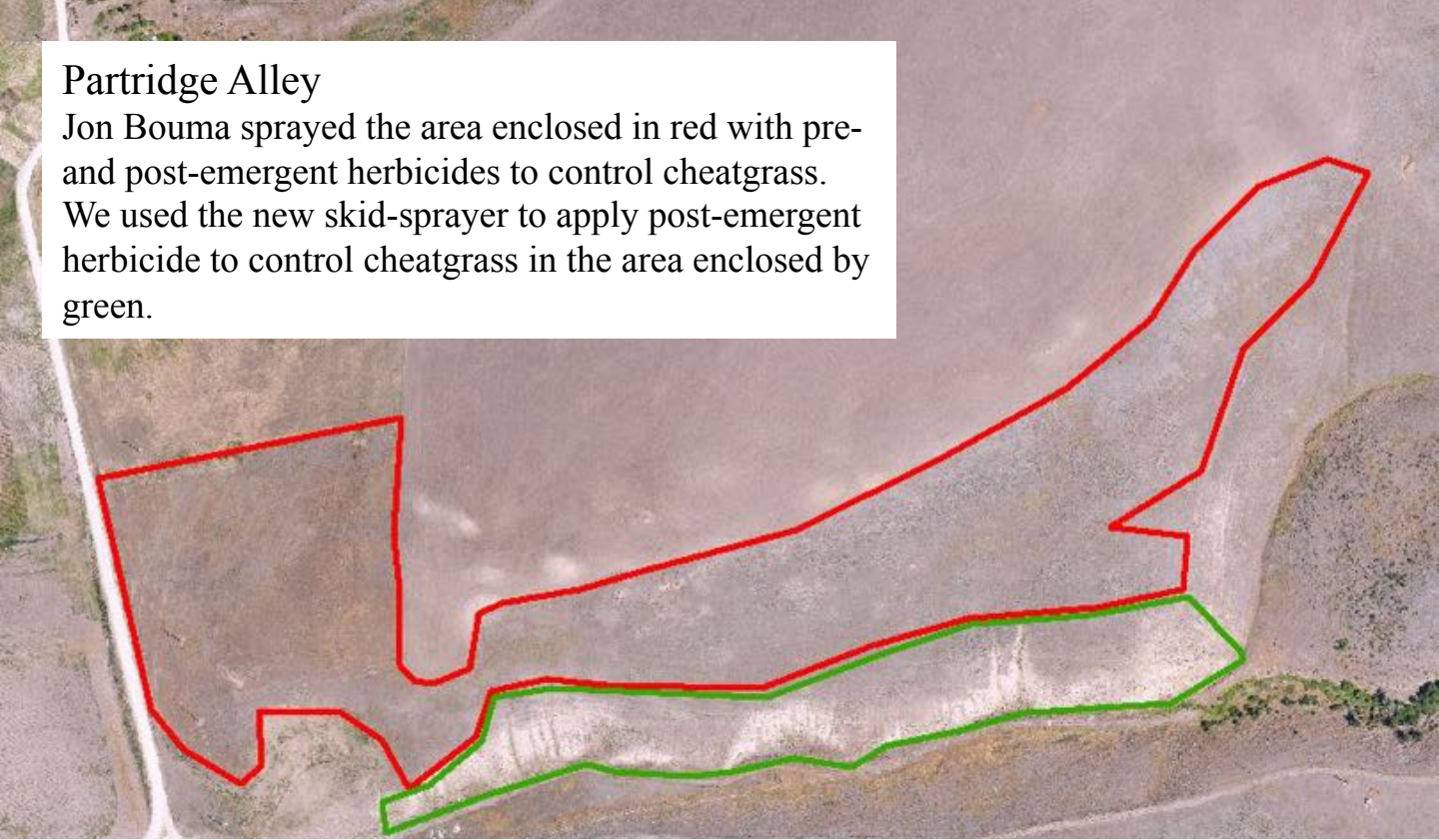
Corral

To prepare the area for seeding later this spring, we sprayed with glyphosate to control annual species seedlings. We expect a second annual weed flush this spring and will evaluate the need for additional weed control treatments before seeding.



Partridge Alley

Jon Bouma sprayed the area enclosed in red with pre- and post-emergent herbicides to control cheatgrass. We used the new skid-sprayer to apply post-emergent herbicide to control cheatgrass in the area enclosed by green.



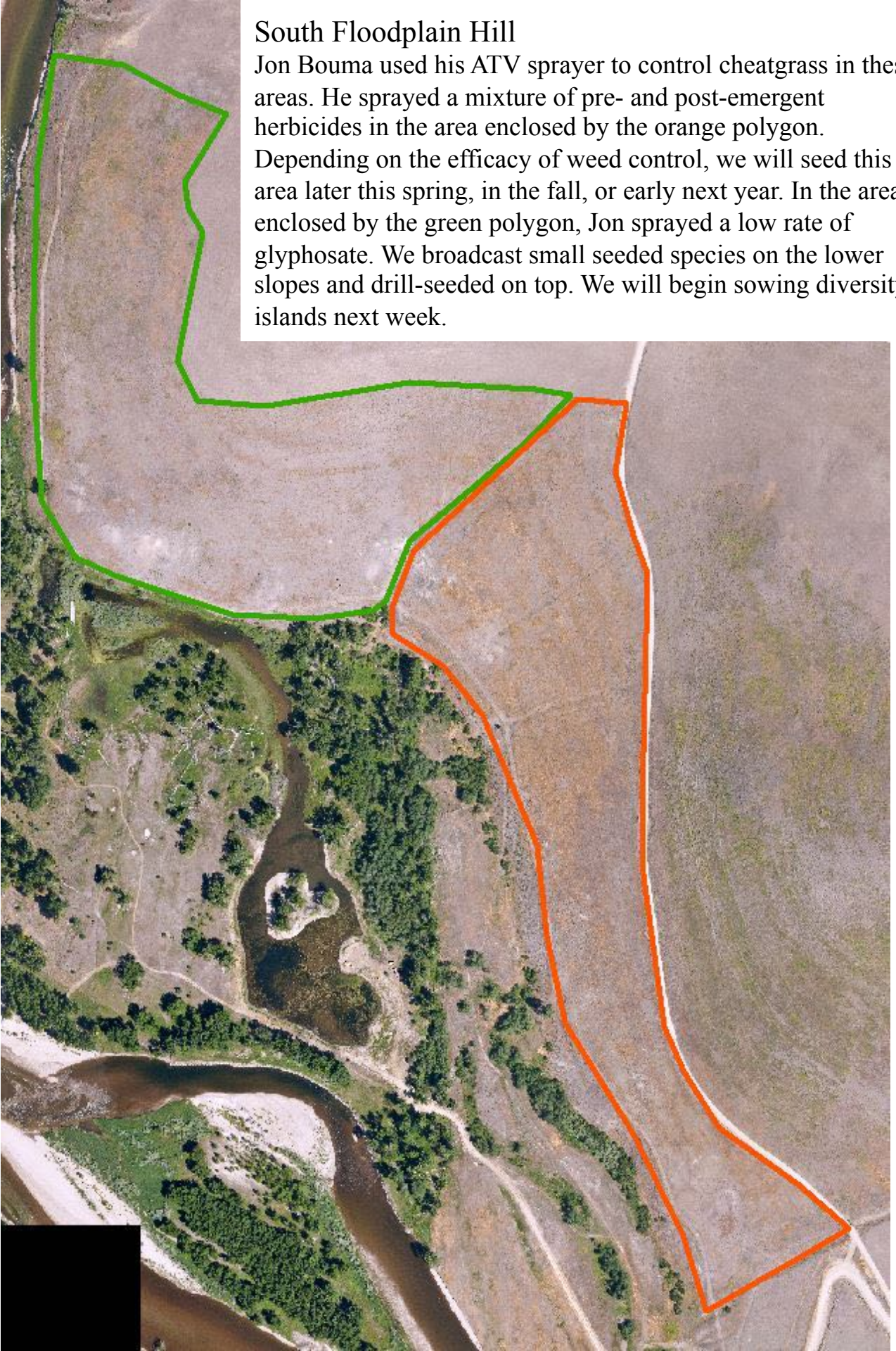
We broadcast Poa species, yarrow, sand dropseed, on steep slopes. These small seeds fall into cracks with good conditions for germination and protection from seed predators.



South Floodplain Hill

Jon Bouma used his ATV sprayer to control cheatgrass in these areas. He sprayed a mixture of pre- and post-emergent herbicides in the area enclosed by the orange polygon.

Depending on the efficacy of weed control, we will seed this area later this spring, in the fall, or early next year. In the area enclosed by the green polygon, Jon sprayed a low rate of glyphosate. We broadcast small seeded species on the lower slopes and drill-seeded on top. We will begin sowing diversity islands next week.



Indian Ridge

After cold temperature halted planned treatments last fall, we scrambled to control weeds on Indian Ridge to lock in previous gains. Leafy spurge will require spot-spraying throughout the growing season. We sprayed glyphosate to reduce cheatgrass.



A harbinger of future spot-spraying efforts, leafy spurge is already emerging on Indian Ridge.

Indian Ridge shows many signs of long-term weed influence, such as surface soil enriched in organic matter from leafy spurge.



Leafy spurge duff makes a poor seedbed. In this photo, we dug down 2" to reach mineral soil. The duff prevents seed to soil contact.



Purple three-awn seeds have long awns that facilitate seed penetration into the soil. We found areas on Indian Ridge where purple three-awn seeds are thick on the soil surface, suggesting the potential for purple three-awn recruitment. Although this species competes well with leafy spurge, deer and elk avoid it.

