**INFORMATION MEMORANDUM**

**SUBJECT:** Guidance Template Environmental Assessment

**DISCUSSION:**

This document is a guidance template for writing Environmental Assessments (EAs) for opening or expanding hunting and fishing opportunities in the National Wildlife Refuge System. The sections herein comply with the National Environmental Policy Act and applicable regulations. The titles of sections in bold font should not be changed. However, you may change the recommended language in regular black text as the facts in your individual case warrant. The text in blue brackets throughout the EA provides instructions, guidance, and examples for completing this EA. Replace that language with information specific to your refuge. No blue text or comment boxes should remain once this EA is complete. The description of environmental impacts should provide enough information to support a determination to either prepare an Environmental Impact Statement or a Finding of No Significant Impact. While a longer EA may be appropriate when it involves controversial or complex issues, in the majority of cases there is no need for an EA to be longer than 15 to 50 pages. Current regulations prohibit EAs longer than 75 pages without approval from a relevant senior agency official. [See 40 CFR 1501.5(f)](https://www.ecfr.gov/cgi-bin/text-idx?SID=1300f30fdf14c6e8c957c1634544caea&mc=true&node=se40.37.1501_15&rgn=div8). A page is defined as 500 words of text and does not include tables, diagrams, maps, or the content of appendices. [See 40 CFR 1508.1(v)](https://www.ecfr.gov/cgi-bin/text-idx?SID=01ea3f378af1bf074e01d311e5f17556&mc=true&node=pt40.37.1508&rgn=div5#se40.37.1508_11).   
  
This template has been made in consideration of the Americans with Disability Act and Section 508 of the Rehabilitation Act. However, the accessibility of this document must be verified and ensured once all text, graphics, and tables are inserted by the writer.

**ATTACHMENTS**

Template EA

**Contact:** Christian Myers, Conservation Program Specialist, [Christian\_Myers@fws.gov](mailto:Christian_Myers@fws.gov) , (571) 422-3595

**Environmental Assessment**

*[Refuge Name] National Wildlife Refuge [Proposed Action] Plan*

Month 2021

Prepared by

[Refuge Name] National Wildlife Refuge

City, State

*Estimated Lead Agency Total Costs Associated with Developing and Producing This Environmental Assessment:* $20,000​

**EA Template Table of Contents**

[Proposed Action 5](#_Toc70937710)

[Background 5](#_Toc70937711)

[Purpose and Need for the Action 8](#_Toc70937712)

[Alternatives 8](#_Toc70937713)

[Alternative A – [Short Title of Action (e.g., Current Management Strategies)] – [No Action Alternative] 8](#_Toc70937714)

[Alternative B – [Short Title of Proposed Action (i.e., Herbicide Treatment )] – [Proposed Action Alternative] 9](#_Toc70937715)

[Alternative C – [Short Title of Alternative (i.e., Mechanical Removal)] 10](#_Toc70937716)

[Alternative(s) Considered, But Dismissed From Further Consideration 10](#_Toc70937717)

[Affected Environment and Environmental Consequences 10](#_Toc70937718)

[Natural Resources 12](#_Toc70937719)

[Visitor Use and Experience 18](#_Toc70937720)

[Cultural Resources and subsistence 19](#_Toc70937721)

[Refuge Management and Operations 20](#_Toc70937722)

[Socioeconomics 21](#_Toc70937723)

[Monitoring 23](#_Toc70937724)

[Summary of Analysis 23](#_Toc70937725)

[Alternative A – [Short Title of Action (e.g., Current Management Strategies)] – [No Action Alternative] 23](#_Toc70937726)

[Alternative B – [Short Title of Proposed Action (i.e., Herbicide Treatment)] – [Proposed Action Alternative] 23](#_Toc70937727)

[Alternative C – [Short Title of Alternative (i.e., Mechanical Treatment)] 24](#_Toc70937728)

[List of Sources, Agencies and Persons Consulted 24](#_Toc70937729)

[List of Preparers 24](#_Toc70937730)

[State Coordination 24](#_Toc70937731)

[Tribal Consultation 24](#_Toc70937732)

[Public Outreach 24](#_Toc70937733)

[Determination 25](#_Toc70937734)

[Signatures 25](#_Toc70937735)

[References 26](#_Toc70937736)

[Appendix A 26](#_Toc70937737)

[Appendix B 28](#_Toc70937738)

[Appendix C 28](#_Toc70937739)

Environmental Assessment for [Short Title of Proposed Action]

**Date: [Month, Day, 20##]**

This Draft Environmental Assessment is being prepared to evaluate the effects associated with the proposed action and complies with the National Environmental Policy Act in accordance with Council on Environmental Quality regulations (40 CFR 1500-1509) and Department of the Interior (43 CFR 46; 516 DM 8) and U.S. Fish and Wildlife Service (550 FW 3) regulations and policies. The National Environmental Policy Act (NEPA) requires examination of the effects of proposed actions on the natural and human environment. [If using an ‘Appendix A’ of relevant laws and executive orders, add here: Appendix A outlines all law and executive orders evaluated through this Environmental Assessment.]

[Make sure to indicate and cite any additional statutes, regulations, and executive orders relevant to your discussion of alternatives and your analysis in this EA, either as an Appendix A or throughout the document. An example Appendix A is included at the end of this template.]

# **Proposed Action**

[This is a very short introduction to what you are generally proposing to do (e.g. Elodea eradication on the refuge). The details of the proposed action and alternatives should be described below in the alternatives section.]

The U.S. Fish and Wildlife Service (Service) is proposing to [description of action] in accordance with the refuge’s [CCP/step-down plan]. [Add another 1-2 sentences providing more details on the action, including general area of the refuge, general proposed size of action, etc. Be sure to clearly describe the proposed action in an EA. If the proposed action is poorly defined it could lead to the discussion of issues that are not relevant and therefore should not be included in an EA.]

A proposed action may evolve during the NEPA process as the agency refines its proposal and gathers feedback from the public, tribes, and other agencies. Therefore, the final proposed action may be different from the original. The proposed action will be finalized at the conclusion of the public comment period for the EA.

# **Background**

National wildlife refuges are guided by the mission and goals of the National Wildlife Refuge System (NWRS), the purposes of an individual refuge, Service policy, and laws and international treaties. Relevant guidance includes the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997, Refuge Recreation Act of 1962, and selected portions of the Code of Federal Regulations and Fish and Wildlife Service Manual.

[Options for refuges established prior to ANILCA 1980 and those established by ANILCA in 1980]

[Option 1: For old refuges, established prior to 1980]

[ Legislation] established [previous name of refuge], for the purpose of [describe purposes]. (Cite Legislation, date) [ This is for refuges established prior to ANILCA]

Section [cite ANILCA section] of the Alaska National Interest Lands Conservation Act of 1980 (ANILCA) (16 U.S.C. 3101 et seq.) substantially affected the [previous name] by modifying its boundaries and broadening its purposes from [original purpose] to [list new purposes]. ANILCA also re-designated the [previous refuge name] as [current refuge name] and increased the size of the Refuge from [previous acreage] to [current acreage] acres. The purposes are as follows: [quote language from ANILCA]

[Option 2: For new refuges, established in 1980 with ANILCA]

The refuge was established pursuant to [cite to legislation establishing the refuge, ANILCA]. ANILCA sets out additional purposes for each refuge in Alaska; the purposes of [Refuge] are set forth in section [(cite)] of ANILCA. The purposes identify some of the reasons why Congress established the Refuge and set the management priorities for the Refuge. The purposes are as follows: [quote language from ANILCA]

National Wildlife Refuges are guided by the mission and goals of the National Wildlife Refuge System (NWRS), the purposes of an individual refuge, Service policy, and laws and international treaties. Relevant guidance includes the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997, Refuge Recreation Act of 1962, and selected portions of the Code of Federal Regulations and Fish and Wildlife Service Manual. The refuge was established as the [name prior to ANILCA] pursuant to [Executive Order/ legislation] [Date], with a primary purpose of *“. . . [add purpose]…”*

New establishment purposes were provided by Congress under the Alaska National Interest Lands Conservation Act (ANILCA) of 1980, which also renamed the [name of refuge prior to ANILCA]: (i) To conserve fish and wildlife populations and habitats in their natural diversity, including, but not limited to,… [list all ANILCA purposes for refuge]

[Additional information to be included for refuges with Congressionally designated Wilderness, include this always .]

ANILCA [or other legislation] also designated [area in acres] as the [name of Wilderness area] Wilderness, to be managed as part of the National Wilderness Preservation System. “The Wilderness Act of 1964 (Public Law 88- 577) created additional purposed for [Refuge]. Section 2(a) of the Wilderness Act states in part that ‘… *it is hereby declared to be the intent of Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness ...*” and designated wilderness areas are to be managed “… *for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness.*”

In addition, Section 4(3)(b) of the Wilderness Act provides that each agency administering wilderness areas “*…shall be responsible for preserving the wilderness character of the area and shall so administer such area for such other purposes for which it may have been established as also to preserve its wilderness character. Except as otherwise noted in this Act, wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use.*” The Refuge’s Wilderness purposes apply to the approximately [number of acres] acres of the Congressionally-designated [name] Wilderness”]

The mission of the NWRS, as outlined by the National Wildlife Refuge System Administration Act (NWRSAA), as amended by the National Wildlife Refuge System Improvement Act (16 U.S.C. 668dd et seq.), 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”*

Additionally, the NWRSAA mandates the Secretary of the Interior in administering the NWRS (16 U.S.C. 668dd(a)(4)) tor

* Provide for the conservation of fish, wildlife, and plants, and their habitats within the NWRS;
* Ensure that the biological integrity, diversity, and environmental health of the NWRS are maintained for the benefit of present and future generations of Americans;
* Ensure that the mission of the NWRS described at 16 U.S.C. 668dd(a)(2) and the purposes of each refuge are carried out;
* Ensure effective coordination, interaction, and cooperation with owners of land adjoining refuges and the fish and wildlife agency of the states in which the units of the NWRS are located;
* Assist in the maintenance of adequate water quantity and water quality to fulfill the mission of the NWRS and the purposes of each refuge;
* Recognize compatible wildlife-dependent recreational uses as the priority general public uses of the NWRS through which the American public can develop an appreciation for fish and wildlife;
* Ensure that opportunities are provided within the NWRS for compatible wildlife-dependent recreational uses; and Monitor the status and trends of fish, wildlife, and plants in each refuge.

[Add additional 2-3 sentences providing background on the proposed action that would be informative and interesting to the public. As an example, you might reference invasive species management was reviewed in your CCP and how the public and partners perceived the activity. Another example would be the invasive species management history in the area the refuge is located.]

# **Purpose and Need for the Action**

[Purpose is a broad statement of goals that the Service intends to fulfill through taking action and should be stated in terms of the desired outcome, to the extent possible (46.420(a)). The need for action is the underlying problem or opportunity to which the Service is responding and may include factors such as existing conditions that need to be changed, problems that need to be remedied, decisions that need to be made, and/or policies or mandates that need to be implemented.]

The purpose of this proposed action is to [describe purpose of the action (e.g.,To eradicate the freshwater aquatic invasive *Elodea spp* and eliminate the further spread and introduction of *Elodea spp*. in waterbodies ); if you are implementing a step-down management plan then you would list the objectives/goals of that plan here] on [Refuge Name].

The need of the proposed action is to meet the Service’s priorities and mandates as outlined by the NWRSAA to “[fill in which responsibility under the NWRSAA is being achieved by the action]” (16 U.S.C. 668dd(a)(4)). [Add in any other additional needs here, too. This should address why you need to implement the proposed action (e.g., Elodea’s rapid growth often results in displacement of native plants, which can significantly alter fish and aquatic invertebrate habitat, increase sedimentation and impede access to subsistence hunting areas, affect recreational opportunities and pose a threat to safe operations of floatplane aircraft). So the additional purpose would be, for example, to restore habitat on the refuge. The need, for example, would be to eradicate *Elodea spp.* on the refuge to prevent negative impacts to refuge wildlife and habitat. If the need is poorly defined or overly broad, it could lead to the inclusion of more alternatives than are necessary or the discussion of irrelevant issues. You should be sure to refine the need in order to ensure it is clear, concise, accurate, and complete.]

# **Alternatives**

## **Alternative A – [Short Title of Action (e.g., Current Management Strategies)] – [No Action Alternative]**

[This alternative, commonly referred to as “No Action,” is not really no action. Rather, it is a continuation of whatever is happening or not happening right now in the action area. A “No Action” or “Continue Current Management” alternative may be a completely reasonable alternative and may also be useful for comparison with the Proposed Action Alternative. The analysis of this alternative is also typically used as a comparison to demonstrate what would happen if you were to not undertake the proposed action. So, describe here the actions or lack of actions that you would take under this “No Action” alternative. For instance, is the refuge already implementing aquatic invasive plant management? Other public use? Other refuge management activities? If so, list those continuing actions here. If, for example, there is no habitat management or no public access in parts of the refuge affected by the proposed action, describe that here. List all actions/inactions currently going on that would be important in comparison to the proposed action.]

For example, “Under the No Action alternative, the Refuge would not implement aquatic invasive plant management in the infested waterbodies. There would be no monitoring, public outreach and education efforts. There would be no methods of containing the spread of Elodea attempted by the Refuge, and current infestations within Refuge boundaries would be left uncontrolled. Elodea may continue to expand via flowing water, boats, gear and float plane traffic into adjacent waterbodies on and off the refuge.”

## **Alternative B – [Short Title of Proposed Action (i.e., Herbicide Treatment )] – [Proposed Action Alternative]**

Under the Proposed Action Alternative, [describe what you propose to do and how you propose to do it – the who, what, where, when, and how, including information on timing and duration of the opportunity, any proposed refuge-specific regulations, connected actions, etc. This is where you pull from your Comprehensive Conservation Plan (CCP), so you can incorporate the CCP by reference here or include it in an appendix and note that here. You then only need to include a brief and concise description of the alternative here.

Describe any refuge-specific regulations that will be imposed under the proposed action and, if applicable, state that the refuge-specific regulations will be published in the Federal Register.

Measures to Avoid Conflicts:

* List any mitigation measures you will be taking to avoid conflicts with other biological resources on the refuge, threatened and endangered species, other refuge uses. [For example, “On the X Unit, the visitor use area will be closed for a period of ten days out of 365 days per year to avoid conflicts with visitors”. ]

Describe the extent to which this alternative would satisfy the Purpose and Need (above).

For example, “Under the Proposed Action Alternative, eradication of established populations of Elodea will be conducted using the systemic herbicides fluridone and diquat in the July. Multiple treatments spanning 3 to 4 years may be necessary to completely eradicate Elodea populations from these waterbodies. Using fluridone and diquat in tandem increase the chances of eradication, significantly reducing the risk of spread throughout the duration of treatment, and reduces the overall time and cost of the treatment plan. ””

This alternative fulfills the Service’s mandate under the NWRSAA. The Service has determined that the Herbicide Treatment (Alternative B) is compatible with the purposes of [Refuge Name] and the mission of the NWRS.

## **Alternative C – [Short Title of Alternative (i.e., Mechanical Removal)]**

[Another alternative is NOT required; however, you should present any other alternatives that you are actually considering now or in the future or that the public/interested parties would like you to consider that would meet the purpose and need for the proposed action. Often, additional alternatives are developed as a result of feedback received during scoping and/or public comment so may be added later after public comment.

Alternatives should logically flow from the purpose and need. They should be written such that differences between alternatives are clearly identifiable. Describe any changes that would be made to the proposed refuge-specific regulations.

This section should not include conclusions or impact summaries but should be an objective comparison of specific features of alternatives. It should clearly describe the difference from the proposed action.

For example, “Under this alternative the refuge, would implement aquatic invasive plant management using mechanical or manual means to remove Elodea biomass in waterbodies. This may include cutting, shredding and hand pulling.”]

## **Alternative(s) Considered, But Dismissed From Further Consideration**

[Again, this section is not required, and can be deleted if not applicable. However, alternatives which were considered but determined to be infeasible (that is, not meet the stated purpose and need) should be identified with an explanation as to why they are considered infeasible. Typically alternatives are found to be infeasible due to economic, technological, and legal considerations not consistent with satisfying the purpose and need for which the EA is being prepared. Alternatives that would directly and unavoidably conflict with your refuge’s purpose, such as providing migratory bird sanctuary, are a clear example. This section allows you to demonstrate that you heard what the public, other agencies, or tribes said, and this section describes why you will not evaluate those actions or alternatives further.]

# **Affected Environment and Environmental Consequences**

This section is organized by affected resource categories and for each affected resource discusses both (1) the existing environmental and socioeconomic baseline in the action area for each resource and (2) the effects and impacts of the proposed action and any alternatives on each resource. The effects and impacts of the proposed action considered here are changes to the human environment, whether adverse or beneficial, that are direct, indirect, or cumulative. This EA includes the written analyses of the environmental consequences on a resource only when the impacts on that resource could be more than negligible and therefore considered an “affected resource.” Any resources that will not be more than negligibly impacted by the action have been dismissed from further analysis.

The refuge consists of approximately [add number of square miles] in [county, state]. (See map at Appendix XX).

[Refuge Name] is primarily [type of habitat]. The proposed action is located in [area of refuge, habitat type]. (See map of the general area and proposed project site on the Refuge at Appendix XX).

For more information regarding and the general characteristics of the refuge’s environment, please see section XX of the Refuge’s [Comprehensive Conservation Plan or Step-Down Management Plan], which can be found here: [link to ServCat].

[If you are tiering or supplementing from an EIS/EA done in conjunction with your CCP or step-down plan, put that information here. “For more information on the environmental consequences of the proposed action, see [Document Title that you are tiering or supplementing from]. Therefore, this EA tiers from that [(e.g., programmatic EIS)] and provides additional specific analysis of the proposed action.”]

The following resources either (1) do not exist within the project area or (2) would either not be affected or only negligibly affected by the proposed action: [list any resources that do not meet any of the following criteria:

* a detailed analysis of environmental impacts related to the issue is necessary to make a reasoned choice between alternatives;
* the environmental impacts associated with the issue are a big point of contention among the public or other agencies; or
* there are potentially more than negligible impacts to the resource

[Note that in this new combined section where you discuss typical affected environment features you should also discuss “Environmental Trends and Planned Actions,” as appropriate. You will describe any reasonably foreseeable trends in the environment (e.g. locally relevant climate change, loss of nearby habitat to development, diseases in relevant populations, etc.). Also describe any reasonably foreseeable “planned actions.” These are other federal or non-federal actions we know are taking place or will be taking place that may affect the resources considered in our analysis.. By describing environmental trends and planned actions we are providing a complete picture of the affected environment, which is the baseline against which we will describe and evaluate changes caused by our proposed action and alternatives. Many of the factors that will go into this section used to be considered under the category of “cumulative impacts,” but EAs will no longer have a section on cumulative impacts.]

[Note that in this section where you discuss impacts/effects you should consider both direct and indirect impacts. Impacts and effects cover all reasonably foreseeable changes, whether adverse or beneficial. This understandably includes those changes that occur at the same time and place as the proposed action or alternatives, but may also include changes that are later in time or farther removed in distance from the proposed action or alternatives. ]

## **Natural Resources**

### **Terrestrial Wildlife and Aquatic Species**

#### **Affected Environment**

#### **Description of Affected Environment for the Affected Resource**

[Provide a brief description of the baseline environment as it relates to the terrestrial wildlife and aquatic species. Include the current status of the species. Is the population currently healthy? Overpopulated? Do you have estimates on population numbers on the refuge or in the area? Include any information about the species that would be helpful to understand the impacts.]

#### **Description of Cumulative Impacts, Environmental Trends, and Planned Actions**

[Provide a brief description of relevant environmental trends. Are there changes to the habitat or health of the species from factors like disease and predation, human population increase and development, or climate change? Are there changes to the local population of the species based on hunting or fishing elsewhere locally, regionally, or in the relevant flyway in the case of migratory birds?  
Provide a brief description of relevant planned actions. What is being done by nearby municipality, state government, tribal government, other federal agency (Parks, BLM, Forest Service, etc.) that will affect the surrounding environment in a way directly relevant to the species? Is there planned development that will reduce habitat? Does the state plan to offer new hunts of the same species?

Then, describe impacts/effects of the proposed action that could add cumulatively to impacts of the existing environmental trends and planned actions, as well as past actions. These cumulative impacts are important to analyze because even if the proposed action has minor impacts in isolation it could potentially cause significant impacts in combination with these other existing or foreseeable future impacts.]

#### **Impacts on Affected Resource**

##### **Alternative A**

Describe the direct and indirect impacts.

*NOTE: The impacts under the “No Action” or “Current Management” Action should describe what current is taking place and the direct and indirect impacts of that current program not only on the species, but all the resources you have selected to discuss below*.]

##### **Alternative B**

[Describe the direct and indirect impacts.]

##### **Alternative C**

[Describe the direct and indirect impacts.]

### **Threatened and Endangered Species, and Other Special Status Species**

#### **Affected Environment**

***Description of Affected Environment for the Affected Resource***

[Provide a brief description of the baseline environment as it relates to the given T&E species. Discuss any T&E or other special status species in the area of the proposed action. This section should also talk about any mitigation measures to offset impacts, such as a hunting buffer around the portion of refuge where the T&E species is primarily located, etc. Also, make sure to address, when relevant, the following sources of law as they relate to each T&E species:

* Bald and Golden Eagle Protection Act, as amended, 16 U.S.C. 668-668c, 50 CFR 22
* Endangered Species Act of 1973, as amended, 16 U.S.C. 1531-1544; 36 CFR Part 13; 50 CFR Parts 10, 17, 23, 81, 217, 222, 225, 402, and 450
* Fish and Wildlife Act of 1956, 16 U.S.C. 742 a-m
* Lacey Act, as amended, 16 U.S.C. 3371 et seq.; 15 CFR Parts 10, 11, 12, 14, 300, and 904
* Migratory Bird Treaty Act, as amended, 16 U.S.C. 703-712; 50 CFR Parts 10, 12, 20, and 21
* Executive Order 13186 – Responsibilities of Federal Agencies to Protect Migratory Birds, 66 Fed. Reg. 3853 (2001). (Mention if there are T&E/SCGN species in the state and how the action may impact those species).]

***Description of Cumulative Impacts, Environmental Trends, and Planned Actions***

[Provide a brief description of relevant environmental trends for the T&E species. Are there changes to the habitat or health of the species from factors like disease and predation, human population increase and development, or climate change? Do any such trends compound the threats that have caused them to be listed T&E species?  
Provide a brief description of relevant planned actions. What is being done by nearby municipality, state government, tribal government, other federal agency (Parks, BLM, Forest Service, etc.) that will affect the surrounding environment in a way relevant to the species? Is there planned development that will reduce habitat? Are there planned wind farms, pipelines, etc. nearby for which incidental take permits will be issued for this species?

Then, describe impacts/effects of the proposed action that could add cumulatively to impacts of the existing environmental trends and planned actions, as well as past actions. These cumulative impacts are important to analyze because even if the proposed action has minor impacts in isolation it could potentially cause significant impacts in combination with these other existing or foreseeable future impacts. Any Section 7 analysis or consultation associated with this action should be used as a source of information for what impacts are likely, then consider which might have a cumulative effect.]

**Impacts on Affected Resource**

[This section should discuss any Section 7 analysis or consultation done and the findings of that Section 7 consultation.]

##### **Alternative A**

##### **Alternative B**

##### **Alternative C**

### **Habitat and Vegetation (including vegetation of special management concern)**

#### **Affected Environment**

***Description of Affected Environment for the Affected Resource***

[Provide a brief description of the baseline environment as it relates to wildlife habitat and vegetation. Include the habitat and vegetation on or off the refuge that could be impacted by the proposed action and alternatives.]

***Description of Cumulative Impacts, Environmental Trends, and Planned Actions***

[Provide a brief description of relevant environmental trends. Are there changes to the status or quality of the habitat or the vegetation from factors like invasive plant species, invasive pests, human population increase and development, or climate change?   
Provide a brief description of relevant planned actions. What is being done by nearby municipality, state government, tribal government, other federal agency (Parks, BLM, Forest Service, etc.) that will affect the status or quality of the habitat or vegetation? Is there planned development that will change the amount or quality of water flowing into the refuge? Are there state efforts to combat invasive species that threaten the refuge vegetation?

Then, describe impacts/effects of the proposed action that could add cumulatively to impacts of the existing environmental trends and planned actions, as well as past actions. These cumulative impacts are important to analyze because even if the proposed action has minor impacts in isolation it could potentially cause significant impacts in combination with these other existing or foreseeable future impacts.]

[Climate change sample language and examples: “Climate change refers to the increasing changes in the measures of climate over a long period of time – including precipitation, temperature, and wind patterns. [USGS 2019]. There is no definitive information on how exactly changes in climate will impact species populations.” Relevant examples include earlier Stop overs in bird migration patterns, increased frequency of wildfires, habitat conversion (i.e. forests to grassland), decreased or increased water availability, etc.]

**Impacts on Affected Resource**

[This section should discuss the direct and indirect impacts on habitat and vegetation (on or off the refuge) as a result of the proposed action and alternatives, including any invasive species concerns. It should also talk about any mitigation measures to offset impacts, such [add example], etc. Be sure to address, when relevant to the refuge, Executive Orders

##### **Alternative A**

##### **Alternative B**

##### **Alternative C**

### **Geology and Soils**

[Include this section if there will be more than negligible direct and indirect impacts under your proposed action or alternatives. If not, list it above as one of the resources “not further analyzed in this EA.”]

#### **Affected Environment**

***Description of Affected Environment for the Affected Resource***

***Description of Cumulative Impacts, Environmental Trends, and Planned Actions***

**Impacts on Affected Resource**

##### **Alternative A**

##### **Alternative B**

##### **Alternative C**

### **Air Quality**

[Include if there will be more than negligible direct and indirect impacts under your proposed action or alternatives. If not, list it above as one of the resources “not further analyzed in this EA.”]

#### **Affected Environment**

***Description of Affected Environment for the Affected Resource***

***Description of Cumulative Impacts, Environmental Trends, and Planned Actions***

**Impacts on Affected Resource**

##### **Alternative A**

##### **Alternative B**

##### **Alternative C**

### **Water Quality**

[Include if there will be more than negligible direct and indirect impacts under your proposed action or alternatives. If not, list it above as one of the resources “not further analyzed in this EA.” Ask yourself, for example, are you authorizing boating in a manner that will increase turbidity or have other more than negligible impacts? Will the proposed action affect water quality and quantity, degrade aquatic fish habitat, or increase sedimentation?]

#### **Affected Environment**

***Description of Affected Environment for the Affected Resource***

***Description of Cumulative Impacts, Environmental Trends, and Planned Actions***

**Impacts on Affected Resource**

##### **Alternative A**

##### **Alternative B**

##### **Alternative C**

### **Floodplains**

[Include if there will be more than negligible direct and indirect impacts under your proposed action or alternatives. If not, list it above as one of the resources “not further analyzed in this EA.” If there will be impacts, make sure that you address Executive Order 11988 – Floodplain Management, 42 Fed. Reg. 26951 (1977) in your discussion.]

#### **Affected Environment**

***Description of Affected Environment for the Affected Resource***

***Description of Cumulative Impacts, Environmental Trends, and Planned Actions***

**Impacts on Affected Resource**

##### **Alternative A**

##### **Alternative B**

##### **Alternative C**

### **Wilderness or Other Special Designation**

[You should not delete this section if there is any wilderness, or area with another designation, on the refuge even if there will be no impacts. If there, are no designations of any portion of the refuge, then you can delete and list it above as one of the resources “not further analyzed in this EA.” When all or part of the refuge is designated wilderness, this section should address the amount of wilderness on the refuge, its specific location, and any previously authorized and/or ongoing uses. If there is wilderness area but there are no direct, indirect, or cumulative impacts, then say “No impacts, because [i.e. proposed action is not in the Wilderness area of the refuge]” under Impacts on Affected Resource. For Refuges with federally designated Wilderness, a Minimum Requirement Analysis (MRA) must be completed prior to taking management action in Wilderness.]

[Regardless of whether or not there is a wilderness designation, keep this section if there are any, and use it to discuss any, known designation of all or a relevant portion of the refuge as (1) falling under the Wild and Scenic Rivers Act, 16 U.S.C. 1271 et seq., (2) a Research Natural Area (RNA), (3) an Important Bird Area (IBA) by the Audubon Society, or (4) fitting any other meaningful legal or NGO-created category for which the proposed action could potentially impair the value.]

#### **Affected Environment**

***Description of Affected Environment for the Affected Resource***

***Description of Cumulative Impacts, Environmental Trends, and Planned Actions***

**Impacts on Affected Resource**

##### **Alternative A**

##### **Alternative B**

##### **Alternative C**

## **Visitor Use and Experience**

[This section should discuss the current levels and areas of wildlife-dependent recreation and visitor use on the refuge under affected environment. For example, a map of the refuge showing these various uses of the refuge could be referenced here, See Appendix XX.]

#### **Affected Environment**

***Description of Affected Environment for the Affected Resource***

***Description of Cumulative Impacts, Environmental Trends, and Planned Actions***

[Consider trends and planned actions that could affect visitation or quality of visitor experience, but only those relevant to the proposed action and alternatives, which means they should connect back to health and safety, noise, etc. These trends and planned actions should also be most relevant to discussion of cumulative impacts. An example could be a planned development action nearby that will likely increase the number of citizens visiting the refuge during time frame of proposed action or alternatives.

Then, describe impacts/effects of the proposed action that could add cumulatively to impacts of the existing environmental trends and planned actions relevant to visitation, as well as past actions related to visitor services.]

**Impacts on Affected Resource**

[This section should discuss the direct and indirect impacts to wildlife-dependent recreation and visitor use on the refuge (e.g., visual impacts, noise impacts), as well as any impacts and mitigating measures to protect the health and safety of visitors on the refuge. It should also discuss the beneficial impacts of increased opportunities for wildlife-dependent recreation as a result of the proposed action and alternatives.]

#### **Alternative A**

#### **Alternative B**

#### **Alternative C**

## **Cultural Resources and subsistence**

[This section may address cultural landscapes, ethnographic resources, paleontological resources, sites, archaeological resources, coordination and agreements with tribes, buildings and other structures of historical or prehistoric significance, resources eligible for listing on the National Register of Historic Places, coordination with the State Historic Preservation Officer, and programmatic agreements with the state.]

#### **Affected Environment**

***Description of Affected Environment for the Affected Resource***

[This section may address cultural landscapes, ethnographic resources, paleontological resources, sites, archaeological resources, coordination and agreements with tribes, buildings and other structures of historical or prehistoric significance, resources eligible for listing on the National Register of Historic Places, coordination with the State Historic Preservation Officer, and programmatic agreements with the state.]

#### [Discuss the presence and nature of any such cultural resources on the refuge here, especially any particular site(s) or structure(s) within the area of the proposed hunting or fishing. If there are any, be sure to address how they relate to any of these sources of law:

#### American Indian Religious Freedom Act, as amended, 42 U.S.C. 1996 – 1996a; 43 CFR Part 7

* Antiquities Act of 1906, 16 U.S.C. 431-433; 43 CFR Part 3
* Archaeological Resources Protection Act of 1979, 16 U.S.C. 470aa – 470mm; 18 CFR Part 1312; 32 CFR Part 229; 36 CFR Part 296; 43 CFR Part 7
* National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470-470x-6; 36 CFR Parts 60, 63, 78, 79, 800, 801, and 810
* Paleontological Resources Protection Act, 16 U.S.C. 470aaa – 470aaa-11
* Native American Graves Protection and Repatriation Act, 25 U.S.C. 3001-3013; 43 CFR Part 10
* Executive Order 11593 – Protection and Enhancement of the Cultural Environment, 36 Fed. Reg. 8921 (1971)
* Executive Order 13007 – Indian Sacred Sites, 61 Fed. Reg. 26771 (1996).]

***Description of Environmental Trends and Planned Actions***

**Impacts on Affected Resource**

[Incorporate by reference any Section 106 compliance done. Make sure to address compliance with any relevant sources of law, discussed above, not covered in the Section 106 discussion.]

[if this action “permits the use, occupancy, or disposition of public land” then a Section 810 analysis is required]

#### **Alternative A**

#### **Alternative B**

#### **Alternative C**

## **Refuge Management and Operations**

### **Land Use on the Refuge**

[This section may address land use, land cover within the refuge, buildings/infrastructure and their function, relevant roadways and traffic on and adjacent to the refuge.]

#### **Affected Environment**

***Description of Affected Environment for the Affected Resource***

[Describe the refuge’s land uses and infrastructure as relevant to the action]

***Description of Environmental Trends and Planned Actions***

[For example, are there planned actions nearby that could contribute to traffic? Is the increase likely to hit at the same times and in the same places as traffic increases caused by the proposed action and alternatives?

Then, describe impacts/effects of the proposed action that could add cumulatively to impacts of the existing environmental trends and planned actions, as well as past actions, on kand uses and infrastructure. These cumulative impacts are important to analyze because even if the proposed action has minor impacts in isolation it could potentially cause significant impacts in combination with these other existing or foreseeable future impacts.]

**Impacts on Affected Resource**

[This section should discuss the direct and indirect impacts of the proposed action and/or alternatives on the refuge’s land and infrastructure. For example, will there be increased traffic on roads through the refuge that will impact management and operations of the refuge? Will there be any conflicts with, prescribed fire, or any habitat restoration projects?]

##### **Alternative A**

##### **Alternative B**

##### **Alternative C**

### **Administration**

#### **Affected Environment**

***Description of Affected Environment for the Affected Resource***

[This section should generally address the refuge staff (e.g., how many employees, general positions) and general budget of the refuge. It should also discuss any current time and funding spent on proposed action.]

***Description of Cumulative Impacts, Environmental Trends, and Planned Actions***

[For example, are there any planned actions of a state agency that, while not a formal coordination or collaboration, could mean more or less time/funding/staff needed for hunting and fishing administration?

Then, describe impacts/effects of the proposed action that could add cumulatively to impacts of the existing environmental trends and planned actions, as well as past actions. These cumulative impacts are important to analyze because even if the proposed action has minor impacts in isolation it could potentially cause significant impacts in combination with these other existing or foreseeable future impacts.]

**Impacts on Affected Resource**

[This section should discuss direct and indirect impacts of the hunting/fishing program under each alternative (e.g., the staff responsible for overseeing or enforcing hunt/fish program and any help from the state, as well as the cost of each action to the refuge)]

##### **Alternative A**

##### **Alternative B**

##### **Alternative C**

## **Socioeconomics**

### **Local and Regional Economies**

#### **Affected Environment**

***Description of Affected Environment for the Affected Resource***

[This section should describe the local and regional economy in the area of the refuge. It should also include any information on how important hunting/fishing and general visitation to the refuge is to the local or regional economy. If applicable, this section should also discuss any other sectors of the local economy that could be impacted by the proposed action (e.g. tourism and guiding services).]

***Description of Cumulative Impacts, Environmental Trends, and Planned Actions***

**Impacts on Affected Resource**

[This section should discuss direct and indirect impacts of the proposed action under each alternative (e.g., additional visitation to the refuge, increase in local expenditures,).]

##### **Alternative A**

##### **Alternative B**

##### **Alternative C**

### **Environmental Justice**

#### **Affected Environment**

***Description of Affected Environment for the Affected Resource***

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities.

[Describe any minority or low-income populations surrounding the refuge. A recommended resource to get this information is the headwaters economic tool: <https://headwaterseconomics.org/tools/usfws-indicators/>]

***Description of Cumulative Impacts, Environmental Trends, and Planned Actions***

[Describe any adverse environmental trends or planned actions affecting these populations that are directly relevant to the proposed action on the refuge.

Then, describe impacts/effects of the proposed action that could add cumulatively to impacts of the existing environmental trends and planned actions, as well as past actions. These cumulative impacts are important to analyze because even if the proposed action has minor impacts in isolation it could potentially cause significant impacts in combination with these other existing or foreseeable future impacts.]

**Impacts on Affected Resource**

[Describe any direct or indirect adverse human health or environmental impacts of the proposed action or alternatives on these populations and measures to mitigate any such impacts.]

##### **Alternative A**

##### **Alternative B**

##### **Alternative C**

# **Monitoring**

[Please list monitoring that is done to ensure that the proposed action continues to have no significant adverse direct, indirect, or cumulative impacts on the environment.

*Note: You should always describe any monitoring being done as part of the action. Since we use an adaptive management strategy as part of all programs in the Service to ensure no significant impacts, you must include what monitoring you are doing to ensure that action will not have significant impacts. This can be just part of your daily management efforts on the refuge, and/or a more formal monitoring plan.* *If you have a completed Inventory and Monitoring Plan, DO NOT include additional biological monitoring that the plan does not already commit to and describe.*]

# **Summary of Analysis**

## **Alternative A – [Short Title of Action (e.g., Current Management Strategies)] – [No Action Alternative]**

As described above, [concisely summarize the impacts of this alternative here, taking mitigation into account. Again, keep your audience in mind (i.e., what are the important beneficial impacts of this alternative compared to your proposed action and what are the adverse impacts of this alternative compared to your proposed action).]

Describe the extent to which this alternative would satisfy the Purpose and Need (listed above). For example, “This alternative also meets the purpose and needs of the Service as described above because it would [restore hydrology on the refuge/provide additional wildlife-dependent recreation opportunities/ increase safety of refuge staff and visitors].

## **Alternative B – [Short Title of Proposed Action (i.e., Herbicide Treatment)] – [Proposed Action Alternative]**

As described above, [concisely summarize impacts here, taking mitigation into account. When writing this section, keep your audience in mind (i.e., what is most important information a member of the public should have after reading this EA regarding the impacts of the proposed action and alternatives). For example, “the proposed action’s potential impacts to visitor use and services includes waterfowl……l. However, the refuge will …. to minimize the impacts to...”]

Describe the extent to which this alternative would satisfy the Purpose andNeed (above). For example, “This alternative helps meet the purpose and needs of the Service as described above because it would [restore hydrology on the refuge/provide additional wildlife-dependent recreation opportunities/ increase safety of refuge staff and visitors]. The Service has determined that the proposed action is compatible with the purposes of [Refuge Name] and the mission of the NWRS. The Compatibility Determination is attached (Appendix X).”]

## **Alternative C – [Short Title of Alternative (i.e., Mechanical Treatment)]**

As described above, [concisely summarize the impacts of this alternative here, taking mitigation into account. Again, keep your audience in mind (i.e., what are the important beneficial impacts of this alternative compared to your proposed action and what are the adverse impacts of this alternative compared to your proposed action).]

Describe the extent to which this alternative would satisfy the Purpose and Need (above). For example, “This alternative also meets the purpose and needs of the Service as described above because it would [….].]

# **List of Sources, Agencies and Persons Consulted**

[Include Tribes, other federal agencies, state, county, and local agencies, non-governmental organizations, Service personnel.]

# **List of Preparers**

[List names and position of author(s)]

# **State Coordination**

[This should include meetings held and any relevant communications with the state.]

# **Tribal Consultation**

[This should include any letters sent offering consultation, meetings held, and any relevant communications with any tribe.]

# **Public Outreach**

[You should keep the description brief and focused on how the overall process was conducted. This section should include any public outreach done during the scoping period as well as any planned public outreach for the draft EA. For example, it is sufficient to say that public meetings will be held during the public review period but it isn’t necessary to include details such as the specific meeting dates and locations or the number of expected attendees.]

# **Determination**

*This section will be filled out upon completion of the public comment period and at the time of finalization of the Environmental Assessment.*

☐The Service’s action will not result in a significant impact on the quality of the human environment. See the attached **“Finding of No Significant Impact”.**

☐The Service’s action **may significantly affect** the quality of the human environment and the Service will prepare an Environmental Impact Statement.

# **Signatures**

**Submitted By:**

**Project Leader Signature:**

**Date:**

**Concurrence:**

**Refuge Supervisor Signature:**

**Date:**

**Approved:**

**Regional Chief, National Wildlife Refuge System Signature:**

**Date:**

# **References**

[*These are all the references for discussion of lead and climate change in the section on Affected Environment and Environmental Consequences. Please update or revise as necessary. Use Consistent Formatting.*

# **Appendix A**

[This Appendix lists all applicable statutes, regulations, and executive orders not otherwise addressed in this EA, as well as how the proposed action and EA analysis comply with each and any additional compliance steps taken by FWS.

[Delete any sources of law from this list that do not apply. Add additional sources of law when necessary]

**Cultural Resources**

American Indian Religious Freedom Act, as amended, 42 U.S.C. 1996 - 1996a; 43 CFR Part 7

[Explain how requirements met and any compliance steps]

Antiquities Act of 1906, 16 U.S.C. 431-433; 43 CFR Part 3

[Explain how requirements met and any compliance steps]

Archaeological Resources Protection Act of 1979, 16 U.S.C. 470aa-470mm; 18 CFR Part 1312; 32 CFR Part 229; 36 CFR Part 296; 43 CFR Part 7

[Explain how requirements met and any compliance steps]

National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470-470x-6; 36 CFR Parts 60, 63, 78, 79, 800, 801, and 810

[Explain how requirements met and any compliance steps]

Paleontological Resources Protection Act, 16 U.S.C. 470aaa-470aaa-11

[Explain how requirements met and any compliance steps]

Native American Graves Protection and Repatriation Act, 25 U.S.C. 3001-3013; 43 CFR Part 10

[Explain how requirements met and any compliance steps]

Executive Order 11593 – Protection and Enhancement of the Cultural Environment, 36 Fed. Reg. 8921 (1971)

[Explain how requirements met and any compliance steps]

Executive Order 13007 – Indian Sacred Sites, 61 Fed. Reg. 26771 (1996)

[Explain how requirements met and any compliance steps]

**Fish and Wildlife**

Bald and Golden Eagle Protection Act, as amended, 16 U.S.C. 668-668c, 50 CFR 22

[Explain how requirements met and any compliance steps]

Endangered Species Act of 1973, as amended, 16 U.S.C. 1531-1544; 36 CFR Part 13; 50 CFR Parts 10, 17, 23, 81, 217, 222, 225, 402, 450

[Explain how requirements met and any compliance steps]

Fish and Wildlife Act of 1956, 16 U.S.C. 742a-m

[Explain how requirements met and any compliance steps]

Lacey Act, as amended, 16 U.S.C. 3371 et seq.; 15 CFR Parts 10, 11, 12, 14, 300, and 904

[Explain how requirements met and any compliance steps]

Migratory Bird Treaty Act, as amended, 16 U.S.C. 703-712; 50 CFR Parts 10, 12, 20, and 21

[Explain how requirements met and any compliance steps]

Executive Order 13186 – Responsibilities of Federal Agencies to Protect Migratory Birds, 66 Fed. Reg. 3853 (2001)

[Explain how requirements met and any compliance steps]

**Natural Resources**

Clean Air Act, as amended, 42 U.S.C. 7401-7671q; 40 CFR Parts 23, 50, 51, 52, 58, 60, 61, 82, and 93; 48 CFR Part 23

[Explain how requirements met and any compliance steps]

Wilderness Act, 16 U.S.C. 1131 et seq.

[Explain how requirements met and any compliance steps]

Wild and Scenic Rivers Act, 16 U.S.C. 1271 et seq.

[Explain how requirements met and any compliance steps]

Alaska Native Interests Lands Conservation Act 94 Stat. 2371

[Explain how requirements met and any compliance steps]

# **Appendix B**

[Use appendices for your Plan, Map(s), , etc.]

# **Appendix C**

[Use appendices for your Plan, Map(s), etc.]