



Cost-Share Proposal Form for NorthWestern Energy (NWE) Project 2188 TAC Funds

Project 2188 (Madison-Missouri River) License Protection, Mitigation and Enhancement (PM&E) projects are required to offset impacts to river resources from the continued operation of one or more of NWE's nine hydro developments (Hebgen, Madison, Hauser, Holter, Black Eagle, Rainbow, Cochrane, Ryan and Morony Dams). PM&E projects need to be prioritized toward in-river or on-the-ground measures that directly benefit fisheries and/or wildlife populations and their habitats:

Priority 1: 2188 License projects which meet License Article requirements and PM&E for fisheries or wildlife populations or their habitats within the main stem Madison River (Hebgen Reservoir to Three Forks) or Missouri River (Hauser Reservoir to Fort Peck Reservoir)

Priority 2: 2188 License projects which meet License Article requirements and PM&E for fisheries or wildlife populations or their habitats in primary tributaries or on adjacent lands and, in doing so, provide PM&E for Madison River (Hebgen Reservoir to Three Forks) or Missouri River (Hauser Reservoir to Fort Peck Reservoir) resources.

Priority 3: 2188 License PM&E projects which meet License Article requirements by providing scientific or other tangible PM&E benefits to Madison-Missouri River fisheries or wildlife populations or their habitats. These projects must be located in the greater Missouri River drainage upstream from Fort Peck Reservoir, but not necessarily located on the main stem Madison River or Missouri River or their adjacent lands or primary tributaries.

All TAC project proposals must include the following information:

Project Title:

Hebgen Basin Great Gray Owl Inventory

Date:

October 26, 2021

Explain how this Project addresses a specific Project 2188 License Article(s):

This project addresses Article 423, which requires that a vegetation and wildlife monitoring and enhancement plan be developed that includes specific goals, objectives, and standards to enhance native plants and wildlife populations on the land and waters associated with the project. The purpose of Article 423 is to ensure that this monitoring take place so that native plants and wildlife populations in the project area will be enhanced. This project addresses the monitoring requirements required in Article 423.

Provide justification for Priority 1, 2 or 3 (above) that you selected:

This project would be located immediately adjacent to the Madison River, primary tributaries, and Hebgen Lake and on adjacent lands in the Basin. As surveys would be concentrated in the area immediately adjacent to the development and the Madison, South Fork Madison, and tributaries, the project would be considered Priority 1.

Project Sponsor (submitted by): **Randy Scarlett, West Zone Wildlife Biologist, USDA Forest Service, Hebgen Lake Ranger District, West Yellowstone, MT**

Location of Proposed Project:

The Project would be in the Hebgen Basin. Survey grid sites would be situated adjacent to Hebgen Lake and its tributaries, including South Fork Madison, Spring Creek, Cherry Creek, Watkins Creek, Trapper Creek, Red Canyon, and Teepee Creek.

Approximate center of Project Area: Lat: 44.734° Long: -111.221°

Total Project Cost: \$20,800

TAC Funds (Cost-Share) Requested for Project: **\$8,225**

- I. Introduction; brief statement of project to be completed with pertinent background information.

In 2014, a statewide systematic survey was completed for wintering owls including the following species: barn owl, barred owl, boreal owl, eastern screech-owl, great gray owl, great horned owl, long-eared owl, northern hawk owl, northern pygmy-owl, northern saw-whet owl, short-eared owl, and western screech-owl. One drawback of the survey methodology was that it did not target specific habitat cover types and observations for species such as great gray owls, and therefore data for individual forest species was limited. The great gray owl is classified as a Species of Concern (SOC) and Species of Greatest Inventory Need (SGIN) in the state of Montana. These designations indicate that the species and/or its habitat are at risk or that survey and inventory information is severely lacking.

Due to the inherent need for baseline information for this species, a Habitat Suitability Index model (Dijak & Rittenhouse 2009) for great gray owls was developed for the state of Montana that targeted specific habitat cover types. Montana FWP identified habitat characteristics associated with great gray owl nest sites and territories using incidental observation data from the Montana Natural Heritage Program that specifically included notes describing occupied nests and/or pre-fledged young. Based on this information, the subsequent model incorporated four variables considered to contribute to habitat selection by great gray owls in Montana and Wyoming (Hammond, Kirkley, Smucker, Ritter, Personal communication; Bedrosian, et al. 2015): slope, landcover, and vegetation height, and cover. Focal surveys for great gray owls were conducted in 2020 and 2021 and will continue into areas of high predicted habitat in 2022.

Based on great gray owl habitat mapping (habitat suitability index) done by Montana FWP for the entire Western Montana landscape, the Hebgen Basin appears to show a high suitability index, as indicated by darker shades of blue in Figure 1 (southeast corner).

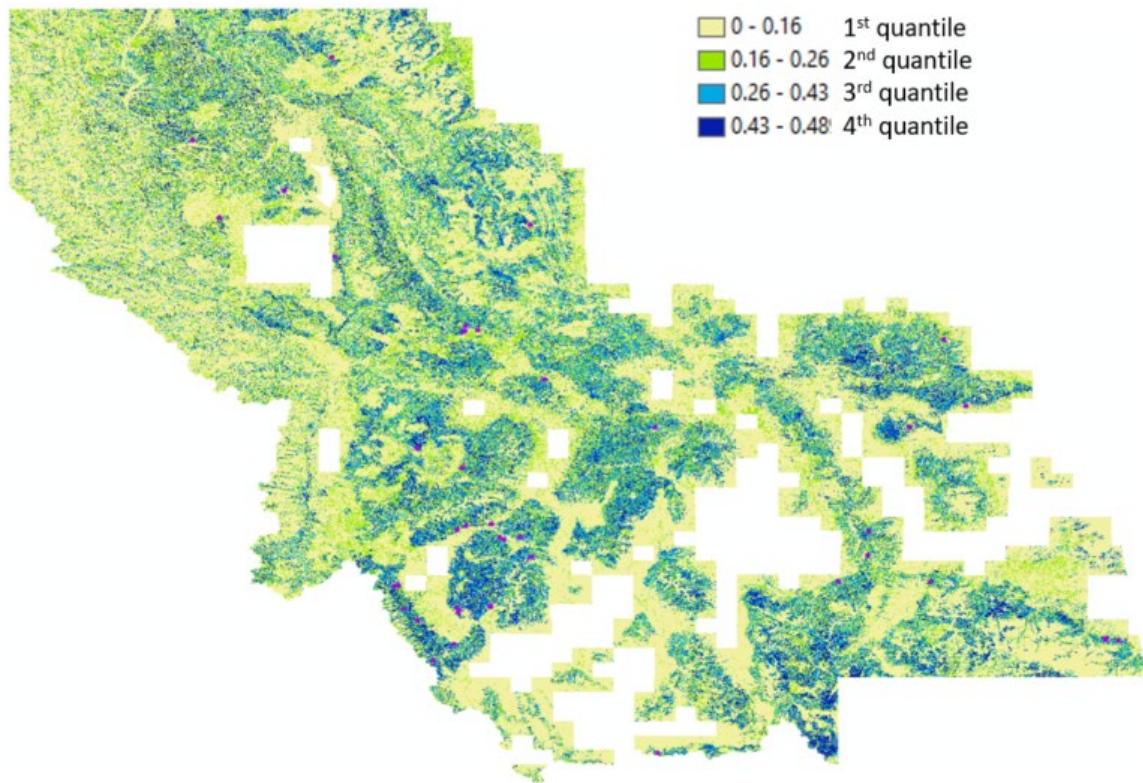


Figure 1. Great Gray Owl Habitat Modeling Outputs for Western Montana

II. Objectives; explicit statement(s) of what is intended to be accomplished.

The objectives for this project include: 1. To contribute to the larger knowledge base of great gray owls in western Montana, which is lacking according to FWP; 2. To gather information that will clarify the distribution/occupancy of great gray owls in the vicinity of Hebgen Lake and the larger Hebgen Basin; 3. To gather information that will be used to guide management decisions near the development, the Madison River and its tributaries, and the larger Hebgen Basin (e.g. to identify areas for nest searches in order to identify spatial and temporal buffering during recreation, fuels, or timber projects); 4. To develop and refine survey methods to detect occupancy, establish baseline trend datasets, and ultimately provide the power to detect potential declines; 5. To provide a better understanding of habitat characteristics used during the breeding season with which to develop habitat and management recommendations.

III. Methods; description of how Project objectives will be accomplished.

Surveys will be conducted in 2022 to obtain a comprehensive coverage of surveys throughout great gray owl habitat (MFWP administrative Regions 1-5). In Region 3 several survey gaps exist; these include the Hebgen Basin around West Yellowstone. Two survey methods would be employed: (1) nighttime call back surveys and (2) Automatic Recording Units (ARUs). All surveys would be consistent with the Great Gray Owl Survey Protocol developed for Montana (Specht, Hammond, Smucker, Ritter, and Begley – refined 2020). A subset of 10-12 1 square-kilometer grid cells will be selected in the area around Hebgen Lake, the Madison River, and the South Fork Madison River. These cells would be situated in the best available habitat (based on habitat modeling). Additional cells may be selected further from the lake, rivers, and tributaries should weather, access, and other factors be conducive to additional survey. Surveys would

begin in late February and extend into late April. Surveys may be extended into early May depending on site-specific factors associated with initiation of incubation in the Basin; any extension into May would be done in consultation with FWP to ensure data collected during this time would be useful with regard to modeling refinement. Surveys will be a combination of night-time call-back and automatic recording unit (ARU) stations. Grid cells will represent both roaded and less-roaded/backcountry areas. ARU stations will generally be placed in less-roaded/backcountry areas where night-time surveys are either unsafe or impractical. Call-back survey sites would be visited at least twice, 10 days apart during the survey period. Ideally 5-6 points would be surveyed twice during the target period in each selected call-back survey grid square. ARU sites would have two ARUs deployed at opposite ends of selected grid squares for a period of five to seven days. At the end of the five to seven-day recording period, data cards would be collected and sent to FWP for analysis.

IV. Schedule; when the Project work will begin and end.

Identification of survey points will begin fall 2021/winter 2022. Surveys will begin at the end of February 2022 and would go through at least the end of April 2022.

V. Personnel; who will do the work? Identify Project leader or principal investigator.

The project leader will be Randy Scarlett, West Zone Wildlife Biologist for the Custer Gallatin NF. Claire Gower (FWP) will provide support to the survey effort as well. Most of the work will be accomplished by a seasonal wildlife/bear technician based out of West Yellowstone and by myself (Randy Scarlett). There is also a potential for volunteer labor to help on some survey sites, as we have active volunteers on existing wildlife projects (eagle surveys, bat monitoring).

VI. Project budget must include amounts for the following:

- Direct Labor
- Travel and Living
- Materials
- Other Direct Expenses
- Direct Overhead*
- All cost-share sources and amounts, including estimation of “in-kind” contributions

*NorthWestern Energy TAC funds will not be used for agency overhead on projects that do not fund personnel. Applications for materials and equipment should not contain overhead.

Category	Description	TAC	FS	FWP/In-Kind	Total
Direct Labor	FS Bio – 15 days	\$0	\$7,275	\$0	\$7,275
	Bio Tech – 30 days	\$4,725	\$0	\$0	\$4,725
	FWP ARU processing	\$0	\$0	\$1,500	\$1,500
Direct Overhead	2%	\$0	\$400	\$0	\$400
Travel and Living	FS vehicle & mileage	\$0	\$600	\$0	\$600
	Snowmobile oil & gas	\$0	\$500	\$0	\$500
Materials	ARU batteries, chargers, etc.	\$500	\$0	\$0	\$500
	E-Caller/speaker	\$0	\$300	\$0	\$300
	ARUs (6 units @ \$500/unit)	\$3,000	\$0	\$0	\$3,000
Other Direct Expenses	None	\$0	\$0	\$0	\$0
Volunteer Labor	Dep. on availability – est. 10 days	\$0	\$0	\$2,000	\$2,000
Total		\$8,225	\$9,075	\$3,500	\$20,800

VII. Deliverables; describe work product (reports, habitat restoration, etc.) which will result from this Project. How will “success” for this project be monitored or demonstrated?

Deliverables for this project will include a greater understanding of great gray owl use in the Hebgen Basin. This survey will also provide a baseline to build from for project planning in the Basin. At the larger scale, this project will aid in the refinement of survey methods used to detect occupancy and improve habitat modeling for this species during the breeding season. Ultimately surveys, including the surveys that will occur in the Hebgen Basin, may aid in development of management recommendations for this species.

VIII. Cultural Resources. Cultural Resource Management (CRM) requirements for any activity related to this Project must be completed and documented to NWE as a condition of any TAC grant. TAC funds may not be used for any land-disturbing activity, or the modification, renovation, or removal of any buildings or structures until the CRM consultation process has been completed. Agency applicants must submit a copy of the proposed project to a designated Cultural Resource Specialist for their agency. Private parties or non-governmental organizations are encouraged to submit a copy of their proposed project to a CRM consultant they may have employed. Private parties and non-governmental organizations may also contact the NWE representative for further information or assistance. Applications submitted without this section completed, will be held by the TAC, without any action, until the information has been submitted.

Summarize here how you will complete requirements for Cultural Resource Management:

No ground disturbing activities are proposed; therefore, no coordination with cultural resource specialists is required.

IX. Water Rights. For projects that involve development, restoration or enhancement of wetlands, please describe how the project will comply with the Montana DNRC’s “Guidance for Landowners and Practitioners Engaged in Stream and Wetland Restoration Activities”, issued by the Water Resources Division on 9 March 2016.

Summarize here how you will comply with Montana water rights laws, policies and guidelines:

Not applicable to this project.

All TAC Project proposals should be 7 pages or less and emailed (as a WORD file) to each of:

- Andrew.Welch@NorthWestern.com
- Jon.Hanson@Northwestern.com
- Grant.Grisak@Northwestern.com

Further questions about TAC proposals or Project 2188 license requirements or related issues may be addressed to:

Andy Welch

Manager, Hydro License Compliance

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