

2018 Hebgen Lake Ranger District Grizzly Bear Mitigation Project Report

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Background

The Hebgen development created a destination for recreationists interested in camping, fishing, wildlife viewing, boating, and other activities. Facilities designed to accommodate these activities have been developed and improved over time as recreational use has increased. The recreational facilities that have been developed around Hebgen Lake are generally full on most nights during the peak recreation season (May-August). The majority of visitors are from areas outside the Grizzly Bear Recovery Zone. They are not aware of or are unfamiliar with the appropriate activities and actions in occupied grizzly bear habitat, despite current information and education measures taken in the Hebgen Basin. At the same time, the grizzly bear population has expanded well beyond the Recovery Zone. Human-caused mortality is considered one of the major threats to this species. One of the primary objectives for grizzly bear management is to reduce or mitigate the risk of negative bear-human interactions and human-caused mortality. Recreational facilities adjacent to Hebgen Lake are located in high-quality spring and summer grizzly bear habitat, creating the potential for negative bear-human interactions that could result in harm to humans and/or grizzly bears.

This project addresses Article 421 of the Five Year (2018 thru 2022) Madison and Missouri River Wildlife and Terrestrial Habitat Plan, which requires that the Licensee shall prepare a Threatened and Endangered Species Protection Plan (Article 421 and Condition 12) for all federally listed threatened and endangered species that occur within the project area. This plan, as described under Article 421, would include, but not be limited to, actions that provide for the protection of listed species in the project area. Article 426 and Condition 17 also require the preparation of a comprehensive Recreation Plan for implementing measures to mitigate project-induced recreation impacts over the life of the project. While neither of these articles specifically contains language regarding grizzly bear (the GYE population was recently de-listed and then returned to the Endangered Species List through a court order) conflict mitigation, the situation in the project area (specifically adjacent to Hebgen and Earthquake Lakes) has changed over time. The Hebgen development created a destination for recreationists interested in camping, fishing, wildlife viewing, boating, and other activities. The growth in recreational activities associated with the development has occurred in high-quality spring and summer grizzly bear habitat, creating the potential for negative bear-human interactions that could result in harm to humans and/or grizzly bears. Supporting education and public outreach activities related to grizzly bears would aid in mitigating potential conflicts and would be consistent with the requirements of Articles 412 and 426.

Objective

To educate the general public at developed and dispersed recreational facilities in the Hebgen Basin in order to reduce bear-human conflicts, improve public understanding of bear country

safety, and increase the social tolerance for bears. Increasing information and education/training capacity in the Hebgen Basin would aid in mitigating potential project-induced recreation impacts on bears at recreational sites around the development.

Methods

A bear education technician would patrol developed and dispersed recreation sites within the Basin and initiate public contacts with campers, fisherman, and other forest users drawn to the area by the recreational opportunities provided or enhanced by Hebgen Lake. The focus of bear education in the Basin would be on one-on-one contacts with Forest users. Appropriate bear aware messaging and strategies for avoiding negative bear-human encounters will be provided to individuals and groups. Messaging would be consistent with the current key messages that have been developed for southwest Montana. A primary focus of one-on-one contacts would be compliance with the Custer Gallatin National Forest food storage order. The bear technician would provide educational information in a variety of media, including the spoken word, brochures, use of the District bear kit (skulls, hides, and other items that individuals are able to touch and feel), use of the SW Montana bear education trailer, and hands-on demonstrations or training with inert bear spray while in the field.

In addition to supporting bear education activities in the Hebgen Basin, TAC funds would also be used to redesign and fabricate a new charging bear simulator that will be used to train the general public in the proper response to bear encounters and in the use of bear deterrent spray. Past (and ongoing) investments by the USFS, Montana FW&P, and private non-government organizations have funded the creation and stocking of a mobile bear trailer that is used to educate the public by providing them hands-on interaction with bear mounts, pelts, bear resistant storage containers, and other materials. The existing charging bear trainer consists of a plywood cutout of a bear mounted to a rolling platform; the platform glides along a wood and metal track system. It is propelled by surgical tubing that is stretched by a hand winch. In its two years of use, issues with the winch system and track the bear cutout glides over have resulted in numerous breakdowns. Technicians have resorted to pushing the charging bear cutout down the functional portion of the track when providing bear spray training. The speed at which the bear platform moves is far less than half the speed of a charging bear. Development of a new system for the charging bear simulator would provide for a more robust system that is less prone to wear and breakdowns that more closely simulates the speed at which a bear would charge. This new system would also provide for increased capacity for training the public in the use of bear spray in the Basin and the greater SW Montana area.

Results

The NorthWestern Energy Wildlife TAC funded approximately 18 days of patrol and two days of engagement with the public/students at events and/or trainings within the Hebgen Basin from late May through July 2018. The bear technician based out of West Yellowstone made 318 high-quality education contacts in the field, primarily at dispersed recreation sites along the west shore and north side of Hebgen Lake and at developed sites along the west shore of the lake. An additional 80 contacts (75 - 7th, 8th, 9th, 10th, and 11th graders and 5 teachers) were made at the West Yellowstone School in late May. Students were provided information regarding bear biology, how to avoid and respond to encounters, and hands-on training with bear deterrent spray. Approximately 245 contacts were also made in West Yellowstone during the West Yellowstone Half Marathon in June; pelts, skulls, examples of food storage containers, and other educational materials were made available to the public. Bear deterrent spray training was also provided, although the charging bear simulator was not used due to breakdowns. Approximately 370 high quality contacts were also made at an event at the West Yellowstone Police Department on July 4th prior to the parade; the SW Montana bear education trailer (full body mounts, pelts, skulls, examples of food storage containers, and other educational materials were made available to the public. The charging bear simulator (older version) was used for training the public in the proper use of bear deterrent spray. Approximately 63 individuals, including participants in a Montana hunter's safety class, were provided bear safety information and bear spray training at the West Yellowstone Shooting Sports Facility (a permitted shooting range complex on USFS land). The SW Montana bear education trailer and West Yellowstone bear technician also participated in the annual 4th of July Parade in West Yellowstone. In addition to the contacts made using funding from the Wildlife TAC, an additional 449 patrol contacts were made in the Hebgen Basin this season using USFS funding. Numerous additional educational contacts (patrols and events) were made by the West Yellowstone Bear Education Technician outside of the Hebgen Basin (Taylor Fork, Sheep and Mile Creeks, Gallatin Canyon, Big Sky, Hyalite, and elsewhere in SW Montana) in addition to those reported above.

The existing charging bear simulator, which was plagued with maintenance issues and failures, was replaced in late July with a remote controlled platform constructed by Gnat Warfare out of Arizona. The new charging bear utilizes a remote control platform that can propel the bear at up to 23 miles per hour, which is much more consistent with the speed of a charging bear. The USFS, the Southwest Montana Bear Education Working Group, and Interagency Grizzly Bear Committee also contributed funding for purchase of the new charging bear simulator. Much of the tail end of the season was devoted to training the bear technicians in the safe use of the simulator, but it has been used at a number of events in Bozeman, Gardiner, Butte, and elsewhere. We will be utilizing the charging bear simulator at a number of events in the Hebgen

Basin next year, including the 4th of July Parade and bear safety event, ½ Marathon, and various other events in and around West Yellowstone. People that trained with the new charging bear commented about the speed that it came toward them, reinforcing the need to be alert and proficient in the use of bear deterrent spray.

West Yellowstone had the pleasure to host the production base for the *Yellowstone Live* series that aired on the National Geographic channel. Our bear technician trained approximately 100 support crew, staff, and producers while they were on location in the Hebgen Basin. The new charging bear simulator was featured on *Yellowstone Live* on August 6. The West Yellowstone bear technician trained the hosts in appropriate behaviors for avoiding bear encounters and how to deploy bear spray in the event of an encounter; although she was not featured on the show, the information provided by the hosts during filming conformed to the standard messages developed for southwestern Montana.

Conclusions

The bear education program on the District was again a success during the 2018 field season. . The high-quality contacts that were made in the field provided valuable information to the recreating public in the project area (Hebgen Basin). The information that was provided on bear biology and behavior, how to avoid encounters, how to appropriately respond to encounters, and how to properly use bear deterrent spray met the objectives of this project, which were to increase public understanding of how to be safe in bear country and avoid/reduce bear-human conflicts. This work complemented bear education activities elsewhere on the District, Forest, and the greater southwest Montana area. The new charging bear simulator was also a success. Everyone that trained with it was impressed by the speed and realism it provided to the training. It will also provide many new opportunities for tailoring the training to particular groups or highlighting other behaviors that a bear may show during an encounter.

Funding

Funding for this project in 2018 was as follows:

Category	Description	TAC	FS	In-Kind/ Partner	Total
Direct Labor	FS Bio		\$2,800		\$2,800
	Bear Education Tech – 20 days	\$2,740	\$13,800		\$16,540
Direct Overhead	2%	\$120			\$120
Travel and Living	FS vehicle		\$5,000		\$5,000
Materials	Charging Bear Simulator	\$3,000	\$800	\$2,800	\$6,600

Other Direct Expenses	None				
Total		\$5,860	\$19,600	\$2,800	\$28,260

Future Activities

Bear education activities will continue to be provided in 2019. In addition to our focus on high quality interactions with the recreating public in the field, we will also emphasize education of kids in local schools. More extensive use of the SW Montana bear education trailer and the new charging bear simulator within the Basin is also planned, where the use of the trailer and the charging bear will enhance education and training opportunities.

New charging bear simulator



New charging bear simulator at the Yellowstone Live filming



Bear spray training with new charging bear simulator

