

## **DRAFT COMPATIBILITY DETERMINATION**

**USE:** Research and Monitoring Projects by Third Parties.

**REFUGE NAME:** Trempealeau National Wildlife Refuge

**ESTABLISHING AND ACQUISITION AUTHORITY(IES):**

Trempealeau National Wildlife Refuge was established by Executive Order 7437, dated August 21, 1936.

**REFUGE PURPOSE(S):**

The purposes come from the authority under which Trempealeau National Wildlife Refuge was established and from authorities under which subsequent major land additions to the refuge were made. Purposes for Trempealeau National Wildlife Refuge are;

"... a Refuge and breeding ground for migratory birds and other wildlife"  
(Executive Order 7437, dated August 21, 1936)

"suitable for-(1) incidental fish and wildlife oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species ..." (Refuge Recreation Act(16 U.S.C 460k-460k-4), as amended)

"... for the development, advancement, management, conservation, and protection of fish and wildlife resources." (6 U.S.C. 742f(a)(4)(Fish and Wildlife Act of 1956.)

**NATIONAL WILDLIFE REFUGE SYSTEM MISSION:** "...To administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans."

**DESCRIPTION OF USE:**

*What is the Use?*

The U.S. Fish and Wildlife Service (Service) staff receive periodic requests to conduct research, scientific collecting and surveys (collectively referred to as "research and monitoring" or "studies" in this document) on Trempealeau Refuge. Service policy defines the following:

- Research: planned, organized and systematic investigation of a scientific nature.
- Scientific collecting: gathering of refuge natural resources or cultural artifacts for scientific purposes.
- Surveys: scientific invent or monitoring.

The refuge allows research and monitoring by third parties on a variety of biological, physical, cultural and social topics to address management information needs or other issues not related to refuge management. Studies are conducted by federal, state, and

private entities, including the U.S. Geological Survey, state departments of natural resources, state and private universities, and independent researchers and contractors. Examples of recent biological research include: determination of the causal factors affecting habitat distribution patterns; nesting, feeding and resting activities of waterfowl; songbird use of the floodplain; long-term frog population and habitat studies; impacts of management on fish and wildlife habitat; contaminants in fish and wildlife; and scientific collections.

Research concerning changes in water quality, sedimentation rates and distribution, occurrence of contaminants, and hydrologic conditions assess physical characteristics of the Refuge in relation to construction and management of habitat projects.

Research and monitoring is also applied to determine population demographics of refuge visitors and the types of recreational activities people are doing while on the refuge. Other studies that involve collection of plants have been made to determine available energy (food) sources, to combat invasive species, or for use in making reference collections. Fish and wildlife (including invertebrates) are collected for contaminant and/or disease analyses, mark and recapture studies, other population analyses, and radio telemetry (distribution) studies.

These project requests can involve a wider range of natural, cultural and public use resource management issues as illustrated in the examples above. Natural and cultural resource data, environmental data, bioprospecting information (discovery of plant and animal species from which medicinal drugs and other commercially value compounds can be obtained), taxonomical specimen collection or analyses and inventories of paleontological specimens will be considered. Projects may be species-specific, site-specific, or evaluate the relative contribution of refuge lands to the larger landscape (e.g. flyways, national, international). This use has been previously evaluated through the Comprehensive Conservation Planning process as two separate uses, “research by third parties” and “archeological investigations”. As part of the renewal process and evaluation these uses were combined because of their similarity. Appropriateness was re-evaluated as part of this process and no change to the Comprehensive Conservation Plan with regards to this use is occurring. This is not a wildlife dependent recreational use.

*Where is the use conducted?*

Research and monitoring would be conducted on the Trempealeau National Wildlife Refuge lands and waters. Some areas may be restricted based on the type of research and potential for disturbance to trust resources. These areas will be addressed in stipulations in the Refuge Research Special Use Permit.

*When is the use conducted?*

The timing of research, collection and survey activities will depend on the individual project. The refuge are open for these activities throughout the year, day or night, as officially permitted through the issuance of a special use permit. Research and monitoring projects by third parties

are permitted and may occur at nearly any location on the refuge however, there may be some locations that are restricted during certain times of the year and to certain types of research. As an example certain areas of the refuge may be closed during bald eagle nesting periods. Specific time of studies will be described in the Refuge Research Special Use Permit.

*How is the use conducted?*

Access to study sites is by foot, truck, all-terrain vehicle, boat, airboat, canoe, other watercraft, aircraft and Unmanned Aircraft Systems. Vehicle use is allowed on Refuge roads, trails, and parking lots normally open to the public. Researchers may use Unmanned Aircraft Systems cameras to gather information, but must comply with Department of Interior Unmanned Aircraft Systems Guidelines and restrictions. Research study sites, sampling locations, and transects are often temporarily marked by wooden or metal posts, or flagging, which must be removed when research ceases.

Inventory, monitoring, and research activities by third parties are typically conducted under a Special Use Permit. There are instances where a Refuge Manager may choose to not issue a Special Use Permit, such as when activities are always conducted in the presence of Refuge personnel. Additionally, a Refuge Manager may declare a Cooperating Agency Exemption when activities are thoroughly coordinated with the Refuge and the activities provide information that is of high interest to the refuge.

Archeologists request Archaeological Resources Protection Act (ARPA) permits or Antiquities Act permits to conduct "Surveys and limited testing and limited collections on lands identified" and "Excavation, collection and intensive study of specific sites described" on Refuge managed lands. Permits are issued by the Regional Director to qualified archeologists. The Refuge Manager also issues a special use permit to archeologists prior to investigation on lands managed by the Refuge.

*Why is the use being proposed?*

The Service recognizes the potential for research, scientific collection and surveys conducted by non-Service entities to contribute to the enhancement, protection, use, preservation, and manage of wildlife populations and their habitats. Studies are likely to spend the body of scientific knowledge of wildlife population at their habitats or otherwise provide information benefit to conservation and management that can be used to make informed decisions; management needs accurate, up to date information. This can be provided by research and monitoring activities by outside groups. Archeological permitted investigations occur on the Refuge most often in response to a planned project where resources could be disrupted, but could occur because of the general archaeological richness of the Refuge. The information provided by these activities will greatly improve the knowledge of the resources at Trempealeau National Wildlife Refuge assisting managers and biologist with habitat and visitor use management decisions.

## **AVAILABILITY OF RESOURCES:**

Studies may be quite labor intensive and range from a few weeks to several months or years in duration from data collection and analysis to publishing of results. All of this will be accomplished with little or no direct involvement of Service staff, or at most, modest staff time for manuscript review. Service staff responsibilities for projects by non-Service entities will be primarily limited to the following: review of proposals, preparation of Special Use Permits and other compliance documents (e.g. Section 7 of the Endangered Species Act of 1973, Section 106 of the National Historic Preservation Act, National Environmental Policy Act, monitoring of project implementation to ensure compatibility over time and review of research results.

Additional administrative, logistical and operational support may also be provided depending on each specific request. Facilities and staff are currently available to provide access by maintaining roads and parking lots. Existing staff currently issue Research Special Use Permits at the request of researchers and based on the individual requirements of each project. Staff resources are deemed adequate to manage this use at anticipated use levels. Access points and some research and access equipment may be available from the refuge.

- Special equipment, facilities, or improvements necessary to support the use: funded through regular management activities, no additional funding is needed.
- Maintenance costs: funded through regular management activities, no additional funding is needed.
- Monitoring costs: staff may monitor commercial recorders to ensure compliance. This is expected to be covered by the refuge's current funding capacity, no additional funding is needed.
- Offsetting revenues: none

## **ANTICIPATED IMPACTS OF THE USE:**

### *Short and Long-term Impacts:*

For a project that can impact refuge and/or district specific resources, priority wildlife-dependent public uses, other high-priority research or refuge and/or district habitat and wildlife management programs to become compatible, the individual(s) requesting a Special Use Permit must clearly demonstrate that the project's potential scientific findings outweigh the immediate need to conduct resource management and that the project cannot be accomplished off Service lands. The investigator(s) must identify strategies to minimize or eliminate potential impact(s) and conflict(s) in advance. If unacceptable impacts cannot be avoided, then the project will be determined incompatible and not granted a Special Use Permit.

Potential effects will be project and site-specific, and may vary depending on the nature and scope of the research, scientific collection or survey fieldwork. Each project will be evaluated for site-specific effects on species, habitat and cultural resources as part of the Special Use Permit process. As a general rule, compatible projects will have no, to minimal

animal mortality or disturbance, minimal habitat damage, no introduction of contaminants and no introduction of nonnative species. Some projects involving collection of biotic samples (plants or animals) or requiring intensive ground-based data or sample collection may have short-term effects including wildlife disturbance and trampling of vegetation. For example, the presence of researchers can cause waterfowl to flush from resting and feeding areas, or cause disruption of birds and turtles on nests or breeding territories. Efforts to capture animals can cause disturbance, injury, or death to groups of wildlife or to individuals. To wildlife, the energy cost of disturbance may be appreciable in terms of disruption of feeding, displacement from preferred habitat, and the added energy expended to avoid disturbance.

Sampling activities can cause compaction of soils and the trampling of vegetation, the establishment of temporary foot trails and boat trails through vegetation beds, disruption of bottom sediments, and minor tree damage when temporary observation platforms are built.

The removal of vegetation or sediments by core sampling methods can cause increased localized turbidity and disrupt non-target plants and animals. Research efforts may also discover methods that result in a reduction in impacts described above.

To reduce negative effects, the number of samples (e.g., water, soils, vegetative litter, plants, macroinvertebrates and vertebrates) will follow established scientific standards for identification, ex-situ experimentation or valid statistical analysis. Where possible, the Service will refer researchers to coordinate and share collections or samples with other researchers to reduce sampling needed for multiple projects. Negative effects may also occur from the installation of infrastructure necessary to support a project (e.g., semi-permanent transect or plot markers, exclosure devices, monitoring equipment or solar panels to power unattended monitoring equipment). Some level of disturbance is expected with these projects, especially if investigators enter areas closed to the public and collect samples or handle wildlife. However, wildlife disturbance (including altered behavior) is expected to be localized and temporary in nature.

Long-term positive benefits to refuge and/or district management through subsequent knowledge gained by non-Service researchers is expected. No long-term negative effects are anticipated and may be avoided through additional stipulations on Special Use Permits. Where long-term or unacceptable cumulative effects cannot be avoided, the project will be found incompatible.

*Indirect and Cumulative Impacts:*

Research and monitoring by third parties may have indirect effects on some wildlife species by causing short-term disturbance not related to the research being conducted. An example of this would be collecting a water sample and flushing waterfowl from a resting spot. Another example

would be a researcher compacting the soils at the research site, and creating lanes to bird nest sites, which may be used by predators.

Cumulative impacts may occur as the result of a variety of factors or as additive effects from concurrent uses. Examples include multiple research projects using the same resources concurrently, long-term research conducted and additive impacts from research and public use on the same resource. No cumulative impacts within the next 10-15 years are expected and the refuge manager can minimize the potential for cumulative impacts through Special Use Permits. Managers retain the option to prohibit research on the refuge and/or district, which does not contribute to, or materially interfere with the purposes of the refuge and/or district, or the mission of the National Wildlife Refuge System.

Although a single research or exploration project within a single year may cause few, if any, negative resource impacts, it may in fact cause cumulative impacts over multiple years or when considered additively with all research and exploration projects to occur within the refuge and/or district. Therefore, it is critical for managers to examine all projects with a multi-year timeframe in mind and consider research that is planned concurrently on the refuge and/or district before approval is granted. It may be appropriate to set a limit to the number of research or exploration projects occurring in a particular habitat or relative to a single species or species group.

**PUBLIC REVIEW AND COMMENT:**

The draft Compatibility Determination will be available for public review and comment for 15 days from August 31<sup>st</sup>, 2020 to September 15<sup>th</sup>, 2020. A public notice will be sent to local newspapers, as well as a press release, on August 31<sup>st</sup>, 2020 notifying the public of the comment period. The compatibility determination will be made available online at <https://www.fws.gov/refuge/trempealeau/>. You can contact the refuge at 608-539-2311 x. 6 or Stephanie\_edeler@fws.gov to request either printed or electronic copies. Please let us know if you need the documents in an alternative format. Concerns expressed during the public comment period will be addressed in the final draft.

**DETERMINATION:**

- Use is not compatible
- Use is compatible with the following stipulations

**STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

1. Prior to conducting investigations, researchers will obtain a Special Use Permit from the refuge manager or their designee that makes specific stipulations related to when, where, and how the research will be conducted. The refuge manager retains the option to prohibit research which does not contribute to the purposes or the mission of the refuge system, or causes undo resource disturbance or harm.

2. Research applicants must submit a study plan to the refuge manager that includes:
  - a. justification and objectives of the study
  - b. relevance to resource management
  - c. methods, schedule, sample size needed to accomplish the work, statistical analyses planned, and personnel
  - d. potential impacts to wildlife and/or habitat
  - e. provisions to minimize disturbance, injury, or mortality and prevent the introduction of invasive or pest species
  - f. compliance with established standards for proper animal care and use
  - g. data standards and data management plan
  - h. costs to refuge, if any
  - i. anticipated end products and timeline for reporting(i.e., reports, publications, recommendations)
  - j. disposition of data, maps, etc.
  
3. Research plans will be reviewed by refuge staff. The refuge manager may also require internal and/or external scientific review, depending on the complexity and sensitivity of the work being proposed and other factors. Reviews can be expedited by providing photocopies of existing peer reviews, or by providing names, mailing addresses, and email addresses of persons that the researcher wishes to recommend to review their proposal. Refuge staff will strive to limit the burden on applicants during the Special Use Permit process in an effort to facilitate interagency cooperation between local partners and federal agencies.
  
4. Evaluation criteria will include, but not be limited to, the following:
  - a. research that has direct relevance to refuge management will have higher priority than other requests
  - b. research requests that conflict with higher priority research, monitoring, public use, or management programs may not be granted
  - c. research that causes undue disturbance or is intrusive, will likely not be granted
  - d. research with staffing or logistics that make it difficult for refuge staff to monitor researcher activity in a sensitive area, may be denied
  - e. the length of the project will be considered and agreed upon before approval - projects will not be open-ended and at a minimum, will be reviewed annually
  - f. evidence of Institutional Animal Care and Use review and approval if appropriate
  
5. Researchers must possess all applicable state and federal permits for the capture and possession of protected species, for conducting regulated activities in wetlands, and for other regulated activities (e.g., banding). The Special Use Permit guidelines may require the submission of an approval from an Institutional Animal Care and Use Committee Institutional Animal Care and Use Committee (IACUC).

6. Archeological researchers must obtain an Archeological Resource Protection Act permit from the regional director prior to obtaining a special use permit from the station manager.
  - a. Predetermined stipulations on ARPN Antiquities permits and the requirements in 43 CFR Part 7, "Protection of Archaeological Resources: Uniform Regulations," contain protective measures to be accomplished by archeologists.
  - b. Permittee will shore up walls of test pits and trenches in accordance with OSHA standards; will flag, barricade, and sign testing areas as necessary to prevent injury to the public; will refill shovel tests as soon as excavated and data are recorded, including replacing the vegetative plug to restore original conditions; will backfill excavations as soon as data recording is completed; and will seed or replant the surface with a vegetative mix approved by the Refuge Manager.
  - c. A report of findings will be provided to the Refuge and will include recommendations on management of the study site, as applicable.
7. Vehicular access is allowed only on public roads unless otherwise indicated on the Special Use Permit. Sampling equipment, investigator(s) clothing, and vehicles (e.g., All Terrain Vehicles, boats) will be thoroughly cleaned (free of dirt and plant material) before being allowed on refuge lands, to prevent the introduction and/or spread of pests and invasive species.
8. Researchers, scientific collectors, and surveyors will submit annual progress reports, a final report, and copies of publications resulting from the work to the refuge manager. Researchers will provide permission to use summaries, including tables and/or figures, to share with the public. Instructions for how and when to submit an annual report will be provided by refuge staff. U.S. Fish and Wildlife Service Division of Natural Resources and Conservation Planning can analyze study proposals to determine whether copies of field notes, databases, maps, photos, and/or other materials may also be requested and notify the permittee in writing during the Special Use Permit review process. The permittee is responsible for the content of reports and data provided to the Service. Failure to produce an annual report may result in denial of future Special Use Permits.
9. Research projects are valued on our refuges as they provide important national legacy information that helps inform management today and into the future. We recommend researchers, scientific collectors, and surveys submit an electronic copy of all raw data and their supporting metadata (including maps and photographs) collected on refuge lands to the refuge manager. The Service will store project data and metadata and may make it publicly available after a mutually agreed upon period of time.
10. If unacceptable impacts to natural resources or conflicts arise or are documented by the refuge staff, the refuge manager can suspend, modify the conditions of, or terminate an on-going project already permitted by a Special Use Permit.

11. Collection guidelines will be followed as outlined:  
<https://www.nps.gov/bela/getinvolved/conditions-for-scientific-research.htm>
12. Each proposal will be reviewed for compliance with the National Environmental Policy Act (NEPA) requirements and other laws (National Historic Preservation Act or Endangered Species Act), regulations, and policies.
13. Use of Unmanned Aircraft Systems (UAS) may be approved by the refuge manager in certain circumstances. Any use of Unmanned Aircraft Systems must follow applicable Service regulations and policy.

**JUSTIFICATION:**

This use will not materially interfere with or detract from the purposes for which the Refuge was established with the above stipulations in place. Use of the refuge to conduct research, scientific collecting and surveys will generally provide information that would benefit fish, wildlife, plants and their habitats by expanding the scientific information available for resource management decisions. Research by third parties plays an integral role in refuge management by providing information needed to manage the refuge on a sound scientific basis. Investigations into the biological, physical, archeological, and social components of the refuge provide a means to analyze management actions, impacts from internal and outside forces, and ongoing natural processes on the refuge environment. Research provides scientific evidence as to whether the refuge is functioning as intended when established by Congress. Scientific findings gained through these projects provide important information regarding life-history needs of species and species groups as well as identify or refine management actions to achieve resource management objectives in refuge management plans (especially Comprehensive Conservation Plans). Reducing uncertainty regarding wildlife and habitat responses to refuge management actions in order to achieve desired outcomes reflected in resource management objectives is essential for adaptive management in accordance with 522 DM 1.

Adverse impacts of research that cause localized vegetation trampling or disruption of wetland bottom sediments are often short-term and would be minimized through stipulations above. Vehicular access is allowed only on roads and trails normally open to the public, thus resulting in no net increase in vehicular impacts. Any research equipment that remains in the field for the duration of the project would be clearly marked to avoid potential hazards presented to other refuge users and/or refuge staff.

It is anticipated that wildlife species which could be disturbed during research activities will find sufficient food resources and resting places so their abundance and habitat use will not be measurably lessened on the refuge when permitted under the stipulations described above. Additionally, it is anticipated that project oversight, as needed, will prevent unacceptable or irreversible impacts to fish, wildlife, plants, and their habitats. As a result, these projects will not materially interfere with or detract from fulfilling refuge purposes, contributing to the Mission of the National Wildlife Refuge System, and maintaining the biological integrity, diversity and environmental health of refuge lands.

**SIGNATURE:**

Refuge Manager Signature and Date

**CONCURRENCE:**

Regional Refuge Chief Signature and Date

**Mandatory 10 or 15-year Re-evaluation Date: 2030**