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WATER POLLUTION CONTROL PLANT

MEMORANDUM

To: Gregg Mandsager, City Administrator

CC: Nancy Lueck, Finance Director
Fran Donelson, Secretary

From: Jon Koch, WPCP Director

Date: May 2, 2017

Re: Houser Pollinator Park Landowner Agreement

INTRODUCTION: The U.S. Fish and Wildlife Service (USFWS), the City of Muscatine and the Muscatine Pollinator Project have agreed to work together to restore native habitat under the Regional Partners for Fish and Wildlife (Partners) Program Strategic Plan. A landowner Agreement with consent for Spatial Information Sharing rights has been proposed for specified portions of City property around the Transfer Station at 1000 Houser Street. City Council is being asked to approve the request as proposed in the Landowner Agreement No: 17 Muscatine 02 between the USFWS, the City of Muscatine and the Muscatine Pollinator Project.

BACKGROUND: Farm land that has not been farmed for many years had gone to weeds and was routinely mowed by City staff or left to grow wild. When staff with the Stormwater Department became aware of the area and mowing practice in November, 2016, a proposal was made to the Public Works Director and City Administrator that the area be utilized as a Pollinator Park to be managed by City staff and local volunteer groups. A new trail was nearly completed that would run from the new bike trail starting at the new dog park, around behind the transfer station and ending at the entrance to the transfer station. All parties realized this unused area would be a visible eye sore and an underserved asset.

Ron Knopik with the USFWS took the lead to develop and write the agreement with assistance from the Muscatine Stormwater Department, the Muscatine Pollinator Project, Iowa Department of Natural Resources, the Muscatine County Conservation Board, Trees Forever and other local experts to make this a regional destination for educating the public on ecosystem diversity and ecological restoration.

RECOMMENDATION/RATIONALE: City Staff recommends approval of the Landowner Agreement dated 4/28/2017 between the USFWS, the City of Muscatine and the Muscatine Pollinator Project.

BACKUP INFORMATION:

1. Landowner Agreement No: 17 Muscatine 02

Landowner Agreement No: 17 Muscatine 02

Other: FXHC11210303HR0

**[PARTNERS FOR FISH AND WILDLIFE PROGRAM
LANDOWNER AGREEMENT]**

This Landowner Agreement (Agreement), dated 4/28/2017, between the City of Muscatine, Muscatine Pollinator Project, and the U.S. Fish and Wildlife Service (USFWS) is entered into pursuant to authority contained in the Partners for Fish and Wildlife Act (P.L. 109-294), the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) and the Fish and Wildlife Act of 1956 (16 U.S.C. 742a-j), as amended. This project was selected because the Landowner(s) share(s) a common objective with the USFWS to restore habitat for the benefit of Federal trust species on private lands, and the project supports priority actions identified in the Regional Partners for Fish and Wildlife (Partners) Program Strategic Plan.

City of Muscatine, 215 Sycamore Street, Muscatine, IA 52761, hereby agrees to participate with the USFWS in conducting certain wildlife management practices on lands owned or managed in Muscatine County, State of Iowa, described as follows: all of, or within, Township 76N / Range 2W / Section 4/9.

In signing this Agreement, the Landowner(s) join(s) as a participant in a wildlife habitat improvement program and grants to the USFWS and Muscatine Pollinator Project authority to complete the habitat improvement project or the Landowner(s) may personally carry out management activities with financial or material support as described in attached Exhibit A. Any donation of supplies or equipment to the Landowner for carrying out the habitat improvements is included in Exhibit A. The activities conducted pursuant to this Agreement are not to replace, supplement or otherwise contribute to any mitigation or compensation that may be required of the Landowner(s) or other parties as a result of any mandated requirements.

The term of this Agreement (also referred to as the habitat retention period) will be completed on 4/27/2032. This Agreement may be modified at any time by mutual written consent of the parties. It may be terminated by either party upon 30 days advance written notice to the other parties. However, if the Landowner terminates the Agreement before its expiration, or if the Landowner should materially default on these commitments, then the Landowner agree to reimburse the USFWS prior to final termination for the prorated costs of all habitat improvements placed on the land through this Agreement. For these purposes, the total cost of the habitat improvements to the United States is agreed to be \$ 4,100.

Landowner:

The Landowner(s) or his/her land manager, with legal authority over land management decisions, guarantee(s) ownership of the above-described land and warrants that there are no outstanding rights that interfere with this Landowner Agreement.

The Landowner(s) will notify the USFWS and Muscatine Pollinator Project of planned or pending changes in ownership. A change of ownership shall not change the terms of this Agreement. The Agreement and terms shall be in effect on the described land for the term of

the Agreement.

The Landowner(s) agree(s) to allow access (with advance notice) to the USFWS and Muscatine Pollinator Project to implement the project described in Exhibit A, and to monitor project success.

The Landowner(s) retain(s) all rights to control trespass and retains all responsibility for taxes, assessments, and damage claims.

During the habitat retention period, the landowner must maintain the habitat restored under this award.

At the end of the habitat retention period, the habitat improvement project will become the sole property and complete responsibility of the Landowner(s). There shall be no obligation to the USFWS after the term of the Agreement has expired.

The Landowner(s) will be responsible for securing any necessary permits. Technical advice and support will be provided by participating agencies in the application for the permits). The Landowner(s) agree(s) to identify USFWS' contribution to the project during public presentations, reports, or other information published about the project, as appropriate.

The Landowner will be free to remove any structure at his/her own expense at the termination of the Agreement; however, the Agreement does not supersede any Local, State, or Federal regulation that would apply to the removal of any such structures.

The Landowner will not be responsible for replacing wildlife habitat developments that are damaged or destroyed by severe acts of nature.

USFWS:

The USFWS will work with the Landowner(s) and Muscatine Pollinator Project throughout the entire Agreement term to support actions needed to ensure that the project is designed and constructed per the Agreement and functions as intended.

The USFWS, its agents, or assignees will provide advanced notice prior to accessing the Landowner(s) property to implement the project described in the work plan, and to monitor project success.

The USFWS assumes no liability for damage or injury other than that caused by its own negligence, on the above acreage. The USFWS does not assume jurisdiction over the premises by this Agreement.

Spatial Information Sharing: In accordance with the Privacy Act of 1974, permission must be obtained from the Landowner before any personal information can be released. The only information that can be shared is payment information that is authorized by law. Therefore, Landowner consent is requested to allow for sharing of spatial information about this project solely with conservation cooperators providing technical or financial assistance with the restoration, enhancement or management of fish and wildlife habitat.

I, the Landowner, consent to having spatial information about this project shared with other conservation cooperators

I, the Landowner, do NOT wish to have any spatial information about this project shared with other conservation cooperators

Signatures:

Gregg Mandsager, Administrator, City of Muscatine, Landowner(s)
Date

Dave Cooney, Muscatine Pollinator Project Date

Ron Knopik, USFWS Partners for Fish and Wildlife Program Biologist
Date

Sally Flatland, Manager, USFWS Partners Program State Coordinator or Field Supervisor or
Branch Chief Date

EXHIBIT A

The habitat improvements described below are agreed to by the City of Muscatine, the USFWS, and Muscatine Pollinator Project in a Landowner Agreement dated 4/28/2017.

Description of Habitat Improvement Project and Objectives:

Background: The monarch butterfly (*Danaus plexippus*), a North American icon, was once abundant and common across the United States. It is now declining at an alarming rate, as are a host of other pollinators including native bees, moths, bats, and other butterflies. Habitat loss in the breeding areas, along the migration routes, and in the wintering grounds has been cited as the primary factor in these declines.

The City of Muscatine is raising awareness to the plight of monarchs and providing critical habitat necessary for their continued survival. In August of 2016, Mayor Diana Broderson signed the National Wildlife Federation's Mayors' Monarch Pledge while other city employees and volunteers created a butterfly garden, planted pollinator-friendly trees, and are changing land management practices to promote native grasses and wildflowers. Capitalizing on this local enthusiasm and support, the city agreed to set aside additional acres to benefit pollinators and the Partners for Fish and Wildlife (PFW) Program of the U.S. Fish and Wildlife Service is honored to provide technical assistance and funding to further these initiatives.

Project Summary: The project consists of working with the City of Muscatine, Muscatine Pollinator Project (a local conservation organization), and numerous other partners to restore and enhance 25 acres of habitat on the city-owned property adjacent to the Muscatine Transfer Station. The property consists of a mix of upland, wetland, and woodland areas with predominately flat topography except for the steep slopes associated with Muscatine Slough along the southern boundary. Additionally, a 1-mile multi-use recreational trail developed and maintained by the City of Muscatine will encircle and showcase the mosaic of habitats within the project area (see map). With these project features, the land managers will have the ability to accompany habitat management and restoration efforts with environmental education programs, opportunities for community outreach, and a greater appreciation of the natural world by residents and visitors alike.

With the goal of returning degraded landscapes to healthy, diverse ecosystems through ecological restoration, a number of practices will be initiated in 2017 and beyond to include:

- Planting diverse, native pollinator seed mixes
- Performing timber stand improvements
- Maintaining/Enhancing existing grassland habitats
- Planting native trees and shrubs
- Prescribed burning



One or more of these practices will be initiated on specific sites within the project area (see map). The timing of these practices will vary depending on field conditions and availability of funding, personnel, and equipment. A description of each practice is provided below.

Pollinator Seeding: Phase I (8 acres)

The PFW Program will assist the partners in the planting of an 8-acre, former agricultural field to diverse, native pollinator seed mixes based on site hydrology. This seed mix will provide host plants and nectar sources for an array of pollinators to include butterflies, moths, beetles, bees, and bats while also providing food and shelter for birds and mammals, and other species. Native bees and the monarch butterfly, which have seen recent population declines, will benefit greatly from this restored habitat. In addition to providing critically-needed pollinator habitat, this site will function as an outdoor classroom to demonstrate the importance of pollinators in the landscape. Over time, and with proper management, this diverse prairie will provide structural heterogeneity across the project site and provide a collectable seed source for dispersal to other areas.

Treatment Date: A late-Spring 2017 seeding is anticipated with assistance from The Nature Conservancy and/or the Muscatine County Conservation Board.



Figure 1: View of Phase I seeding area (looking to the southwest)

Pollinator Seeding: Phase II (8 acres)

This seeding will occur on 3 locations within the project area and will require a prescribed burn, moderate disking, and herbicide applications to prepare the soil for broadcasting or drilling. The end result will be species and habitat benefits like those associated with the previous pollinator seeding. With similar soil conditions, an identical seed mix will be used but will be dormant or over-snow seeded at a later date.

Treatment Date: A late-Fall 2017 or early 2018 seeding with assistance from The Nature Conservancy and/or the Muscatine County Conservation Board.

Tree and Shrub Planting (2 acres)

Pollinators, planners, and pedestrians will also benefit from over 2 acres of woody plantings throughout the project site. On the southwest corner on the steep slopes associated with Muscatine



Figure 2: Site of planned tree nursery

Slough and adjacent to the proposed dog park, 75-125 trees and shrubs including serviceberry (*Amelanchier spp.*), dogwoods (*Cornus spp.*), plums (*Prunus spp.*), and viburnums will be planted. These groupings will benefit pollinators, provide food and shelter for wildlife, and screen areas adjacent to the project site. A 300+ tree nursery has also been proposed in an area presently in turf grass near the entrance to the transfer station. Potential species in this planting include river birch (*Betula nigra*), oaks (*Quercus spp.*), hackberry (*Celtis occidentalis*), and Ohio buckeye (*Aesculus glabra*). In time, these trees will replace ash trees in the city lost due to the emerald ash borer and weather events, augment the

diversity of city boulevards and parks, and provide additional pollinator-friendly plants in the landscape. Lastly, individual or small groups of trees and shrubs will be planted in locations along the multi-use trail to improve the sites' species composition and diversity. State foresters, city personnel, and conservation organizations will help develop the species list and forestry plan which will be included as an attachment to this project plan upon completion. It is important to note that butterfly species such as the Spicebush Swallowtail (*Papilio troilus*), Viceroy (*Limenitis archippus*), and the Red-spotted Purple (*Limenitis arthemis*) all rely on native Midwestern woody plants at various stages of their development.

Treatment Date: A late-Fall 2017, Spring 2018, and Fall 2018 effort with assistance from the Iowa DNR, Trees Forever, and other organizations.

Enhance Existing Uplands (4.5 acres)

The uplands associated with the wetland areas in the south and running along the fence line to the southwest corner will be enhanced over time through prescribed burning, inter-seeding, and planting locally grown forb plugs. Site visits revealed an array of native grasses and forbs that would benefit from the enhancement of these degraded grassland habitats.

Treatment Date: Prescribed burning will begin in early 2017 with additional practices (inter-seeding and plug planting) planned and implemented based on site surveys, seed bank viability, and plant response throughout the term of this agreement.



Figure 3: Existing grassland habitat on the southwest corner

Timber Stand Improvements (3.5 acres)

The woodlands of the project site contain a variety of extremely desirable native hardwoods, less-desirable native trees, some invasive trees, and non-native trees. The composition of the woodland is a great influence on the presence and abundance of native wildlife species...including hundreds of pollinators. Following a forest stewardship plan developed by an Iowa DNR forester (attached), native hardwoods will be released through the removal and/or thinning of eastern red cedars



Figure 4: Cedar encroachment along the west boundary

(*Juniperus virginiana*) and invasive black locust (*Robinia pseudoacacia*) trees. Existing trees such as mulberry, ash, elm, etc...will be managed commensurate with their wildlife value and suitability to the area. Other stand improvements may include planting mast-producing, fruit bearing, or nectar producing trees to benefit pollinators and other wildlife.

Treatment Date: In early Spring of 2017 and continuing through the term of this agreement with assistance from The Nature Conservancy, the Iowa DNR, Muscatine Branching Out, and other organizations.

Additional Project Details: Included in the project will be the development of educational & interpretive materials, the delivery of hands-on programs to the public and educational outreach to local schools. Activities such as growing milkweed and other beneficial wildflowers will compliment guided nature walks and stewardship efforts well beyond the term of this agreement. Additionally, monarch tagging programs will be offered to the public during the height of migration to engage the local community in a hands-on activity. Presentations about wetlands, woodlands, and grasslands will augment those related to monarchs and other pollinators of the project site. Others potential developments include:

- Creation of a bluebird trail (nestboxes)
- Placement of wood duck boxes along Muscatine Slough
- Installation of an information kiosk and trailhead signs
- Pollinator-themed interpretive panels

Overall, this partnership between the PFW Program of the USFWS, the City of Muscatine, the Muscatine Pollinator Project, and the many other partners will provide diverse native prairie and woodland habitat for a host of pollinators, migratory and breeding grassland birds, and forage and shelter for numerous other species.

Establishing Pollinator Habitat: Site preparation for this project will begin in 2017 and may consist of burning, mowing, disking, harrowing, and herbicide treatments. Seeding will occur in 2017 and 2018, depending on site conditions, and will be accomplished by either drilling or broadcasting. Post planting maintenance will consist of mowing to a height of about 6 inches when the weeds surpass 10-12 inches. Once the native seedlings are visible, mowing heights should be adjusted to protect them from damage by the equipment. Mowing should occur at least 2 times the first growing season and continue until the native grasses and wildflowers become established...perhaps into late-July or early-August. If necessary, this mowing regime will continue in the second growing season.

Long-term maintenance will consist of spot spraying perennial weeds to prevent invasions while limiting herbicide exposure to native species. Prescribed burning, haying, or mowing will be done every 3-5 years to remove biomass accumulation, stimulate native plant growth, and set back emerging cool-season grasses.

The seeding of these acres will be augmented by the planting of native, local-ecotype, forb plugs grown by community partners at a local greenhouse. These locally harvested and grown plants will serve as nectar and foods sources for a host of pollinators in 2018 and beyond. This process will be repeated in subsequent years to further enhance pollinator-friendly habitat and will be expanded to include the harvesting and dispersal of other forbs present in the landscape.

Partner Responsibilities:

USFWS will:

- (a) Provide the project plan and other technical assistance to the cooperator
- (b) Assist in the development and funding of signage and other forms of outreach to the community
- (c) Provide a portion of the funding to establish the tree nursery and purchase a portion of the trees and shrubs described in the Forest Stewardship Plan (upon completion)
- (d) Coordinate with other agencies and organizations providing technical assistance, funding, and other resources necessary for the success of this project
- (e) Provide educational materials and equipment for the project and assist in the delivery of public programs
- (f) Provide supplies to grow milkweed and other forbs
- (g) Assist in all facets of the planting efforts to include coordinating the transportation, use, and maintenance of equipment throughout the restoration and enhancement processes with other partners

The Landowner(s) will:

- (a) Assist in all facets of the planting efforts to include working with other partners to coordinate the transportation, use, and maintenance of equipment throughout the restoration and enhancement processes
- (b) Coordinate with other agencies and organizations providing technical assistance, funding, and other resources necessary for the success of the project
- (c) Develop a detailed prescribed burn plan and conduct burns to benefit habitat
- (d) Assist in the development and funding of signage and other forms of outreach to the community
- (e) Assist in the development of interpretive/educational materials for programs at the project site
- (f) Assist in the coordination and delivery of outreach programs for students, teachers, and the public
- (g) Secure additional project funding through grant writing and requests to corporations, foundations, and other organizations
- (h) Perform long-term maintenance of the project site for the life of contract (15 years)
- (i) Notify Service of any changes in ownership and land uses

The other Cooperator(s) will:

- (a) Assist in all facets of the planting efforts to include working with other partners to coordinate the transportation, use, and maintenance of equipment throughout the restoration and enhancement processes
- (b) Coordinate with other agencies and organizations providing technical assistance, funding, and other resources necessary for the success of the project
- (c) Assist in the development and funding of signage and other forms of outreach to the community
- (d) Assist in the development of interpretive/educational materials for programs at the project site
- (e) Assist in the coordination and delivery of outreach programs for students, teachers, and the public
- (f) Secure additional project funding through grant writing and requests to corporations, foundations,

and other organizations

(g) Assist in the long-term maintenance of the project site for the life of contract (15 years)

Additional information as required for the project:

Budget Table:

Object Class Categories ^a	Partners				
	City of Muscatine & MPP	USFWS Partners Program	The Nature Conservancy & INHF	Volunteers & Others	Totals
Personnel	\$ 750	\$500 ⁹	\$6,645 ⁸		\$7,895
Plant Materials	\$4,000 ¹	\$350 ¹	\$6,000 ⁷	\$	\$10,350
Plant Supplies	\$1,500 ¹	\$500 ¹	\$	\$1,500 ¹	\$3,500
Equipment	\$3,000 ²	\$500	\$300 ⁹	\$	\$3,800
EE-I Programs	\$1,500 ³	\$	\$	\$1,500 ³	\$3,000
Kiosks & Signs	\$2,400 ⁴	\$2,000 ⁴	\$	\$1,450 ⁴	\$5,850
Trail	\$35,000 ⁵	\$	\$	\$	\$35,000
Rx Burns	\$4,500 ⁶	\$	\$	\$	\$4,500
Totals	\$51,900^a	\$4,100^a	\$6,800^a	\$11,095^a	\$73,895

^a The total cost-share by the Cooperator, Service and Landowner must remain the same, however allocations by category may be redistributed upon prior approval by the Service

Any work to be completed may be modified with the mutual agreement of the aforementioned parties.

Budget Narrative:

The Partners for Fish and Wildlife Program of the USFWS will purchase materials and supplies described within this project plan (and noted in the budget table) to accomplish only a portion of the habitat restoration & enhancements, interpretive signage, and other improvements within the project site for FY17 and beyond. Specifically, the Program will provide technical assistance, bare-root seedlings for the nursery¹, tree protection supplies¹, and funding for a portion of the kiosk and trail signage⁴. USFWS will also provide labor to assist in the planting of the trees and shrubs.

The City of Muscatine, Muscatine Pollinator Project, and other partners will provide funding, materials, in-kind services, and labor to further the habitat and infrastructure improvements detailed in this agreement for the next 15 years. At the outset, the city will install and maintain the multi-use trail⁵. Additional project contributions from the city include utilizing equipment² to prep areas for the native seedlings and tree/shrub plantings as well as maintaining areas in a restored condition for the duration of the agreement. The city will also provide funding, or seek grant monies, for kiosks and signage⁴ to educate and inform the public about the importance of pollinators. The city has already been awarded \$6,000 from the Iowa Natural Heritage Foundation for the purchase of 16-acres of native pollinator seed⁷. Additionally, The Nature Conservancy has offered to donate labor and equipment to conduct the Spring and Fall prairie seedings⁹ of 2017. Collaboratively, the City and Muscatine Pollinator Project will conduct (5) prescribed burns⁶ during the course of the agreement and assist in the delivery of public outreach programs³.

The Muscatine Pollinator Project will also coordinate and contribute in-kind labor⁸ and seek additional funding through a variety of grants sources to acquire and plant the trees and shrubs¹, install the kiosk and trailhead features⁴, and conduct community outreach programs³. They will foster and promote relationships with additional partners including Trees Forever, Iowa DNR, Muscatine County Conservation Board, The Nature Conservancy, Muscatine Branching Out, local schools and businesses, the United Way, Americorps-NCCC, the National Wildlife Federation, and others.

Additional funding sources being considered:

- *Trees for Kids* grant program from the Iowa DNR (plant materials/supplies)
- *REAP Conservation Education Program* grant through the Iowa DNR (signage)
- *Wetland Buffer* grant through Trees Forever (plant materials/supplies)
- *Community Tree Planting* program of National Wildlife Federation (plant materials)
- Muscatine Community Foundation Grant (TBD)