

WILDLIFE HABITAT IMPROVEMENT PROGRAM
REPORT TO THE ENVIRONMENTAL QUALITY COUNCIL



MONTANA FISH, WILDLIFE AND PARKS

WILDLIFE DIVISION

AUGUST 2022



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ABSTRACT

In this report, Montana Fish, Wildlife and Parks (FWP) provides an overview of Montana Wildlife Habitat Improvement Act accomplishments during the reporting period of July 1, 2020 – June 30, 2022. This report to the Montana Environmental Quality Council follows the outline laid out in MCA 87-5-807(c) and 5-11-210, as required in advance of the 2023 legislative session. This report is available electronically on the Wildlife Habitat Improvement Program web page: <https://fwp.mt.gov/aboutfwp/grant-programs/wildlife-habitat-improvement>.

OVERVIEW

The Montana Wildlife Habitat Improvement Act (the Act), sponsored by Rep. Kelly Flynn, was passed into law during the 2017 Legislature. The purpose of the Act is to restore ecologically important wildlife habitat by managing noxious weeds at watershed or landscape scales, typically involving collaborative efforts over multiple landownerships. The Act makes available up to \$2M annually in federal Pittman-Robertson Wildlife Restoration (P-R) funds through a competitive grant process. The Act is structured to support habitat restoration efforts across private, state, and federal lands that will have demonstrable benefits for wildlife. Grant applicants are responsible for providing non-federal matching funds. For each dollar of non-federal match provided for eligible activities, the Wildlife Habitat Improvement Program (WHIP) can provide three dollars of grant funding (25%:75%). Program funds can be used to pay for herbicides and additives, biological control agents, vegetation restoration and reseeding materials, infrastructure materials for establishing grazing improvements (barbed and permanent electric fence), and related contracted services for applying treatments and installing restoration enhancements.

The process for awarding grants is described in statute (MCA 87-5-804) and administrative rule (ARM 12.9.1603-1606). The process includes opening a grant application period in the fall, reviews and recommendations by the WHIP Advisory Council (Table 1), a decision by the Director of FWP on which proposals will move forward (based on formal input from the WHIP Advisory Council), and then further consideration by the U.S. Fish and Wildlife Service through their separate grant application process. Awarded grants require two agreements with the project sponsor, a program agreement and a sub-recipient agreement. Once the agreements are signed, this marks the start of a grant project. In addition to completing habitat restoration activities, the project sponsor is responsible for monitoring grant compliance and effectiveness of treatments, submitting bills for reimbursement, and completing scheduled reports including semi-annual progress reports, annual performance reports, annual vegetation monitoring reports, and a final report.

Currently, FWP administers 12 active WHIP projects that successfully made it through the award process. The map below (Figure 1) provides an overview of WHIP project locations, the year awarded, and the amount of federal funding awarded. More detailed information on new projects and accomplishments for existing projects are in the Reporting Period Accomplishments and Overall Accomplishments sections of this report.

TABLE 1. MEMBERSHIP ON THE WILDLIFE HABITAT IMPROVEMENT PROGRAM ADVISORY COUNCIL.

	Name	City Mailing Address	Organization	Representing
Voting	Amy Adler	Forsyth	Rosebud County	Eastern Montana County Weed District Supervisor
	Julia Altemus	Missoula	Montana Wood Products Association	Timber Industry
	Amber Burch	Dillon	Beaverhead County	Montana Weed Control Association
	VACANT			Livestock Producer
	Karen Laitala	Deer Lodge	Powell County	Western Montana County Weed District Supervisor
	Chris Marchion	Anaconda	Montana Wildlife Federation	Hunting Organization
	Dean Pearson	Missoula	Rocky Mountain Research Station	Biological Research and Control Interests
	Rick Sandru	Twin Bridges		Farming
	Ray Shaw	Sheridan		Commercial Herbicide Applicator
	Ron Trippet	Kalispell	NW Montana Back Country Horsemen	Multiple Use Recreation Organization
Non-Voting	Dan Belcourt	Browning	Blackfeet Nation	Tribes
	Jasmine Chaffee	Helena	Department of Agriculture	Montana Weed Coordinator
	Michelle Cox	Missoula	US Forest Service	US Forest Service
	Charles Hueth	Helena	US Bureau of Reclamation	US Bureau of Reclamation
	Jessica Larson	Malta	US Fish and Wildlife Service	US Fish and Wildlife Service
	Parker Osterloh	Helena	Dept. of Natural Resources and Conservation	Dept. of Natural Resources and Conservation
	Wendy Velman	Billings	US Bureau of Land Management	US Bureau of Land Management

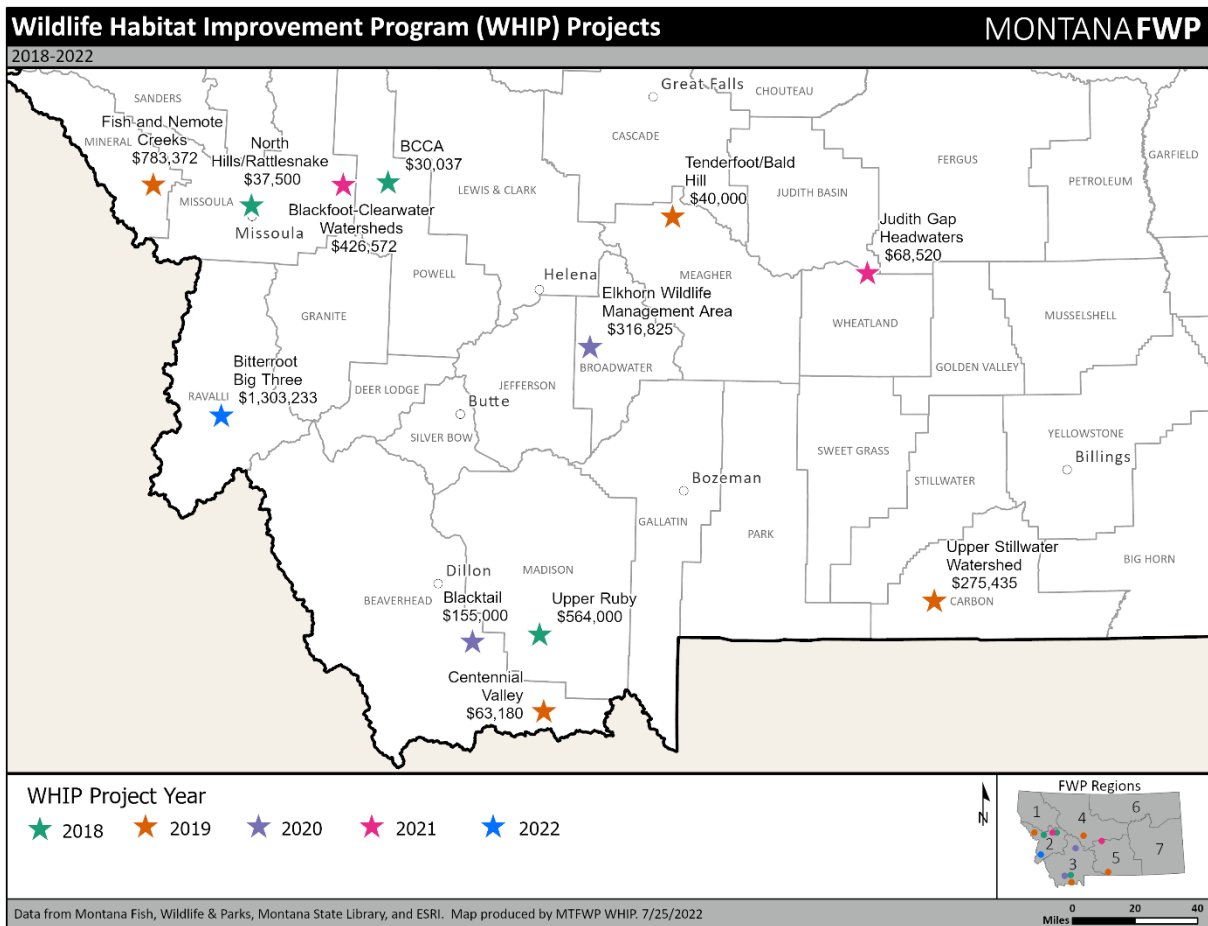


FIGURE 1. WILDLIFE HABITAT IMPROVEMENT PROGRAM PROJECTS AWARDED, 2018-2022.

REPORTING PERIOD ACCOMPLISHMENTS (FY 21-22)

PROGRAM DEVELOPMENT AND ACTIVITY

Advisory Council WHIP Project Tour

WHIP Advisory Council members, along with FWP biologists and managers, the Ruby Valley Conservation District, USFS range managers, legislators, county weed coordinators, and other stakeholders, gathered on July 13th, 2022 to tour the Upper Ruby WHIP project – the first project funded through the program. Tour attendees viewed herbicide treatment areas on public lands, two vegetation monitoring transects, private land partner properties, and areas with unique management challenges including high recreation use, limited access for spray crews, and difficult terrain. Attendees saw the watershed-level work that is being done by the Upper Ruby Weed Management Cooperative to limit weed populations and improve habitat for a variety of species including sage-grouse, large ungulates, and grizzly bears. Project partners stressed the need for additional work and funding support beyond the initial 5 years, especially in large areas like the upper Ruby valley, to continue progress in treated areas and expand work to other infestations.

Field Visits

The WHIP coordinator at FWP has conducted site visits on 5 WHIP projects to date: Tenderfoot/Bald Hills, Upper Ruby, North Hills/Rattlesnake, Upper Stillwater, and Fish and Nemote Creeks. The purpose of a site visit is for FWP to ensure that projects are on track to meet their goals and objectives by the end of the grant period and that project actions follow the agreed upon Scope of Work. Site visits are also important for evaluating whether vegetation monitoring efforts follow the WHIP protocol and are representative of the treatment areas. At site visits the WHIP coordinator can provide project support where needed – assist with establishing monitoring sites, offer ideas on ways to effectively spend grant funds, and answer any questions that project sponsors and partners may have. Site visits are also an opportunity to get a look at other habitat work being done in coordination with noxious weed management to amplify wildlife habitat benefits. For example, within the North Hills/Rattlesnake WHIP project area, an aspen regeneration project is being implemented along with WHIP weed control treatments to improve elk, deer, and upland game bird habitat.

Vegetation Monitoring

As required by the WHIP program, project partners have begun establishing and reading vegetation monitoring transects within treatment areas following the WHIP program protocol. Sites should be monitored prior to treatment and several years after treatment (schedule depends on treatment type) to evaluate changes in plant communities over time. Some project sponsors and partners have found it challenging to commit staff time and resources to monitoring efforts because WHIP funding does not currently cover monitoring costs. See the Vegetation Monitoring Results section for a summary of project monitoring.

COVID-19 & Drought Setbacks

WHIP project work was reduced or delayed in 2020 and 2021 due to the COVID-19 pandemic. In addition, a dry winter and drought conditions in 2021 limited work on some WHIP projects. FWP has been providing support to project sponsors to alter treatment plans and schedules to meet their WHIP project goals. The 5-year grant length gives project sponsors the flexibility to shift work as unforeseeable circumstances arise.

Program Outreach and Education

The WHIP coordinator has presented information on the WHIP program and how to apply at Montana Weed Control Association trainings, weed coordinator meetings, and Noxious Weed Management Advisory Council business meetings. The coordinator has provided guidance to WHIP applicants through several grant workshops organized by applicants. A WHIP program brochure was printed for public distribution and the program has been featured in social media posts through FWP. To increase awareness and interest in the program, outreach and education efforts to weed management organizations and the public will continue.

Program Coordination

The program's first coordinator, Kim Antonick, retired in spring 2022. Smith Wells started as the program's new coordinator in May 2022.

WHIP GRANT PROJECTS AWARDED (FY21-22)

2021

FWP opened an application period from September 9th, 2020 – November 23rd, 2020 and received 2 grant applications, requesting a total of \$495,092. The Advisory Council voted to fund both applications for their full amounts. Director Worsech concurred with the Council's recommendation. Below is a summary of the 2021 WHIP projects awarded.

JUDITH GAP HEADWATERS WHIP PROJECT

The Judith Gap Headwaters WHIP grant application was submitted by the Wheatland County Weed District and project partners include the USFS and private landowners. The project area is approximately four miles west of Judith Gap on the eastern end of the Little Belt Mountains. Priority wildlife habitat in the project area supports elk, mule and white-tailed deer, pronghorn, roughed grouse, and many non-game species.

- Total Project: 18,629 acres
- Priority Wildlife Habitat: 18,629 acres
- Weed Treatment Area: 1,886 acres
- WHIP Funds Requested: \$68,520
- Cash Match Funds: \$22,840
- Grant Length: 5 years

BLACKFOOT-CLEARWATER WATERSHEDS WHIP PROJECT

The Blackfoot-Clearwater Watersheds WHIP grant application was submitted by a partnership comprising FWP, DNRC, and the Missoula County Weed District. The project area is near the communities of Greenough, Seeley Lake, and Ovando, MT and includes private lands, DNRC lands, and FWP's Blackfoot Clearwater Wildlife Management Area. The project area provides important winter habitat for elk, mule deer, and white-tailed deer.

- Total Project: 140,937 acres
- Priority Wildlife Habitat: 103,751 acres
- Weed Treatment Area: 5,888 acres

- WHIP Funds Requested: \$426,572
- Cash Match Funds: \$142,190
- Grant Length: 5 years

2022

FWP opened an application period from September 14th, 2021 – November 23rd, 2021 and received 1 grant application, requesting a total of \$1,303,233. The Advisory Council voted to fund the application for the full amount. Director Worsch concurred with the Council’s recommendation. Below is a summary of the 2022 WHIP project awarded.

BITTERROOT BIG THREE WHIP PROJECT

The Bitterroot Big Three WHIP grant application was submitted by the Ravalli County Weed District and project partners include large private landowners, DNRC, USFS, and FWP. The project area lies largely to the east of US Highway 93, extending south of Hamilton, MT to the confluence of the East and West Forks of the Bitterroot River at Conner, MT. The project area provides critical seasonal habitat for bighorn sheep, elk, and mule deer and supports many non-game species.

- Total Project: 434,000 acres
- Priority Wildlife Habitat: 434,000 acres
- Weed Treatment Area: 34,708 acres
- WHIP Funds Requested: \$1,303,233
- Cash Match Funds: \$474,780
- Grant Length: 5 years

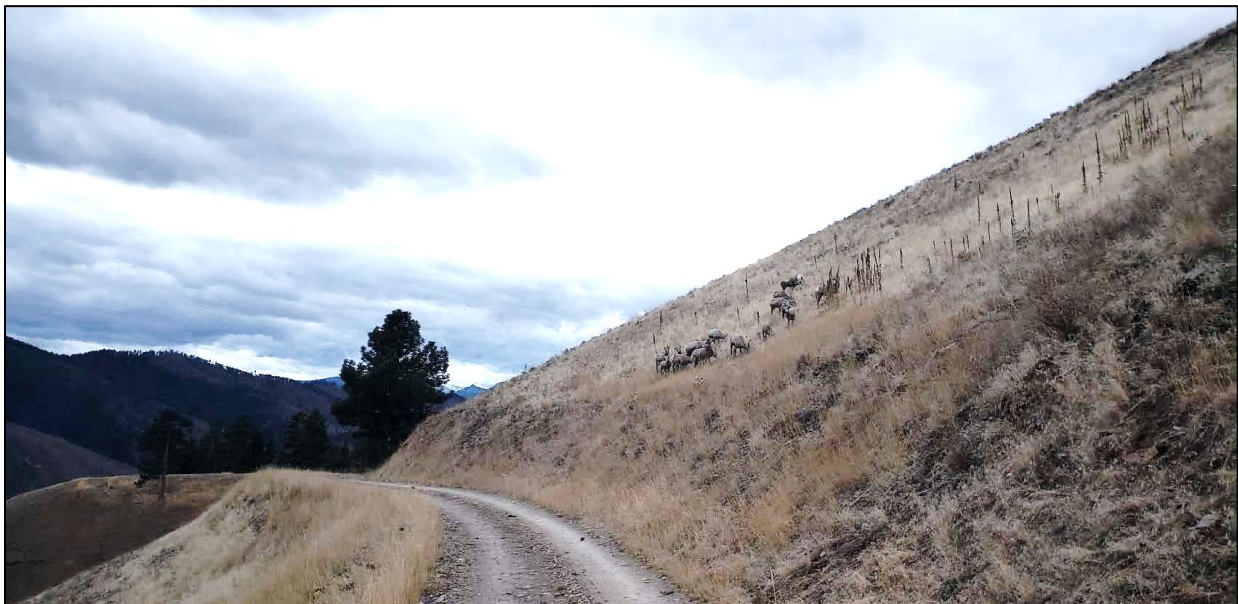


FIGURE 2. BIGHORN SHEEP GRASSLAND HABITAT THREATENED BY SPOTTED KNAPWEED AND LEAFY SPURGE IN THE BITTERROOT BIG THREE WHIP PROJECT AREA.

OVERALL ACCOMPLISHMENTS

SUMMARY OF IMPROVEMENTS TO WILDLIFE HABITAT

Requirement of MCA 87-5-807.

Improvements to wildlife habitat are based on three different measures:

1. Directly **treated acres**, involving some combination of herbicides, biocontrol, reseeding, and changes in grazing management.
2. Acres of **priority wildlife habitat** that benefit from WHIP projects. Priority wildlife habitat is defined as plant communities or settings that provide a unique, high value habitat, important to one or more priority wildlife species (species of conservation concern or game species that are recognized by the state of Montana for their ecological, economic, or recreational values). Acres are estimated by the project sponsor based on the larger landscape that benefits from the project treatments. That is, wildlife that use the treated areas also use the larger landscape. And, if treatment areas were left untreated, these surrounding habitat areas would likely be impacted by continued weed expansion.
3. Actual changes in plant community composition and cover, based on **vegetation monitoring** results.

1. TREATED ACRES

TABLE 2. TOTAL ACRES OF NOXIOUS WEEDS TREATED USING WHIP PROGRAM DOLLARS (FEDERAL AND CASH MATCH). TREATMENTS INCLUDE HERBICIDE APPLICATION, BIOCONTROL RELEASES, AND VEGETATION RESTORATION AND RESEEDING (GRAZING IMPROVEMENTS HAVE NOT BEEN IMPLEMENTED IN ANY WHIP PROJECTS TO DATE).

Grant year	Number of WHIP Projects	Acres treated*
2018	3	3,271 ac
2019	4	10,933 ac
2020	2	426 ac
2021	2	Work began in the 2021–2022 season, not yet reported**
2022	1	Work will begin in the 2022– 2023 season
Total		14,630 ac

* Cumulative acreage for the grant year cohort.

** Treated acres for the late 2021 – early 2022 season will not be reported to FWP until after this report is submitted.

2. PRIORITY WILDLIFE HABITAT

TABLE 3. TOTAL ACRES OF PRIORITY WILDLIFE HABITAT BENEFITTING FROM WHIP PROJECTS.

Grant year	Number of WHIP Projects	Acres of priority wildlife habitat*
2018	3	258,024 ac
2019	4	401,143 ac
2020	2	307,351 ac
2021	2	122,380 ac
2022	1	434,000 ac
Total		1,522,898 ac

* Cumulative acreage for the grant year cohort.

3. VEGETATION MONITORING RESULTS

Weed treatment monitoring reports are current as of the 2021 season. Over 60 vegetation monitoring transects (e.g., Figure 3) have been established across the 2018, 2019, and 2020 WHIP project areas and over 10 biocontrol (Figure 4) monitoring transects have been established on 2 of the 2018 WHIP projects. At present, most transects have only pre-treatment data, but 17 transects on 5 of the WHIP projects have pre- and post-herbicide treatment (1–3 years post-treatment) vegetation data. Preliminary results of herbicide treatments on plant communities are shown in Figure 5. While still early in treatment and monitoring efforts, these preliminary results indicate an overall reduction in target noxious weed species cover and a stability or increase in desirable perennial grasses, forbs, and shrubs. An increase in annual grasses and bare ground may indicate a need for follow-up management actions to promote native plant establishment, such as reseeding, soil amendments, and continued weed treatments. Because of annual fluctuations in site conditions such as drought, wet springs, and disturbance, it will be important to monitor treatment sites for several years to observe trends in plant communities.

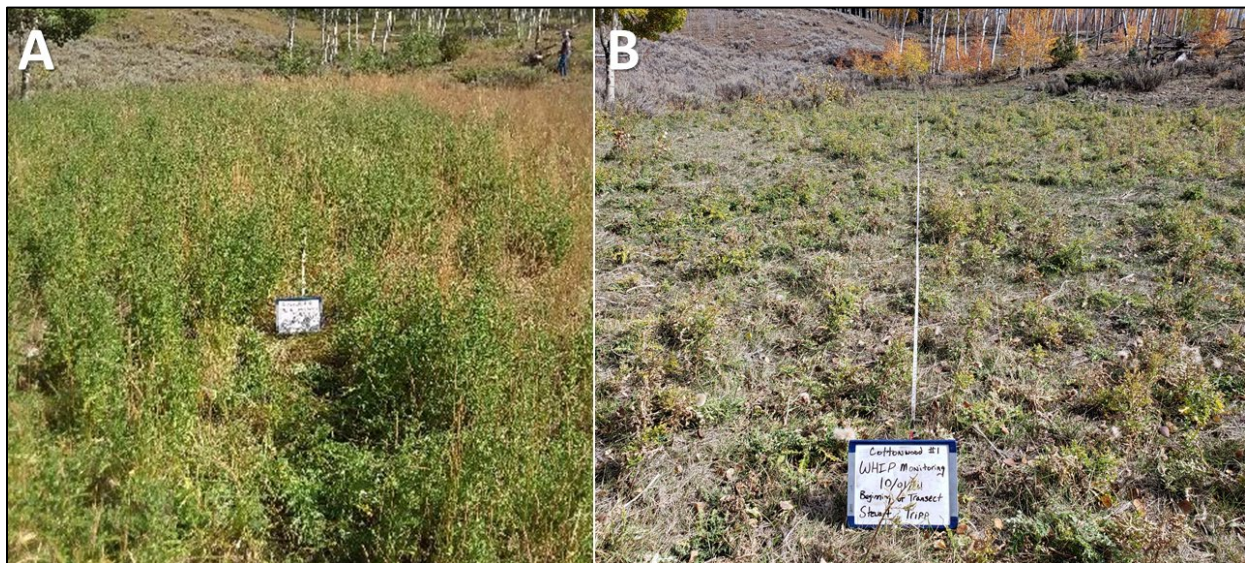


FIGURE 3. VEGETATION MONITORING TRANSECT ON THE UPPER RUBY WHIP PROJECT. NOTE THE SIGNIFICANT REDUCTION IN CANADA THISTLE FROM PRE-TREATMENT (A) TO 3 YEARS POST-TREATMENT (B). BOTH PHOTOS ARE FROM EARLY FALL (SEPT-OCT).



FIGURE 4. CHRYSOLINA BEETLE BIOCONTROL ON ST. JOHNSWORT IN THE FISH & NEMOTE CREEKS WHIP PROJECT AREA. PHOTO BY BERT LINDLER.

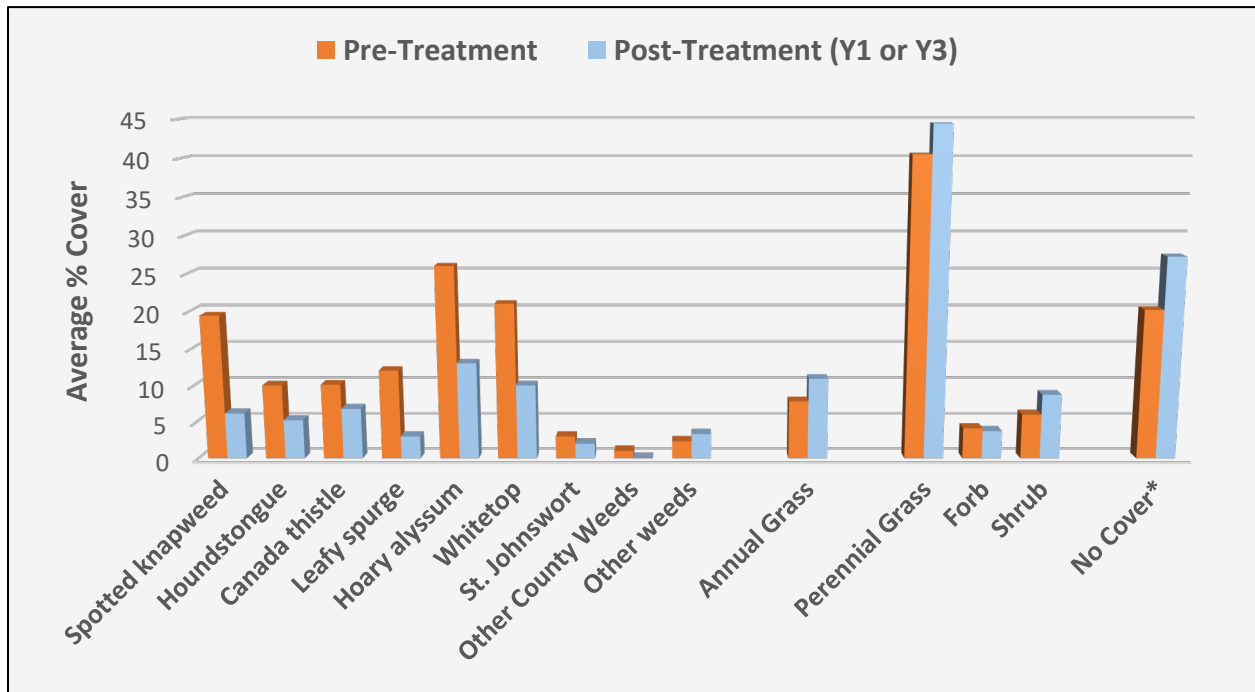


FIGURE 5. AVERAGE PERCENT COVER OF VEGETATION CLASSES ALONG 17 ESTABLISHED TRANSECTS BEFORE AND AFTER HERBICIDE TREATMENTS ON 5 WHIP PROJECTS (UPPER RUBY, NORTH HILLS/RATTLESNAKE, CENTENNIAL VALLEY, UPPER STILLWATER, FISH & NEMOTE CREEKS). MOST (12 OF 17) TRANSECTS HAVE ONLY 1 YEAR OF POST-TREATMENT DATA RECORDED AND THE REMAINING TRANSECTS HAVE 3 YEARS OF POST-TREATMENT DATA RECORDED. *NO COVER COMPRISES LITTER, DUFF, ROCK, AND BARE GROUND.

SUMMARY OF PAST AND CURRENT FUNDING

TABLE 4. FEDERAL PITTMAN-ROBERTSON WILDLIFE RESTORATION (P-R) DOLLARS AWARDED TO WHIP PROJECTS BY YEAR. AS OF FY22 END, ALL AWARDED GRANTS REMAIN ACTIVE AND NO PROJECTS HAVE BEEN CLOSED.

Grant year	Number of WHIP Projects	P-R dollars awarded
2018	3	\$631,537.50
2019	4	\$1,161,987.00
2020	2	\$471,825.00
2021	2	\$495,092.00
2022	1	\$1,303,233.00
Total	12	\$4,063,674.50

PROGRAM EVALUATION AND ONGOING ADAPTATION

The WHIP coordinator and other FWP Wildlife Division staff have evaluated WHIP projects through site visits, required semi-annual and annual performance reports, and frequent communication with project sponsors. In general, project sponsors find the WHIP program to be valuable and effective for getting important weed management work done in priority wildlife habitats. Insights from project sponsors and partners include: the importance of planning and coordination throughout the WHIP process, from the grant application to project completion; the importance of having a single project leader that can coordinate communication and work plans across all project partners; and the need to consider weed management work and funding sources after the initial 5-year WHIP grant period so that positive changes to wildlife habitat continue. Project sponsors have also mentioned the challenges encountered while trying to get WHIP project work done including COVID-19 restrictions, staffing shortages, drought conditions, fire risk, wet spring conditions, and winter conditions in the fall. Such setbacks should be considered during the grant application and review process as they may affect the amount of work a project can feasibly accomplish during the 5-year grant period.

The WHIP Advisory Council met twice during the reporting period, through virtual platforms and in person, to review new WHIP grant applications and to discuss other program business. Council members continue to provide detailed technical reviews of project proposals and inquire further with applicants to ensure that projects will be beneficial and successful. FWP appreciates the Council’s dedication and support for the WHIP program. During council meetings, members discuss the goals, needs, and challenges of the program. Conversations have centered on the need to allow a portion of grant funds to be used towards grant administration and vegetation monitoring efforts, which is crucial for getting program participation from small organizations that do not have the staff or resources to cover these required tasks. The Council has also agreed that additional weed treatment options should be included in the program to allow for more flexibility, better control of weeds, and greater improvement to wildlife habitat.

As a result of discussions during council meetings and feedback from project sponsors and partners, the Council recommends specific statutory changes to the WHIP program, which may be considered for the 2023 legislative session. The Council recommends:

1. Remove sunset date of June 2023 and continue to offer up to \$2M/year in grants (consistent with current program statute).
2. Add new language (MCA 87-5-806(4)) to allow up to 10% overhead to be taken for grant administration, vegetation monitoring, and related administrative costs.
3. Add new language (MCA 87-5-806(4)) to allow additional weed treatment options that are approved by the WHIP Council.



Photo credit: Mike Thompson, FWP