

U.S. Fish and Wildlife Service

Draft Environmental Assessment

**Fishing Program for the Iowa River Corridor
Project**

Port Louisa National Wildlife Refuge

**Regional Director Region 3, U. S. Fish and Wildlife
Bloomington, MN 55111**

Abstract: The United States Fish and Wildlife Service (Service) proposes to provide compatible fishing opportunities for game fish species on the Iowa River Corridor Project (IRCP) of Port Louisa National Wildlife Refuge located within 3 counties in east central Iowa. This draft environmental assessment evaluates three possible alternatives for fishing opportunities. The preferred alternative will establish compatible fishing opportunities while providing visitors with other priority public use opportunities i.e. hunting, wildlife observation, wildlife photography, environmental education and interpretation. The entire IRCP includes Service owned lands, Iowa Department of Natural Resources lands, and Natural Resources Conservation Service wetland easements. This environmental assessment involves only those lands owned in fee title by the Service. A fishing plan is being developed pursuant to the selection of an alternative. The general goals of a fishing program are to:

1. Provide safe and enjoyable fishing that is compatible with the IRCP purposes.
2. Provide quality angling opportunities that minimize conflict with other public use activities.
3. Contribute to a consistent regulatory framework across the patchwork of public and private holdings in the IRCP.
4. Provide opportunities to fish for species consistent with the laws and regulations of the State of Iowa that do not adversely affect local or regional populations, and are consistent with the 1997 National Wildlife Refuge System Improvement Act.

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CHAPTER 1. PURPOSE AND NEED FOR ACTION

SECTION 1.1 Purpose

The purpose of this Environmental Assessment is to evaluate alternatives for opening and administering a fishing program on the fee title lands in the Iowa River Corridor Project (IRCP) of Port Louisa National Wildlife Refuge (Refuge).

SECTION 1.2 Need

Providing compatible wildlife-dependent recreation and educational activities on units of the National Wildlife Refuge System is a U.S. Fish and Wildlife Service (Service) priority. The National Wildlife Refuge System Administration Act of 1966 (Act) as amended by the National Wildlife Refuge System Improvement Act of 1997 (16 U.S.C. 668dd et seq.) provides authority for the Service to manage the Refuge and its wildlife populations. In addition, it declares that compatible wildlife-dependent public uses are legitimate and appropriate uses of the Refuge System that are to receive priority consideration in planning and management. There are six wildlife-dependent public uses: hunting, fishing, wildlife observation, wildlife photography, environmental education and interpretation. The Act directs managers to facilitate recreational opportunities, including hunting and fishing, on National Wildlife Refuges when compatible with the purposes for which each Refuge is established and with the mission of the National Wildlife Refuge System.

Iowa River Corridor lands were added to the refuge after record flooding in 1993. The Iowa Department of Natural Resources (IADNR) manages the refuge lands under a Memorandum of Understanding (MOU) with the Service. Lands were originally opened to fishing in 1995 and 1996 as lands were turned over to IADNR management under the MOU. The 1995 environmental assessment and finding of no significant impact (U.S. Fish and Wildlife Service) prepared for acquisition anticipated increased recreational opportunities including hunting, trapping, and fishing. A formal opening package for fishing on refuge lands was therefore not completed at that time. Compatibility determinations were done in 2004 to assess these activities on selected refuge units, but no formal plans had been developed. A draft fishing plan will be developed pursuant to alternatives in this Environmental Assessment, and will be incorporated into an overall Visitor Services Plan for the IRCP once completed.

Continuing these activities is desirable by refuge management and by the Iowa Department of Natural Resources (IADNR). A fishing plan and associated documents are now needed to define how hunting would be applied and managed in order to continue or modify these activities. Fishing on the IRCP would allow refuge staff to manage fish populations at acceptable levels, provide wildlife-dependent recreational opportunities for the public, and promote a better understanding and appreciation of floodplain habitats and their associated fish and wildlife resources. Implementation of the preferred alternative would be consistent and compatible with the Refuge Recreation Act, Refuge Administration Act, and the Environmental Assessment for the establishment of the IRCP (U.S. Fish and Wildlife Service 1995). In addition, implementation of the preferred alternative would promote a consistent regulatory framework across the patchwork of public and private lands in the corridor.

SECTION 1.3 Decisions That Need To Be Made

This Environmental Assessment was prepared to evaluate the environmental consequences of a fishing program on fee title lands of the IRCP, Port Louisa NWR in Benton, Iowa, and Tama Counties. Three alternatives are presented in this document:

- Alternative A: No Action – Continue fishing on the IRCP consistent with state and federal regulations. (Preferred Alternative)
- Alternative B: Restrict fishing to specific events, such as for youth or disabled anglers.
- Alternative C: Close the IRCP to fishing.

Alternatives considered but not pursued further were:

- Alternative B2. Restrict fishing to specific species. This alternative would not contribute to regulatory consistency across state, federal, and private lands in the corridor; would create confusion for recreational users, and would create enforcement issues for conservation agents in the field. It would also not allow population management for some species through the use of fishing.
- Alternative B3. Restrict fishing to specific dates and times. This alternative would also not contribute to regulatory consistency across state, federal, and private lands in the corridor; and would create enforcement issues for conservation agents in the field.

The Regional Director, U. S. Fish and Wildlife Service, Bloomington, Minnesota, is the official responsible for determining the action to be taken in the proposal by choosing an alternative. He will also determine whether this Environmental Assessment (EA) is adequate to support a Finding of No Significant Impact (FONSI) decision, or whether there is a significant impact on the quality of the human environment, thus requiring the preparation of an Environmental Impact Statement (EIS).

SECTION 1.4 Background

The IRCP was established after the flood of 1993 to provide relief to floodplain landowners along the Iowa River and advance sound national policy for floodplain management. The IRCP is a partnership between the IADNR, the USDA Natural Resources Conservation Service (NRCS), and the Service. The IRCP is located in 3 counties in east-central Iowa (Figure 1) and is a mix of riverine aquatic, wetland, grassland, and floodplain forest habitat types (Figure 2). The Service issued a Final Environmental Assessment and Finding of No Significant Impact for U.S. Fish and Wildlife Service Proposed Land Acquisition in the IRCP, dated July 20, 1995.

The authority for acquisition of these lands was the Emergency Wetland Resources Act of 1986 (16 U.S.C. 3901). The purpose of these refuge lands is therefore the conservation of the wetlands of the nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions. The environmental assessment for land acquisition (U.S. Fish and Wildlife Service 1995) also outlined the purposes of:

1. Providing habitat for migratory birds and endangered species.
2. Improving the natural diversity of the ecosystem through restoration and protection of floodplain habitat.
3. Providing an alternative to levee reconstruction and reclaiming damaged farmland.
4. Increasing public opportunities for outdoor recreation, such as hunting or fishing, and environmental education compatible with the preceding purposes.

Currently, there are approximately 9,300 acres of land acquired by the Service within a proposed 15,000 acre acquisition area. The IRCP is intended to permanently preserve wetland, grassland, and forested habitats within the historic floodplain of the Iowa River. The IRCP contributes to goals for ecosystem conservation and restoration, threatened and endangered species recovery, neotropical migrant bird conservation, biological diversity, and wildlife oriented public recreation.

The total area in the IRCP focus area is approximately 50,000 acres along a 45 mile section of the Iowa River in Tama, Benton, and Iowa Counties. Service lands are intermingled with USDA easements and land owned by IADNR. The IADNR manages the refuge lands under a Memorandum of Understanding (MOU), most recently signed in 2001. Lands are managed as part of the Iowa River Corridor Wildlife Management Area. In November of 2012 a draft Comprehensive Management Plan (CMP) was developed by the IADNR, per the terms of the MOU between that agency and the Service to address future management of the IRCP, including visitor services. A draft Fishing Plan is a step down plan of the CMP, and as such, will contain more detailed information describing the potential fishing program on the IRCP. The Fishing Plan will also be incorporated into a future Visitor Services Plan.

Most of the Service fee title lands overlay USDA wetland easements. There is a mixture of easements on private lands, DNR lands, and FWS lands (Figure 1). The IRCP began with disastrous floods and subsequent programs to enroll eligible landowners into various easement programs such as the Emergency Wetland Resources Program and the Wetland Reserve Program that are designed to return farmland to wetlands. The purpose of the easements are to restore, protect, and maintain the functional values of wetlands and other eligible lands for wildlife habitat, water quality improvement, flood water retention, groundwater recharge, open space, aesthetic values, and environmental education. NRCS developed restoration plans under a plan of operations for each easement. Prohibitions under the easement include construction of structures, planting for harvest any agricultural commodity, manipulation of the easement area which would have an adverse effect on the hydrology, and alteration of the wildlife habitat or other natural land features of the easement area. Improvements for environmental education such as parking lots, interpretive signing, and observation decks are allowed on these easements. Hunting, fishing, and trapping are also allowed on easement lands. Vehicle use, except for management and inspection purposes is not allowed on easements. Annual management plans and reports have been used to determine that management and uses on refuge lands are compatible with the USDA easements. Fishing has been occurring on easement lands and the Service and IADNR regularly coordinate with NRCS.

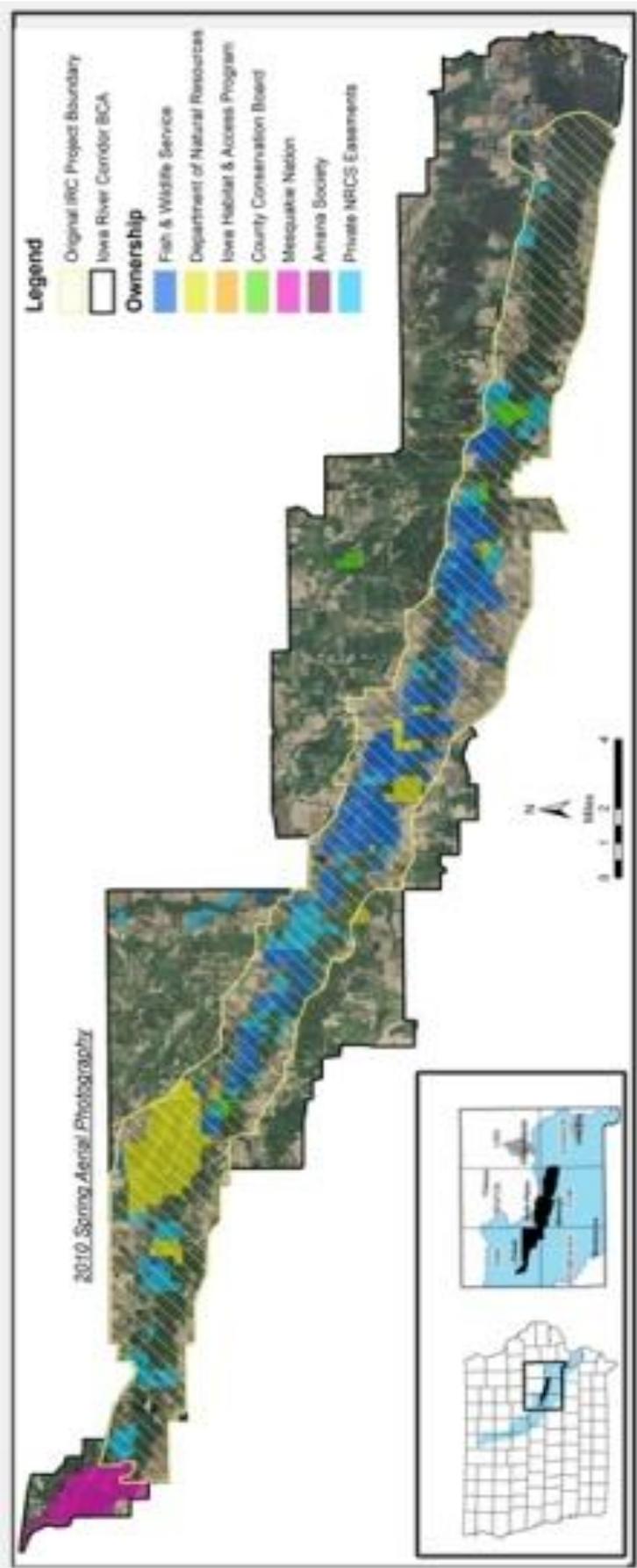


Figure 1. Location and land ownerships within the Iowa River Corridor Project.

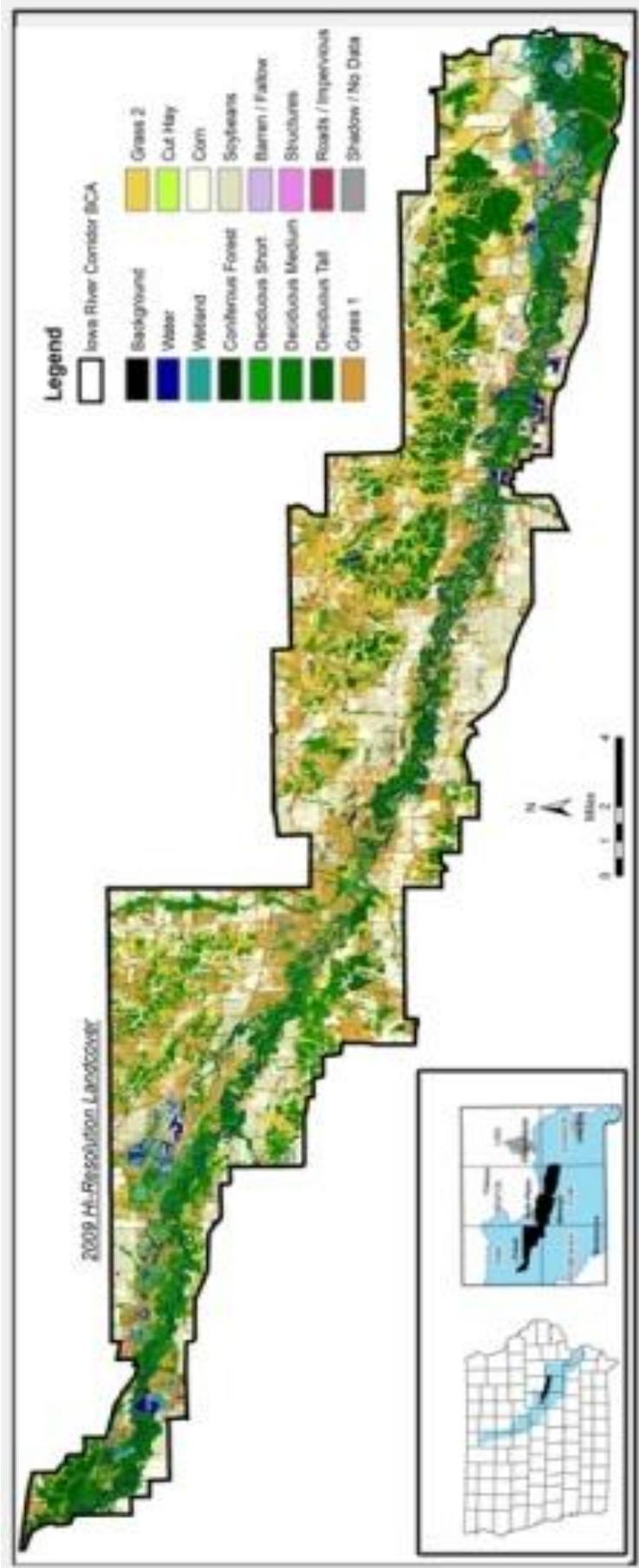


Figure 2. Landcover within the Iowa River Corridor.

CHAPTER 2. PROPOSED ACTION AND THE ALTERNATIVES

SECTION 2.1 Alternatives Eliminated From Detailed Study

Alternative B2. Restrict fishing to specific species. This alternative would not contribute to regulatory consistency across state, federal, and private lands in the IRCP; would create confusion for recreational users, and would create enforcement issues for conservation agents in the field. It would also not allow population management for some species through the use of fishing.

Alternative B3. Restrict fishing to specific dates and times. This alternative would also not contribute to regulatory consistency across state, federal, and private lands in the IRCP; confuse recreational users; and would create enforcement issues for conservation agents in the field.

SECTION 2.2 Alternatives Carried Forward for Detailed Analysis

This Environmental Assessment is prepared to evaluate the environmental consequences of allowing fishing on refuge fee title lands within the IRCP. The following criteria were used in developing alternatives:

1) The area(s) selected for fishing is(are) large enough to support the anticipated quantity, frequency, and duration of angler use without adversely affecting game populations or habitat conditions within the area; 2) Angler access does not require travel across private lands or closed government lands; 3) Sites are available for anglers to park their vehicles legally and in a manner that will not adversely affect the habitat in the unit or existing public travel routes; 4) Public fishing will not have adverse effects on any federally listed or species of concern; and 5) Fishing can be conducted without jeopardizing public safety.

The refuge manager, after consulting with the IADNR, may establish specific regulations for an individual unit to ensure the above requirements are met. Certain units or portions of units may remain closed or be periodically closed to fishing if the refuge manager determines that there are specific habitat, wildlife protection, and/or public safety needs that require establishing sanctuary areas.

Fishing would be conducted in accordance with all applicable state and federal regulations. Coordination with IADNR biologists will promote continuity and understanding of Service and state resource goals and objectives, and will help assure that the decision-making process takes into account all interests. With the foregoing background, three alternatives are presented in this document:

Alternative A: No Action – Continue fishing on the IRCP consistent with state and federal regulations. (Preferred Alternative)

Alternative B: Restrict fishing to specific events, such as for youth or disabled anglers.

Alternative C: Close the IRCP to fishing.

2.2.1 Alternative A: No Action Alternative (Preferred Alternative)

This alternative would allow fishing of game species, including turtles and frogs on all fee title lands within the IRCP in accordance with the fishing seasons and regulations set by the State of

Iowa. Considerations would not be made on a tract by tract or unit by unit basis. Fishing would be conducted in accordance with all applicable state and federal regulations. Coordination with IADNR biologists will promote continuity and understanding of Service and state resource goals and objectives, and will help assure that the decision-making process takes into account all interests.

Under alternative B, the Service would continue to purchase conservation easements and fee title properties. Planning for and implementing habitat restoration activities would continue to enhance these areas. Management of existing habitats for wetlands and wildlife would continue. These actions would be carried out in cooperation with volunteers and partners.

2.2.2 Alternative B: Reduce fishing to only allow fishing on fee title lands within the IRCP for anglers with disabilities and/or youth, consistent with Iowa State regulations and refuge-specific regulations.

This alternative would only allow fishing through special events for underserved populations on the IRCP in accordance with the fishing seasons and regulations set by the State of Iowa.

Under alternative B, the Service would continue to purchase conservation easements and fee title properties. Planning for and implementing habitat restoration activities would continue to enhance these areas. Management of existing habitats for wetlands and wildlife would continue. These actions would be carried out in cooperation with volunteers and partners.

2.2.3 Alternative C: Restrict fishing on all fee title lands within the IRCP.

Under this alternative, there would be no fishing on fee title lands. The refuge units would continue to serve as habitat for wildlife and provide for five of the compatible wildlife dependent public uses – hunting, wildlife observation, photography, environmental education, and interpretation. Some populations, such as invasive carp, would continue to grow and possibly increase to levels that result in damage to habitat for other species. Under this alternative, the public would not be able to participate in a compatible wildlife-dependent public use. Local expenditures from angler use of the area would decrease.

Under alternative C, the Service would continue to purchase conservation easements and fee title properties. Planning for and implementing habitat restoration activities would continue to enhance these areas. Management of existing habitats for wetlands and wildlife would continue. These actions would be carried out in cooperation with volunteers and partners.

Table 1 below summarizes the actions that are anticipated under each alternative. Detailed discussion of the environmental impacts of each alternative can be found in Chapter 4. Some of the issues carried into the impact assessment are described in more detail in Chapter 4.

Section 2.3. Table 1. Alternative Action Table

Action	Alternative A (No Action Alternative)	Alternative B Reduced Fishing	Alternative C Eliminate Fishing
Species allowed to fish	Largemouth and smallmouth bass, walleye, sauger, Northern pike, bluegill, crappie, catfish, bullhead, buffalo, carp and species as outlined in state regulations	Same as alternative A	None
Compatible with Refuge & IRCP Goals and Purpose	Yes. Provides for priority public uses and maintains healthy fish populations to benefit the IRCP floodplain ecosystem.	Yes. Provides for priority public uses and contributes to, but puts limitations on, maintaining healthy populations to benefit the IRCP ecosystem.	No, fishing was identified as a goal in acquisition EA and management plans.
Provides for Priority Public Uses	Yes. Provides for fishing opportunities.	Partially. Provides for limited fishing opportunities.	Yes, but only provides for 5 of 6 priority public uses.
Fishing and non-fishing uses segregated	No. Doesn't separate uses, conflicts possible, but deemed minimal. If conflicts exist, unit manager would be able to close an area or unit to alleviate conflicts.	No. Doesn't separate uses, conflicts possible, but deemed minimal. If conflicts exist, unit manager would be able to close an area or unit to alleviate conflicts.	Yes. Does not allow fishing and therefore no conflict exists with non-fishing activities.
Meets needs identified by public and partners	Yes. Maximizes fishing opportunities as identified by most public and partners.	Yes. Creates fishing opportunities, but fewer than identified by most public and partners.	No. Does not maximize fishing opportunities as identified by most public and partners.

CHAPTER 3 AFFECTED ENVIRONMENT

SECTION 3.1 Physical Characteristics

3.1.1. Location

The 50,000 acre Iowa River Corridor study area is an approximate 45 mile stretch of the Iowa River in Benton, Iowa, and Tama Counties in east central Iowa (Figure 1). The majority of lands in the floodplain of the Iowa River within this boundary are considered part of the Service approved acquisition area for the IRCP.

3.1.2. Geomorphic/Physiographic

The IRCP lies near the northern border of the geologic landform region known as the Southern Iowa Drift Plain. It is adjacent to the Iowan Surface which was formerly a part of the pre-Illinoian Southern Iowa Drift Plain, but redefined in subsequent glaciations. The Iowa River is flat and winding through the IRCP, with a wide floodplain that is abundant with wetlands, sloughs, and backwater oxbows. The Iowa River rises in Hancock County, Iowa, and drains about 4,375 square miles above the confluence of the Cedar River in southeastern Iowa. The Basin is covered by deposits from two of the earliest glacial sheets, the Nebraskan and Kansan.

3.1.3. Climate

The Iowa River Basin has a typical humid continental climate. At Toledo, Iowa, near the upper end of the planning area, the average daily high temperatures vary from the low 80 degrees Fahrenheit during the summer months to the mid-twenties during the winter. Annual precipitation at Toledo averages 34 inches.

3.1.4. Hydrologic Resources

The Service recently completed a Water Resource Inventory and Assessment (WRIA) Summary Report for the IRCP that describes and summarizes current hydrologic information, provides an assessment of water resource needs, identifies issues of concern, and makes recommendations regarding Refuge water resources (U.S. Fish and Wildlife Service 2012). The WRIA is a reconnaissance-level effort intended to inventory and assess water rights, water quantity, water quality, water management, climate, and other water resource issues for each refuge.

The IRCP is located within the Middle Iowa River HUC (0780208). Entering the IRCP at the upstream boundary, the drainage area is 1,896 sq. miles. The mean annual discharge at this point is 1,034.3 cubic feet per second (ft³/s), varying from 381 ft³/s to 1,890 ft³/s (Littin & McVay, 2008). A brief evaluation of the flow lines available from the National Hydrologic Dataset within the acquired units indicated roughly 57 km of streams, rivers or artificial flow paths. The Iowa River was approximately 11.3 km of this total. The new flood of record occurred in 2008.

Wetland identification and categorization for this area was completed using color infrared aerial photography from 2002 (1:40,000). The primary wetland types were identified from the National Wetlands Inventory (NWI) for the acquired units within the IRCP. The most common wetland types included: freshwater emergent (2500 acres), freshwater forested or shrub (1950 acres), freshwater pond (177 acres) and riverine (250 acres).

A water quality and biological assessment was performed by the U.S. Geological Survey for the Meskwaki Nation in 2006 and 2007. That assessment included three sites on the Iowa River. Results of that assessment indicated that nitrates exceeded the U.S. Environmental Protection Agency's primary drinking water Maximum Contaminant Level of 10µg/L; however none of the

samples analyzed for pesticides, trace metals, wastewater, or fuel contaminants were found to exceed drinking water regulations for the USEPA or State of Iowa targeted constituents (Littin & McVay, 2008). The periphyton community was sampled to provide an indicator of nutrient enrichment or trophic condition. Results indicated that the surface water could be considered nutrient enriched. This would not be unexpected given the agricultural land use throughout the Iowa River basin.

3.1.5. Soils

The floodplain within the Iowa River Corridor is part of the Colo-Bremer-Nevin-Nodoway association. Slopes range from 0 to 2 percent and drainage ranges from very poorly drained to well drained soils. Much of the area is subject to frequent or occasional flooding and is also subject to sedimentation. Based on rough estimates, about 60% of the IRCP floodplain is comprised of hydric soils and soils with hydric inclusions (U.S. Fish and Wildlife Service 2012).

3.1.6. Minerals and Energy Resources

There are no known minable deposits of energy or mineral resources within the Iowa River Corridor area. Some riverine sand deposits may be economically recoverable.

SECTION 3.2 Natural Resources

3.2.1. Habitat

Habitat in the Iowa River Corridor is a mixture of riverine and seasonal wetlands, riparian and floodplain forest, grassland, and early successional scrub/shrub habitat. Restoration of grasslands to native prairie species and restoration of wetlands has occurred since acquisition. Tree plantings have taken place as well. Prescribed burning is a primary management tool for maintaining grasslands. The floodplain habitats in the IRCP have management challenges associated with invasive reed canary grass (*Phalaris arundinacea*) and encroachment by early successional species like willow.

The primary wetland types were identified from the NWI for the acquired units within the IRCP. The most common wetland types included: freshwater emergent (2500 acres), freshwater forested or shrub (1950 acres), freshwater pond (177 acres) and riverine (250 acres). Approximately 82 wetlands were restored by the NRCS since easements were established after the 1993 floods using ditch plugs, tile plugs, and dikes. A few water control structures were placed on some wetlands. There are opportunities for additional wetland restorations or enhancements to further restore hydrology.

Most of the forest habitat is located in a band along the Iowa River near washes and oxbows. Much of the forested area consists of tracts of former crop and pastureland, which is now dominated by silver maples, with cottonwood as a minor species. Silver maples have diameters up to 30 cm and seem to be arranged in age classes. A few small burr oak groves, remnants perhaps of the “groves” reported in pre-settlement times, remain throughout the IRCP. The flood of 1993 caused great damage to mast producing hardwoods, such as the oaks and walnuts. In 1994, timber harvesting was active in the IRCP to recover any marketable wood. Vegetation cover mapping for the IRCP identified about 2800 acres of woodland. Current management includes some timber stand improvement and tree planting with maintenance of new tree plantings.

Vegetation cover mapping by the Iowa DNR identified about 2000 acres of native grassland and about 2000 acres of non-native grassland, primarily invasive reed canary grass. Much of the

native grassland was planted in the first 10 years after acquisition. Initial seed mixes did not include a high number of species, and forbs were sometimes excluded to allow chemical control of weeds during establishment. Consequently, many of the native grasslands are predominantly warm season grasses. Restoration is still occurring with more diverse seed mixes and there is more potential for grassland restoration. Additional acres have been planted in the last few years. Current management includes prescribed fire and mowing to reduce encroaching woody vegetation and promote diversity.

3.2.2. Land Use

Currently, the land use within the Service acquisition boundary is approximately 31% wetlands, 30% cultivated crops and 24% herbaceous vegetation based on the 2006 National Land Cover Database (NLCD; Homer 2004, Xian 2009). However, land use and land cover in the Iowa-Cedar watershed is primarily agricultural with about 93 percent of the total area used for cropland or pasture (<http://iowacedarbasin.org/>). Land is largely privately owned in the watershed. The principal crops are corn, soybeans, hay, and oats. The remaining land area consists of about 4 percent forests, about 2 percent urban and about 1 percent water and wetlands (<http://iowacedarbasin.org/>). This land use greatly affects the hydrology and habitats within the IRCP.

3.2.3. Fish.

The fisheries resource is primarily restricted to the river and a few shallow oxbow ponds. The Iowa River in the IRCP is one of the more productive portions of this river due to the absence of channelization. Channel and flathead catfish are the dominant game fish in this section of the river. Northern pike, walleye, saugeye, crappie, white bass and black bullhead are species of moderate abundance. Bluegill, yellow bass, largemouth and smallmouth bass are not as common. Non-game species are dominated by common carp, bigmouth and smallmouth buffalo, river carpsucker, gizzard shad, minnow species (brassy, flathead, bluntnose and suckermouth), spotfin, common shiner, creek and silver chub. The river also contains mussel species common to Iowa's interior rivers (IADNR 2012).

During 2007, data were collected on aquatic communities within the Meskwaki Nation at the upstream boundary of the IRCP to provide a baseline assessment of stream conditions (Littin and McVay 2008). Three of the sample sites included the Iowa River. Data were used to develop Indices of Biological Integrity for fish, benthic macroinvertebrates, and periphyton. Based on the samples in 2007, the fish community was rated in fair condition, and the benthic macroinvertebrate community was rated as good. The periphyton data is used as an indicator of water condition and was discussed under Hydrologic Resources preceding.

3.2.4 Wildlife

The Iowa River floodplain wetlands and woodlands provide an important interior corridor for migratory birds. Migratory waterfowl numbers have exceeded 25,000 ducks at Otter Creek marsh during fall. Nesting mallards, blue winged teal, wood ducks and Canada geese are common. Resident game species include a variety of upland bird and small and big game mammals common to the area. Turkey populations continue to grow and spread along the river. White-tailed deer populations remain high in the corridor. Muskrats, mink, raccoon and coyote population are high while beavers are on the increase.

The Iowa River Corridor was designated as a Bird Conservation Area in 2004, and is also an Audubon Important Bird Area. Over 130 species are confirmed or likely breeders on the corridor and 80% of Iowa's 85 Bird Species of Greatest Conservation Need occur here.

3.2.5 Threatened and Endangered Species and Species of Special Concern

The project area includes important habitat for a number of species identified in the Iowa Natural Areas Inventory (INAI). Certain habitat types required by some of these species are not present on the IRCP. There are two active bald eagle nests in the Corridor. In 1992, the first successful nesting sandhill cranes in Iowa since the early 1900's occurred at Otter Creek marsh. The pair has successfully reared young every year since. Table 2 provides the current county species lists from the INAI website.

The only recorded occurrences within the IRCP of federal threatened and endangered species are for the Indiana bat (*Myotis sodalist*) in Tama County. The potential exists in all three IRCP counties for Indiana bats, prairie bush clover (*Lespedeza leptostachya*), and Western prairie fringed orchid (*Platanthera praeclara*). Habitat for Indiana bats is caves, mines (hibernacula); small stream corridors with well-developed riparian woods; upland forests (foraging). Prairie bush clover occurs in dry to mesic prairies with gravelly soil and the orchid occurs in wet prairies and sedge meadows. All of these habitats, except caves, occur in the IRCP but there are no known occurrences of these species. There are no remnant original prairies.

Table 2. Species identified in the Iowa Natural Areas Inventory. Federally threatened or endangered species are indicated by an asterisk.

	Tama County	Benton County	Iowa County
Mammals	Indiana bat* <i>Myotis sodalis</i>	Plains Pocket Mouse <i>Perognathus flavescens</i>	
Birds	Bald eagle <i>Haliaeetus leucocephalus</i>	Bald eagle <i>Haliaeetus leucocephalus</i>	Bald eagle <i>Haliaeetus leucocephalus</i>
	Barn owl <i>Tyto alba</i>	Red-shouldered hawk <i>Buteo lineatus</i>	Henslow's sparrow <i>Ammodramus henslowii</i>
	Short-eared owl <i>Asio flammeus</i>		
Reptiles	Blanding's turtle <i>Emydoidea blandingii</i>	Blanding's turtle <i>Emydoidea blandingii</i>	Ornate box turtle <i>Terrapene ornata</i>
	Ornate box turtle <i>Terrapene ornata</i>	Ornate box turtle <i>Terrapene ornata</i>	Wood turtle <i>Clemmys insculpta</i>
	Smooth green snake <i>Liochlorophis vernalis</i>	Wood turtle <i>Clemmys insculpta</i>	Smooth green snake <i>Liochlorophis vernalis</i>
		Smooth green snake <i>Liochlorophis vernalis</i>	
Fish		American brook lamprey <i>Lampetra appendix</i>	Topeka shiner <i>Notropis topeka</i>
		Black redhorse <i>Moxostoma duquesnei</i>	Weed shiner <i>Notropis texanus</i>
		Blacknose shiner <i>Notropis heterolepis</i>	
		Weed shiner <i>Notropis texanus</i>	
		Western sand darter <i>Ammocrypta clara</i>	
Mussels		Cylindrical papershell <i>Anodontoidea ferussacianus</i>	
		Ellipse <i>Venustaconcha ellipsiformis</i>	
Insects			Regal fritillary <i>Speyeria idalia</i>
			Two-spotted skipper <i>Euphyes bimacula</i>
Plants	Missouri lambsquarters <i>Chenopodium missouriensis</i>	Bent milkvetch <i>Astragalus distortus</i>	Earleaf foxglove <i>Tomanthers auriculata</i>
	Sensitive briar <i>Schrankia nuttallii</i>	Bog Willow <i>Salix pedicellaris</i>	Fineberry hawthorn <i>Crataegus chrysocarpa</i>
	Softleaf arrow-wood <i>Viburnum molle</i>	Sage Willow <i>Salix candida</i>	Flat top white aster <i>Aster pubentior</i>

	Glomerate sedge <i>Carex aggregata</i>	Cleft phlox <i>Phlox bifida</i>	Fogg's Goosefoot <i>Chenopodium foggii</i>
	Green Adder's mouth <i>Malaxis unifolia</i>	Kitten tails <i>Besseyia bullii</i>	Hill's thistle <i>Cirsium hillii</i>
	Large-leaf pondweed <i>Potamogeton amplifolius</i>	Lance-leaved violet <i>Viola lanceolata</i>	Low bindweed <i>Calystegia spithamea</i>
	Muskroot <i>Adoxa moschatellina</i>	Muskroot <i>Adoxa moschatellina</i>	Pink milkwort <i>Polygala incarnata</i>
	Oval ladies' tresses <i>Spiranthes ovalis</i>	Narrowleaf pinweed <i>Lechea intermedia</i>	Spring avens <i>Geum vernum</i>
	Showy ladies' slipper <i>Cypripedium reginae</i>	Slender copperleaf <i>Acalypha gracilens</i>	Tunnel-formed penstemon <i>Penstemon tubiflorus</i>
	W Prairie fringed orchid* <i>Platanthera praeclara</i>	Swamp thistle <i>Cirsium muticum</i>	Violet <i>Viola macloskey</i>
		Sweet Indian plantain <i>Cacalia suaveolens</i>	E Prairie fringed orchid* <i>Platanthera leucophaea</i>
		Green's rush <i>Juncus greenei</i>	Glomerate sedge <i>Carex aggregata</i>
		Small white lady's slipper <i>Cypripedium candidum</i>	Great Plains lady's tresses <i>Spiranthes magnicamporum</i>
		Cotton grass <i>Eriophorum angustifolium</i>	Green Adder's mouth <i>Malaxis unifolia</i>
		Yellow-eyed grass <i>Xyris torta</i>	Showy ladies' slipper <i>Cypripedium reginae</i>
		Ledge spikemoss <i>Selaginella rupestris</i>	Slender ladies' tresses <i>Spiranthes lacera</i>
		Northern adder's tongue <i>Ophioglossum pusillum</i>	Slender sedge <i>Carex tenera</i>
		W Prairie fringed orchid* <i>Platanthera praeclara</i>	W Prairie fringed orchid* <i>Platanthera praeclara</i>
			Crowfoot clubmoss <i>Lycopodium digitatum</i>
			Ground pine <i>Lycopodium clavatum</i>
			Woodland horsetail <i>Equisetum sylvaticum</i>

Section 3.3. Cultural Resources

No National Historic Landmarks are located within the IRCP boundaries. The Iowa Historic Preservation Officer has identified 76 known archaeological sites within the floodplain of the Iowa River. A few of these sites occur within the boundary of the IRCP. Specific projects that have the potential to disturb resources are reviewed on a case by case basis.

Section 3.4. Local Socio-Economic Conditions

The IRCP area of interest is approximately 50,000 acres, and stretches along 45 miles of the Iowa River, from Tama to the Amana Colonies in Benton, Iowa, and Tama Counties. Refuge lands are located near the towns of Belle Plaine, Marengo, and Tama and are approximately 75 miles east of Des Moines and 31 miles west of Iowa City, Iowa. The Service owns about 9300 acres and IADNR about 4200 acres. Figure 1 shows public ownership in the IRCP. Easements that have remained in private ownership are also shown on Figure 1 and make up 5111 acres with 52 easements.

The most recent U.S. census data for IRCP counties is shown in Table 3. Important industry types in Tama, Benton, and Iowa Counties include agriculture, manufacturing and health care.

Table 3. Data from U.S. Census Bureau websites.

	Benton County	Iowa County	Tama County
Population	26,076	16,355	17,767
Race	97% white non-Hispanic	96% white non-Hispanic	84% white, 7.5% American Indian, 7.8% Hispanic or Latino
Per Capita income	39,066	37,797	35,046

The IRCP provides outdoor recreation opportunities including several wildlife-dependent activities: wildlife observation, photography, hiking, hunting, and fishing. The IRCP is also a valuable location for conducting outdoor environmental education related activities.

The financial impact of National Wildlife Refuges is reported in the Banking on Nature report (U.S. Fish and Wildlife Service 2007). Using findings from 80 national wildlife refuges considered typical in terms of the nation's recreation interests and spending habits, the report analyzed recreational participation in, and expenditures for freshwater fishing, saltwater fishing, migratory bird hunting, small game hunting, big game hunting, and non-consumptive activities, including wildlife observation. Calculation of the total economic activity included money spent for food, lodging, and transportation. Trempealeau NWR, a refuge on the Mississippi river, similar to Port Louisa NWR in size and recreational opportunities, but with more visitations, was included in the report. Economists found total visitor recreation expenditures were \$804,600 with non-residents accounting for \$476,200 or 59 percent of total expenditures. Expenditures on non-consumptive activities accounted for 99 percent of all expenditures. Recreational activities included birding and other non-consumptive uses, hunting, and fishing. In addition, local economic effects associated with recreation were estimated at about \$1,000,000.

Economic benefits from wildlife-associated recreation, including fishing, are reported every 5 years by the U.S. Fish and Wildlife Service. The 2011 National Survey of fishing, hunting, and

wildlife-associated recreation (U.S. Fish and Wildlife Service 2012) found \$277,999,000 in fishing, \$405,451,000 in hunting, and \$711,186,000 in wildlife-watching total expenditures in Iowa for residents and non-residents. The 2011 Survey found that 1.25 million Iowa residents and nonresidents 16 years old and older fished, hunted, or watched wildlife in Iowa. Of the total number of participants 473,000 fished, 253,000 hunted, and 837,000 participated in wildlife watching activities, which include observing, feeding, and photographing wildlife. The IRCP provides an important place in Iowa for these recreational economic expenditures. For Iowa, total expenditures for fishing in the 2011 survey were \$277,299 (U.S. Fish and Wildlife Service 2012).

CHAPTER 4. ENVIRONMENTAL CONSEQUENCES

This chapter describes the foreseeable environmental consequences of implementing the three management alternatives in Chapter 2. When detailed information is available, a scientific and analytic comparison between alternatives and their anticipated consequences is presented, which is described as “impacts” or “effects.” When detailed information is not available, those comparisons are based on the professional judgment and experience of refuge staff and Service and State biologists.

SECTION 4.1 Alternative A: Preferred Alternative – Continue fishing on the IRCP consistent with state and federal regulations.

Under this alternative, all of the fee title tracts of the IRCP would remain open to fishing under state of Iowa seasons and regulations. Table 4 displays the species and dates for fishing in Iowa.

4.1.1 Habitat Impacts

Fishing access, in most cases, will be by foot access only. Parking will be restricted to designated parking lots. Impacts on vegetation should be temporary and similar to that occurring from non-consumptive users. Anglers with disabilities will utilize existing gravel roads and trails and be accommodated by permit on a case by case basis. Habitat impacts would not change from current conditions.

4.1.2 Biological Impacts

The harvest of fish species will be in accordance with Federal regulations and limits set by the state of Iowa. The IADNR regulates fishing on inland rivers and has determined that the Iowa River has a typical assemblage of fish species and habitat that supports fishing as outlined in Iowa fishing regulations (IADNR fisheries biologist – pers. comm.). IADNR stocks river strain walleyes in the IRCP stretch of the Iowa River, and walleyes are stocked in the Coralville Reservoir just below IRCP lands.

Other fish or wildlife not being harvested may be disturbed by anglers accessing fishing locations. They may flush or move wildlife as the animals try to avoid human contact. This disturbance will be similar to the disturbance animals experience on state Wildlife Management Areas and will be minimal and temporary in nature. Management of the refuge under the Comprehensive Management Plan (IADNR 2012) ensures annual monitoring and management of habitats to support fish and wildlife populations.

4.1.3 Listed Species

No effect is expected for any federally listed threatened or endangered species or their critical habitat. A consultation pursuant to Section 7 of the Endangered Species Act was conducted as part of this EA. A finding of “No Effect” was determined. No impacts are anticipated for state listed species.

4.1.4 Historic Properties and Cultural Resources

There are no historical properties documented on current refuge lands. Fishing is not expected to cause ground disturbance or disturbance to standing structures and will have no effect on any historic properties located on lands acquired in the future. The addition of facilities associated with hunting and fishing would undergo individual cultural resources reviews by the Service.

Table 4. State of Iowa fishing information.

BLACK BASS Largemouth, Smallmouth, Spotted bass combined
Season: All waters – Continuous except for Iowa boundary waters listed on p.23
Daily Bag & Possession Limit: All Inland Waters and Interior Streams and River Impoundments – combined daily 3 and possession of 6. See page 23 for Boundary lakes
Black Bass continued
Inland Waters*
Length Limits – public lakes, including Coralville, Rathbun, Saylorville and Red Rock reservoirs – 15-inch minimum except as otherwise posted; special regulations are posted at:
A. 16-inch minimum at Swan Lake (Carroll)
B. 18-inch minimum at lakes Ada Hayden (Story); Ahquabi, Hooper (Warren); Big Creek, Thomas Mitchell, Yellow Banks (Polk); Casey (Tama); Green Valley (Union); Hendricks (Howard); Krumm (Jasper); Little Wall (Hamilton); Mill Creek (O’Brien); Pahoja (Lyon); Pleasant Creek (Linn); Smith (Kossuth); South Prairie (Black Hawk)
C. Catch and release only at lakes Brown (Jackson) and Wapello (Davis)
D. All 12 to 16-inch fish must be immediately released at Lake Hawthorn (Mahaska)
E. All 12 to 18-inch fish must be immediately released at Lake Sugema (Van Buren)
Interior Streams and River Impoundments
Length Limits – 12 inch minimum except all black bass caught from the following stream segments must be released alive immediately:
A. Cedar River (Mitchell) extending downstream from below the Otranto Dam as posted to the bridge on county road T26 south of St. Ansgar
B. Maquoketa River (Delaware) extending downstream from below Lake Delhi Dam as posted to the first county gravel road bridge
C. Middle Raccoon River (Guthrie) extending downstream from below Lennon Mills Dam as posted to the dam at Redfield
D. Upper Iowa River (Winnesheik) extending downstream from the Fifth Avenue bridge in Decorah as posted to the upper dam
Boundary Rivers**
Daily Bag & Possession Limit: Boundary Rivers – combined daily 5 and possession of 10
Length Limits – 14-inch minimum on the Mississippi River and 12-inch minimum length limit on the Missouri River . Associated chutes and backwaters of the border rivers are included where intermittent or constant flows occur. No length limit on the Big Sioux River. Browns Lake Mississippi River is catch and release only.
BLUEGILL, CRAPPIE & PUMPKINSEED
Season: All Waters - Continuous.
Length Limits: All waters - None
Daily Bag and Possession Limits
Inland Waters* - 25 daily for bluegill and 25 daily for crappie on public waters and no possession limit for either. No daily limit for bluegill or crappie on private waters. See p. 23 for Boundary lakes.
Boundary rivers** - Missouri and Big Sioux Rivers – None. Mississippi River and connected backwaters; daily limit of 25 and possession limit of 50 for each of the following: bluegill and pumpkinseed combined, and crappie.
CATFISH Channel, Blue, Flathead catfish combine and Bullhead
Season: All waters – Continuous except for catfish on areas described on p. 23
Length Limits: All waters - None
CATFISH Continued
Daily Bag and Possession Limits
Inland lakes – Catfish combined daily 8 and possession 30, except for Iowa border lakes listed on p. 23 No limit for bullheads
Inland streams, Coralville, Rathbun, Red Rock and Saylorville reservoirs – Catfish combined daily 15 and combined possession 30. No limit for bullheads
Boundary rivers** - same as streams except no bag or possession limit on the Mississippi River
FROGS , except for the endangered crayfish frog
Season: All waters - Continuous

Length Limits: All waters - None
Daily Bag & Possession Limits: All waters – All frogs except bullfrogs and crayfish frogs combined daily: 48 and possession: 96. Bullfrogs combined daily and possession: 12. Crayfish frogs are protected as an endangered species. See p. 21.
MUSKELLUNGE including Hybrids (Tiger)
Season: All waters – continuous except there is a closed season on West Okoboji, East Okoboji and Spirit Lakes (Dickinson) from Dec. 1 through May 20, each year.
Length Limits: All waters – 40 inches minimum length limit
Daily Bag & Possession Limits: All waters – Daily and possession of 1
MUSSELS All mussels except for those listed as threatened or endangered (p21 and the zebra mussel (p. 26). The angler is responsible for the identification of mussels in possession.
Season: All waters – Continuous but the taking of mussels is restricted to the hours between sunrise and sunset.
Length Limit: All waters – None.
Daily Bag & Possession Limit: Inland waters*, Missouri River and Big Sioux River – Only dead shells may be harvested. Mississippi River and connected backwaters, live and dead shells may be harvested. The possession limit for all waters is 24 whole mussels or 48 shell halves. See p.17 “Mussel Taking”.
NORTHERN PIKE
Season: All waters – Continuous except there is a closed season for those areas described on p. 23.
Length Limit: All waters - None
Daily Bag & Possession Limit: Inland waters* - Daily of 3 and possession of 6. For Boundary lakes, see p. 23. Boundary Rivers** - Daily of 5 and possession of 10 on the Mississippi and Missouri Rivers and a daily of 6 and possession of 12 on the Big Sioux River.
PADDLEFISH
Season: All waters – Continuous except: Paddlefish snagging is not permitted in the 13 areas closed to snagging (p. 20). The open season on the Mississippi River is March 1 through April 15. Snagging for paddlefish on the Mississippi River is restricted to the area within 500 yards below the navigation dams and their spillways. No hooks larger than 5/0 treble or measuring more than 1 ¼ inch in length when two of the hook points are placed on a ruler is permitted when snagging. See p. 43. The season is closed year-round on the Missouri or Big Sioux Rivers and any tributary of these rivers within 200 yards immediately upstream of their confluence
Length Limits: None, except for the Mississippi River where a 33 – inch maximum length limit shall apply; and paddlefish measuring 33 inches or more when measured from the front of the eye to the fork of the tail must be immediately released alive. (See illustration on p. 13)
Daily Bag & Possession Limit: All waters – daily of 2 and possession of 4.
SHOVELNOSE STURGEON (Identification p. 37)
Season: All waters – Continuous except no harvest allowed in Big Sioux River.
Length Limit: All waters – None.
Daily Bag & Possession Limit: All waters – None, except the daily bag limit is 10 and possession limit is 20 in the Missouri River. The sale of eggs is not permitted with a sport fishing license.
THREATENED AND ENDANGERED SPECIES (p. 21)
Season: All waters - Closed
TROUT (Identification p. 36)
Season: All waters - Continuous
Length Limit: None, except a 14-inch length limit applies to all trout in Spring Branch Creek (Delaware), from the spring source to County Hwy D5X as posted, and on brown trout only in portions of Bloody Run Creek (Clayton) where posted.
Daily Bag & Possession: All waters – Combined daily of 5 and possession of 10.
Catch & Release Only: All trout caught from the posted portion of Hewett and Ensign Creeks (Clayton); McLoud Run (Linn), South Pine Creek (Winneshiek); and Waterloo Creek (Allamakee); and brown trout caught from French Creek (Allamakee) must be released alive immediately.

Special restrictions: Artificial Lure Only: Fishing in the posted areas of Bloody Run Creek, Ensign Creek, French Creek, Hewett Creek, McCloud Run, South Pine Creek, Spring Branch Creek and Waterloo Creek must be by artificial lure only. Artificial lure means lures that do not contain or have applied to them any natural or man-made substance designed to attract fish by the sense of taste or smell.
YELLOW BASS, WHITE BASS, ROCK BASS
Season: All waters* - Continuous
Length Limit: All waters - None
Daily Bag & Possession: Inland waters* - None, except for white bass for lakes listed on p. 23.
Boundary rivers* - Missouri and Big Sioux Rivers - None, Mississippi River and connected backwaters: daily bag limit of 25 and possession limit of 50 for each of the following: white and yellow bass combined, and rock bass.
WALLEYE Sauger, Saugeye (Identification p. 34)
Inland Waters
Season: Continuous except on West Okoboji, East Okoboji and Spirit Lakes (Dickinson) and Iowa Boundary Lakes listed on p 23. The open season on West Okoboji, East Okoboji and Spirit Lakes is from May 5, 2012 through Feb. 14, 2013.
Length Limit: None except for the special lakes listed below.
Special Walleye Restrictions: The following lakes have a daily bag limit of 3 and possession limit of 6 in addition to special length restrictions. Big Creek Lake (Polk) 15-inch minimum length limit and no more than one walleye longer than 20 inches may be taken per day; Black Hawk Lake (Sac) 15-inch minimum length limit; Clear Lake (Cerro Gordo) 14-inch minimum, and no more than one walleye longer than 22 inches may be taken per day; Storm Lake (Buena Vista) and West Okoboji, East Okoboji, Spirit, Upper Gar, Minnewashta, Lower Gar (Dickinson) all 17 to 22-inch walleyes must be immediately released alive and no more than one walleye longer than 22 inches may be taken per day.
Boundary Rivers
Season: Boundary rivers** - Continuous
Length Limit: Boundary rivers** A 15-inch minimum length limit applies to walleye on all pools of the Mississippi River . In addition, all walleye from 20 to 27 inches caught from below Lock and Dam 11 at Dubuque to the Missouri State line, must be immediately released alive, and no more than one walleye above 27 inches may be taken per day on these pools.
Daily Bag & Possession Limit: Boundary rivers** - Mississippi River combined daily 6 and combined possession of 12. Big Sioux and Missouri Rivers – combined daily of 4 and possession of 8.
YELLOW PERCH
Season: All waters- Continuous
Length Limit: All waters - None
Daily Bag & Possession Limits: All waters – Daily of 25 and possession of 50 except there is no daily or possession limit on the Missouri River . For Boundary Lakes , see p. 23.
ALL OTHER FISH except threatened and endangered species
Season: All waters - Continuous
Length Limits: All waters - None
Daily Bag & Possession Limits: All waters – None

*Inland waters of the state include all interior lakes and streams including: Green Island Lake and Slough (Jackson), Middle and Upper Sabula (Jackson) and Lake Odessa (Louisia).

**Boundary rivers of the state include the Mississippi, Missouri, Des Moines and Big Sioux and their backwater lakes and sloughs.

Continuous open season on frogs. A valid sport fishing license allows taking and possession of a maximum of 100 pounds of live turtles or 50 pounds of dressed turtles. Residents can take common snapping turtles, softshells, and painted turtles.

4.1.5 Cumulative Impact Analysis of Alternative A

4.1.5.A Anticipated Direct and Indirect Impact on Aquatic Species

The Service has allowed public fishing since acquisition of refuge lands began in 1995. The Service has determined that this use is compatible with the purposes of the NWRS mission statement. During the acquisition period through today, the Service and IADNR have not noted any significant adverse effects of fishing on regulated populations.

The fishing program for IRCP will be similar and consistent with the program administered by the Service at Port Louisa NWR. The allowance of fishing on the refuge will expose the largest user group to IRCP habitats and facilitate a better appreciation and understanding of the floodplain ecosystem which was a purpose given in the EA for land acquisition (U.S. Fish and Wildlife Service 1995). Increased public understanding will increase the success of floodplain preservation and restoration efforts.

Game Fish

Each year, IADNR sells about 400,000 fishing licenses. In 2011, IADNR sold 2053 general resident fishing licenses in Benton County, 1295 in Iowa County, and 1324 in Tama County. Some of these anglers likely fish on the IRCP lands. Fish populations are actively managed by the IADNR. Through surveys and monitoring, the state develops length limits and bag limits to keep populations healthy and provide for various age classes of fish. Although fishing is expected to annually reduce local populations by a small amount, overall populations in the IRCP are expected to remain the same as a result of this alternative. Habitat changes and weather may affect population numbers more than harvest. The number of anglers is not expected to change with this alternative.

Non-game fish

Non-game fish are typically not desirable to anglers and if caught incidentally, are often put back into the water. Some species, such as carpsuckers and gizzard shad, are abundant and are not typically affected by incidental harvest. Several minnow species occur in the Iowa River, but are not likely to be caught on hook and line. However, minnows and gizzard shad can be taken for bait for individual use. This use is minor, however. Most non-game fish are impacted more by habitat changes than by angling. Species listed by the state of Iowa as threatened and endangered that cannot be harvested in Iowa are: Lake Sturgeon, Pallid Sturgeon, Pugnose Shiner, Weed Shiner, Pearl Dace, Freckled Madtom, Bluntnose Darter, Least Darter, American Brook Lamprey, Chestnut Lamprey, Grass Pickerel, Blacknose Shiner, Western Sand Darter, Black Redhorse, Burbot, Orangethroat Darter, Topeka Shiner. Most of these species do not occur in the Iowa River in the IRCP.

Other aquatic species

Other aquatic species such as frogs, toads, turtles, mussels, aquatic invertebrates, birds, and mammals may be temporarily disturbed by fishing or the means of access to fish such as motorboats or wading. This disturbance is minor and there are no known impacts to these populations from fishing in this area. Frogs and turtles may be taken under Iowa law. Live mussels may not be harvested from the Iowa River. No impacts to the habitat of other aquatic species are expected from public fishing other than occasional bank disturbance.

4.1.5.B Anticipated Direct and Indirect Impact on Refuge Programs, Facilities, and Cultural Resources

Other Refuge Wildlife-Dependent Recreation

Most other recreational visits occur from April into December for the purpose of hunting, bird watching and other wildlife observation. Most hunting occurs in the fall with spring turkey hunting also popular. Environmental education and interpretation also occur on these units, but to a lesser degree than wildlife observation. The majority of the environmental education and interpretation activities occur in the spring, summer and early fall. This is also when most fishing occurs, but since fishing occurs in specific habitats, the uses are typically separated spatially. Conflicts with fishing are expected to be minimal. Varied public uses have taken place in the IRCP for many years and the Service and IADNR have experienced few conflicts between anglers and non-anglers engaging in wildlife observation, environmental education and interpretation.

This alternative will give the public the opportunity to participate in another wildlife-oriented activity that is compatible with the purposes for which the refuge was established and develop an increased awareness of the IRCP and the National Wildlife Refuge System. The Service will be meeting public use demand and public relations will be enhanced with the local communities.

Refuge Facilities

Fishing may occur by boat or from the bank. Current facilities are gravel or grass parking lots and access roads. There is one observation deck. There are boat ramps on adjacent state and county lands. Few, if any, additional impacts to Refuge facilities (roads, parking lots, and trails) will occur with this alternative. Refuge facilities would receive the same use as currently and impacts are minimal. Annual maintenance of facilities is a routine part of management. Any maintenance or improvement of existing roads and parking areas will cause minimal short term impacts to localized soils and may cause some temporary wildlife disturbance.

Physical developments to accommodate the public's use and enjoyment of these refuge lands will generally be limited to small parking areas, informational and educational signs, and access roads. On some units, short hiking trails and wildlife observation areas may be developed.

Disturbance by vehicles will be limited to existing parking areas. Special access accommodations for persons with disabilities can be allowed, utilizing existing gravel or native surface trails on the refuge. These accommodations will be made on a case by case basis by permit by the onsite manager.

Cultural Resources

This alternative will not have any additional impacts to cultural resources. No sites listed on the National Register of Historic Places are located on fee title tracts within the designated boundaries of the refuge. Fishing activities will result in no ground disturbance or disturbance to standing structures and would have no effect on any historic properties.

4.1.5.C Anticipated Direct and Indirect Impact on Refuge Environment and Community

Refuge personnel expect no measurable adverse impacts of Alternative A on the refuge environment which includes soils, vegetation, air quality, water quality and solitude. Some disturbance to surface soils and vegetation would occur in some areas, however these disturbances would be minimal. Access would also be controlled to minimize habitat degradation.

As a result of this alternative, expenditures by visitors for meals, lodging and transportation would remain the same in the communities where these refuge lands are located since fishing is already occurring. According to the 2011 National Survey of Fishing, Hunting, and Wildlife Associated Recreation, anglers spent \$100 million in Iowa on fishing trip-related expenses (U.S. Fish and Wildlife Service 2012) and \$278 million total on fishing. In addition, Iowa residents spent \$712 million on wildlife watching activities in 2011. Municipalities and community organizations could bring additional tourism revenues into their economies by establishing partnerships with the Service to develop and promote the recreational opportunities that are available on the IRCP lands surrounding their communities.

During its history, the Service has not observed any substantial adverse effects of this fishing program on the goals of the IRCP, and has determined that this use is compatible with the purposes of the IRCP and the NWR System's mission statement.

Impacts of this alternative on the refuge physical environment would have minimal to negligible effects. Some disturbance to surface soils, topography, and vegetation would occur in areas open to fishing, and is expected to be minimal. Refuge regulations do not permit the use of vehicles off of designated Refuge roads. Vehicles for anglers with disabilities would be confined to existing roads and parking lots.

Impacts to the natural hydrology would be negligible. The Refuge staff expects impacts to air and water quality to be minimal and only due to refuge visitor's use of automobiles on adjacent township and county public roads. The effect of these refuge-related activities on overall air and water quality in the region are anticipated to be negligible. Existing state water quality criteria and use classifications are adequate to achieve desired on-refuge conditions; thus, implementation of this alternative would not impact adjacent landowners or users beyond the constraints already implemented under existing state standards and laws. Impacts associated with solitude are expected to be minimal given the limited time, season, and space management techniques used to avoid conflicts among user groups.

Public fishing has not resulted in any significant adverse effects on the soils, vegetation, air and water quality, solitude, or Service management activities associated with IRCP lands. Since fishing has already been occurring, this alternative should not impact the area's economy either positively or negatively. The Preferred Alternative would have similar minimal to negligible effects on human health and safety.

There is a potential to have some minimal disturbance on the general public, nearby residents, and refuge visitors. The disturbance factor is considered minimal, as the refuge already has fishing taking place on hundreds of acres of federal and state properties, and on thousands of acres of private property.

4.1.5.D Other Past, Present, Proposed, and Reasonably Foreseeable Fishing programs and Anticipated Impacts

Fishing has been allowed on IRCP lands since they were acquired. If public use levels expand in the future, unanticipated conflicts between user groups may occur. Service experience has proven that time and space zoning can be an effective tool in eliminating conflicts between user

groups. No expansion of use is proposed, but on a case by case basis, the onsite manager, in consultation with the Project Leader, will determine if such a tool is necessary to limit conflicts.

4.1.5.E Anticipated Impacts If Individual Fishing Events Are Allowed To Accumulate

Fishing events are basically constituted by individual anglers visiting the refuge lands. These events are sporadic and numbers fluctuate depending on season, river levels, and weather. These events should not provide any impacts beyond what has been discussed elsewhere in the analysis. National Wildlife Refuges conduct or will conduct fishing programs within the framework of State and Federal regulations. The Preferred Alternative is at least as restrictive as the State of Iowa and in some cases, may be more restrictive. By maintaining fishing regulations that are as, or more, restrictive than the State's, individual refuges ensure that they are maintaining seasons which are supportive of management on a regional basis. This EA was reviewed by the IADNR. Additionally, refuges coordinate with the state annually to maintain regulations and programs that are consistent with the States' management program.

Fishing in the IRCP will have minimal impacts to fish populations on the Iowa River or in Iowa. The majority of these lands were open to fishing before being acquired by the Service. There may be a slight increase in the number of fish taken on refuge lands from when these lands were in private ownership simply because they are open to more people. However, the large amount of acreage spreads the use out.

Refuge personnel expect and witness that most anglers respect spacing needs and will essentially regulate themselves. User conflicts might occur between non-consumptive users and anglers. This is not expected, since the uses are typically spatially separated.

4.1.6. Environmental Justice

Executive Order 12898 "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" was signed by President Bill Clinton on February 11, 1994, to focus federal attention on the environmental and human health conditions of minority and low-income populations with the goal of achieving environmental protection for all communities. The Order directed federal agencies to develop environmental justice strategies to aid in identifying and addressing disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. The Order is also intended to promote nondiscrimination in federal programs substantially affecting human health and the environment, and to provide minority and low-income communities with access to public information and participation in matters relating to human health or the environment. This assessment has not identified any adverse or beneficial effects unique to minority or low-income populations in the affected area. This alternative will not disproportionately place any adverse environmental, economic, social, nor health impacts on minority or low-income populations.

The Refuge Recreation Act of 1962 (16 U. S. C. 460K) and the National Wildlife Refuge System Administration Act of 1966 (16 U. S. C. 668-ddee) provide authorization for hunting and fishing on National Wildlife Refuges. The effects of hunting and fishing on refuges have been examined in several environmental review documents, including the Final Environmental Impact Statement on the Operation of the National Wildlife Refuge System (1976), Recommendations on the Management of the National Wildlife Refuge System (1978), and the Draft Environmental Impact Statement on the Management of the National Wildlife Refuges (1988). Nothing in the

establishing authority for the IRCP [Emergency Wetland Resources Act of 1986] precludes fishing on the refuge.

In the 1995 IRCP Final Environmental Assessment developed for the acquisition of these lands, the selected alternative (Alternative 3) stated one of the acquisition objectives for the expressed purposes of increasing public opportunities for outdoor recreation, such as hunting or fishing, and environmental education compatible with the other refuge purposes listed (see chapter 1).

Fishing accounts for many of the visits to the IRCP. The continued allowance of fishing on the refuge will expose public user groups to floodplain habitats and facilitate a better appreciation and understanding of this ecosystem. This will increase the success of floodplain preservation and restoration efforts.

As stated, public fishing has been allowed on IRCP lands and adjacent DNR lands since acquisition. During this period, public fishing has not resulted in any significant adverse effects on the Service's management activities. Potential public use conflicts will be minimized by seeking a balance between the consumptive and non-consumptive uses and/or by closing areas where conflict cannot be avoided by other means. Maintaining current fishing opportunities will reduce confusion between the patchworks of different lands in the IRCP.

SECTION 4.2 Alternative B: Restrict Fishing to Special Events for Youth or Disabled Anglers.

Special fishing events would typically be for youth or disabled anglers. Special fishing events would be allowed on all IRCP lands unless safety or access considerations limit areas that could be open.

4.2.1 Habitat Impacts

Fishing access, in most cases, will be by foot access only. This alternative may reduce habitat impacts from current, since there would be fewer overall anglers. However, special events would concentrate users and managers would need to plan to use areas where habitat impacts would be minimal. Parking will be restricted to designated parking lots. Impacts on vegetation should be temporary and similar to that occurring from non-consumptive users. Anglers with disabilities will utilize existing gravel roads and trails and be accommodated by permit on a case by case basis.

4.2.2 Biological Impacts

The harvest of fish species will be in accordance with Federal regulations and limits set by the state of Iowa. Harvest under this alternative would be more concentrated to specific events so that harvest may be higher at a particular time, but overall would likely be reduced from current harvest. The IADNR regulates fishing on inland rivers and has determined that the Iowa River has a typical assemblage of fish species and habitat that supports fishing as outlined in Iowa fishing regulations (IADNR fisheries biologist – pers. comm.). The IADNR does stock river strain walleyes in the IRCP stretch of the Iowa River and walleyes are stocked in the Coralville Reservoir just below IRCP lands.

Other fish or wildlife not being harvested may be disturbed by anglers accessing fishing locations. They may flush or move wildlife as the animals try to avoid human contact. This

disturbance will be similar to the disturbance animals experience on state Wildlife Management Areas and will be minimal and temporary in nature. Management of the refuge under the Comprehensive Management Plan (IADNR 2012) ensures annual monitoring and management of habitats to support fish and wildlife populations.

4.2.3 Listed Species

No effect is expected for any federally listed threatened or endangered species or their critical habitat. A consultation pursuant to Section 7 of the Endangered Species Act was conducted as part of this EA and the updated Fishing Plan. A finding of “No Effect” was determined. No impacts are anticipated to state listed species.

4.2.4 Historic Properties and Cultural Resources

There are no historical properties documented on current refuge lands. Fishing is not expected to cause ground disturbance or disturbance to standing structures and will have no effect on any historic properties located on lands acquired in the future. The addition of facilities associated with fishing would have individual cultural resources review.

4.2.5 Cumulative Impact Analysis of Alternative B

4.2.5.A Anticipated Direct and Indirect Impact of Alternative B on Wildlife Species

The Service has allowed public fishing since acquisition of refuge lands began in 1995. The Service has determined that this use is compatible with the purposes of the NWRS mission statement. During the acquisition period through today, the Service and IADNR have not noted any significant adverse effects of fishing on regulated populations.

The allowance of fishing for events for underserved populations will increase appreciation and understanding of IRCP habitats and the floodplain ecosystem for this user group, but may reduce the overall exposure of the public to IRCP lands. This increase in exposure and understanding of the ecosystem was a purpose given in the EA for land acquisition (U.S. Fish and Wildlife Service 1995). Increased public understanding will increase the success of floodplain preservation and restoration efforts and this benefit may be reduced under this alternative.

Game Fish

Each year, IADNR sells about 400,000 fishing licenses. In 2011, IADNR sold 2053 general resident fishing licenses in Benton County, 1295 in Iowa County, and 1324 in Tama County. Some of these anglers likely fish on the IRCP. Fish populations are actively managed by the IADNR. Through surveys and monitoring, the state develops length limits and bag limits to keep populations healthy and provide for various age classes of fish. Although fishing is expected to annually reduce local populations by a small amount, overall populations in the IRCP are expected to remain the same as a result of this alternative. Habitat changes and weather may affect population numbers more than harvest. The number of anglers would decrease under this alternative.

Non-game fish

Non-game fish are typically not desirable to anglers and if caught incidentally, are often put back into the water. Some species, such as carpsuckers and gizzard shad, are abundant and are not typically affected by incidental harvest. Several minnow species occur in the Iowa River, but are not likely to be caught on hook and line. However, minnows and gizzard shad can be taken for bait for individual use. This use is minor, however. Most non-game fish are impacted more by

habitat changes than by angling. Species listed by the state of Iowa as threatened and endangered that cannot be harvested in Iowa are: Lake Sturgeon, Pallid Sturgeon, Pugnose Shiner, Weed Shiner, Pearl Dace, Freckled Madtom, Bluntnose Darter, Least Darter, American Brook Lamprey, Chestnut Lamprey, Grass Pickerel, Blacknose Shiner, Western Sand Darter, Black Redhorse, Burbot, Orangethroat Darter, Topeka Shiner. Most of these species do not occur in the Iowa River in the IRCP.

Other aquatic species

Other aquatic species such as frogs, toads, turtles, mussels, aquatic invertebrates, birds, and mammals may be temporarily disturbed by fishing or the means of access to fish such as motorboats or wading. This disturbance is minor and there are no known impacts to these populations from fishing in this area. Frogs and turtles may be taken under Iowa law. Live mussels may not be harvested from the Iowa River.

4.2.5.B Anticipated Direct and Indirect Impact of Alternative B on Refuge Programs, Facilities, and Cultural Resources, Other Refuge Wildlife-Dependent Recreation

Most other recreation visits occur from April into December for the purpose of hunting, bird watching and wildlife observation. Environmental education and interpretation also occur on these units, but to a lesser degree than wildlife observation. Hunting primarily occurs in the fall with spring turkey hunting also popular. The majority of the environmental education and interpretation activities occur in the spring, summer and early fall. Most fishing would occur in spring, summer, and fall, but since fishing occurs in specific habitats, the uses are typically separated spatially. Under this alternative, special fishing events would be planned and controlled so that conflicts with fishing are expected to be minimal. Varied public uses have taken place in the IRCP for many years and the Service has experienced few conflicts between anglers and non-anglers engaging in wildlife observation, environmental education and interpretation.

This alternative will give the public the opportunity to participate in another wildlife-oriented activity that is compatible with the purposes for which the refuge was established and have an increased awareness of the IRCP and the National Wildlife Refuge System. The Service will be meeting some public use demand, but not all.

A reduced fishing program on refuge lands would likely cause confusion among the public since this would be different than adjacent state lands. It would also make law enforcement more difficult to have some areas open and some only partially open.

Refuge Facilities

Fishing may occur by boat or from the bank. Currently, facilities consist of gravel or grass parking lots and access roads. There is one observation deck for viewing wildlife, but it does not provide access to fishing. Boat ramps are available on adjacent DNR lands. Few, if any, additional impacts to refuge facilities (roads, parking lots, and trails) will occur with this alternative. However, additional facilities would likely be needed to provide opportunities for underserved audiences such as youth or people with disabilities. Existing refuge facilities would be used less than currently. Any maintenance or improvement of existing roads and parking areas will cause minimal short term impacts to localized soils and may cause some temporary wildlife disturbance.

Physical developments to accommodate the public's use and enjoyment of these refuge lands will generally be limited to small parking areas, informational and educational signs, and access roads. On some units, short hiking trails and wildlife observation areas may be developed.

Disturbance by vehicles will be limited to existing parking areas. Special access accommodations for persons with disabilities can be allowed, utilizing existing gravel trails on the refuge. These accommodations will be made on a case by case basis with permits by the onsite manager.

Cultural Resources

This alternative will not have any additional impacts to cultural resources. No sites listed on the National Register of Historic Places are located on fee title tracts within the designated boundaries of the Refuge. Fishing activities will result in no ground disturbance or disturbance to standing structures and would have no effect on any historic properties. Any new facilities constructed to facilitate this alternative would have individual cultural resources review.

4.2.5.C Anticipated Direct and Indirect Impact of Alternative B on Refuge Environment and Community

Refuge personnel expect no measurable adverse impacts from this alternative on the refuge environment which includes soils, vegetation, air quality, water quality and solitude. Some disturbance to surface soils and vegetation would occur in some areas; however these disturbances would be minimal. Access would also be controlled to minimize habitat degradation.

As a result of this alternative, expenditure by visitors for meals, lodging and transportation would likely decrease in the communities where these refuge lands are located compared to current fishing expenditures. According to the 2011 National Survey of Fishing, Hunting, and Wildlife Associated Recreation, anglers spent \$100 million in Iowa on fishing trip-related expenses (U.S. Fish and Wildlife Service 2012) and \$278 million total on fishing. In addition, Iowa residents spent \$712 million on wildlife watching activities in 2011. Municipalities and community organizations could bring additional tourism revenues into their economies by establishing partnerships with the Service to develop and promote the recreational opportunities that are available on the IRCP lands surrounding their communities.

During its history, the Service has not observed any substantial adverse effects of this fishing program on the goals of the IRCP, and has determined that this use is compatible with the purposes of the IRCP and the NWR System's mission statement.

Impacts of this alternative on the Refuge physical environment would have minimal to negligible effects. Some disturbance to surface soils, topography, and vegetation would occur in areas opened to fishing, and is expected to be minimal. Refuge regulations do not permit the use of vehicles off of designated Refuge roads. Vehicles for anglers with disabilities would be confined to existing roads and parking lots.

Impacts to the natural hydrology would be negligible. Refuge staff expects impacts to air and water quality to be minimal and only due to refuge visitor's use of automobiles on adjacent township and county public roads. The effect of these refuge-related activities on overall air and water quality in the region are anticipated to be negligible. Existing state water quality criteria

and use classifications are adequate to achieve desired on-refuge conditions; thus, implementation of this alternative would not impact adjacent landowners or users beyond the constraints already implemented under existing state standards and laws. Impacts associated with solitude are expected to be minimal given the limited time, season, and space management techniques used to avoid conflicts among user groups.

Public fishing has not resulted in any significant adverse effects on the soils, vegetation, air and water quality, solitude, or Service management activities associated with IRCP lands. Since fishing has already been occurring for the general public, this alternative could reduce spending in the local area. However, special events for fishing would bring more people to the communities at those times when events are held. This alternative would have minimal to negligible effects on human health and safety.

There is a potential to have some minimal disturbance on the general public, nearby residents, and refuge visitors. The disturbance factor is considered minimal, as the refuge already has fishing taking place on hundreds of acres of federal and state properties, and on thousands of acres of private property.

4.2.5.D Other Past, Present, Proposed, and Reasonably Foreseeable Fishing Programs and Anticipated Impacts

Fishing has been allowed on IRCP lands since they were acquired. Service experience has proven that time and space zoning can be an effective tool in eliminating conflicts between user groups. No expansion of use is proposed, but on a case by case basis, the onsite manager, in consultation with the Project Leader, will determine if such a tool is necessary to limit conflicts.

4.2.5.E Anticipated Impacts If Individual Fishing Programs Are Allowed To Accumulate

Fishing events under this alternative would occur several times per year and would be controlled to place and time. These events should not provide any impacts beyond what has been discussed elsewhere in the analysis. National Wildlife Refuges conduct or will conduct fishing programs within the framework of State and Federal regulations. This alternative is at least as restrictive as the State of Iowa and in some cases, may be more restrictive. By maintaining fishing regulations that are as, or more, restrictive than the State's, individual refuges ensure that they are maintaining seasons which are supportive of management on a regional basis. This EA was reviewed by the IADNR. Additionally, refuges coordinate with the state annually to maintain regulations and programs that are consistent with the States' management program.

Fishing in the IRCP will have minimal impacts to fish populations on the Iowa River or in Iowa. The majority of these lands were open to fishing before being acquired by the Service. There may be a slight increase in the number of fish taken on refuge lands from when these lands were in private ownership simply because they are open to more people. However, the large amount of acreage spreads the use out.

Refuge personnel expect and witness that most anglers respect spacing needs and will essentially regulate themselves. User conflicts might occur between non-consumptive users and anglers. This is not expected, since the uses are typically spatially separated.

4.2.6. Environmental Justice

Executive Order 12898 “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” was signed by President Bill Clinton on February 11, 1994, to focus federal attention on the environmental and human health conditions of minority and low-income populations with the goal of achieving environmental protection for all communities. The Order directed federal agencies to develop environmental justice strategies to aid in identifying and addressing disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. The Order is also intended to promote nondiscrimination in federal programs substantially affecting human health and the environment, and to provide minority and low-income communities with access to public information and participation in matters relating to human health or the environment. This assessment has not identified any adverse or beneficial effects unique to minority or low-income populations in the affected area. Alternative B will not disproportionately place any adverse environmental, economic, social, nor health impacts on minority or low-income populations.

The Refuge Recreation Act of 1962 (16 U. S. C. 460K) and the National Wildlife Refuge System Administration Act of 1966 (16 U. S. C. 668-ddee) provide authorization for hunting and fishing on National Wildlife Refuges. The effects of hunting and fishing on Refuges have been examined in several environmental review documents, including the Final Environmental Impact Statement on the Operation of the National Wildlife Refuge System (1976), Recommendations on the Management of the National Wildlife Refuge System (1978), and the Draft Environmental Impact Statement on the Management of the National Wildlife Refuges (1988). Nothing in the establishing authority for the IRCP [Emergency Wetland Resources Act of 1986] precludes fishing on the Refuge.

In the 1995 IRCP Final Environmental Assessment developed for the establishment of the IRCP, the selected alternative (Alternative 3) stated one of the acquisition objectives for the expressed purposes of increasing public opportunities for outdoor recreation, such as hunting or fishing, and environmental education compatible with the other purposes listed (see chapter 1).

Fishing currently accounts for many of the visits to the IRCP. The continued allowance of some fishing on the refuge will expose public user groups to the floodplain habitats and facilitate a better appreciation and understanding of this ecosystem. This will increase the success of floodplain preservation and restoration efforts, but this outreach benefit will be reduced from the current level and from the preferred alternative. Reducing fishing to only special events may allow local fish populations to increase to unhealthy levels.

As stated, public fishing has been allowed on IRCP lands and adjacent IADNR lands. During this period, public fishing has not resulted in any significant adverse effects on the Service’s management activities. Potential public use conflicts will be minimized by seeking a balance between the consumptive and non-consumptive uses and/or by closing areas where conflict cannot be avoided by other means.

SECTION 4.3 Alternative C: Close the IRCP to fishing.

4.3.1 Habitat Impacts

No additional public use impacts on vegetation are expected with this alternative. Non-consumptive users would still be accessing the areas for other wildlife dependent activities.

4.3.2 Biological Impacts

This alternative will result in few, if any, biological impacts given that there are other adjacent lands where fishing would occur. Potential damage to habitat may occur without the population control provided by fishing, particularly from invasive fish like carp. However, some fishing would still occur on the Iowa River adjacent to refuge lands. The state owns the land under the water and the public could access the river from off refuge sites.

4.3.3 Listed Species

No effect is expected for any of the threatened and endangered species found within the boundaries of the IRCP as a result of this alternative. A consultation pursuant to Section 7 of the Endangered Species Act was conducted as part of this EA and the updated Fishing Plan. A finding of “No Effect” was determined. No impacts are anticipated for state listed species.

4.3.4 Historic Properties and Cultural Resources

This alternative will result in no additional ground disturbance or disturbance to standing structures, and it would have no effect on any historic properties. Additional facilities associated with any wildlife-dependent activities would undergo individual review for cultural resources impacts.

4.3.5 Cumulative Impact Analysis of Alternative C

4.3.5.A Anticipated Direct and Indirect Impact on Fish and Wildlife Species

This alternative would have little to no effect on most fish and wildlife. Disturbance to refuge wildlife would continue as is presently caused by hunters and non-consumptive users.

4.3.5.B Anticipated Direct and Indirect Impact on Refuge Programs, Facilities, and Cultural Resources

Other Refuge Wildlife-Dependent Recreation

The majority of IRCP visits take place from April through December. Hunting and wildlife observation visits, particularly bird watching, account for the highest wildlife-dependent recreational use recorded for the refuge.

Under this alternative, the public would not have the opportunity to participate in fishing on refuge lands, which is one of the priority public uses, and compatible with the purposes for which the refuge was established. However, some fishing would still occur on the Iowa River adjacent to refuge lands. The state owns the land under the water and the public could access the river from off refuge sites. Fishing is also a way for the public to gain an increased awareness of the IRCP and the National Wildlife Refuge System. By not allowing fishing, the Service would not be meeting a public use demand and public relations would not be enhanced with the local community.

Refuge Facilities

The only refuge facilities in the IRCP are parking lots and an observation deck. No additional impacts to Refuge facilities (roads, parking lots, trails) will occur with this alternative. Under this alternative, Refuge facilities would continue to be used by hunters and non-consumptive visitors.

Maintenance or improvement of existing roads and parking areas will cause minimal short term impacts to localized soils and may cause some temporary wildlife disturbance.

Cultural Resources

This alternative will not have any additional impacts to cultural resources. No sites listed on the National Register of Historic Places are located on fee title tracts within the designated boundaries of the Refuge.

4.3.5.C Anticipated Direct and Indirect Impact on Refuge Environment and Community

This alternative will have little if any impact on soils, air quality, water quality or solitude. This alternative may have impacts on fishing opportunities in the local area. It has become increasingly difficult for anglers to acquire access to fish on private land throughout Iowa. More and more landowners are leasing their land, charging recreational users a daily fee, or selling their land for recreational use. This change in land use has increased the importance of public land to anglers. Not opening these units to fishing will result in the continued decrease of lands open to fishing.

Refuge lands closed to fishing would make regulations and enforcement confusing for the public since adjacent state lands would remain open to fishing. These lands are intermingled and currently managed as one wildlife management area so that the public would need to sort out federal from state lands to determine what is opened and what is closed. A general decrease in number of anglers could also reduce funds to the state from the Fish and Wildlife Trust Fund that is used to manage wildlife lands.

4.3.5.D Other Past, Present, Proposed, and Reasonably Foreseeable Fishing Programs and Anticipated Impacts

Fishing was allowed on most of these lands before they became part of the IRCP within state regulations and seasons. This alternative may affect fishing on adjacent state or private lands. There would be more fishing pressure on adjacent state lands. However, fish populations may increase slightly from reduced fishing in the area. An increase in some species could result in habitat damage if they become overabundant and could result in impacts to other species.

4.3.5.E Anticipated Impacts If Individual Fishing Programs are Allowed to Accumulate

This alternative would not allow fishing on fee title units of the IRCP and therefore there would be no anticipated impacts.

4.3.6 Environmental Justice

Executive Order 12898 “Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations” was signed by President Bill Clinton on February 11, 1994, to focus federal attention on the environmental and human health conditions of minority and low-income populations with the goal of achieving environmental protection for all communities. The Order directed federal agencies to develop environmental justice strategies to aid in identifying and addressing disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. The Order is also intended to promote nondiscrimination in federal programs substantially affecting human health and the environment, and to provide minority and low-income communities with access to public information and participation in matters relating to human health or the environment. This assessment has not identified any adverse or beneficial

effects for either alternative unique to minority or low-income populations in the affected area. Neither alternative will disproportionately place any adverse environmental, economic, social, nor health impacts on minority or low income populations. Fishing opportunities on the IRCP already exist on state, federal and other public lands in the counties where the Refuge units are located.

Creating the closed to fishing status on refuge fee title lands does not provide for all the priority public uses identified as goals of the refuge or the National Wildlife Refuge System. The Refuge Recreation Act of 1962 (16U.S.C. 460K) and the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668-ddee) provide authorization for hunting and fishing on National Wildlife Refuges. The effects of fishing on refuges have been examined in several environmental review documents, including the Final Environmental Impact Statement on the Operation of the National Wildlife Refuge System (1976), Recommendations on the Management of the National Wildlife Refuge System (1978), and the Draft Environmental Impact Statement on the Management of the National Wildlife Refuges (1988). Nothing in the establishing authority for the IRCP [Emergency Wetland Resources Act of 1986] precludes fishing on the Refuge.

In the 1995 IRCP Final Environmental Assessment developed for the establishment of the IRCP, the selected alternative (Alternative 3) stated one of the acquisition objectives for the expressed purposes of increasing public opportunities for outdoor recreation, such as hunting or fishing, and environmental education compatible with the other purposes listed (see chapter 1). This purpose would not be met under this alternative.

SECTION 4.4 Summary of Environmental Consequences by Alternative

EFFECT	ALTERNATIVE A: NO ACTION	ALTERNATIVE B: SPECIAL ANGLING EVENTS ONLY	ALTERNATIVE C: NO FISHING
Habitat	Minimal effect	Minimal effect	Potential negative effect if certain species increase enough to cause habitat damage
Biological	Minimal effect	Minimal effect	Potential increase in invasive fish.
Listed Species	No effect	No effect	No effect
Cultural Resources	No effect	No effect	No effect
Cumulative Impacts	The same as fishing on the surrounding state WMA.	Less since fishing would only be at special times and places for events.	Public use conflicts minimized. May encourage illegal fishing activities.

Environmental Justice	Fishing authorized by Refuge Recreation Act, NWR Admin. Act, and NWR Improvement Act. Listed in Refuge establishment EIS as public use goals.	Fishing authorized by Refuge Recreation Act, NWR Admin. Act, and NWR Improvement Act. Listed in Refuge establishment EIS as public use goals.	Does not provide for priority public use listed in Acts or Refuge establishment EIS. Fishing provided on surrounding state property. Other priority uses would continue.
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CHAPTER 5 REGULATORY COMPLIANCE

The Refuge Recreation Act of 1962 (16 U.S.C 460k) authorizes the Secretary of the Interior to administer National Wildlife Refuges for public recreation as an appropriate incidental or secondary use (1) to the extent that is practicable and consistent with the primary objectives for which an area was established, and (2) provided that funds are available for the development, operation, and maintenance of permitted recreation. The National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 688dd-ee) authorizes the Secretary of the Interior to permit the use of any area within the NWR System for any purpose, including but not limited to hunting, fishing, and public recreation whenever those uses are determined to be compatible with the purposes for which the area was established. The Improvement Act of 1997 is the latest amendment to the NWR System Administration Act. It supports the NWR System Administration Act's language concerning the authorization of fishing and other recreational uses on refuge lands. The NWR Improvement Act substantiates the need for the NWR System to focus first and foremost on the conservation of fish, wildlife, and plant resources and their habitats and states that other uses will only be authorized if they are determined to be compatible with this mission statement and the purposes for which the refuge was established.

The IRCP lands were acquired under the authority of the Emergency Wetlands Resources Act of 1986 and its purpose is therefore the conservation of the wetlands of the nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions. The 1995 Final EA developed for the establishment of the Refuge stated one of the acquisition objectives for the expressed purposes of increasing public opportunities for outdoor recreation, such as hunting or fishing, and environmental education compatible with the other purposes listed (see chapter 1).

The preferred alternative in this current EA states that fishing will be permitted on the IRCP where it is determined compatible. Additionally, fishing was identified in the 2012 draft Comprehensive Management Plan that was developed for the IRCP as being a priority public use that would be continued (IADNR). The Service has determined that this use is compatible with the purpose of the Refuge and the mission statement of the NWR System.

CHAPTER 6 LIST OF PREPARERS

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Submitted by:

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Concur:

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Tom Worthington Acting Regional Chief National Wildlife Refuge System	Date
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Approve:

Thomas Melius Regional Director	Date
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CHAPTER 7 CONSULTATION AND COORDINATION WITH THE PUBLIC

The Service sought public involvement for the Draft EA for the acquisition of IRCP lands and met with county officials, Pheasants Forever, Soil and Water Conservation Districts, other non-governmental organizations, IA DNR, NRCS, and private landowners. Five public meetings were held. Copies of the EA were provided to the news media, local libraries, and individuals on the mailing list. The preferred alternative in the draft EA for acquisition would permit fee title units of the refuge to continue to be open for fishing opportunities. The Service signed the final EA for proposed land acquisition in the Iowa River Corridor on July 20, 1995.

This current Environmental Assessment was released for public comment on November 15, 2012 and is available for 30 days until December 15, 2012. The EA is available to all interested parties through the Port Louisa NWR website (http://www.fws.gov/refuge/port_louisa), at local libraries, and in hard copy or pdf form by contacting the Refuge Office in Wapello, IA. News releases were sent out to area newspapers announcing the public comment period for the EA.

CHAPTER 8 PUBLIC COMMENT ON DRAFT EA AND RESPONSE

CHAPTER 9 REFERENCES CITED

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