

PERFORMANCE PROGRESS REPORT SF-PPR

		Page 1	of Pages 4
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11. Other Attachments (attach other documents as needed or as instructed by the awarding Federal Agency)			
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12b. Signature of Authorized Certifying Official		12e. Date Report Submitted (Month, Day, Year)	
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2015 Anchorage, Alaska Canada thistle progress report

Department of Natural Resources, Division of Agriculture

Invasive Plant and Pest Program

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Summary and Objectives

Since 2007, the Alaska Natural Heritage Program's Exotic Plant Information Clearinghouse has documented over 300 records of the noxious plant Canada thistle in the Anchorage area. To date, it is unknown how many of these records are still infestations due to the lack of follow-up inventory and effective management. Since 2009, the Canada thistle has been mechanically and manually managing Canada thistle to prevent the dispersal of seeds. However, because Canada thistle spreads through rhizomes, this management has not been effective in having site-specific eradication. In 2014, the Alaska Plant Material Center's (PMC) staff chemically managed Canada thistle for the first time using products with the active ingredients aminopyralid, triclopyr, and glyphosate. In the 2015 field season, the PMC staff recorded results of effective management on high priority sites, and treated 9 sites in 2015 (Figure 1). PMC staff collaborated with Alaska Department of Transportation Integrated Vegetation Management Plan environmental staff, and Alaska Department of Environmental Conservation to complete this project.

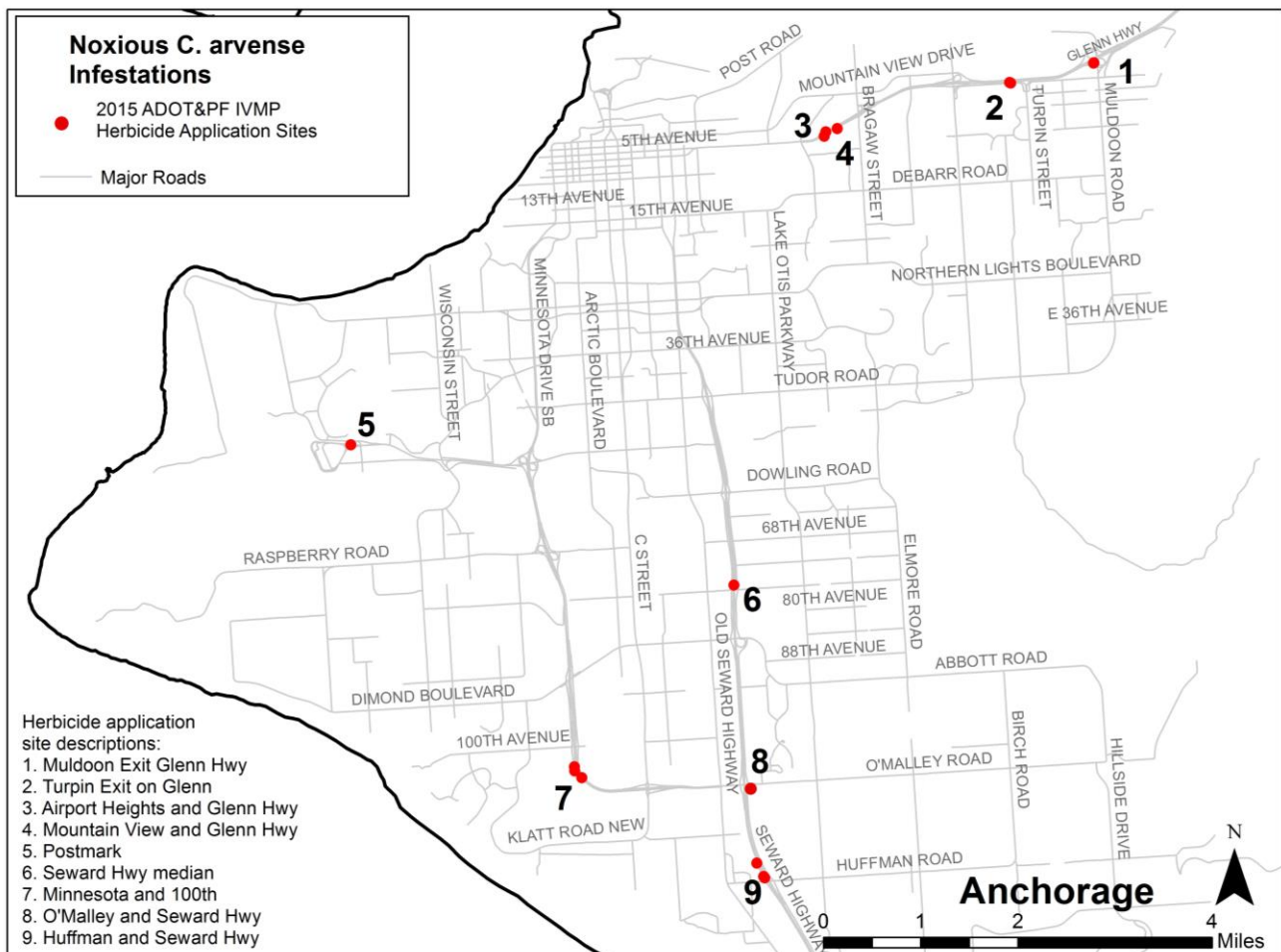


Figure 1. Map depicting *C. arvensis* herbicide application sites for Department of Natural Resources' 2015 noxious plant management.

The Canada thistle Program's goal is to contain and prevent this noxious plant from becoming an agricultural problem in Alaska, concentrating efforts in Anchorage to protect the Matanuska-Susitna Valley, and to effectively manage high priority infestations to prevent the invasion of natural areas. The PMC staff collaborated with the Kodiak Soil and Water Conservation District to distribute grant funds to aid in the treatment of Canada thistle infestations with their jurisdictions outside of Anchorage.

Previous project objectives have aimed towards the control of this noxious weed in the Anchorage area within areas outlined by the 2009 management plan. However, with the implementation of the DOT IVMP in 2013 and the shifting priority sites from newly discovered infestations, the *C. arvense* project goals for the 2014 season were adjusted towards site-specific eradication, not just control efforts of infestations. Therefore, keeping with the new project objectives, the 2015 field year aimed to:

1. Identify high priority infestations of *C. thistle* in the Anchorage area, and begin immediate control work using appropriate herbicides.
2. Using AKEPIC records identify additional areas for management and inventory to fill gaps in these activities.
3. Continual mechanical and manual management on non-priority infestations.
4. Provide unique outreach materials and resources to provide contact information for reporting new *C. arvense* infestations, and management on private properties.

2015 Management Outcomes

In 2014, a total of 15 high priority infestations were chemically managed in state-owned right-of-ways. One site was treated with triclopyr, four sites were treated with glyphosate, and ten sites were treated with aminopyralid. Of these 15 total sites, only 10 of them had Canada thistle present in 2015; 5 high priority right-of-way sites met the goal of local eradication. Of the remaining 10 sites, 8 sites were reduced in area coverage from 21-99% (Figure 2), and stem count densities were reduced significantly (Figure 1). The remainder 2 sites remained statistically the same for stem count densities, but were increased in area coverage up to 22% (Figure 1).

Because of the effectiveness of aminopyralid resulting in the site-specific eradication of 5 Canada thistle sites, 9 sites in the 2015 field season utilized aminopyralid, applied via backpack sprayer. A total of ~1 acre of Canada thistle was treated in the Anchorage area in 2015, and four sites were mechanically or manually managed to prevent the spread of seed in an area where we do not have permission to apply herbicide. In Kodiak, two sites were chemically managed, and several more surveys were completed in new areas, including in remote locations.

These 2015 results were presented at the annual Alaska Committee for Noxious and Invasive Plants Management (CNIPM) in Juneau at the end of October.

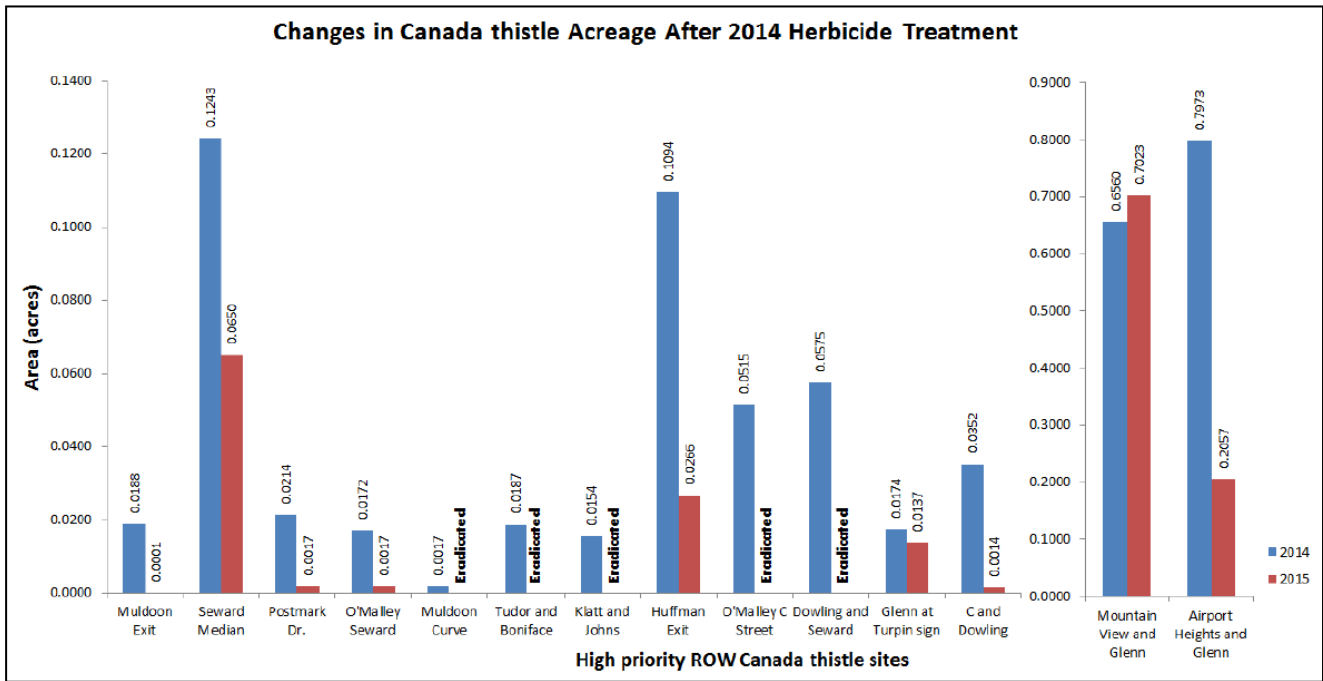


Figure 2. Results of 2014 herbicide applications at high priority sites.

Future Work

Plans for 2016 include continued monitoring of chemically managed high priority sites to ensure site-specific eradication, and managing the Canada thistle infestations that need follow-up herbicide treatments. In 2016, PMC staff will follow-up on half of the Alaska Natural Heritage Program's Exotic Plant Information Clearinghouse's records to determine if and how much Canada thistle is present, and record its location to determine the management jurisdiction. Additional surveys in the Matanuska-Susitna Valley will also be conducted so the extent of Canada thistle is understood in a highly agriculturally populated area. Finally, outreach and education will continue to become an integral part of finding new infestations.