

Aerial treatment of elongated mustard

Noxious weed management success in Chaffee County



Close up of flowers on elongated mustard plant (*Brassica elongata*)



Elongated mustard plant

On the morning of May 31, Chaffee County noxious weed program supervisor Kayla Malone met with a team of weed management professionals to go over the helicopter treatment plan for a location along the canyon along Hwy 50 and the Upper Arkansas River.

“We’re typically out of here by noon,” said Malone as the team assembled at 6:00 AM.

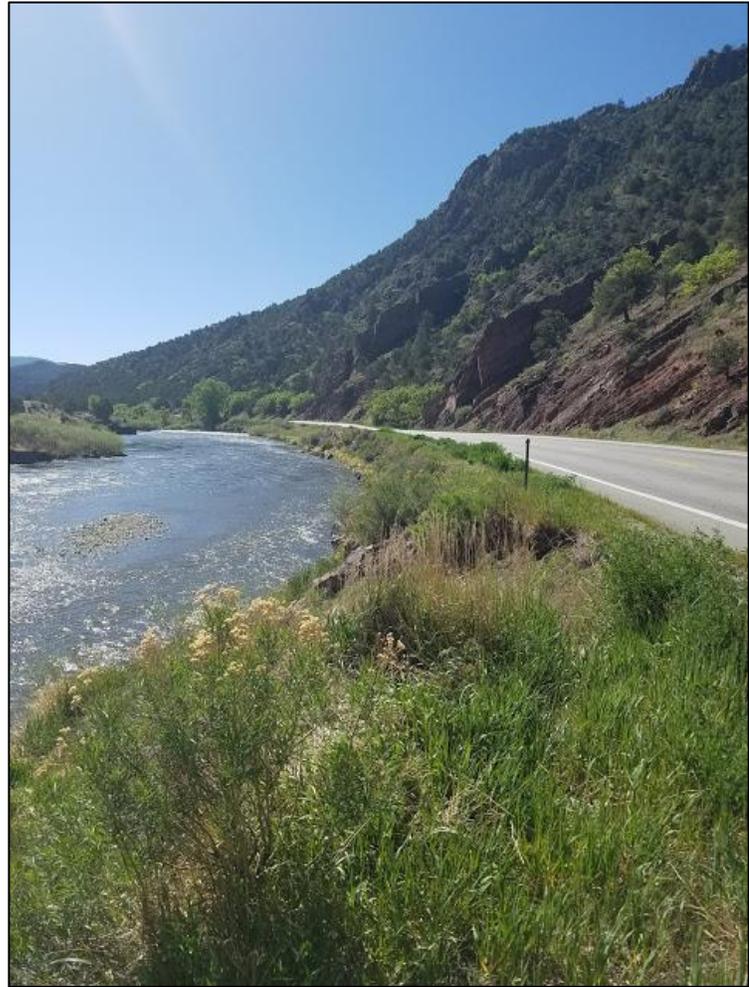
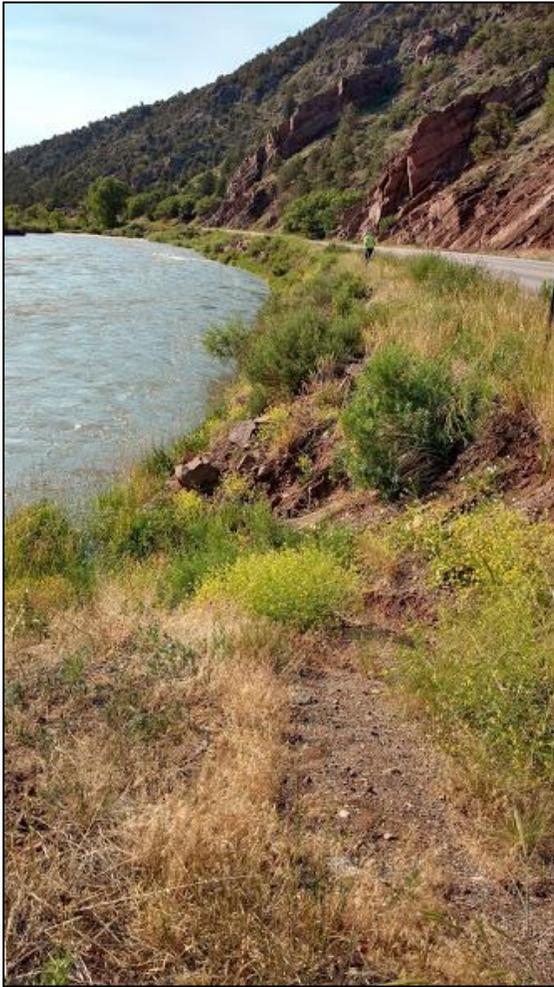
Joining Malone was a team of professionals who made this effort possible including Jeffrey Miller from Chaffee County, Fremont County weed manager Nick Bankston and other Fremont County representatives Dave Evans and Donna Landum, Aaron Richter of Bureau of Land Management, Larry Walker, former weed supervisor for Chaffee County (now retired), and JR Phillips, former county weed supervisor for Fremont County (now retired). Rounding out the crews was Olathe Spray Service pilot Leonard Felix and his assistant Matt who mixed and loaded the treatment for application.

A total of 16 acres of Elongated Mustard were identified and treated within a previously known population containment boundary 2500+ acres. Aerial treatment of this area started in 2015. The original area treated was 136 acres.

“Additional survey work confirmed that the previously marked perimeter accurately reflects the distribution to ensure plants are not escaping the containment boundaries,” said Malone. “No plants were identified outside of established containment boundaries.”

According to the surveys conducted by Malone and the team, significant reductions in targeted species have been observed consistently across the treatment region. One possible cause of the population reductions over time, said Malone, is effective treatment. The overall trend of reducing the total area infested with observable plants has been consistent and significant, indicating that the established methods are successful. One possible alternative explanation for the reduction in population size observed during treatment work in 2018 could be driven by lack of moisture. Reduced moisture this spring may have resulted in lower germination and flowering rates for elongated mustard.

Malone explained, “If the reduction in population size is being driven by environmental conditions, we would expect to see a significant increase in infested acres after moisture conditions return to normal. However, if the population ▶



Images before and after treatment for elongated mustard along Hwy 550 and the Upper Arkansas River in Chaffee County.

remains low after significant moisture events, this is a strong indication that historical and current treatment methods are effective at reducing the infestation size, as well as reducing the viable seedbed in the soil.”

The day’s aerial treatment took five hours and they were done by 11:00 AM. The cost of the treatment, including helicopter services was paid for by a grant from the Colorado Department of Agriculture’s Noxious Weed Management Fund grant.

Future treatment efforts

Flowering plants were observed at multiple locations across the treatment area and will need continued treatment for at least three years with additional monitoring for 10 years after the last flowering plant has been identified.