

## Chapter 2: District Planning Context

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This chapter describes the organizational, legal, and policy context in regards to planning for and management of the Iowa Wetland Management District (WMD, district). This includes the U.S. Fish and Wildlife Service (FWS, Service) mission, the National Wildlife Refuge System (NWRS, Refuge System) mission, goals, and guiding principles as well as the history of the district and its purpose, vision, and goals.

### Refuge System Planning Guidance

#### The U.S. Fish and Wildlife Service

The Iowa WMD is administered by the U.S. Fish and Wildlife Service, the primary federal agency responsible for conserving, protecting, and enhancing the Nation's fish and wildlife populations and their habitats. The Service oversees the enforcement of federal wildlife laws, management and protection of migratory bird populations, restoration of nationally significant fisheries, administration of the Endangered Species Act, restoration of wildlife habitat such as wetlands, collaboration with international conservation efforts, and the distribution of conservation funding to states, territories, and tribes. Through its conservation work, the Service also provides a healthy environment in which Americans can engage in outdoor activities. Additionally, as one of three land managing agencies in the Department of the Interior (DOI), the Service is responsible for the Nation's Refuge System.

#### FWS Mission

Working with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.

#### The National Wildlife Refuge System

The Refuge System was founded in 1903 when President Theodore Roosevelt designated a three-acre island off the Florida coast, Pelican Island, as a sanctuary for colonial nesting birds. Today, the Refuge System has grown to a network of 560 national wildlife refuges (NWR, refuge), 38 districts, and 49 coordination areas covering over 150 million acres of public lands and waters. Over 50 percent of these lands (over 76 million acres) are contained within Alaska's 16 refuges, with the remainder distributed throughout the other 49 states and U.S. territories. Since 2006, Marine National Monuments have been added to the Refuge System, bringing over 50 million additional acres in the Pacific Ocean under federal protection and conservation management.

The Refuge System is the world's largest collection of lands and waters specifically designated and managed for fish and wildlife. Overall, it provides habitat for more than 700 species of birds, 220 species of mammals, 250 reptile and amphibian species, 200 species of fish, and more

than 280 threatened or endangered plants and animals. As a result of international treaties for migratory bird conservation and related legislation (e.g., Migratory Bird Conservation Act of 1929), many refuges have been established to protect migratory waterfowl and their migration flyways that extend from nesting grounds in the north to wintering areas in the south. Refuges also play a vital role in preserving threatened and endangered species.

Refuges also provide important recreation and education opportunities for visitors. When public uses are deemed appropriate and compatible with wildlife and habitat conservation, they are places where people can enjoy hunting, fishing, wildlife observation, photography, environmental education, environmental interpretation, and other recreational activities. Many refuges have visitor centers, wildlife trails, automobile tours, and environmental education programs. Nationwide, over 41 million people visit national wildlife refuges annually.

### **NWRS Mission**

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

### **NWRS Goals**

Revised goals for the Refuge System were adopted on July 26, 2006 and incorporated into Part 601, chapter 1, (601 FW1) of the Service Manual (FWS, 2006). The goals are:

- Conserve a diversity of fish, wildlife, and plants and their habitats, including species that are endangered or threatened with becoming endangered;
- Develop and maintain a network of habitats for migratory birds, anadromous and interjurisdictional fish, and marine mammal populations that is strategically distributed and carefully managed to meet important life history needs of these species across their ranges;
- Conserve those ecosystems, plant communities, wetlands of national or international significance, and landscapes and seascapes that are unique, rare, declining, or underrepresented in existing protection efforts;
- Provide and enhance opportunities to participate in compatible wildlife-dependent recreation (hunting, fishing, wildlife observation and photography, and environmental education and interpretation); and
- Foster understanding and instill appreciation of the diversity and interconnectedness of fish, wildlife, and plants and their habitats.

### **NWRS Guiding Principles**

- We are land stewards, guided by Aldo Leopold's teachings that land is a community of life and that love and respect for the land is an extension of ethics. We seek to reflect that land ethic in our stewardship and to instill it in others;
- Wild lands and the perpetuation of diverse and abundant wildlife are essential to the quality of the American life;

- We are public servants. We owe our employers, the American people, hard work, integrity, fairness, and a voice in the protection of their trust resources;
- Management, ranging from preservation to active manipulation of habitats and populations, is necessary to achieve Refuge System and Service missions;
- Wildlife-dependent uses involving hunting, fishing, wildlife observation, photography, interpretation, and education, when compatible, are legitimate and appropriate uses of the Refuge System;
- Partnerships with those who want to help us meet our mission are welcome and indeed essential;
- Employees are our most valuable resource. They are respected and deserve an empowering, mentoring, and caring work environment;
- We respect the rights, beliefs, and opinions of our neighbors; and
- We are a science-based organization. We subscribe to the highest standards of scientific integrity and reflect this commitment in the design, delivery and evaluation of all of our work.

## Ecological Integrity

The National Wildlife Refuge System Improvement Act of 1997 directs the Service to ensure that the biological integrity, diversity, and environmental health of the System are maintained for the benefit of present and future generations of Americans. In response to this direction, the Service used a public process to develop policy that provides specific guidance to maintain biological integrity, diversity, and environmental health, collectively referred to as ecological integrity (FWS, 2001). The policy contains a process to evaluate each refuge/district and identify the best management direction to prevent degradation of environmental conditions; and where appropriate and in concert with refuge/district purposes and the Refuge System mission, restore lost or severely degraded components of ecological integrity as compared to those found under historic conditions. The ecological integrity components include the following:

- **Biological Integrity**—Biotic composition, structure, and functioning at genetic, organism, and community levels comparable with historic conditions, including the natural biological processes that shape genomes, organisms, and communities.
- **Biological Diversity**—The variety of life and its processes, including the variety of living organisms, the genetic differences among them, and communities and ecosystems in which they occur.
- **Environmental Health**—Composition, structure, and functioning of soil, water, air, and other abiotic features comparable with historic conditions, including the natural abiotic processes that shape the environment.
- **Historic Conditions**—Composition, structure, and functioning of ecosystems resulting from natural processes that we believe, based on sound professional judgment, were present prior to substantial human-related changes to the landscape.

Maintaining the ecological integrity of a WMD is particularly challenging given that Waterfowl Production Areas (WPAs), although locally large complexes, are rather small and isolated within their larger landscape. For Iowa WMD, like many others, much of the larger landscape is in

heavy agricultural use. Therefore, WPAs are greatly influenced by the movement of sediment, nutrients, and agricultural chemicals from adjacent crop fields. This has led to decreased plant diversity and openings for many invasive plants to become established. These invasive plants often form dense stands and crowd out native vegetation.

Furthermore, water quality in district wetlands has deteriorated due to sedimentation and eutrophication caused by runoff from neighboring farm fields. According to an unpublished report from a 1995 U. S. Geological Survey study at Union Slough NWR, the mean sediment increase in refuge pools from 1938 to 1995 was 2.62 feet, or more than 0.5 inches per year. In addition to sedimentation problems, a contaminant study conducted at Union Slough NWR from 1995 to 1997 found numerous wetland quality issues including nitrate loading, elevated levels of ammonia, low dissolved oxygen levels, limited benthic macroinvertebrate diversity, limited wetland plant diversity, massive phytoplankton blooms, and elevated selenium levels (Coffey, 2000). The source of many of these problems is the effluent of drainage tiles that dump into wetlands. The tile introduces a pathway for excess sediment, nutrients, and pesticides to enter the wetlands. The influence of consolidated water from drainage tile in wetlands can effectively interrupt the important and natural wet/dry cycle of Prairie Pothole Region (PPR) wetlands. The combination of more stable water conditions and the introduction of more sediment, nutrients, and pesticides have contributed to dense cattail stands in shallow water areas and wet meadow zones that are dominated by reed canarygrass. Collaborating with the Iowa Department of Natural Resources (DNR) and others, working within watersheds, and building complexes through acquisition rather than small-scattered tracts all help maintain the ecological integrity of the district within its landscape.

## **Cooperative Farming**

### **Description of the Farming Program for the Iowa WMD**

The use of farming as a land management tool supports the biological purposes and management strategies of the Iowa WMD presented in the EA and Draft CCP and will adhere to all regional and national policies and guidance, such as; Region 3 Pesticide Use Policy (appendix M of the Iowa WMD Final CCP), Region 3 Farm Program Guidance (appendix N of the Iowa WMD Final CCP) and the U.S. Fish and Wildlife Service (FWS, Service)'s Midwest Region Environmental Assessment (EA) for row crop farming and the use of genetically-modified, glyphosate-tolerant (GMGT) corn and soybeans on refuge/district land (FWS, 2011c).

Farming in the Iowa WMD is accomplished primarily through the issuance of a Special Use Permit (SUP) or a Habitat Management Agreement (HMA) to private individuals (cooperative farmers). The SUP/HMA provides direction to the cooperative farmer on: types of crops to be planted, crop shares or cash payments for farming privileges, use of pesticides, use of best management practices, and other special conditions to ensure the farming program is conducted in an appropriate manner and within state, regional, and national Service guidance. The SUP/HMA is completed, issued, and signed by the Iowa WMD project leader or appropriate Iowa Department of Natural Resources (DNR) staff as provided in the Memorandum of Understanding (MOU). These annual agreements are typically written to work with the same cooperator farming the unit for multiple years. Some prescribed farming operations are conducted directly by Iowa DNR staff through provisions of the MOU.

Farming in the Iowa WMD occurs on less than eight percent of the total district acres (updated as of January, 2014) and will occur on only previously disturbed areas, such as previously

farmed land. Farmed tracts vary in size from 5 to 160 acres and are located on terrain described as flat to gently rolling. Crops planted in the Iowa WMD currently include corn, soybeans, sunflower, sorghum, millet, alfalfa, wheat, and barley. Table 2-1 provides farm crop and acreage information for the 2011–2013 farming seasons.

Cooperative farmers utilize conventional farming practices including the use of tractors, plows, disks, planters, spray equipment, and combines. Each site is tilled prior to spring planting, once ground conditions permit the use of heavy equipment without damage to the soil (i.e., rutting). Tilling requires one to two days per site. Some sites may also be treated with a pre-emergent herbicide prior to planting. Crops such as corn and soybeans are planted. Typically, planting is completed in one day or less on any individual site, and planting on all sites typically begins as early as mid-April and is completed as late as early June depending on soil conditions and type of crop planted. Cooperating farmers will be subject to Service policy and regulation regarding use of chemicals and treated seeds. Chemical use is restricted by type and to the minimum necessary amount applied.

Harvest techniques are the same for both no-till and traditional farming practices. Harvest begins in the fall using a self-propelled harvesting implement such as a combine. It usually takes about one day per site and is completed on all sites by late October or early November. Crops cultivated for winter food resources are left standing through the winter and harvested after March 1. Some crops such as winter wheat may be planted in the late summer or early fall. Planting and harvest activities are restricted to minimize disturbance of wildlife species.

All use of genetically-modified crops in the Iowa WMD will occur under the guidance of the Service's Midwest Region EA for row crop farming and the use of GMGT corn and soybeans on refuge/district land (FWS, 2011c). The use of genetically-modified crops will be limited to GMGT corn and soybeans, will be allowed only for the purpose of habitat restoration, and will under regional policy be limited to five years for any individual tract in preparation for habitat restoration. However, the Iowa WMD has a goal of accomplishing habitat restoration projects on individual tracts within just two years, weather permitting.

The Iowa WMD project leader is required to demonstrate that the proposed use of GMGT crops is essential for habitat restoration. If the use of GMGT crops is proposed, the project leader must complete a Standard Eligibility Questionnaire for Genetically Modified Crops on National Wildlife Refuge System Lands (appendix L of the Iowa WMD Final CCP). The Regional Chief of Refuges will review all requests for authorization to use GMGT crops and will approve or deny requests based on the questionnaire. A current farming compatibility determination that addresses the use of GMGT crops for habitat restoration is also required (appendix F of the Iowa WMD Final CCP). The use of GMGT corn and soybeans for restoration purposes has been authorized in the Iowa WMD and has been implemented since the 2012 farming season. The use of GMGT crops is not allowed for any other farming purposes, including habitat management, supplemental food, and attracting wildlife for viewing and photography.

For the past several years, the Service has been reducing the number of acres farmed on National Wildlife Refuge System (NWRS, Refuge System) land as well as the number of acres planted to GMGT crops within the region. This trend is also occurring in the Iowa WMD, especially in the number of acres of GMGT corn planted, as indicated in table 2-1. However, for those refuges/districts involved with land acquisition programs, farming as a land management tool will be necessary on those recently acquired acres. Generally, three to five years of farming is necessary to prepare the soil for native grass/forb seed planting, however the Iowa WMD has a goal of restoring farmed land within two years.

The use of treated crop seeds, particularly those treated with chemicals referred to as neonicotinoids, have been a growing environmental concern due to potential effects on pollinator species. Neonicotinoids are a class of insecticides chemically similar to nicotine. They are marketed and distributed in various forms including sprays, powders, and seed treatments. Trade names containing neonicotinoids may include (but are not limited to) Acceleron®, Acetamiprid®, Actara®, Adage®, Adjust®, Admire®, Advantage®, Alpine®, Arena®, Assail®, Belay®, Calypso®, Celero®, Centric®, Clutch®, Confidor®, Cruiser®, Dinotefuran®, Encore®, Flagship®, Gaucho®, Helix®, Inside®, Intruder®, Legend®, Merit®, Meridian®, Nipsit®, Platinum®, Poncho®, Pravado®, Premise®, Regent®, Safari®, Scorpion®, Titan®, Touchstone®, Tristar®, and Venom®. Active ingredients include: acetamiprid, clothianidin, dinotefuran, imidacloprid, nithiazine, sulfoxaflor, thiacloprid, and thiamethoxam. Due to this concern, the Iowa WMD will implement the following Region 3 guidance on the use of neonicotinoid treated seeds (a refuge/district manager can always be more restrictive than these more general regional guidelines):

- Refuge managers will exhaust all alternatives before allowing the use of neonicotinoid treated seeds on Refuge System land in 2014 and 2015.
- Refuge managers need to eliminate the use of neonicotinoid treated seed on Refuge System land in Region 3. The strategy is to start the transition in calendar year 2014 and be "neonicotinoid seed free" in calendar year 2016. In 2014 and 2015 there will be some flexibility for the transition and take in to account the availability of non-treated seed. During the two transition years, refuge managers need to have an approved Pesticide Use Proposal (PUP) before allowing the planting of neonicotinoid treated seed on Refuge System land under their management. Special attention will be given to the "justification" section of the PUP. The PUP will become part of the official record and should clearly state the need to use treated seed during this transition period. Refuge managers must provide justification to the area supervisor and receive written concurrence prior to initiating a PUP for the use of neonicotinoid treated seeds.
- All crop seeds treated with neonicotinoid chemicals must be planted (incorporated) beneath the soil surface due to their high toxicity to birds. No residue seeds can be left above ground. Any treated seeds that are spilled and/or left above ground at the time of planting must be picked-up and removed or replanted underground immediately. The refuge/district must conduct random field spot checks at the time the treated seeds are planted to ensure they are incorporated beneath the soil surface. To accommodate this process, any Region 3 field station that uses neonicotinoid treated seed must complete a Region 3 Treated Seed Incorporation Monitoring Statement. This Statement will document that all treated seed has been incorporated beneath the soil surface, thus adhering to Service policy. This guidance also applies to fungicide treated seed as indicated in the Region 3 Pesticide Use Policy.
- Seeds treated with neonicotinoid chemicals are listed as toxic to aquatic invertebrates. Therefore, field stations using neonicotinoid treated seeds must develop specific Best Management Practice guidelines to be included in the submitted PUP and implemented in the special use conditions of the SUP.
- Seed treatment chemicals cannot be mixed or applied to the crop seeds on refuge/district land, they must be treated off-site.

Farming, to accomplish habitat restoration objectives, is implemented primarily to prepare a quality seed bed for the establishment of native prairie grass and forb species. Farming may be utilized for one to two years to reduce unacceptable levels of undesirable chemical residue, noxious weeds, or non-native plant species. Newly acquired properties for the Iowa WMD are often land that is currently being farmed. Past prairie restoration efforts, without utilizing farming, have resulted in limited seedling establishment (mainly forb species) and unacceptable levels of invasive vegetation competition, thereby weakening prairie plant development. Furthermore many of the tracts acquired by the Iowa WMD have been extensively farmed for a long period of time, reducing the possibility that simply idling or creating “go back” prairie can be a feasible option. SUPS/HMAs may be utilized to extend the farming program to keep the land free of weeds until funds are available for habitat restoration; however, the Iowa WMD has a goal for the farming of any given tract of no more than two years. Under the SUP/HMA chemical use is restricted to promote a more favorable soil condition for native plant establishment and growth. The last year of farming typically requires the cooperative farmer to plant soybeans, as soybean stubble is a preferred substrate in which to plant native grasses and forbs. Native plant seeds are then broadcast on top of the ground or drilled into the soybean stubble depending on local planting strategies.

Through the Service’s partnership with the Iowa DNR, food plots have been established as an acceptable practice to provide winter food resources and provide wildlife viewing and hunting opportunities. The MOU between the Service and the Iowa DNR states that permanent food plots are permitted at levels identified in the Final CCP, the Iowa WMD Habitat Management Plan (to be written), and the Waterfowl Production Area (WPA) unit plans. Collaborative goals in the North American Waterfowl Management Plan (2012) include the following:

- Goal #2: Wetlands and related habitats sufficient to sustain waterfowl populations at desired levels, while providing places to recreate and ecological services that benefit society
- Goal #3: Growing numbers of waterfowl hunters, other conservationists, and citizens who enjoy and actively support waterfowl and wetlands conservation

The goals in this plan focus on engaging people with nature and growing the number of hunters. Food plots in Iowa are thought of as a positive practice providing excellent viewing and hunting opportunities. Allowing food plots on WPAs within the district, albeit limited, will assist the Iowa DNR (a key Service partner) in providing hunting opportunities that will in turn gain public support for waterfowl and wetland protection.

Currently food plots range in size from three to ten acres; however, they are not necessary on all WPAs within the district. Service managers and Iowa DNR wildlife biologists will determine areas that would be appropriate for food plot placement. Given the waterfowl production/migratory bird purposes of the district, creation of edge, size of habitat patch (Warner et al., 2012), timing of disturbance related to farming practices (Korschgen and Dahlgren, 1992), and herbicide treatments of crops will be considered in the determination. Although some species of both migratory and resident birds have been documented nesting in corn and soybean row crops this may create an ecological trap (Best, 1986). For this reason managers need to be cautious with locations of food plots within the district.

New management plans for individual units will involve evaluating the need for food plots on the tract and potential locations to lessen the impacts of disturbance, edge, chemical use, and soil erosion. Individual unit plans will also ensure that food plots are not located in wetland basins

or remnant prairie sites. Many times food plots may be better situated on adjacent state WMAs, county conservation areas, or private land. Currently, approximately eight percent (updated as of January, 2014) of the district WPA properties are in row crop agriculture, mostly in reconstruction to prairie. It is reasonable to believe that Iowa DNR food plot objectives can be met with three percent of the district's uplands in food plots without materially detracting from the waterfowl production purpose for the district. Three percent of the district uplands equates to approximately 500 acres of food plots across the district WPAs. This rate of food plot use in the district will be evaluated through the early stages of the Final CCP to determine the minimum acceptable level for food plots, especially given the partnership with the Iowa DNR and the district's waterfowl production purpose.

Wildlife food plots generally consist of plantings of corn, soybeans, sunflowers, wheat, barley, oats, rye, buckwheat, millet, milo, and sorghum. Cultivation of these crops is usually accomplished by cooperative farmers through an agreement with the Iowa DNR. Food plots will not be manipulated in any way to constitute baiting of migratory game birds and waterfowl as defined in the Migratory Bird Treaty Act of 1918 (16 U.S.C. 703–712 P.L. 105–312) and 50 CFR 20.11–21. Standard agricultural practices will be used in farming operations with the exception that insecticide use will not be permitted. Crops will be left standing in the field and may be harvested in the early spring each year.

Some food plots that are designed, in particular, for winter survival of Ring-necked Pheasant include planting shelterbelts of conifer trees and shrubs. Because grassland bird research suggests that some birds experience reductions in nest success and higher predation rates in grasslands that have been fragmented by trees (Johnson and Temple, 1990), WPAs would not be locations considered for shelterbelt placement in conjunction with food plots. Wetland vegetation can provide excellent winter cover for resident wildlife, therefore negating the need for shelterbelt plantings on WPAs.

The decision to use cooperative farming for habitat restoration, habitat management, supplemental food, or attracting wildlife for viewing and photography would occur as part of strategies developed under specific program or unit habitat management planning. The use of farming provides a management tool that allows the WMD staff to meet the habitat goals and objectives. Service policy calls for maintaining or restoring WMD habitats to historic conditions if doing so does not conflict with refuge purposes. As practiced at the Iowa WMD, farming—both conventional (for food plots) and with the use of glyphosate-tolerant corn and soybeans (for prairie restoration)—contributes to the achievement of WMDs purposes and the Refuge System mission, because it helps enhance and restore grassland habitat for migratory birds and resident wildlife.

**Table 2-1: Acres Farmed on Refuge System Land and Acres Planted to GMGT Crops within the Iowa WMD**

<b>Planted by:</b>	<b>2013 (acres)</b>	<b>2012 (acres)</b>	<b>2011 (acres)</b>
Cooperators/contractors to genetically-modified organism (GMO) corn.	370	669	826
Cooperators/contractors to GMO soybeans.	624	746	631
Cooperators/contractors to non-GMO corn.	126	155	79
Cooperators/contractors to non-GMO soybeans.	179	175	132
Cooperators/contractors to other crops as part of a farming rotation.	alfalfa 641, oats 114.5, sunflower 21	alfalfa 589.6, sunflower 18.2, sorghum 6.8	alfalfa 538.6, oats 13.0, sunflower 2.6
<b>Total Acres Farmed by Cooperators/Contractors</b>	<b>2,076</b>	<b>2,360</b>	<b>2,221</b>
FWS (Iowa DNR) employees to GMO corn.	0	0	0
FWS employees to GMO soybeans.	0	0	0
FWS employees to non-GMO corn.	0	0	0
FWS employees to non-GMO soybeans.	0	0	0
FWS employees to other non-native crops as part of a farming rotation or a moist soil management activity.	sorghum 28.4 Iowa DNR	sorghum 34.7 Iowa DNR	sorghum 43.8 Iowa DNR
<b>Total Acres Farmed by FWS Employees</b>	<b>28</b>	<b>35</b>	<b>44</b>

### Site-Specific Effects Analysis for the Farming Program in the Iowa WMD

No site-specific effects on the environment, other than what have already been disclosed in other NEPA documents completed by other federal agencies, are expected from the farming program in the district because of the following:

1. *The Animal and Plant Health Inspection Service (APHIS) regulates the cultivation of genetically engineered organisms, not the U.S. Fish and Wildlife Service.*

APHIS regulates the introduction (importation, interstate movement, or release into the environment) of certain genetically engineered organisms and products that may pose a risk to plant or animal health. APHIS exercises its regulatory authority through a system that includes both permits and notifications. A permit is granted for a field trial when APHIS has determined that the conduct of the field trial, under the conditions specified by the applicant or stipulated by APHIS, does not pose a plant pest risk. A researcher or developer may also request that APHIS no longer regulate an organism by submitting a petition for nonregulated status.

Such field trials have been completed for both glyphosate-tolerant soybeans and corn. For soybeans, nine field tests took place between 1991 and 1994 at approximately 54 sites in 19 states (including Iowa). "Field trial reports from these tests show no deleterious effects on plants, nontarget organisms, or the environment as a result of these releases," (U.S.

Department of Agriculture [USDA]-APHIS, 1994).” For corn, field tests occurred between 1993 and 1996 in the major corn growing regions of the United States (20 states, assumed to include Iowa). “This line [MON 802] has been evaluated extensively to confirm that it exhibits the desired agronomic characteristics and does not pose a plant pest risk,” (USDA-APHIS, 1997a).

Given the field trial results, petitions for nonregulated status were also submitted for both soybeans and corn. In 1994 (USDA-APHIS), APHIS completed an environmental assessment and reached a finding of no significant impact on the environment “from the unconfined, agricultural use of glyphosate-tolerant soybean line 40-3-2 and its progeny.” In 1997 (USDA-APHIS, 1997a), a similar environmental assessment was completed with a finding that “MON 802 corn will not have a significant adverse impact on organisms beneficial to plants or agriculture, or other nontarget organisms, and will not affect threatened or endangered species.” APHIS concluded, “There will be no significant impact on the human environment if MON 802 corn and its progeny were no longer considered a regulated article,” (USDA-APHIS, 1997a).

Similar field trials, assessment, and finding were completed later in 1997 for glyphosate-tolerant GA21 corn (USDA-APHIS, 1997b). Other extensions of these original petitions have been submitted in more recent years, and similar trials, assessments, and findings have been completed or are underway for other glyphosate-tolerant corn and soybean crop lines. This documentation, which includes analyses of the effects on humans and the environment from growing genetically engineered crops, can be found at the following website: [http://www.aphis.usda.gov/biotechnology/petitions\\_table\\_pending.shtml](http://www.aphis.usda.gov/biotechnology/petitions_table_pending.shtml).

Since another federal agency, APHIS, regulates the cultivation of genetically engineered organisms and that agency has completed NEPA documentation including effects analyses of this activity, the Service relies on the findings from that agency when determining the effects of the same activity on refuge system land. APHIS has both the regulatory authority and the necessary technical expertise to assess effects of genetically engineered crops on the environment, while the Service has no regulatory jurisdiction over that activity. Therefore, no other site-specific effects other than what have already been disclosed by APHIS are expected from cultivation of genetically engineered crops by the Service.

## *2. The U.S. Environmental Protection Agency (EPA) regulates the use of pesticide chemicals, including herbicides, in the environment.*

The EPA regulates the use of pesticide chemicals, including herbicides, in the environment. Under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), EPA has the authority to regulate the testing, sale, distribution, use, storage, and disposal of pesticides. Before a pesticide may be sold, distributed, or used in the United States, it must be registered under FIFRA.

For example, the EPA first issued a registration standard for glyphosate in June of 1986. Because of advances in scientific knowledge, pesticides that were first registered years ago are required by law to be reregistered to make sure that they meet today’s more stringent standards. In evaluating pesticides for reregistration, EPA obtains and reviews a complete set of studies from pesticide producers, describing the human health and environmental effects of each pesticide. Glyphosate was reregistered in 1993 as it was found to “not pose unreasonable risks or adverse effects to humans or the environment.” Furthermore, “EPA determined that the effects of glyphosate on birds, mammals, fish and invertebrates are

minimal,” (EPA, 1993). In 1997, permanent tolerances for residues of glyphosate were established in or on raw agricultural commodities including field corn varieties genetically-modified to be tolerant of glyphosate (EPA, 1997).

The herbicide 2,4-D has been used since the 1940s as a pre-plant or post-emergent herbicide to control broadleaf weeds on a broad range of crop and non-crop sites, including cornfields. The EPA first issued a registration standard for 2,4-D in 1988, and the herbicide was reregistered in 2005. In summary, the EPA stated, “Some ecological risks are of concern on some sites for some species,” (EPA, 2005). They provide mitigation measures “expected to lessen, but not eliminate, the risk of 2,4-D to wildlife and plants,” (EPA, 2005). Currently, 2,4-D is approved for pre-plant and post-emergent application on corn and pre-plant application on soybeans.

Dicamba is widely used in agricultural, industrial, and residential settings for the post emergent control of certain broadleaf weeds and woody plants. It was first registered by the EPA in 1967 and was reregistered in 2006 with amendments in 2008 (EPA, 2009). During the reregistration, the EPA determines whether the pesticide meets the “no unreasonable adverse effects” criteria of FIFRA. As a result of the reregistration review, the EPA “determined that all products containing the active ingredient dicamba are eligible for reregistration provided that the risk mitigation measures indicated in the document are adopted,” (EPA, 2009).

APHIS is currently considering the deregulation of new genetically engineered corn, soybean, and cotton plants resistant to the herbicides known as 2,4-D and dicamba. However, the use of GMO crops in the Iowa WMD is limited to glyphosate-tolerant corn and soybeans (FWS 2011c).

Since another federal agency, the EPA, regulates the use of pesticides, and that agency has completed NEPA documentation including effects analyses of this activity, the Service relies on the findings from that agency when determining the effects of the same activity on refuge system land. The EPA has both the regulatory authority and the necessary technical expertise to assess effects of pesticide use on the environment while the Service has no regulatory jurisdiction over that activity. Therefore, no other site-specific effects other than what have already been disclosed by the EPA are expected from pesticide use by the Service.

3. *The farming program in the district will follow the Service’s Midwest Region Environmental Assessment (EA) for row crop farming and the use of genetically-modified glyphosate tolerant (GMGT) corn and soybeans on refuge/district land.*

In 2011, the Service’s Midwest Region completed an EA for row crop farming and the use of GMGT corn and soybeans on refuge/district land (FWS, 2011c). Under the selected alternative, beginning in calendar year 2012, the use of GMGT corn and soybeans on Refuge System land in the Midwest Region would continue only for the purpose of habitat restoration. According to the EA, the use of GMGT corn and soybeans would be limited to five years on any individual tract being prepared for habitat restoration. Farming could continue to be used as a management tool for achieving multiple objectives; however, it would be limited to non-GMGT crops for objectives other than habitat restoration. Multiple objectives include but are not limited to the following:

- Habitat restoration

- Habitat management
- Supplemental food for wildlife
- Attracting wildlife for viewing and photography

Similarly, the Service's ecological integrity policy specifies that GMGT crops cannot be used on Refuge System land unless they are "essential to accomplishing refuge [district] purposes." Habitat restoration is a core objective of most refuges (districts) in achieving their purpose and in some circumstances, the use of GMGT crops could be essential. However, habitat management, supplemental food, and wildlife viewing objectives can more readily be accomplished without the use of GMGT seeds, and thus, their use is not likely essential.

Furthermore, refuge and district managers are required to demonstrate that their proposed use of GMGT crops is essential for habitat restoration. The Service has established an approval process for the use of GMGT corn and soybeans that includes completion of a Standard Eligibility Questionnaire for Genetically Modified Crops on National Wildlife Refuge System Lands (appendix L of the Iowa WMD Final CCP). When managers propose to use GMGT corn and soybeans, they are required to complete this questionnaire as part of the approval process. There will be strict adherence to the regional programmatic EA regarding the use of GMGT corn and soybeans within the Iowa WMD.

*4. The farming program in the district will adhere to all national, Department of Interior, Service, and Region 3 policies regarding pest management and treatments.*

Pest management activities on Service land and facilities must conform to all EPA regulations, chemical labels, Material Safety Sheets, and Service and Department of the Interior policies and directives including:

517 DM 1 (<http://www.nature.nps.gov/biology/ipm/Documents/DOI517DM1.pdf>),  
 569 FW 1 (<http://www.fws.gov/policy/569fw1.html>), and  
 242 FW 7 (<http://www.fws.gov/policy/242fw7.html>).

These policies state that pests will be managed using an integrated sustainable approach when the pest is detrimental to site management goals and objectives and the planned pest management actions will not interfere with achieving site management goals and objectives.

Service employees use their best professional judgment and available scientific information to select the lowest risk, most effective integrated pest management method, or combination of methods that is feasible for each pest management project.

If chemical treatment is considered, a Pesticide Use Proposal (PUP) must be prepared and approved by an appropriate level supervisor prior to the chemical application.

PUPS are extensive, detailed documents that require specific information about the planned treatment (pest target, threshold for treatment, active ingredient, application rate, application method) as well as a descriptions of the treatment site(s) (soil type, slope, organic content, nearest water, depth to ground water).

The PUPs are valid for only one year and provide a timely, site-specific evaluation of the current conditions. Reports regarding the efficacy of the treatments are required in February

of each year so Service staff can evaluate past management actions, and refine and improve subsequent control measures.

5. *Best Management Practices (BMPs) are currently being used for the farming program in the district, and a more thorough list of BMPs will be developed for the farming program to follow in the future.*

In general, the Refuge System is reducing the amount of farming on national wildlife refuges (NWRs, refuges) and WMDs including the use of genetically-modified crops and pesticides. Farming with genetically-modified crops within refuges/districts is restricted to a very specific purpose (i.e., habitat restoration). Due to the many policies (e.g., Pesticide Use Policy, (appendix M of the Iowa WMD Final CCP); the regional programmatic EA regarding the use of GMGT corn and soybeans, etc.; the approval processes (e.g., Pesticide Use Proposals, Special Use Permits, Habitat Management Agreements, Memorandums of Understanding, etc.); and guidelines (e.g., Best Management Practices, Regional Direction regarding cooperative farming, etc.) in place governing farming practices on Refuge System land, farming within the Iowa WMD is not expected to have the potentially significant adverse effects to the environment as surrounding farming practices on private land described within the Iowa WMD EA and Draft CCP.

Farming is used on the Iowa WMD to accomplish habitat and wildlife goals and purposes. Both the Service and Iowa DNR strive to use the best management practices when implementing farming as a habitat management strategy. Examples of items that are considered in habitat management plans include slope, distance to wetlands and ground water, habitat buffers, and disturbance of wildlife. When farming is used to prepare the seed bed of a newly acquired property (typically in row crop agriculture), both the Service and the Iowa DNR typically use farming cooperators and Habitat Management Lease Agreements or Special Use Permits. In these documents the Service articulates through stipulations the best management practices that will be used on the district property. Examples of agreement stipulations include the following:

Note: These stipulations may change over time to reflect new information.

- Use of chemicals must be approved through a Pesticide Use Proposal.
- Manure applications are prohibited.
- Fall tillage is prohibited unless its use is specified in the management plan for the year of prairie seeding.
- Habitat management plans must be followed.
- Glyphosate tolerant corn and soybean seed may only be used for habitat restoration purposes.
- Farming for wildlife food production or other purposes will utilize non-genetically-modified crop seed.
- No insecticides may be used.

Chemical application provides the most effective means for site preparation prior to prairie restoration. Chemical site preparation reduces potential future applications by reducing weed seeds prior to restoration. Crop rotations with brome-alfalfa nesting habitat, corn, soybeans, oats, and other crops allow for mechanical control of crop pests and chemical

rotations to reduce the development of chemical resistant weeds. The following Best Management Practices will be followed to lessen any potential effects from pesticide application within the Iowa WMD:

- Allow pesticide application buffers around sensitive areas,
- Follow pesticide labels,
- Spray only when winds are 12 mph or less (but not inversions),
- Control drift through use of low pressure and nozzles that create larger droplets,
- Monitor current and predicted winds,
- Monitor predicted rainfall,
- Be cautious around shallow groundwater, and
- Maintain a buffer around water and wetlands.

6. *The land in the farming program within the district has been privately farmed for over a century, more recently with the use of GMGT crops and pesticides.*

European settlers to Iowa began farming early in the 1800s. By the 1870s, farms and small towns covered the entire state. Over time, the settlers learned a lot about farming and made many changes in equipment and crops. The number of farms tended to decrease over time, but the size of farms steadily increased. Scientific advances in biotechnology (crop genetics, broadcast treatment of weeds, etc.) as well as general technology (larger and more aggressive tillage equipment, more accurate planting and harvesting equipment, etc.) continue to change and influence farming today as it did in the past. Farming in the Iowa WMD occurs on less than eight percent of the total district acres (updated as of January, 2014) and will occur on only previously disturbed areas, such as previously farmed or currently farmed land. The farming program is simply used as a tool to prepare the seedbed for restoration of natural cover.

In summary, no significant effects are expected from any of the proposed activities, based on the effects analysis completed in the EA for the Iowa WMD Draft CCP as well as the various effects analyses completed and cited above by APHIS regarding genetically engineered crops and the EPA regarding pesticide regulation. These analyses together constitute a “hard look” at the potential effects on the environment from the farming program in the Iowa WMD. Furthermore, various Section 7 consultations, with the Ecological Services branch of the Service in concurrence, have been completed for pesticide use in the Iowa WMD regarding threatened and endangered species.

## Legal and Policy Compliance

Laws, Executive Orders, and DOI and Service policies guide administration of refuges (including WMDs). A list of pertinent statutes and policy guidance are in appendix C.

## Wilderness Review

Refuge/district planning policy mandates that wilderness reviews be conducted through the comprehensive conservation planning process (FWS, 2000). The wilderness review process consists of three phases: inventory, study, and recommendation. In the inventory phase,

Service-owned lands and waters within the refuge or district that are not currently designated wilderness are analyzed for areas that meet the criteria for wilderness established by Congress. The criteria are size, naturalness, opportunities for solitude or primitive recreation, and supplemental values. Areas that meet the criteria become Wilderness Study Areas (WSAs). In the study phase, a range of management alternatives are developed and evaluated for the WSAs to determine if they are suitable for recommendation for inclusion in the National Wilderness Preservation System. In the recommendation phase, the suitable recommendations are forwarded in a Wilderness Study Report that moves from the director through the secretary and the president to Congress.

No lands within the Iowa WMD meet the criteria for wilderness established by Congress and described in Service policy (FWS, 2008b). The Iowa WMD does not contain 5,000 contiguous acres of roadless, natural lands, nor does it possess any units of sufficient size to make their preservation practicable as wilderness. District lands and waters have been substantially altered by humans, especially by agriculture and residential and industrial developments.

## **District Management Guidance**

General guidance for managing the district comes from several sources including its purposes, the Refuge System mission, Service policies, and other laws. The vision and goals developed during this planning process will also guide management of the district.

## **Brief History of District Establishment and Acquisition**

The Iowa WMD, like many other WMDs, was established due to the success of the Small Wetlands Program (figure 2-1). To help permanently protect habitat for waterfowl, the Small Wetlands Program was officially created in 1958, with an amendment to the 1934 Migratory Bird Hunting Stamp Act (also known as the Duck Stamp Act). This amendment allowed proceeds from the sale of federal Duck Stamps to be used to acquire WPAs in any state with the Director's (or Director's appointee) approval (figure 2-2).

In 1962, to help effectively manage the increasing number of WPAs acquired through the Small Wetlands Program, the Service created an administrative organization called a wetland management district (WMD). WMDs were established not only to manage all the WPAs in a multi-county area, but also to work closely with the private landowners, government and nongovernment organizations, businesses, and other federal agencies in their districts to improve wildlife habitat. Uniquely, however, in Iowa, with the signing of a Memorandum of Understanding (MOU) in 1978, it was decided that while the Service would provide federal Duck Stamp funds for land acquisitions, the Iowa DNR would supply the personnel necessary to restore and manage those acquisitions (WPAs). The initial approval from the state limited acquisition of land to 17 counties in north-central and northwest Iowa. This approval established the Iowa WMD, and in 1979 the first tract of land (WPA), known as West Swan Marsh, was purchased in Emmet County. A second tract, also in Emmet County, was purchased in 1980. Yearly acquisition, however, did not resume in the district until eight years later.

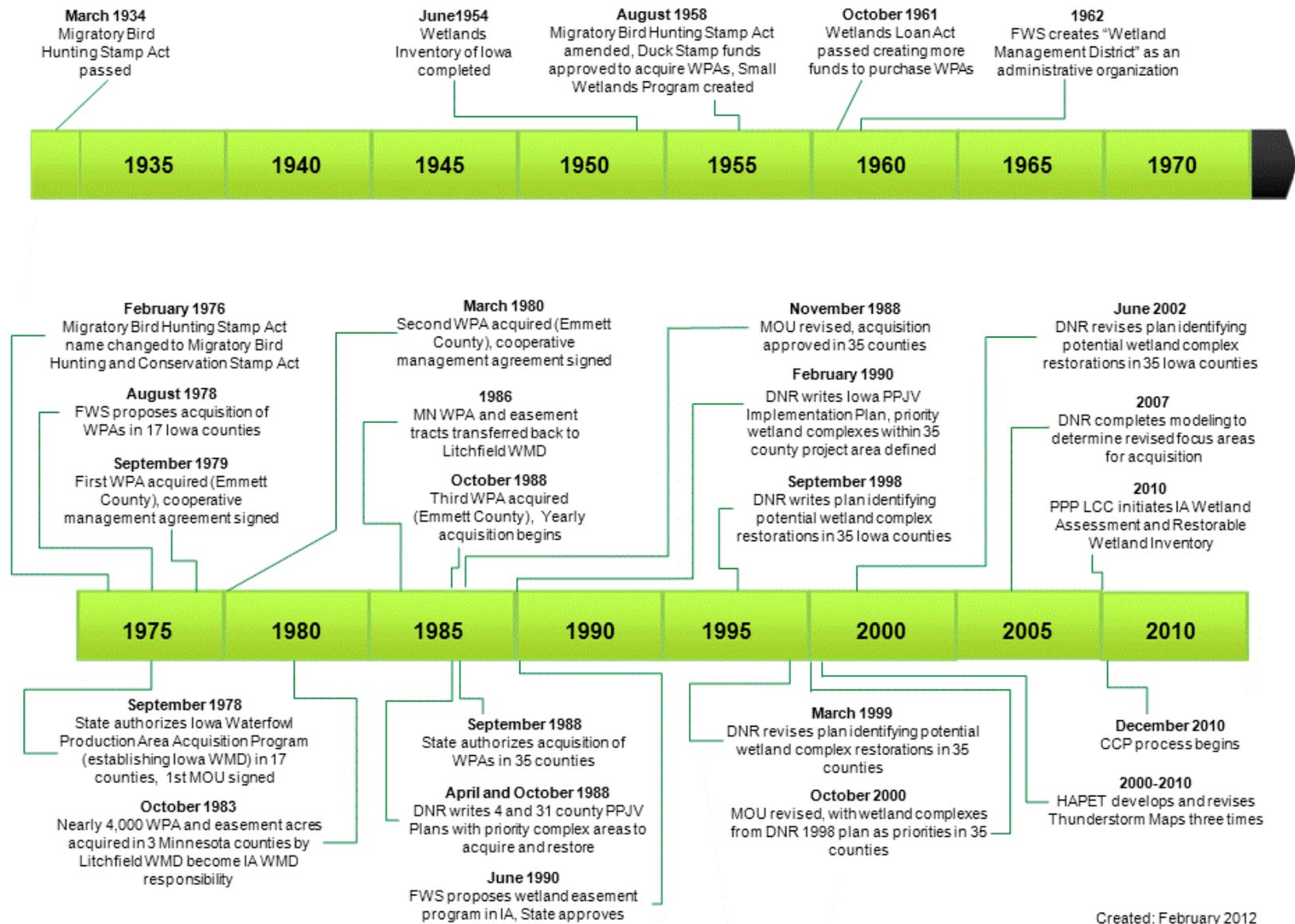
In 1988, through the Prairie Pothole Joint Venture (PPJV) Program, the Iowa DNR established a priority area within the state to focus the use of Small Wetlands Program funds. This 35-county area in north-central Iowa generally follows the geologic area referred to as the Des Moines Lobe. This represents the southernmost advancement of the glaciers that shaped the prairie

pothole landform in Iowa. Both the approval for acquisition from the state and the MOU with the Iowa DNR were revised to include these 35 counties.

In 2000, the MOU was updated again, and while the 35-county acquisition area remained the same, priority was given to the wetland complexes identified in "Identification of potential wetland complex restorations in the Iowa Prairie Pothole Region" (Iowa DNR, 1998). The Iowa DNR revised this plan in 1999 and 2002, and then in 2007, it completed a modeling exercise to revise focus areas for acquisition (figure 2-3).

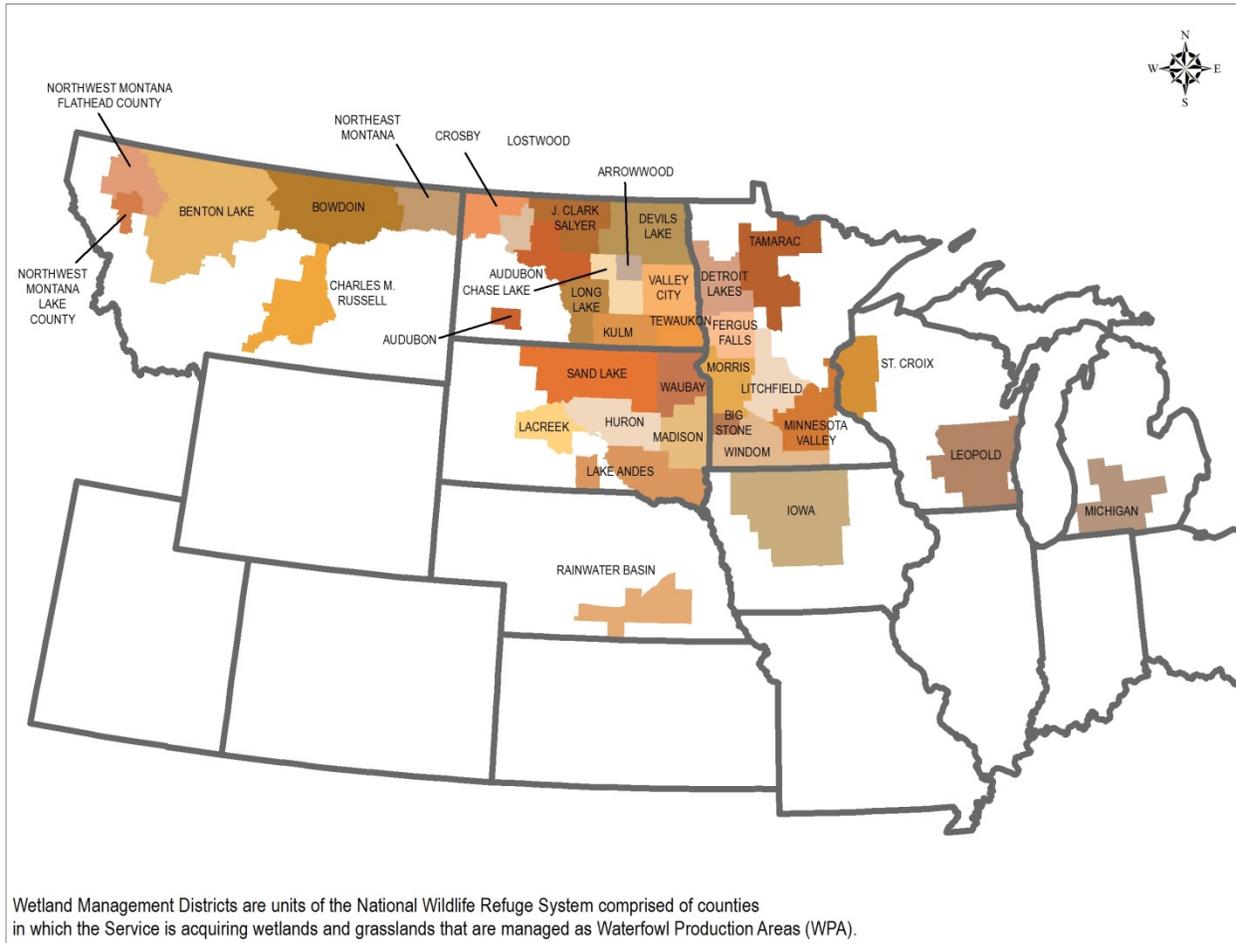
Between 2000 and 2010, the Service's Habitat and Population Evaluation Team (HAPET) also developed and completed three revisions of thunderstorm maps utilizing the National Wetlands Inventory (NWI) data to help identify priority sites for acquisition and restoration. Most recently, in 2010, the Plains and Prairie Potholes Landscape Conservation Cooperative (LCC) began a wetland assessment and restorable wetland inventory to help refine priority acquisition areas. This project used Light Detection and Ranging (LiDAR) data to find depressions and substituted the NWI wherever available for existing water and wetlands to produce a layer of depressions where, if flooded, wetlands may be established (figure 2-4). Currently, the Iowa WMD consists of 75 WPAs totaling just over 25,000 acres (including fee title and both wetland and habitat easements) in 18 counties. Finally, a revision to the MOU was completed in 2012 during the Comprehensive Conservation Plan (CCP, Plan) planning process (appendix I).

**Figure 2-1: Significant Events in the Establishment of the Iowa WMD**



Created: February 2012

**Figure 2-2: WMDs Established Under the Small Wetlands Program**



## District Purposes

Iowa WMD is part of a national network of lands administered by the Service as the Refuge System. Each unit of the Refuge System has one or more purposes specified in or derived from the legal instrument that established, authorized, or expanded it. The first obligation is to fulfill and carry out the purposes of each refuge (or district) (FWS, 2006). The purposes for Iowa WMD are based upon its land acquisition authority, which is, the Migratory Bird Hunting and Conservation Stamp Act of 1934:

“ . . . as Waterfowl Production Areas subject to . . . all of the provisions of such Act [Migratory Bird Conservation Act of 1929] . . . except the inviolate sanctuary provisions . . . ” 16 U.S.C. § 718(c) “ . . . for any other management purpose, for migratory birds.” 16 U.S.C. § 715d

**Figure 2-3: Priority Wetland Complexes for Acquisition and Restoration in the Iowa WMD**

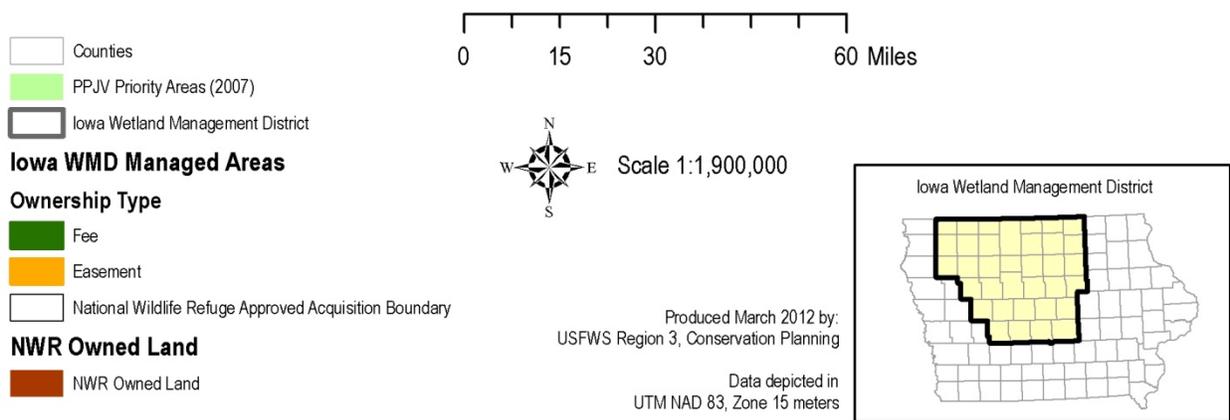
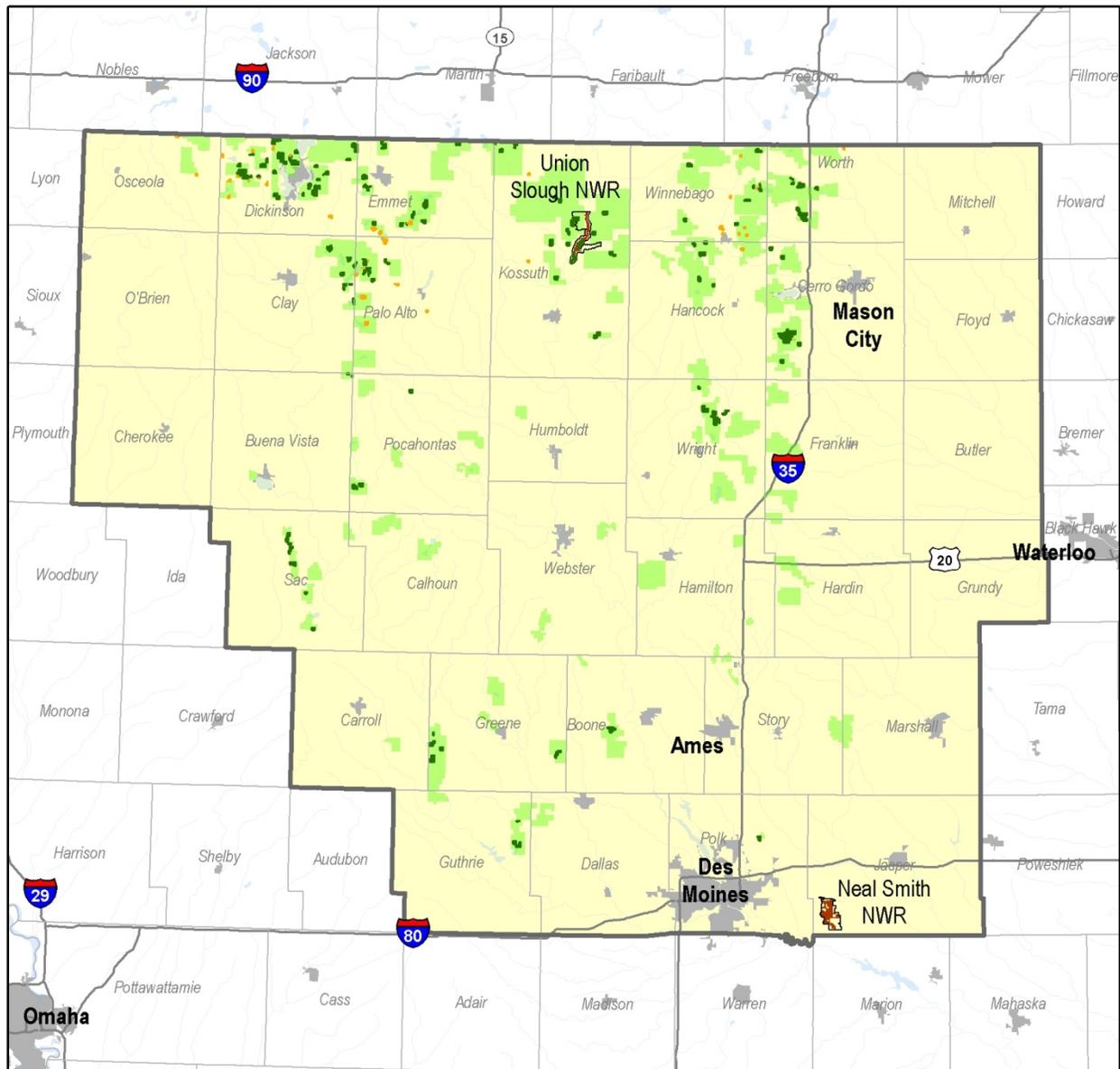
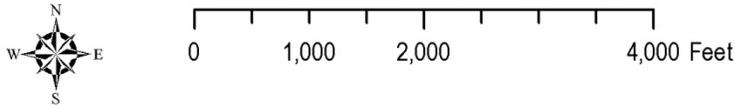
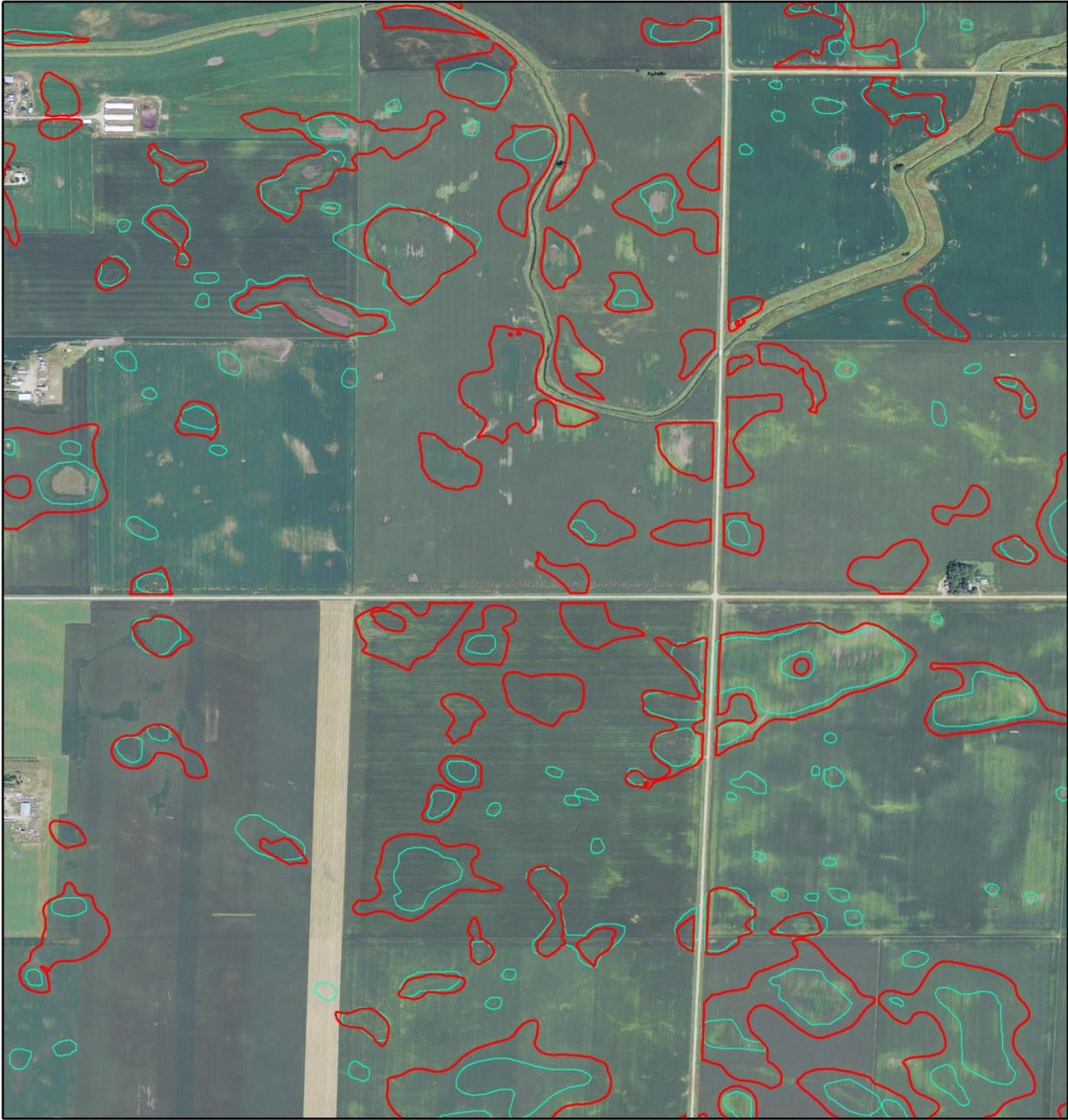
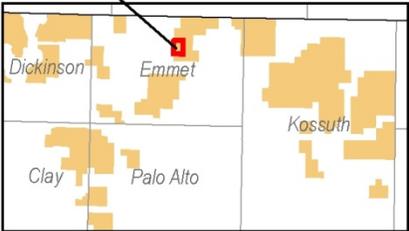


Figure 2-4: Existing Basins in the Iowa WMD for Potential Wetland Restoration (Example)



-  Potential Basins / Restorable Wetlands
  -  PEMAf - Farmed but Temporarily Flooded
- 2011 Aerial Photography

Tuttle Lake PPJV Priority Area



\*Restorable Wetlands Layer Courtesy Iowa DNR

## District Vision Statement

The vision provides a concise statement of what the district is, or what it is desired to be, based primarily upon the Refuge System mission and specific district purposes and other mandates. The Iowa WMD vision is:

*Waterfowl and other winged wildlife herald the richness of resilient, productive wetlands and tallgrass prairies, bringing appreciation and satisfaction to visitors, the rewards of enduring commitments across ownerships throughout the Prairie Pothole Region of Iowa.*

## District Goals

The goals are broad statements that describe the desired future conditions of the district.

### Goal 1: Wildlife

In partnership with the Iowa DNR and others, restore a natural diversity and abundance of waterfowl, migratory birds, and other native fauna within the Iowa WMD.

### Goal 2: Habitat

In partnership with the Iowa DNR and others, conserve, restore, and expand grassland and wetland habitat managing for a natural diversity of native flora within the Iowa WMD.

### Goal 3: People

In partnership with the Iowa DNR and others, promote understanding, appreciation, and support for the Iowa WMD as well as stewardship and understanding of the southern Prairie Pothole Region and its native ecosystems to visitors and local residents.

## Relationship to Other Conservation Initiatives

### Migratory Bird Conservation Initiatives

Several migratory bird conservation plans have been published over the last decade that can be used to help guide management decisions for the district. Bird conservation planning efforts have evolved from a largely local, site-based orientation to a regional, even intercontinental, landscape-oriented perspective. Several transnational migratory bird conservation initiatives have emerged to help guide the planning and implementation process. The one regional plan most relevant to the majority of the district is the Prairie Pothole Joint Venture Implementation Plan (<http://www.ppjv.org/>) (figure 2-5). This plan is a product of stepping-down and incorporating all other larger-scale (North American, United States, international, etc.) species and other management plans, in particular the North American Waterfowl Management Plan.

The PPJV of the North American Waterfowl Management Plan is an effort by government agencies and conservation organizations to protect and restore waterfowl habitat within the PPR of the United States and Canada. Although initially targeted at waterfowl species, emphasis within the PPJV has been extended to nongame species as well. Research sponsored by Iowa

DNR and Iowa State University has demonstrated that a variety of birds and other species of greatest conservation need have successfully re-colonized the restored habitats (Zohrer, 2005).

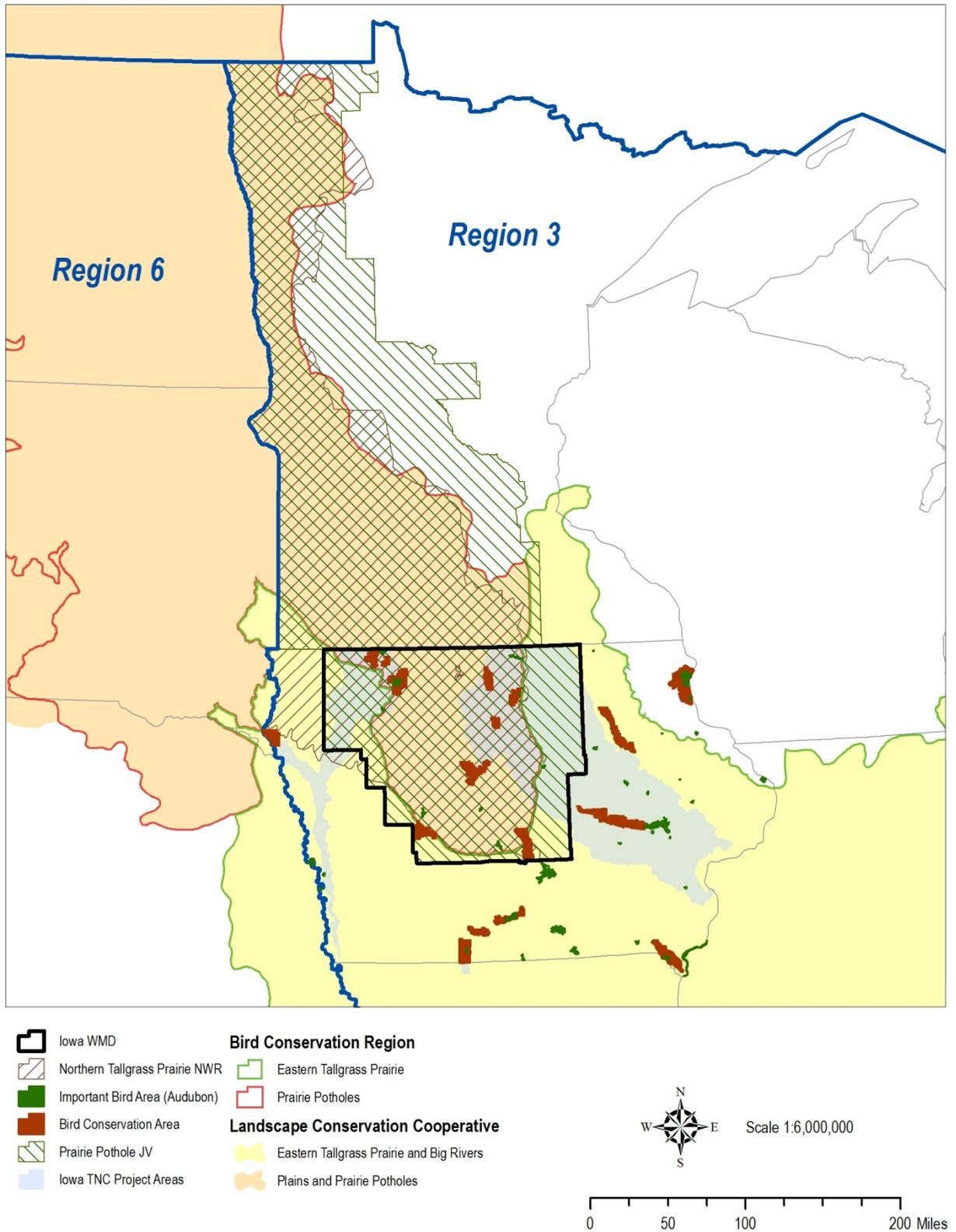
More specifically, the district lies primarily within the Prairie Potholes Bird Conservation Region (Bird Conservation Region [BCR] 11) (figure 2-5). This BCR is a glaciated area of mixed-grass prairie in the west and tallgrass prairie in the east. This is the most important waterfowl production area on the North American continent, despite extensive wetland drainage and tillage of native grasslands. Breeding dabbling duck density may exceed 100 pairs per square mile in some areas during years with favorable wetland conditions. The region comprises the core of the breeding range of most dabbling duck and several diving duck species, as well as providing critical breeding and migration habitat for over 200 other bird species, including such priority species as Franklin's Gull (*Leucophaeus pipixcan*), Yellow Rail (*Coturnicops noveboracensis*), and Piping Plover (*Charadrius melodus*). Baird's Sparrow (*Ammodramus bairdii*), Sprague's Pipit (*Anthus spragueii*), Chestnut-collared Longspur (*Calcarius ornatus*), Wilson's Phalarope (*Phalaropus tricolor*), Marbled Godwit (*Limosa fedoa*), and American Avocet (*Recurvirostra americana*) are among the many priority non-waterfowl species breeding in this region. Wetland areas also provide key spring migration sites for Hudsonian Godwit (*Limosa haemastica*), American Golden-Plover (*Pluvialis dominica*), White-rumped Sandpiper (*Calidris fuscicollis*), and Buff-breasted Sandpiper (*Tryngites subruficollis*). Continued wetland degradation and fragmentation of remaining grasslands threaten future suitability of the PPR for all of these birds.

BCR 11 contains 27 bird species listed as "Of Conservation Concern" by the Service (FWS, 2008a). This list identifies species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act. The overall goal of this report is to identify the migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that represent the Service's highest conservation priorities. The Service based its 2008 list of Birds of Conservation Concern primarily on the land bird, shorebird, and water bird status assessment scores. Some of the species on this list include Horned Grebe (*Podiceps auritus*), Least Bittern (*Ixobrychus exilis*), Swainson's Hawk (*Buteo swainsoni*), Mountain Plover (*Charadrius montanus*), Long-billed Curlew (*Numenius americanus*), Short-billed Dowitcher (*Limnodromus griseus*), Short-eared Owl (*Asio flammeus*), Grasshopper Sparrow (*Ammodramus savannarum*) and Dickcissel (*Spiza americana*).

## Strategic Habitat Conservation

Strategic habitat conservation (SHC) is a science-based approach to conservation focused on providing landscapes capable of sustaining trust species populations at objective levels. This approach is founded on an adaptive, iterative process of biological planning, conservation design, conservation delivery, monitoring, and research. SHC is an application of the scientific method and adaptive management to conservation at multiple spatial scales. This strategic conservation approach will include all Service programs and address both habitat and non-habitat factors limiting fish and wildlife populations.

**Figure 2-5: Conservation Initiatives Relevant to the Iowa WMD**



As a leader in fish and wildlife and habitat conservation and management, the Service is embracing a framework designed to maximize agency efficiency and increase on the ground conservation impacts. SHC enables the Service to:

- Respond to new environmental challenges;
- Advance opportunities with new and existing partners;
- Utilize science-based tools and resources to plan and evaluate conservation efforts; and
- Continue to ensure conservation successes locally, while advancing landscape objectives.

The Service mission can be met at a landscape scale, especially in the face of climate change, by:

- Fully utilizing existing technology such as Geographic Information System (GIS);
- Becoming trained in better decision making through the Structured Decision Making process;
- Reaching out to even more partners that have the necessary expertise to advance knowledge of the resource and its needs at multiple spatial and temporal scales; and
- Being diligent and transparent in planning and decision making processes.

### **SHC Guiding Principles**

- Habitat conservation is simply a means to attain the Service's true goal—the conservation of populations and ecological functions that sustain them.
- Defining measurable population objectives is a key component of SHC, at any scale.
- Biological Planning must use the best scientific information available, both as a body of knowledge and a method of learning. Service understanding of ecological conditions is never perfect. An essential element of SHC is managing uncertainty through an iterative cycle of planning, doing, and evaluating.
- Management actions, decisions, and recommendations must be defensible and explicit about the nature and magnitude of potential errors.
- Conservation strategies consist of dynamic suites of objectives, tactics, and tools that change as new information enters the SHC cycle.
- Partnerships are essential, both for management and for developing conservation strategies.

### **Plains and Prairie Pothole Landscape Conservation Cooperative**

The Service, with support and cooperation from the U.S. Geological Survey, has developed a national geographic framework for “putting science in the right places” to conserve our Nation’s fish and wildlife resources. Just as flyways provided an effective spatial frame of reference to build capacity and partnerships for international, national, state, and local waterfowl conservation, the national geographic framework provides a continental platform upon which the

Service can work with state and other partners to connect project- and site-specific efforts to larger biological goals and outcomes. By providing visual context for conservation at “landscape” scales—the entire range of a priority species or suite of species—the framework helps ensure that resource managers have the information and decision making tools they need to conserve fish, wildlife, plants, and their habitats in the most efficient and effective way possible.

The Service is using the framework as a basis for locating LCCs. Facilitated by DOI as part of its collaborative, science-based response to climate change, LCCs complement and build upon existing science and conservation efforts—such as fish habitat partnerships and migratory bird joint ventures—as well as water resources, land, and cultural partnerships. Iowa WMD is primarily within the boundary of the Plains and Prairie Pothole LCC, which is one of a network of partnerships working in unison to ensure the sustainability of America’s land, water, wildlife, and cultural resources.

The Plains and Prairie Potholes LCC is dedicated to the conservation of a landscape unparalleled in importance to a vast array of unique species whose populations are in steep decline. The LCC boundary transcends existing Service regional boundaries and the international border with Canada (figure 2-5). Currently, the Service and its partners are working to develop and apply the scientific tools necessary to determine how climate change, coupled with existing stressors such as the conversion of native prairie for agricultural purposes may affect the health and productivity of shared natural resources in this landscape. The actions of the Plains and Prairie Pothole LCC will support and supplement state wildlife action plans and enhance protection for fish and wildlife resources in the region.

## Region 3 Fish and Wildlife Conservation Priorities

Every species is important; however, the number of species in need of attention exceeds the resources of the Service. To focus effort effectively, Region 3 of the Service compiled a list of Resource Conservation Priorities in 2002. The list includes:

- All federally listed threatened and endangered species and proposed and candidate species that occur in the region;
- Migratory bird species derived from Service-wide and international conservation planning efforts; and
- Rare and declining terrestrial and aquatic plants and animals that represent an abbreviation of the Endangered Species Program’s preliminary draft “Species of Concern” list for the region.

## Climate Change Planning

### U.S. Fish and Wildlife Service

The Service’s *Rising to the Urgent Challenge: Strategic Plan for Responding to Accelerating Climate Change* (FWS, 2010) establishes a basic framework within which the Service will work as part of the larger conservation community to help ensure the sustainability of fish, wildlife, plants, and habitats in the face of accelerating climate change. It was developed in an effort to rise up and respond to, as well as in recognition of, what is perhaps the 21<sup>st</sup> century’s largest stressor on fish, wildlife, and plants: climate change. Part of the plan’s primary purpose is to lay

out a vision for accomplishing the Service mission to “work with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people” in the face of accelerating climate change. In this plan, a commitment to the Service’s vision is expressed through strategic goals and objectives that must be accomplished to sustain fish and wildlife nationally and internationally. A 5-Year Action Plan for Implementing the Climate Change Strategic Plan identifies specific actions that will lead to the accomplishment of these goals and objectives. The goals and objectives most relevant to this planning effort include the following:

- Goal 2: Develop long-term capacity for biological planning and conservation design and apply it to drive conservation at broad, landscape scales.
- Objective 2.1: Access regional climate science and modeling expertise through regional climate science partnerships.
- Objective 2.2: Develop landscape conservation cooperatives to acquire biological planning and conservation design expertise.
- Objective 2.3: Develop expertise in and conduct adaptation planning for key species and habitats.
- Objective 2.4: Incorporate climate change in service activities and decisions.
- Objective 2.5: Provide requested support to state and tribal managers to address climate change issues that affect fish and wildlife service trust resources.
- Objective 2.6: Evaluate fish and wildlife service laws, regulations, and policies to identify barriers to and opportunities for successful implementation of climate change actions.

The *Conserving the Future: Wildlife Refuges and the Next Generation* (FWS, 2011b) document is the Service’s bold, new vision for the Refuge System. This 21st-century strategic vision for the Refuge System acknowledges the broad social, political, and economic changes that have made habitat conservation more challenging since the agency last set comprehensive goals in 1999. In the intervening 12 years, the new vision states the Nation’s population has grown “larger and more diverse . . . and the landscape for conservation has changed—there is less undeveloped land, more invasive species, and we are experiencing the impacts of a changing climate.” The document includes 24 recommendations to guide the future of the Refuge System. The recommendation most relevant to this planning effort concerning climate change is:

Recommendation 2: Develop a climate change implementation plan for the Refuge System that dovetails with other conservation partners’ climate change action plans and specifically provides guidance for conducting vulnerability assessments of climate change impacts to refuge/district habitats and species as well as direction for innovation in the reduction of emissions and improved energy efficiency on federal lands.

## State of Iowa

The Iowa General Assembly enacted legislation in 2007 and 2008 to create the Iowa Climate Change Advisory Council (ICCAC). The ICCAC conducted most of its business from late 2007 through the end of 2008, concluding with a final report (ICCAC, 2008) to the governor and legislature. The focus of that report was the need to reduce greenhouse gas (GHG) emissions

in the state. Some progress has been made, but much work remains to be done to reverse the general trend of increasing Iowa GHG emissions during the past two decades.

Following this report, the Iowa Legislature requested additional information on the ramifications of climate change for Iowans, and it enacted a new bill in 2009 (amendment). The amendment set in motion a review of climate change impacts and policies for the State of Iowa. The final product was another report of findings and recommendations to the governor and general assembly by the Iowa Climate Change Impacts Committee (ICIC). The major requirements of the study included the following:

- An initial review of available climate change impacts studies relevant to Iowa
- A summary of available data on recent changes in relevant climate conditions
- Identification of climate change impacts issues, which require further research and an estimate of their cost
- Identification of important public policy issues relevant to climate change impacts

Therefore, the *Climate Change Impacts on Iowa 2010* report was released in 2010 (ICIC, 2010). One of the major recommendations from this report was to, “Increase investments in state programs that enhance wildlife habitat and management and restore public and private lands.” The report stated, “Changes in climate will have a direct impact on both game and non-game species.” In general, this report sought to highlight the latest literature documenting impacts in Iowa caused by a changing climate. In doing so, several key themes emerged including:

- The world is interconnected; changes in climate can easily reverberate across the globe.
- Iowans cannot reverse global climate change alone.
- Climate extremes cause the greatest impacts on people and the planet.
- Water: Too little limits drinking water and causes disease; too much generates floods, soil erosion, and other disease; changes in precipitation may prove to be one of the greatest impacts to such an agricultural region.

While this report relates most to how Iowans might adapt to climate change, ultimately mitigation efforts will be needed worldwide to reverse the trends discussed within.

Furthermore, the Iowa Smart Planning Act was signed into law in 2010, which articulates ten Iowa Smart Planning Principles. Smart Planning Principle 8: Natural Resources and Agricultural Protection includes three relevant adaptation planning strategies:

- Identify and protect wetland areas that are critical to slow the release of water into streams during times of extreme rain events;
- Establish strategies to promote redevelopment and compact new development that will minimize the conversion of farmland and woodland for urban use, to reduce the amount of impervious surface coverage in watersheds; and
- Develop state plans and programs to help farmers incorporate environmental protection practices, such as wetland protection, wetland restoration, buffer strips,

and natural ground cover (grasses) that have been shown to lessen the “flashiness” of stream flow. Promote federal, state, and local funding for preservation of open space, farm, and forest land.

## **Iowa’s State Wildlife Action Plan**

The Iowa DNR and over 100 public and private partners developed the Iowa state wildlife action plan with a 25-year vision for addressing concerns regarding 999 of Iowa’s birds, mammals, fish, amphibians, reptiles, mussels, land snails, dragonflies, and damselflies. Of the species considered, 147 are game species, and 297 are considered species of greatest conservation need (SGCN); nearly one third of all Iowa species are in need of conservation effort to prevent eventual candidacy for threatened or endangered status. Fish and birds have the greatest total number of species listed as SGCN, but aquatic and semi-aquatic wildlife have the highest percentages of their total number of species listed. Riverine habitats have the greatest number of SGCN among aquatic habitats, and woodlands have the most among the terrestrial habitats (Zohrer, 2005).

The vision elements and conservation actions in the plan are not specifically designed to be implemented by Iowa DNR. They are designed to provide a broad framework of actions that can be undertaken by conservationists at all levels of government, by private conservation organizations, and by private citizens. Extensive coordination will be necessary between stakeholders to make the vision a reality.

## **Partners for Fish and Wildlife Program**

It is estimated that 73 percent of land in the United States and 98 percent of the land in Iowa is privately owned, and that the majority of fish and wildlife resources occur on those lands. Consequently, the conservation lands held by federal and state agencies and other conservation groups cannot completely provide for fish and wildlife needs. Because the habitat needs of all species of interest to the Service cannot be met solely on public lands, public funds are also expended on private lands to accomplish habitat improvements through programs such as the Partners for Fish and Wildlife Program (Partners Program).

The Partners Program provides technical and financial assistance to private landowners and tribes who are willing to, on a voluntary basis, help meet the habitat needs of the Service’s federal trust species. The Partners Program assists with projects in a diversity of habitat types, which conserve or restore native vegetation, hydrology, and soils associated with imperiled ecosystems. Locally based field biologists work one-on-one with private landowners and other partners to plan, implement, and monitor their projects. The Partners Program field staff help landowners find other sources of funding and help them through the permitting process. This personal attention and follow-through is a strength of the program and has led to national recognition and wide support.

The Partners Program is guided by a national policy (FWS, 2003) with the following objectives:

- Promote and implement habitat improvement projects that benefit federal trust species;
- Provide conservation leadership, and promote partnerships;
- Encourage public understanding and participation; and

- Work with U.S. Department of Agriculture (USDA) to implement conservation programs.

The Partners Program works in a diversity of habitat types throughout the State of Iowa. Designated as a Partners Program focus area, the Des Moines Lobe lies within the boundaries of the district. Typical Partners Program efforts within this focus area strive to restore wetlands and surrounding upland habitats to form complexes of habitat for maximum benefit to grassland and wetland migratory birds. Most of the original tallgrass prairie and wetlands within this focus area are now row crop agriculture, primarily corn and soybeans.

Over the past fifteen years, the Partners Program at Iowa WMD and Union Slough NWR has assisted with restoring nearly 3,600 acres of upland and wetland habitat in over 185 projects (tables 2-2 and 2-3). The program has a five-year target for habitat restoration of 250 wetland acres and 500 upland acres as well as a five-year target for habitat enhancement of 150 wetland acres and 250 upland acres. Primary partners in this effort include the USDA, Iowa DNR, County Conservation Boards (CCBs), Pheasants Forever, The Nature Conservancy, Ducks Unlimited, and private landowners.

This work has the potential to affect a variety of wildlife species. For example, the endangered Topeka shiner will benefit directly from wetland restoration of riverine oxbows and secondarily from both tallgrass prairie and oak savanna restoration through improved water quality. In addition, this type of restoration project will help improve habitat conditions for numerous other species such as the federally threatened western prairie fringed orchid and prairie bush clover as well as additional species of special concern to the state and other conservation agencies. Many of these species are listed as SGCN by the Iowa DNR including Buff-breasted Sandpiper (*Tryngites subruficollis*), American Bittern (*Botaurus lentiginosus*), Bobolink (*Dolichonyx oryzivorus*), and Dickcissel (*Spiza americana*).

The result of a century and a half of change on Iowa’s landscape has been a huge shift in the composition of Iowa’s plant communities and the wildlife that inhabits them. With fertile soils and a favorable climate, it is likely that much of Iowa will remain in agriculture and private ownership in the near future. Large tracts of land for biodiversity management are seldom available; therefore, utilizing a private lands approach is a critical part of overall conservation in Iowa.

**Table 2-2: Past Partners for Fish and Wildlife Program Projects within the Iowa WMD**

Year	Wetland		Riparian		Upland	
	Acres	Number*	Acres	Number*	Acres	Number*
1997	650.9	31	0	0	649.4	24
1998	185.8	25	0	0	97.5	10
1999	130.9	25	0	0	119.6	10
2000	44.9	13	0	1	229.1	17
2001	66	11	225 ft.	0	112.9	14
2002	32.7	5	225 ft.	1	80	12

\*Refers to individual projects.

## Iowa DNR Private Lands Program

The Iowa DNR's Private Lands Program has also completed substantial habitat work within the district. Since the program began, over 148,000 acres of habitat restoration or improvement have been planned and nearly 70,000 acres have been implemented (figure 2-6). This includes activities such as converting cropland to grassland, interseeding, prescribed burning, woody invasion removal, wetland restoration, and edge feathering.

**Table 2-3: Partners for Fish and Wildlife Program Projects within the Iowa WMD Recorded in HabITS\***

Year	Wetland		Upland		Invasive Species		Wood Duck Box/ Nesting Structure
	Acres	Number**	Acres	Number**	Acres	Number**	Boxes
2001	1	1	1	1	0	0	0
2002	37.2	6	76.5	11	0	0	0
2003	23.5	4	37.1	6	0	0	5
2004	10	3	283.25	11	0	0	5
2005	13	3	40	5	0	0	1
2006	10.48	4	0.66	1	0	0	0
2007	4.5	1	132.34	3	342.77	6	0
2008	61.1	5	5.33	3	150.48	4	0
2009	0	0	0	0	0	0	0
2010	0	0	0	0	103	3	0

\*Current tracking database for Partners Program Projects, Habitat Information Tracking System.

\*\*Refers to individual projects.

## Bird Conservation Areas

Bird Conservation Areas (BCAs) have been designated by Iowa DNR as significant habitat complexes for birds generally following guidelines established by Partners in Flight. They are areas of 10,000 acres or more made up of a core area of permanently protected natural habitat surrounded by a matrix of public and private natural lands. While targeted specifically at birds, large tracts of natural habitat such as these have been identified as providing significant habitat protection and restoration potential for SGCN. Seven BCAs occur within the district: Spring Run in Dickinson County, Eagle Lake Wetlands in Winnebago and Hancock Counties, Dewey's Pasture in Emmet, Palo Alto, and Clay Counties, Union Hills in Cerro Gordo County, Lower Morse Lake in Wright County, Raccoon River Savanna in Guthrie County, and Chichaqua-Neal Smith in Polk and Jasper Counties (figure 2-5).

## Important Bird Areas

Iowa Audubon's Important Bird Areas (IBAs) Program is a citizen-led, science-based and data-driven bird conservation initiative. The district contains nine IBAs with joint BCA designation and 18 other IBAs scattered across its counties (figure 2-5). The intent of the program is to:

- Identify, recognize, and prioritize habitats that support the most seriously declining species of birds;

- Monitor bird populations and habitat conditions, and organize education programs at designated IBA sites where appropriate; and
- Work with landowners and land managers to develop and implement long-term conservation plans to protect, restore, enhance and manage IBAs according to their environmental threats and conservation needs.

## **Wetland Reserve Program**

The Wetland Reserve Program (WRP) was established with the 1990 Farm Bill. Major flooding that covered Iowa and the Midwest in 1993 led to an effort designed to get development and agriculture out of areas prone to flood and return them to their original wetland condition. Iowa DNR in cooperation with USDA Natural Resources Conservation Service (NRCS) and other partners have been able to acquire permanent easements in nearly every county within the district (figure 2-6). Iowa DNR is working with landowners to enroll lands in the WRP and acquire their residual value so that these lands will be managed for wildlife.

According to the NRCS, the cumulative acres enrolled in WRP in the State of Iowa in 2008 totaled just over 80,000. In 2010, an additional 3,548 acres were enrolled in WRP across the state, down from 4,184 acres enrolled in 2009. Cumulatively then, in 2010, nearly 88,000 acres were enrolled in WRP across the state.

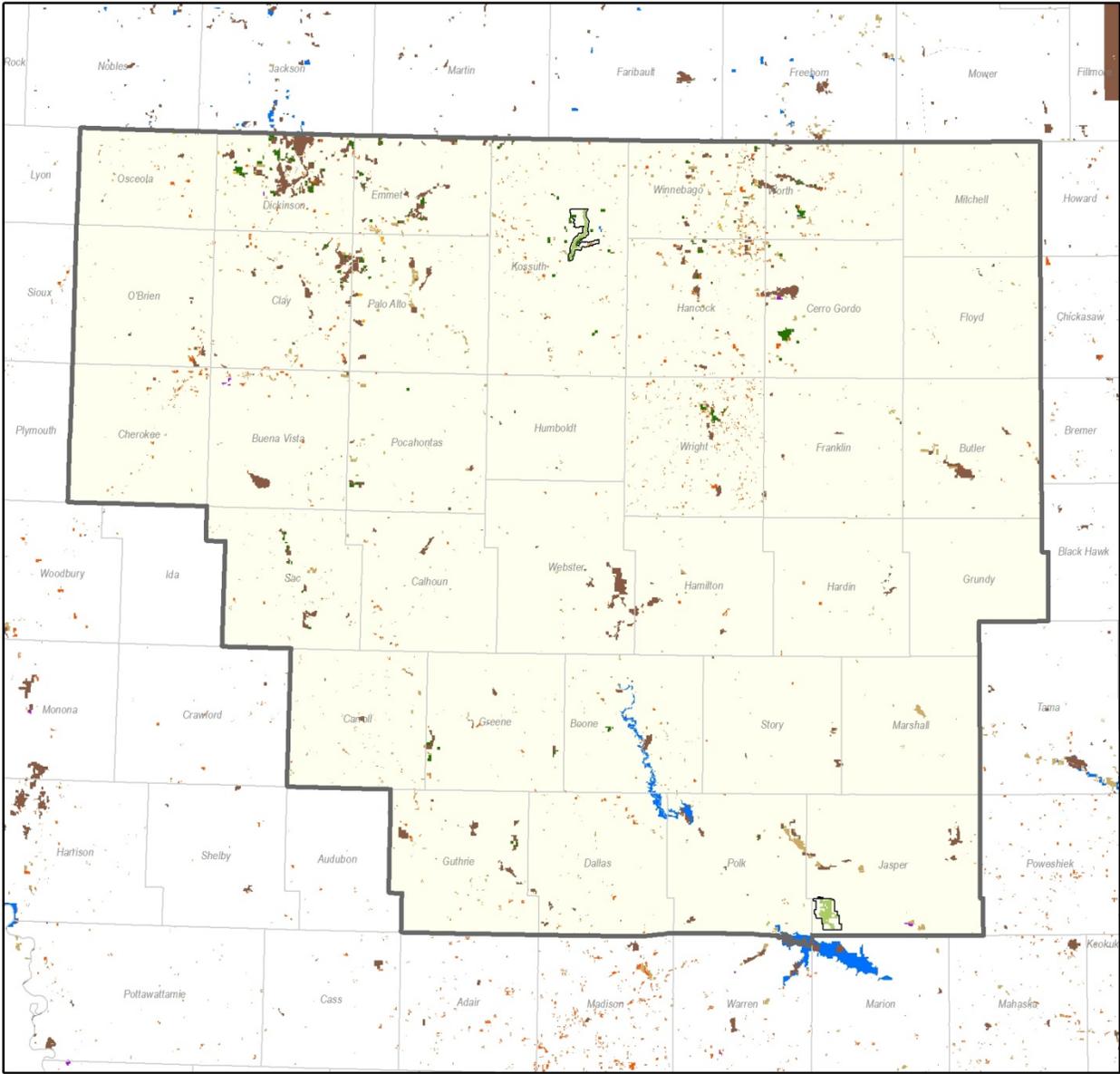
Furthermore, the Wetlands Reserve Enhancement Program, which is a component of WRP and is administered through NRCS, is and will continue to be an important habitat protection tool used in the district. This program has been instrumental in stretching the funding of the Small Wetlands Program in Iowa by enrolling private lands in WRP. In this program, willing landowners in priority complex areas work with Iowa DNR biologists to enroll their properties in WRP. Once the properties are accepted by NRCS, Iowa DNR completes and carries out restoration plans. The Service, as a partner in the program, then targets this property for acquisition in either a permanent WPA easement or purchase as a WPA through fee title. Throughout this process both acquisition and restoration costs are greatly reduced.

## **Conservation Reserve Program**

The USDA's Conservation Reserve Program (CRP) protects millions of acres of American topsoil from erosion and safeguards the Nation's natural resources. By reducing water runoff and sedimentation, CRP protects ground water and helps improve the condition of lakes, rivers, ponds, and streams. More recently, an emphasis has been placed on wetland and native prairie restoration as a condition of enrollment so the program has also become a major contributor to increased wildlife populations in many parts of the country.

In Iowa, new participants are making their lands available for wildlife habitat restoration. This presents an important role for the district to lend its restoration experience and expertise to make these CRP restorations as high quality as possible. According to the USDA Farm Service Agency, the total acres enrolled in CRP within the 35 counties of the district were 375,867 in 2010. This was the fourth year in a row for a decrease following an eight-year increase. This is likely due to recently high commodity prices, which are causing some producers to terminate their CRP contracts early to get the land back into row crop as soon as possible. Peak years for the district with just over 450,000 acres enrolled were 1993 and 1994. Guthrie County had the most acres (nearly 28,000) enrolled in 2010 while Cherokee had the least (just over 3,000).

Figure 2-6: Protected\* Land in Iowa



Scale 1:1,900,000  0 15 30 60 Miles  
 Produced Feb 2013 by: USFWS Region 3, Conservation Planning  
 Data depicted in UTM NAD 83, Zone 15 meters

 Iowa Wetland Management District	<b>Class Description</b>
<b>Iowa WMD Managed Areas</b>	 Federal Land
<b>Ownership Type</b>	 State Land
 Fee	 Other Conservation Land (County, Local, WRP)
 Easement	 DNR Private Lands Habitat Projects
 NWR Approved Acquisition Boundary	 TNC Land
<b>NWR Owned Land</b>	
 NWR Owned Land	



\*Protected land does not necessarily imply permanency. Conservation Reserve Program as well as the Service's Partners for Fish and Wildlife Program project locations were unavailable.

## Other Conservation Lands in the Area

The district is administered by the staff of the Union Slough NWR, which was established in 1938 to provide refuge and breeding ground for waterfowl and other migratory birds. The refuge proper is 2,916 acres including 70 acres of easement (FWS, 2011a). The refuge also manages 160 acres of the Tallgrass Prairie NWR that were purchased near the Prairie Smoke WPA (FWS, 2011a).

The Northern Tallgrass Prairie NWR overlaps the majority of the district in Iowa and continues up into northern Minnesota along its western border. The refuge was established in 1999 with a primary goal of preserving 77,000 acres of native prairie and buffer lands at widespread locations within the historic range of the northern tallgrass region of Minnesota and northwest Iowa. Currently, the refuge includes over 5,200 acres in fee title, easement, and under lease or agreement (FWS, 2011a).

Neal Smith NWR is in the far south central part of the district. It was established in 1990 to re-create a large expanse of tallgrass prairie and oak savanna. Currently, the refuge is 5,387 acres (of the 8,645 acres approved for acquisition) (FWS, 2011a). However, an expansion was recently approved, which added 3,207 acres to the existing acquisition boundary of the refuge.

Nearly 190,000 acres of state land exist within the district including 27 state parks, 32 state preserves, over 160 Wildlife Management Areas (WMAs) and eight recreation areas. Nearly 2,000 acres of county parks and preserves exist within the district as well. The Nature Conservancy also owns several preserves within the district and continues work in two major project areas: Boone River Watershed and Little Sioux Valley (figure 2-5). Finally, the Department of Defense and Department of Energy maintain the Red Rock and Saylorville Reservoirs, both of which contain recreational land around them (figure 2-6).

## The Planning Process

### Public Involvement

Initial conversations about comprehensive planning for the Iowa WMD began mid-year of 2009, however the official kick-off was in December of 2011. In addition to identifying information essential to the planning process, district staff also developed a communication plan and a preliminary list of issues to be addressed in the CCP. Both Iowa DNR and Tribal representatives from the Sac and Fox Tribe of the Mississippi were invited to join the core planning team.



*Dickinson County Public Open House*

The public scoping period began on January 30, 2012 and lasted for 30 days. Approximately 400 letters were mailed to stakeholders announcing the public scoping period, inviting them to the open houses, and explaining how to comment. The comment period

was also announced through a press release sent to a wide variety of media in Iowa and Minnesota. A series of open houses was held in Clear Lake, Algona, Spirit Lake, and Jefferson in February of 2012. The open houses gave the public an opportunity to discuss issues with district and state staff and regional planners. Thirty-nine people attended the open houses and 25 written comments were received during the public scoping period.

On April 10, 2012, an internal scoping review took place at the FWS Regional Office in Bloomington, Minnesota to further develop and refine the list of issues to focus the CCP around.

Finally, during the first week of June 2012, the district hosted a planning workshop, which included nearly 40 invitees from the Service (regional office, district, HAPET, Partners Program and Neal Smith NWR staff), Iowa DNR, Iowa State University, University of Minnesota, University of Northern Iowa, and the Kossuth County Conservation Board. The workshop included a variety of exercises to review the issues and begin to develop the alternative ways of managing the district over the next 15 years.



*Partner Planning Workshop*

## Planning Issues

An issue is any unsettled matter that requires a management decision, such as an initiative, opportunity, resource management problem, threat to the resources of the unit, conflict in uses, public concern, or the presence of an undesirable resource condition (FWS, 2000). Issues arise from both within and outside of the Service. Public scoping as well as scoping of district and regional Service staff and other agencies produced ten issues that suggest alternative ways of managing the district and several others that did not.

### Issues that Drive an Alternative

#### **Wildlife**

- What species group and life cycle is the focus of district management?

The primary purposes of the district are to serve as production areas for waterfowl and to provide habitat for migratory birds. However, WPAs provide habitat for a variety of other wildlife as well. Therefore, management of WPAs should primarily be for waterfowl production and other migratory birds. Resident wildlife or other species should be a secondary focus. Focusing management on all species can lead to not managing for any one species or group very well.

#### **Habitat**

- How should the district address the decrease in populations of grassland-dependent birds due to the decline of grassland habitat?

- How can the district improve/maintain upland habitat quality?
- What wetland type is the focus of district management?
- How can the district improve/maintain wetland quality?
- How can the district manage food plot use?

While much of the surrounding landscape is agricultural row crop, the district provides a real opportunity to build larger grassland/wetland habitats. However, the use of cooperative farming as a management tool has kept even the district habitat relatively small and somewhat fragmented. Agricultural row crop is not ideal habitat for grassland-nesting birds, in decline across much of their native range. Furthermore, many grassland-nesting birds have differing habitat structure requirements. Some species prefer thick, dense, tall cover; others need shorter, thinner cover. Meeting all of these needs is challenging in a landscape with limited habitat.

The large size of the district makes restoration of complete plant communities in both the upland and wetland (primarily the wetland) difficult. Other challenges such as how to best manage the invasive woody vegetation across the district, the expense and limit of local ecotype seeds, and the time and size of crop conversion to natives are also present. Furthermore, the Iowa DNR has numerous shallow lake (water quality) improvement projects underway on state land with many more planned. Restorations include in-lake management strategies as well as on-going efforts to implement best management practices on public and private land in the watersheds.

Since 2006, the amount of land under cooperative farming leases across the district has decreased while the total number of acres in WPAs has increased. Currently, the Iowa DNR manages approximately 21,200 acres of WPAs of which approximately 17 percent is under a cooperative farming lease. The Iowa DNR has a goal of seeding at least 500 acres of row crop agriculture in WPAs to native tallgrass prairie species during the 2013 season. This is also an annual target for the district over the next 15 years as described in chapter 4 as an objective. This is the result of recent collaborations between the Service and Iowa DNR to make it a district priority to convert cooperative farmed land to perennial cover at a more rapid rate.

Currently, the district manages complexes that contain a variety of wetland types often within the watershed of a shallow lake owned by the State of Iowa. However, the wetland type the district will focus on in the future will be determined primarily by the habitat needs of the focal species group and life cycle. This is also true for the use of food plots. Currently, they account for approximately three percent of the total upland WPA acres and are used to discourage depredation on private land, provide winter food, and improve recreational opportunities. However, there is a desire for future use to be eliminated or reduced in number and more strategically located.

### **Strategic Land Protection**

- How will the district address the decreasing purchasing power of existing funds?
- What are the district's priority areas for acquisition?

In general, the public supports growing the district both for wildlife-dependent recreational opportunities as well as to improve/protect water quality. However, much of the land within the district is privately owned, and much of that land is in row crop agriculture. High commodity

prices in recent years have driven land values within the district to an all-time high, therefore decreasing the amount of land that can be acquired with existing traditional funding. Current acquisition is based on priority complexes established by the state in conjunction with the Service many years ago. Recently, however, a project was completed that could aid in determining the restorable wetlands left within the State of Iowa. This and other new information could help refocus priority areas for acquisition.

### **People**

- How can the district promote awareness and understanding of WPAs as well as educate the public on the importance of their management?
- What public uses can the district allow that are appropriate and compatible with the Service and Refuge System mission and meet the public demand for more recreational opportunities?

The purpose of and reason for managing WPAs is not well known by some adjacent landowners, local communities, and larger cities within the district (especially by non-consumptive users). Therefore, the support and appreciation of these sites is lacking and better stewardship on adjacent private land (minimize overspraying and loss of wetland/grassland marginal areas) is desired. Marketing and utilization of the private lands and easement programs for the Service as well as the state could be improved across the district.

While WPAs are generally open to hunting (unless deemed a “waterfowl refuge” by the state), fishing, trapping by law, and other public uses have not yet been determined appropriate and/or compatible for the district. In general, there is demand from the public for more recreation (hiking, environmental education, etc.), wildlife observation opportunities (bird watching, etc.), public access, and hunting opportunities. Some of the specific public use requests for the district include the following:

- Ride horses
- Ride bikes
- Train dogs
- Operate motorboats
- Geocache
- Creatively write, paint, and photograph

### **Alternative Development**

Four management alternatives (including the no action alternative) were developed based on the issues determined during scoping. The primary drivers for each alternative were focal species group and lifecycle. Alternative D, the preferred alternative, constitutes this CCP and is mostly a combination of the other alternatives (including parts of the no action alternative). Breeding waterfowl, primarily represented by Mallard and Blue-winged Teal, is the focus for management activities. The dominant activity is restoring cropland to perennial grassland. Other “elements common to all alternatives” that are also a part of the preferred alternative include the following:

- The general management direction in this plan will apply to all district properties in which the Service has acquired an interest across the 35 counties.
- Existing WPAs or other district properties will be inventoried as necessary; any new techniques implemented will be monitored as necessary to allow for adaptive management; and research will be designed when and where it was needed to support and/or guide management.
- Since one of the goals of refuge/district planning is “to provide a basis for adaptive management by monitoring progress, evaluating plan implementation, and updating refuge plans accordingly” (FWS, 2000), the adaptive management process will be utilized in the district.
- The portions of three WPAs—Jemmerson Slough (Dickinson County), Elk Creek Marsh (Worth County), and Rice Lake (Winnebago and Worth Counties)— currently closed by state regulation as waterfowl refuges will remain closed.
- Within two years of CCP approval, it will be proposed through the federal rulemaking process to implement the following regulation on the Service’s fee title property within the Iowa WMD: “You may only use or possess approved nontoxic shot shells while in the field, including shot shells used for hunting wild turkey.” This requirement would be in line with current regulations at 50 CFR 32.2(k).
- The district will attempt to reduce its contribution to climate change as well as monitor the effects of climate change in the district.

## **Prepare NEPA Document and Draft Plan**

All of the internal and public input was used to write an EA and Draft CCP, which was released for public review and comment. The 30 day review and comment period began on Monday August 19<sup>th</sup>, 2013 and was announced through postcards, news releases, and two open house meetings in Algona and Spirit Lake. Two hard copies of the document were made available for public review at the Algona and Spirit Lake libraries, a digital copy was available on the project’s website, and CDs were available at the open house meetings. Ten people attended the open houses, and five comments were received from four different commenters. Three comments were received from the same individual, one comment was from another federal agency, and one comment was on behalf of two different non-profit public interest and environmental advocacy organizations.

## **Prepare and Adopt Final Plan**

Each of the comments received were considered in finalizing the CCP and responded to in appendix J. This CCP will guide management on the district over a 15-year period providing general direction for managing habitat, wildlife, and visitor services at Iowa WMD. It will also guide preparation of more detailed step-down management plans for specific resource areas.

## **Inventory, Monitoring, and Research**

Following approval of the CCP and public notification of the decision, implementation will begin. Funding and staff time will be allocated to implementation of the CCP as appropriations and budgets allow. Development of a stepped down Habitat Management Plan (HMP) and other plans (i.e., Visitor Services Plan) will begin and serve to guide habitat management, restoration

and reconstruction priorities, and public use. A companion Inventory and Monitoring Plan or additional chapters on inventory and monitoring appended to the HMP will be written to guide the district's priorities for monitoring. Information gained via inventories, monitoring, or research activities will allow the station to evaluate its progress in achieving the planning unit purposes, vision, and goals. The associated step-down plans will address habitat and/or population objectives and provide a means for evaluating the effects of management activities and public use. Through adaptive management, evaluation of monitoring, and research results may indicate the need to modify district objectives or strategies.

## Step-Down Management Plans

The CCP is a plan that provides general concepts and specific wildlife, habitat, and people-related objectives. Step-down management plans provide detail to managers and employees who will carry out the strategies described in the CCP. The district staff will develop the step-down plans listed in table 2-4 after completion of this CCP.

**Table 2-4: Step-Down Management Plan Completion Schedule for the Iowa WMD**

Step-Down Management Plan	Amount of Time for Completion after CCP Approval
Habitat Management Plan	3 years
Inventory and Monitoring Plan	3 years
Visitor Services Plan	4 years

## Plan Review and Revision

The CCP is meant to provide guidance to the district manager and staff over the next 15 years. However, the CCP is also a dynamic and flexible document, and several of the strategies contained in this plan are subject to uncontrollable events of nature. Likewise, many of the strategies are dependent upon Service funding for staff and projects. For these reasons, the recommendations in the CCP will be reviewed annually and revised if necessary (FWS, 2000). The annual plan review process will include an evaluation of changing information and ecological conditions related to climate change. If significant changes are identified that compromise the district's purpose, vision, or goals, then the CCP will be revised. The CCP will be revised every 15 years or sooner when significant new information becomes available, ecological conditions change, major district expansion occurs, or when determined necessary by the periodic review (FWS, 2000). All plan revisions will follow the Service's planning process and will be compliant with NEPA. Minor plan revisions that meet the criteria of a categorical exclusion will be handled in that manner; however, if the plan requires a major revision, then the CCP process starts anew at the preplanning step (FWS, 2000).