COMPATIBILITY DETERMINATION

Use: Research, Scientific Collecting, and Surveys by Third Parties

- 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 inventory or monitoring.

Refuge Name: Mingo National Wildlife Refuge

Establishing and Acquisition Authority: Mingo National Wildlife Refuge (NWR) was established in 1944 under the authority of the Migratory Bird Conservation Act and the Refuge Recreation Act.

Refuge Purpose(s):

"…for use as an inviolate sanctuary, or for any other management purpose for migratory birds." 16 U.S.C. 715d (Migratory Bird Conservation Act)

"…suitable for – (1) incidental fish and wildlife-oriented recreation development, (2) protection of natural resources, (3) the conservation of endangered species or threatened species…" 16 U.S.C. 460K-1 (Refuge Recreation Act)

An additional purpose for the refuge was identified when Congress designated the 7,730 acre Mingo Wilderness in 1976.

"…prioritizes public uses that are recreational, scientific, educational, scenic, or of conservation or historical value as primary refuge objectives permit." Public Law 88-577 (Wilderness Act)

National Wildlife Refuge System Mission: "The Mission of the National Wildlife Refuge System is 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: This Compatibility Determination updates and supersedes the Compatibility Determination developed concurrently with the Refuge's Comprehensive Conservation Plan (CCP) authorized in 2006. This Compatibility Determination will provide for research activities on lands of the Mingo National Wildlife Refuge.

Two provisions of the National Wildlife Refuge Improvement Act are to "maintain biological integrity, diversity and environmental health" and to conduct "inventory and monitoring." Research investigations are designed to address these provisions by answering specific management questions. These include, but are not limited to, evaluation of vegetation and wildlife response to habitat management techniques, wildlife and plant population monitoring, documentation of seasonal wildlife movements and habitat use, wildlife disease investigations, and development of invasive species management techniques. Pertinent results from research

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investigations are incorporated into management plans and actions, and help strengthen the decision-making process.

The Service's Research and Management Studies (4 RM 6) and Appropriate Uses (603 FWl.10D(4)) policies indicate priority for scientific investigatory studies that contribute to the enhancement, protection, use, preservation, and management of native wildlife populations and their habitats in their natural diversity. Projects that contribute to refuge-specific needs for resource and/or management goals and objectives will be given a higher priority over other requests. A signed special use permit (SUP) will be required for each of these "third-party uses".

Sites for this use would depend on the particular action (research, collecting, or survey) being conducted and could occur in a variety of habitat types within the Mingo NWR boundaries. Access would be restricted by SUP to the minimum sample size or study sites needed to meet stated objectives of the research, scientific collection, or survey project.

The timing of research, collecting and survey activities would depend on the individual project, but currently most research occurs during day-light hours. The timing, duration, number of staff, and visits by permittees may be restricted by SUP at the discretion of the Refuge Manager.

Projects will adhere to scientifically defensible protocols for data collection, where available and applicable. Any research study site(s), collection and sampling location(s), and transect(s) can be temporarily marked by highly visible wooden or metal posts or other pre-approved method and must be removed when the project is complete. Access to study sites is by foot, truck, all-terrain vehicle, boat, airboat, canoe, or other watercraft. Vehicle use is allowed on refuge roads, trails, and parking lots that are normally open to the public or other locations, as specified by the SUP. Motorized vehicles are not allowed in the Mingo Wilderness Area.

Research, scientific collecting, and survey activities conducted by non- Service entities that do not expand knowledge of natural systems or inform refuge management decisions are considered a "refuge use" and are therefore, subject to provisions of Appropriate Use and Compatibility policies. However, refuge staffs recognize these activities may indirectly contribute to the enhancement, protection, use, preservation, and management of refuge wildlife populations and their habitats or directly advance scientific knowledge of a particular species or species-group or otherwise provide information beneficial to conservation.

Availability of Resources: Refuge staff responsibilities for projects by non-Service entities will be primarily limited to the following: review of proposals, preparation of SUP(s) and other compliance documents (e.g., Section 7 of the Endangered Species Act of 1973, Section 106 of the National Historic Preservation Act), and monitoring of project implementation to ensure impacts and conflicts remain within acceptable levels (compatible) over time. Additional administrative support, logistical and operational support may also be provided depending on each specific request. Facilities and staff are currently available to provide access, maintain roads, parking lots, secondary access roads, as well as to issue SUPs for research, collecting, and survey projects. Staff resources are deemed adequate to manage this use at anticipated levels.

Anticipated Impacts of Use: Conducting management-oriented research will benefit refuge fish, wildlife, plant populations, and their habitat. Monitoring and research investigations will be designed to answer habitat or population management questions, thereby contributing to

adaptive management of the refuge. Natural resources inventory, monitoring and research are necessary tools towards maintaining biological integrity, diversity and environmental health. Information gained from quality research will improve habitat and wildlife populations.

Some negative direct and indirect effects would occur through disturbance, which is expected with some research activities, especially where researchers are entering sensitive habitat areas. Researcher disturbance would include actions such as; altering wildlife behavior and habitat, going off designated trails, collecting soil, plant and animal samples, trampling of plants and animals, introduction of invasive organisms (e.g., non-native weeds), or trapping and handling wildlife. However, most of these effects would be short-term because only the minimum of samples (e.g., water, soils, vegetative litter, plants, macroinvertebrates) required for identification and/or experimentation and statistical analysis would be permitted and captured and marked wildlife would be released. Long-term effects would be negligible because refuge evaluation of research proposals and conditions of SUPs would ensure that impacts, such as disturbance and introduction of invasive organisms, to wildlife and habitats are avoided or minimized. Refuge staff would ensure research projects contribute to the enhancement, protection, preservation, and management of native refuge wildlife populations and their habitats, thereby helping the refuge fulfill the purposes for which it was established and the mission of the National Wildlife Refuge System.

If project methods impact or conflict with refuge-specific resources, priority wildlife-dependent public uses, other high-priority research and refuge habitat and wildlife management programs, then it must be 1) clearly demonstrated that its scientific findings will contribute to resource management and 2) that the project cannot be conducted off refuge lands, in order for the project to be compatible. The investigator(s) must identify methods/strategies in advance required to minimize or eliminate potential impact(s) and conflict(s). If unacceptable impacts cannot be avoided, then the project will not be compatible. Projects that represent public or private economic use of the natural resources of any national wildlife refuge (e.g., bio-prospecting), in accordance with 16 U.S.C. 715s, must contribute to the achievement of the National Wildlife Refuge purposes or the National Wildlife Refuge System mission to be compatible (50 C.F.R. 29.1). A separate compatibility determination will not be prepared for each request, but rather a project-specific SUP will outline various restrictions and requirements.

Public Review and Comment: The period of public review and comment will be 14 days and will be announced in the local newspaper, social media, website, and other relevant media outlets. Comments will be summarized in this section after being received.

Determination: This program as described is determined to be compatible. Potential impacts of research activities on refuge resources will be minimized because sufficient restrictions and safeguards would be included in the SUP, and research activities will be monitored by the Refuge Manager. The Refuge Manager would ensure that proposed monitoring and research investigations would contribute to the enhancement, protection, conservation, and management of native refuge wildlife populations and their habitats there by helping the refuge fulfill the purposes for which it was established, the mission of the National Wildlife Refuge System, and the need to maintain ecological integrity, diversity, and environmental health.

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____ Use is Not Compatible

_X_ Use is Compatible with the Following Stipulations

Stipulations necessary to ensure compatibility: The criteria for evaluating a research proposal, outlined in the Description of Use section above, will be used when determining whether a proposed study will be approved on the refuge. The refuge proposes to give priority to studies that contribute to the enhancement, protection, preservation, and management of native refuge plant and wildlife populations and their habitats. Research applicants are required to submit a proposal that outlines: (1) objectives of the study; (2) justification for the study; (3) detailed methodology and schedule including compliance with established animal care procedures; (4) potential impacts on refuge wildlife or habitat, including disturbance (short and long term), injury, or mortality (this includes a description of measures the researcher will take to reduce disturbance or impacts) and prevention of introduced/pest species to the Refuge; (5) research personnel required; (6) status of necessary permits; (7) costs to refuge, if any; and (8) progress reports and end products with data standards and data management plans (i.e., reports, thesis, dissertations, publications). Research proposals are reviewed by refuge staff, and if approved, a Special Use Permit is issued by the Refuge Manager to formally authorize any project. Each SUP will include case-specific stipulations and will be reviewed annually.

1. If proposed research methods are evaluated and determined to have potential adverse impacts on refuge wildlife or habitat, then the refuge staff would determine the utility and need of such research to conservation and management of refuge wildlife and habitat.
2. If the need was demonstrated by the research permittee and accepted by the refuge, then measures to minimize potential impacts (e.g., reduce the numbers of researchers entering an area, restrict research in specified areas, sanitizing equipment) would be developed and included as part of the design and SUP. SUPs will contain specific terms and conditions the researcher(s) must follow relative to activity, location, duration, seasonality, etc. to ensure continued compatibility.
3. All refuge rules and regulations must be followed unless otherwise noted in writing by refuge management.
4. Prior to initiating research activities, the researcher is responsible for securing all required permits and completing all environmental compliance requirements. For example, if the proposed research activity may affect listed species, the researcher is responsible for ensuring compliance with section 7 of the Endangered Species Act.
5. Archeological researchers must obtain an Archeological Resource Protection Act permit from the Regional Director prior to obtaining a SUP from the Refuge Manager.
6. 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.
7. Refuge staff will monitor researcher activities for potential impacts to the refuge and for compliance with conditions on the SUPs.
8. Research activities will be modified to avoid harm to sensitive wildlife and habitat when unforeseen impacts arise.
9. The Refuge Manager may determine that previously approved research and SUPs be terminated due to observed impacts.

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10. The Refuge Manager will also have the ability to cancel an SUP if the researcher is out of compliance with the conditions of the SUP.
11. Researchers will submit findings, such as annual status reports or a final report, in a timely manner to the Refuge Manager for inclusion in the decision-making and management process.
12. Researchers, scientific collectors, and surveyors will submit an electronic copy of all raw data collected on refuge lands to the Refuge Manager with the understanding that the researcher will have the opportunity to produce publications based on the data.
13. Researchers are restricted from the Refuge Closed Areas during the waterfowl migration period from October 1 until the end of February, except at pre-arranged, specific times and locations as authorized and allowed by the Refuge Manager.
14. Research involving collections will be extremely restricted. Collections will be limited to type or voucher specimens only and require pre-approval by the Refuge Manager. Species may not be collected in the Wilderness portion of the Refuge without specifically addressing the justification for the exclusive need to collect from this portion of the Refuge prior to collecting.
15. 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.

Justification: Wildlife habitat research and monitoring are needed to understand impacts of all management activities on the refuge. After assessing the potential impacts from the uses proposed for the refuge, we have found that allowing these uses would not materially interfere with or detract from the purposes for which the refuge was established or the mission of the Refuge System. In fact, well-designed research investigations will directly benefit and support refuge goals, objectives and management plans and activities. Wildlife and plants and their habitat will improve through the application of knowledge gained from monitoring and research. Biological integrity, diversity and environmental health would benefit from scientific research conducted on natural resources at the refuge. The wildlife-dependent, priority public uses (wildlife viewing and photography, environmental education and interpretation) could also benefit.

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Refuge Manager: _____
(Signature and Date)

Regional Chief Concurrence: _____
(Signature and Date)

Mandatory 10 year re-evaluation date: _____2026_____