

Bonneville CWMA EDRR Weed Control In Summit and Salt Lake Counties 2013 ISM Year End Report



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Prepared For our Partners:

Utah Department of Agriculture, ISM Grant Committee
Salt Lake County Weed Control Program
Summit County Weed Control Program
Summit Cooperative Weed Management Area
Park City Municipal Corporation, Park Department
Salt Lake City Public Utilities, Watershed Protection
Utah Fire, Forestry, and State Lands

Summary

The EDRR Weed Control project in Summit and Salt Lake Counties is a grant funded project through the Utah Department of Agriculture, Invasive Species Mitigation Fund. The project is focused on the invasive weed Garlic mustard, *Alliaria petiolata*. In September of 2013 the Bonneville CWMA was awarded \$30,000 for treatments of garlic mustard within Summit and Salt Lake Counties. The project proposal was aimed at containing the spread of garlic mustard within Summit County, thus reducing the threat to Salt Lake County which has limited infestations on the eastern county perimeter. In the fall of 2013 and the spring of 2014, Provida Management Group Vegetation Control (PMG) was contracted to control garlic mustard in three known locations: Summit Park, Park City, and Snyderville. In addition to treating garlic mustard within those areas, PMG was able to map the treated areas, and record information on infestations that need treatment and landowners that either that did not participate or that were not contacted.



The following weeds were also treated if they occurred in the same area as garlic mustard: Spotted knapweed, hounds tongue, hoary cress, scotch thistle, dalmation toadflax, dyers woad, myrtle spurge, musk thistle, Canada thistle, and bull thistle.

Treatment occurred on 8 different days on both private and public land, between the dates of 5/13/14 and 6/03/14. Two different herbicides were used because of their success in 2012. E2, used at a rate of 64 oz/ acre and Escort was used at a rate of 2 oz/ acre. After experimenting with glyphosate in 2012, PMG determined that a higher level of control was achieved using 2, 4-D and dicamba mix along with metsulfuron and less collateral damage occurred to the surrounding native vegetation.

This year marks the second year of ISM funding to treat garlic mustard. PMG noted that more on the ground control occurred this year, because of the GIS work and data collected in 2012. The contractor also noted that they were able to get through the areas identified quickly, and spend less time surveying potential areas for garlic mustard. However, this year garlic mustard infestations were not only flowering 2-4 weeks earlier, but seemed to pop up in more and more places. Known locations were much denser and more abundant than in past years, and therefore PMG was

spent more time and herbicide at each location. In addition, more and more landowners have become aware of the impacts and are requesting help in controlling their infestations.

In addition to treatment on by PMG, several partners participated in this grant by controlling garlic mustard on lands they manage. They include, Salt Lake City Department of Public Utilities, Park City, Utah Fire, Forestry and State Lands, and Summit County.

Patrick Nelson, our partner with Salt Lake City Public Utilities has been treating the satellite populations in City Creek Canyon, East canyon near Little Dell Reservoir, and property near Summit Park on the Summit and Salt Lake County boundaries. They have now focused on containing the perimeter of the infestations, as eradication has been difficult to achieve after many years of control work. The infestations are coming back year after year. Maria Barndt, our partner in Park City found that certain locations such as the top of Old Town up Daley Ave, and King Road were especially bad this year. PJ Abraham, our partner with Utah, Fire, Forestry and State lands has been working on a small population near Summit Park on the Summit and Salt Lake County boundaries. He is finding that the infestation of garlic mustard is staying the same. It does not seem to be spreading but is coming back every year. He has not found any new infested areas.

Monitoring was conducted by UDAF and the project partners on 6/24/14. Patrick Nelson, Bracken Davis, Jen Sage Fitch, Mindy Wheeler, Maria Barndt, Dave Bingham and PMG attended. Several pictures are attached. Two locations were chosen. The first monitoring site was on Salt Lake City Watershed property at Summit Park. Although infestations were sprayed this year and the damage was visible, much of the site still had new rosettes which carpeted the hillside. Sprayed bolted plants appeared to be growing out of the spray and looked as if they would likely go to seed.

The second location was near the Park City Skate Park net to McCloud creek. This site has been primarily controlled through pulling followed by some reseeded. The site overall had very little garlic mustard, but several rosettes had grown since the last weed pull.

2013 - 2014 Garlic Mustard Control Project Statistics by PMG:

- **56.11 acres treated**
- **74.25 acres mapped**
- **Total acres treated: 130.36 acres**
- **15.63 herbicide acres**

*(*Note: Herbicide acres is a measure of density used by the contractor PMG; In 2013 Herbicide acres was 13.62. So the density of GM is higher in our 2nd year of treatment.)*

Challenges and Goals for the future

The biggest challenge identified with the project is obtaining enough funding to treat the ever increasing number of infestations that seem to pop up or move around from year to year. The contractor reported that they ran out of money in the Summit park community, and could have treated an additional 20 acres had the funding been available. Secondly, it is difficult within the small grant window to effectively treat and monitor all the known infestations, even though the partners feel that PMG is doing an excellent job adapting to the various environmental conditions, and high number of private properties. And lastly, finding the best rates and herbicide mixes continues to be a factor in achieving a high level of control, especially on watershed lands or sensitive areas where plants seem to grow out of the chemical controls.

Fall treatment is helpful and necessary for mopping up missed infestations and treating them when native vegetation is dormant, but largely the treatment has been taking place within a 1 month time period from the middle of May to the middle of June in accordance with grant time frames, which makes reporting at the end of June difficult. Other challenges include dealing with close to 600 private landowners and obtaining consent forms and notifying them of treatment time frames. This project requires an ever increasing amount of coordination and monitoring with project partners and private landowners that will only increase if this project continues to be funded in the future.

Follow up and future control

Overall, this project was successful in that it was a continuation to the grant project in 2012, and it is the only large scale EDRR treatment of garlic mustard in the area. We are excited to continue this project, having now had a second year of success under our belts, and a greater number of participants that are seeking out help in controlling their infestations. We anticipate if this project is funded again to see a decrease in both the size of the infestations and the density in the third year, as we are able to retreat the same areas for multiple years. Future control plans include:

- Post treatment herbicide clean-up in the fall, especially in the Summit Park areas that were missed.
- Post treatment pulling of surviving/missed flowering plants to decrease potential re-seeding of treated areas.
- Look at obtaining multi- year consent agreements with some landowners to decrease the coordination effort on an annual basis.
- Focus on new infestations in Salt Lake County and on existing infestation on watershed lands which have been difficult to control.
- Continue to Involve and educate the whole community. There are a large number of people who had GM (based on mapping/personal interaction) but choose not to have it sprayed.
- Continued coordination between partners on ROW and public land control so that PMG can cover a greater area when out spraying in the area.
- This project is hopeful if funding continues. There is currently a growing awareness of GM and its impacts by the targeted communities, and a desire to be included in the grant project.

Garlic Mustard Control Partners

Thank you so much to our partners and sponsors for their contribution to this program. In particular, thanks to the Utah Department of Agriculture and Food for funding this project.

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- Summit Cooperative Weed Management Area
- Utah Department of Agriculture and Food
- Park City Municipal Corporation/ Park Department
- Salt Lake City Public Utilities: Watershed Protection
- Salt Lake County Weed Control Program
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