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June 10, 2013

THE RESILIENT REGION PROJECT Attn: Cheryal Lee Hills Region Five Development Commission 200 1st Street NE, Suite 2 Staples, MN 56479

Re: Wildlife Habitat Protection: Options for the Resilient Region Project

Dear RRP and Ms. Hills:

Enclosed, please find a memorandum that describes some types of land use regulations that the Resilient Region Project ([RRP) can advocate to protect wildlife habitats in Region Five. Let us know if you have any follow up questions or any additional research you wish the Clinic to pursue.

It was great working with the Resilient Region Project and wish you the best in the future.

Sincerely,

WILLIAM MITCHELL COMMUNITY DEVELOPMENT CLINIC

Sarah Flourance

Certified Student Attorney

Diane Marie Dube

Clinic Director & Supervising Attorney

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To: THE RESILIENT REGION PROJECT

From: WILLIAM MITCHELL COMMUNITY DEVELOPMENT CLINIC

Sarah Flourance, Certified Student Attorney Diane Marie Dube, Supervising Attorney

Re: Wildlife Habitat Protection: Options for the Resilient Region Project

INTRODUCTION

This memorandum describes the types of land use regulations that the Resilient Region Project (RRP) can advocate to protect wildlife habitats. "Wildlife habitat" refers to a "place where an animal [or plant] resides and finds food, water, cover, and space." There is no legal definition of "wildlife habitat" in Minnesota or federal law; many federal and state regulations aim to protect animal and plant species rather than their habitats. This distinction is important because of their inter-relatedness: the animals and plants that live in a particular area define habitats, and species thrive in a particular area because of the existing habitat. An important aim of wildlife habitat protection is the preservation of biodiversity and particular species.

Region Five is unique in Minnesota in that three different environments and biomes converge within its borders:² western plains and prairies,³ northern coniferous forest,⁴ and

Milton W. Weller, Freshwater Marshes, 3d 133 (1994).

² Region Profile, Region Five Development Commission (June 9, 2013, 10:01 PM), http://www.regionfive.org/region/index.html.

³ Prairie Grasslands Description, Minnesota Department of Natural Resources (June 9, 2013, 10:02 PM), http://www.dnr.state.mn.us/snas/prairie description.html.

⁴ Coniferous Forest Description, Minnesota Department of Natural Resources (June 9, 2013, 10:02 PM), http://www.dnr.state.mn.us/snas/coniferous description.html.

eastern hardwood forest. Biome" refers to a biological community that typically covers a large land area within which there are similar plant and animal communities. In addition to these biomes, Region Five has an abundance of lakes, rivers, and wetland areas that deserve significant attention. Biomes tend to have different climates and habitat conditions from one another. Therefore, three different biomes means that wildlife habitats within the region can differ significantly from one another. Protections for one biome may not sufficiently protect habitats within another biome, and approaches may need to be tailored for a particular county or town depending on what biome(s) fall within it.

This memo first discusses the federal and state laws and jurisdictions that govern both species and habitat protections. Many of these laws discuss both species and habitat protection, but their main perspective is species protection.

Species protection is primarily covered by federal and state laws. Local jurisdictions, such as counties, cities, townships, and watershed districts, mainly have control over land use. As such, local jurisdictions are best suited to focus on habitat protection rather than species protection. However, Region Five's jurisdictions must understand the inter-relatedness of species and habitat protection and should therefore make wildlife habitat interests part of the discussion when considering land use ordinances.

This memo then discusses applicability of wildlife habitat protections to the RRP. It begins with a section on policy considerations and ties these policy objectives to the goals and themes of the RRP. This memo then outlines the objectives for land use protections of wildlife habitat and how a land use ordinance can help species, the environment, and the community.

⁵ Deciduous Woods Description, Minnesota Department of Natural Resources (June 9, 2013, 10:03 PM), http://www.dnr.state.mn.us/snas/deciduous_description.html.

⁶ Minnesota Biomes Table, Minnesota Department of Natural Resources (June 9, 2013, 10:04 PM), http://files.dnr.state.mn.us/education_safety/education/forestry/biomes/biomestable.pdf.

Finally, this memo suggests some ideas or options to be implemented at the local level to protect the wildlife habitats in Region Five and ends with some suggested next steps for the RRP.

AUTHORITY

Region Five's wildlife habitat protection options depend on what it has the authority to regulate. Both federal and state regulations create a structure that protects specific wildlife and plant species, including their designated habitats. Within this system, there are areas that Region Five's jurisdictions do not have the authority to regulate, but there are also some areas that they may choose to regulate. Region Five's jurisdictions may be required to take certain steps toward habitat protection under federal and state law. Its jurisdictions may also be permitted to add extra regulations on top of these laws, in accordance with a particular federal or state law. To successfully implement a wildlife habitat protection system in Region Five, its jurisdictions must consider both federal and state authorities to ensure that it does not overstep its boundaries or fail to meet environmental legal requirements. The RRP should also look at existing local regulations to assess additional regulations that it must abide by when considering appropriate wildlife habitat ordinance suggestions that its jurisdictions may choose to implement across the region.

A. Federal Authority

1. Federal Agencies

Federal government regulations are structured hierarchically. There are several key federal agencies (e.g., Department of the Interior) that handle environmental matters, including wildlife habitat regulation. A secretary or administrator oversees each federal agency. Within these agencies, there are different offices or departments (e.g., the Department of the Interior's Office of Water) that handle specialized areas of regulation within the agency. Below are a few

key federal agencies that are pertinent to federal wildlife habitat regulations. For more detailed information about these agencies and their offices, visit their websites.

a. Environmental Protection Agency (EPA)

The EPA's stated mission is "to protect human health and the environment." It accomplishes this mission by developing and enforcing several environmental regulations, including certain national standards. The EPA does not specifically regulate wildlife habitat, but it does implement key environmental legislation, such as the National Environmental Policy Act (NEPA), the Clean Water Act (CWA), the Clean Air Act (CAA), and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). A key office within the EPA is the Office of Water (OW), which regulates wetlands, watersheds, and other aquatic areas. Minnesota is part of the EPA's Region 5. 10

b. Department of the Interior (DOI)

The DOI's stated mission is "[to protect] America's natural resources and heritage,
[honor] our cultures and tribal communities, and [supply] the energy to power our future."

The DOI operates several key offices that serve to protect wildlife and its habitats, including the Bureau of Land Management (BLM), the Bureau of Safety and Environmental Enforcement (BSEE), the National Park Service (NPS), and the U.S. Fish and Wildlife Service (USFWS). The

⁷ Our Mission and What We Do, United States Environmental Protection Agency (June 9, 2013, 10:05 PM), http://www2.epa.gov/aboutepa/our-mission-and-what-we-do.

⁸ For example, the EPA is in charge of administering National Ambient Air Quality Standards (NAAQS) for the Clean Water Act.

⁹ A more detailed list of the legislation that the EPA enforces and regulates can be found at http://www2.epa.gov/laws-regulations. Information about how the EPA enforces those regulations can be found at http://www.epa.gov/enforcement/basics.html.

Note: EPA's Region 5 is separate from Minnesota's Region 5. More resources on the EPA's involvement in Minnesota can be found at http://www2.epa.gov/aboutepa/epa-minnesota.

If the interior LLS, Department of the Interior (June 9, 2013, 10:06 PM)

¹¹ About Interior, U.S. Department of the Interior (June 9, 2013, 10:06 PM), http://www.doi.gov/whoweare/interior.cfm.

DOI primarily implements the Endangered Species Act (ESA) under the USFWS, but it also has the authority to enforce various environmental criminal laws and other federal legislation such as NEPA, the Fish and Wildlife Coordination Act (FWCA), parts of the CWA, and Water Resource Development Acts. Other notable wildlife protection programs that it implements include the National Wildlife Refuge System and the Wildlife and Sport Fish Restoration Program.

c. U.S. Army Corps of Engineers (USACE)

USACE has an environmental program that manages the restoration of degraded ecosystems, regulates waterways, manages natural resources, and cleans up contaminated military sites. 12 USACE plays a major role in implementing parts of the CWA and CERCLA.

d. Department of Agriculture (DOA)

While the DOA mainly serves to protect farming, agriculture, and food, it also plays a role in wildlife habitat protection through its Natural Resources Conservation Service (NRCS). The NRCS helps manage water and wildlife resources, including the implementation of its Wildlife Habitat Incentive Program.

e. National Oceanic and Atmospheric Administration (NOAA)

NOAA operates the National Marine Fisheries Service (NMFS), whose mission is the "stewardship of the nation's living marine resources and their habitat." NMFS helps to implement parts of the ESA. It also specifically implements programs for habitat conservation.

2. Federal Laws

Below is a list of the key federal wildlife habitat protection regulations. This is not an exhaustive list, and more information about these laws can be found on federal agency websites.

¹² Environmental Program, U.S. Army Corps of Engineers (June 9, 2013, 10:07 PM), http://www.usace.army.mil/Missions/Environmental.aspx.

¹³ About National Marine Fisheries Service, National Oceanic and Atmospheric Administration (June 9, 2013, 10:08 PM), http://www.nmfs.noaa.gov/aboutus/aboutus.html.

a. Endangered Species Act (ESA)

The ESA¹⁴ was adopted "to protect and recover imperiled species and the ecosystems upon which they depend."¹⁵ The U.S. Fish and Wildlife Service and the National Marine Fisheries Service jointly implement the ESA. Under the ESA, federal agencies are required to ensure that they are not jeopardizing the continued existence of any listed threatened or endangered species or destroying and/or modifying any designated critical habitat for these species.¹⁶ A permit may be required to pursue any activities that could jeopardize listed species populations or threaten their habitats.

Region Five does not have jurisdiction to regulate any habitat areas or wildlife species listed as critical because those areas and species are under federal jurisdiction. The Canada Lynx is the only federally listed species within Region Five. ¹⁷ The Canada Lynx is listed as a threatened species that resides in the northern forest areas within Cass County. ¹⁸ Wildlife habitat ordinances for the region may impose additional regulations on its habitat as long as they meet the permitting requirements under the ESA. ¹⁹

¹⁴ Endangered Species Act, 16 U.S.C. §§ 1531-1544 (2004).

¹⁵ Endangered Species Act: Overview, U.S. Fish & Wildlife Services (June 9, 2013, 10:14 PM), http://www.fws.gov/endangered/laws-policies/.

¹⁶ ESA Basics, U.S. Fish & Wildlife Service (June 9, 2013, 10:14 PM), http://www.fws.gov/endangered/esa-library/pdf/ESA basics.pdf.

¹⁷ County Distribution of Federally-Listed Threatened, Endangered, Proposed and Candidate Species in Minnesota, U.S. Fish & Wildlife Service (June 9, 2013, 10:15 PM), http://www.fws.gov/midwest/endangered/lists/pdf/MinnesotaSppList2013.pdf.

¹⁹ Information about permitting under the ESA can be found at http://www.fws.gov/endangered/permits/faq.html.

b. Migratory Bird Treaty Act (MBTA)

The MBTA²⁰ is an international agreement between the United States and Canada.²¹ The Act makes it illegal to "pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any carriage, or export, at any time, or in any manner, any migratory bird...or any part, nest, or egg of any such bird."²²

The MBTA does not specifically pertain to the habitat of migratory birds, but it is important to note that private landowners, not just government entities, are subject to the provisions of this legislation. Since Minnesota borders Canada, migratory birds are a feature of Minnesota ecosystems, including those of Region Five. Residents and planners within the region may look into special precautions for species commonly found within its borders, such as the Bald Eagle, Northern Cardinal, Barn Swallow, Downy Morningdove, and the Canada Goose.²³

c. Fish and Wildlife Coordination Act (FWCA)

The FWCA²⁴ requires federal agencies that "construct, license, or permit water resource development projects to first consult the [USFWS and/or NMFS] and state fish and wildlife

All of these listed birds are classified as migratory and have been spotted within Region Five. However, this is not an exhaustive list. Any migratory bird falls under the MBTA, no matter how common or uncommon its appearance. A more complete list can be found at http://www.fws.gov/migratorybirds/regulationspolicies/mbta/mbtintro.html.

²⁰ Migratory Bird Treaty Act, 16 U.S.C. §§ 703-712 (1989). The full text of the MBTA can be found at http://www.fws.gov/le/USStatutes/MBTA.pdf.

²¹ The MBTA was originally enacted on behalf of Canada by Great Britain.

²² 16 U.S.C. § 703 (1989).

Fish and Wildlife Coordination Act, 16 U.S.C. §§ 661-666c (1958). The full text of the FWCA can be found at http://www.usbr.gov/power/legislation/fwca.pdf.

agenc[ies] regarding the impacts on fish and wildlife resources and measures to mitigate these impacts."²⁵ The FWCS imposes criminal violations for those who do not meet its standards.

Project developers in Region Five should pay heed to the FWCA whenever a federal permit is required for their project(s). If a developer does not give adequate consideration for the conservation, maintenance, and management of fish and wildlife resources and habitat before starting a project, it may be a violation of the FWCA. If any federal agency helps the RRP with projects or funding to create sustainable communities, then the involved federal agencies may be required to consult with USFWS and/or NMFS before working on the project with Region Five. This provision may particularly impact Region Five for any development projects that involve one of its numerous lakes.

d. National Environmental Policy Act (NEPA)

NEPA establishes the national framework for environmental regulation by ensuring that all branches of government give proper consideration to the environment before undertaking major federal actions that may significantly affect the environment. Under NEPA, "major federal actions," which are generally federally funded and/or managed projects, must complete an environmental assessment (EA) or environmental impact statement (EIS) to assess the likelihood of impacts to the environment as a result of the project and discuss alternatives to minimize any adverse impacts. Minnesota also imposes requirements for similar documentation under its state laws.

²⁵ Fish and Wildlife Coordination Act, U.S. Fish & Wildlife Service (June 9, 2013, 10:18 PM), http://www.fws.gov/habitatconservation/fwca.html. A comprehensive guide to the FWCS can be found at http://www.fws.gov/habitatconservation/fwca.pdf.

²⁶ National Environmental Policy Act, 42 U.S.C. §§ 4321-4375 (1982). The full text of NEPA can be found at http://ceq.hss.doe.gov/nepa/regs/nepa/nepaeqia.htm.

If a project in Region Five requires NEPA compliance or the state law equivalent, consideration must be given to wildlife habitat.

e. Clean Water Act (CWA)

Section 404 of the CWA regulates the process by which developers must obtain a permit for projects that may impact "waters of the United States." Permits must be obtained by USACE to dredge and/or fill certain wetlands or waterways that are within federal jurisdiction.

Since Region Five contains many lakes and wetlands, Section 404 of the CWA is a particularly important federal regulation to consider, as a federal permit may be required. Those projects that do not fall under federal jurisdiction may require a permit from a state authority prior to proceeding.

B. State Authority

1. State Agencies

The state regulatory structure is set up similar to the federal government. Minnesota has agencies or departments within its executive branch to handle its regulatory measures.

Departments are further broken into offices or divisions that may handle specialized areas of regulation, similar to agency offices in the federal structure. While Minnesota's state departments control their own state regulations, it is important to note that some federal actions may be delegated to the state to handle.²⁸ These state enforcement programs may require more stringent regulations than the federal statute, but delegated programs may not be broader.

²⁷ Clean Water Act, 33 U.S.C. § 1344 (1987). The full text of Section 404 can be found at http://water.epa.gov/lawsregs/guidance/wetlands/sec404.cfm.

Some federal laws allow for delegation, in which a state can create its own regulatory program for a federal statute within the constraints of certain federal requirements. Once the state creates such a program, it applies to the federal agency for delegation status, and the agency determines whether or not the state program meets its specifications. If the agency accepts the state program, then the state may administer the program it designed to enforce the federal law, and the federal

a. Department of Natural Resources (DNR)

The Minnesota DNR strives "to work with citizens to conserve and manage the state's natural resources, to provide outdoor recreation opportunities, and to provide for commercial uses of natural resources in a way that creates a sustainable quality of life.²⁹ Relevant to wildlife habitat protection, the DNR issues permits for aquatic plant control, burning, endangered species, enforcement, hunting, fishing, lake service providers, fisheries, invasive species, water, and wildlife rehabilitation. The DNR serves as the main regulatory authority for wildlife habitat protection within Minnesota.

The DNR manages several Wildlife Management Areas (WMAs)³⁰ and Scientific and Natural Areas (SNRs)³¹ around the state, including the state park and forest systems,³² several of which are located within Region Five. The DNR also has control over state waters and promulgates a few regulatory programs for this purpose.

The DNR operates several divisions under its administrative control, including Ecological and Water Resources, Fish and Wildlife, Lands and Minerals, Enforcement, Forestry, and Parks and Trails.³³ The DNR also operates four regional headquarters, and Region Five has

government does not intervene unless the state breaches its program or the federal regulation. For example, the Clean Air Act includes a delegation provision in which states can design their own program, subject to the aforementioned federal approval, to enforce the act's National Ambient Air Quality Standards (NAAQS).

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²⁹ About the DNR, Minnesota Department of Natural Resources (June 9, 2013, 10:17 PM), http://www.dnr.state.mn.us/aboutdnr/index.html.

Wildlife Management Areas (WMAs), Minnesota Department of Natural Resources (June 9, 2013, 10:18 PM), http://www.dnr.state.mn.us/wmas/index.html.

³¹ Scientific and Natural Areas Program, Minnesota Department of Natural Resources (June 9, 2013, 10:18 PM), http://www.dnr.state.mn.us/eco/sna/index.html.

³² Minnesota State Parks, Minnesota Department of Natural Resources (June 9, 2013, 10:19 PM), http://www.dnr.state.mn.us/state_parks/index.html; Minnesota Department of Natural Resources (June 9, 2013, 10:19 PM), http://www.dnr.state.mn.us/state forests/index.html.

³³ About the DNR.

counties in three regions. Wadena and Cass Counties are in DNR's Northwest Region; Crow Wing County is in the Northeast Region; Todd and Morrison Counties are in the Central Region.³⁴

b. Pollution Control Agency (PCA)

The Minnesota PCA is primarily an enforcement agency that "monitors environmental quality, offers technical and financial assistance, and enforces environmental regulations." The PCA is organized into divisions that specialize in specific areas of monitoring and enforcement, including the Watershed Division and the Resource Management and Assistance Divisions. 36

The PCA has promulgated a State Agency Sustainability Action Plan³⁷ that can be used to get a general overview of the agency's goals for sustainability and resource development and conservation. The PCA also promulgates rules for existing state environmental and pollution regulations³⁸ and facilitates permitting for air, feedlots NPDES (federal delegation), industrial stormwater, and water.³⁹ Like the federal EPA, the PCA is in charge of regulating the environmental assessment and impact statement process through Minnesota's state law. While the PCA does not implement programs that deal directly with wildlife habitat protection, its role

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³⁴ DNR Administrative Regions, Minnesota Department of Natural Resources (June 9, 2013, 10:20 PM), http://files.dnr.state.mn.us/aboutdnr/dnr regions.pdf.

³⁵ About MPCA, Minnesota Pollution Control Agency (June 9, 2013, 10:21 PM), http://www.pca.state.mn.us/index.php/about-mpca/index.html.

A chart showing the hierarchy and structure of PCA divisions can be found at http://www.pca.state.mn.us/index.php/about-mpca/mpca-overview/agency-structure/mpca-organization.html.

http://www.pca.state.mn.us/index.php/living-green/living-green-government/state-agency-

http://www.pca.state.mn.us/index.php/living-green/living-green-government/state-agency-sustainability-action-plans.html

The website for PCA's rules can be found at http://www.pca.state.mn.us/index.php/regulations/permits-and-rules/minnesota-pollution-rules.html. This website includes the public docket for rules and regulations so that Region Five can keep track of the rules promulgated that may pertain to regional development projects.

39 Permits and the Permitting Process, Minnesota Pollution Control Agency (June 9, 2013, 10:22 PM), http://www.pca.state.mn.us/index.php/regulations/permits-and-rules/permits-and-the-permitting-process.html.

is relevant to Region Five because it may require permits for a development program, and may require environmental review.

2. State Laws

a. Scientific and Natural Areas (SNAs)

Minnesota Statute Section 84.033 gives the commissioner of natural resources the power to acquire land to use as a state scientific and natural area, subject to Chapter 14 of the Minnesota Administrative Rules. 40 The goal of the SNA program is to preserve ecological diversity and protect rare natural resources within Minnesota, which the DNR administers through land protection, management, education, research, and prairie initiatives. The DNR works with private landowners to ensure that its goals are met. 41

SNAs are state lands controlled by the DNR; Region Five may not regulate or manage SNAs without express permission of the commissioner. Region Five contains four SNAs: Hole in the Bog Peatland (Cass County), Mille Lacs Moraine (Crow Wing County), Ripley Exeter (Morrison County), and Lake Alexander Woods (Morrison County).

b. Wildlife Management Areas (WMAs)

Minnesota has a policy that recognizes fish and wildlife as renewable natural resources that should "be conserved and enhanced through planned scientific management, protection, and utilization." Fish and wildlife management plans are designed and coordinated by the commissioner of natural resources and "appropriate public agencies." These wildlife

⁴¹ Scientific and Natural Areas Program.

⁴³ Minn. Stat. § 84.941 (1986).

⁴⁰ Minn. Stat. § 84.033 (2011).

⁴² Minnesota Scientific and Natural Areas, Minnesota Department of Natural Resources (June 9, 2013, 10:25 PM), http://files.dnr.state.mn.us/eco/sna/SNAstatemap.pdf.

management plans must also be available for public input, review, and comment.⁴⁴ The commissioner of natural resources may also designate wilderness areas under the limitations of state law.⁴⁵ Minnesota Statute Section 97A.133 designates state wildlife management areas and the regulations by which they are to be managed by the DNR.⁴⁶ The state can restrict hunting and/or fishing on state lands, but must post those restrictions.⁴⁷ WMAs are operated under the restrictions set forth in Minnesota Statute Section 97A.137.⁴⁸ Several WMAs are located within Region Five.⁴⁹

c. State Wetlands and Waterfowl Protected Areas (WPAs)

The Minnesota commissioner of natural resources may also create waterfowl protected areas, including migratory waterfowl sanctuaries and waterfowl feeding and resting areas. ⁵⁰ He or she may also enable the DNR to acquire wetlands, subject to the procedures set forth in Minnesota Statute Section 97A.145.

Region Five is home to several major lakes, rivers, and other wetland areas. The jurisdictions within Region Five may not have the authority to control some of these wetland and aquatic areas if they are deemed to be state lands or waters under Minnesota's WPA law.

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⁴⁴ Minn. Stat. § 84.942 (2011).

⁴⁵ Minn. Stat. § 84.45 (1985).

⁴⁶ Minn. Stat. § 97A.133 (2007).

⁴⁷ Minn. Stat. § 97A.083 (1991).

⁴⁸ Minn. Stat. § 97A.137 (2012).

⁴⁹ The Minnesota DNR operates an online tool to find WMAs within every Minnesota county, including those within Region Five. The tool can be used at http://www.dnr.state.mn.us/wmas/index.html.

⁵⁰ Minn. Stat. § 97A.095 (2012).

d. Leech Lake Indian Reservation Agreement

The Leech Lake Indian Reservation Agreement⁵¹ is an agreement between the State of Minnesota and the Leech Lake Band of Chippewa Indians. Subdivision 4 exempts "members of the band and other members of the Minnesota Chippewa tribe from state laws relating to hunting, fishing, trapping, the taking of minnows and other bait, and the gathering of wild rice within the reservation." As you know, the Leech Lake Indian Reservation is in the northwest corner of Cass County. In accordance with this agreement, no jurisdiction in Region Five has the authority to regulate the lands of the reservation.

e. Invasive Species

Minnesota Statutes Chapter 84D restricts the introduction of and regulates the management and control of invasive species in wildlife habitats around the state.⁵² Some invasive species are prohibited while others are subject to certain restrictions. These regulations may have bearing on private citizens or developers in Region Five that may accidentally introduce invasive species into the habitats and/or waters of the region. For example, Zebra Mussels, an invasive species, are a known problem in the state, particularly in rivers and lakes.

f. Threatened and Endangered Species

In addition to the federal ESA, Minnesota Statute Section 84.0895 creates additional protection for certain animal and plant species that reside in Minnesota. Minnesota created three categories of protection: threatened, endangered, and species of special concern. The list of these animal and plant species can be found within the Minnesota Administrative Rules.⁵³ Under Minnesota law, any person is prohibited from taking, purchasing, importing, possessing,

Minn. Stat. § 97A.151 (1991).
 Minn. Stat. Ch. 84D.

⁵³ Minn. R. Ch. 6134D. Alternatively, a complete list of Minnesota's endangered, threatened, and special concern species can be found at http://files.dnr.state.mn.us/eco/nhnrp/endlist.pdf.

transporting, or selling endangered or threatened plants or animals, including their parts or seeds, without a permit. The DNR handles the permitting program for species.⁵⁴

Region Five likely contains listed species because of its diverse habitats. While the region does not need to create and additional layer of protection for these species, it is important to look at whether any listed species is present while conducting an environmental assessment worksheet (EAW) or EIS. The region should carefully plan its sustainability projects so that it does not disturb state-listed animal or plant species.

g. Waters and Wetlands

Minnesota has a plethora of waters and wetlands regulations due to its many lakes, rivers, and other aquatic areas. 55 The amount of protection a wetland receives depends on several factors, including its rarity, plant and animal species, location, and soils. Wetland boundaries are determined through wetland delineation.

The DNR Public Waters Permit Program (PWPP) requires developers to obtain a permit to conduct work that will affect the course, current, or cross-section of public waters, including public waters wetlands. 56 Public waters wetlands are defined in Minnesota Statute Section 103G.005, subdivision 15a. Region Five is likely to have many waters that would meet the definition of public waters wetlands, so it is important to keep the DNR's PWPP in mind throughout development projects, as developers are likely to need a permit to proceed.

Minnesota's Wetland Conservation Act (WCA) implements a "no net loss" policy for Minnesota's wetlands, meaning that any time a wetland is destroyed or damaged, the damage

⁵⁴ Endangered Species Permits. Minnesota Department of Natural Resources (June 9, 2013. 10:30 PM), http://www.dnr.state.mn.us/eco/nhnrp/endangered_permits.html.

⁵⁵ The DNR's Board of Water and Soil Resources (BWSR) has published a great guide to Minnesota wetlands regulations, which can be found at http://www.bwsr.state.mn.us/wetlands/publications/MNRegulations.pdf.

⁵⁶ Minn. Stat. § 103G,245, subd. 1(2) (2012).

must be mitigated by restoring a different wetland or creating a new one. The WCA includes all wetlands that are not regulated by the DNR. Wetlands must generally be replaced or restored at a two to one ratio, but there is a one to one ratio for wetlands within agricultural land. The WCA also requires the restoration and replacement of wetlands. For example, a restored or replaced wetland must have similar public value to the one that is destroyed or damaged, which might include placement within the same watershed.⁵⁷ If the wetland is a rare type, then a developer is less likely to acquire a permit for its destruction or damage, and the more important it becomes to replace or restore it with a wetland of greater or equal value. It is possible that wetlands will be damaged in Region Five development projects; therefore, mitigation ratios in the WCA are important to keep in mind for developers within the region. It is important to keep in mind that waters and wetlands are regulated in conjunction within USACE in the federal government. The regulations required for a particular wetland depend on whether the wetland area falls under federal or state jurisdiction, as described within relevant statutes. It is a common problem for developers or agencies to misapply the proper mitigation ratio when wetlands are damaged in the course of a project.

h. Minnesota Environmental Policy Act (MEPA)

MEPA, Minnesota Statute Chapter 116D, is equivalent in many ways to NEPA, its federal counterpart. Like NEPA, MEPA requires an analysis of the impact a project has on the

A watershed is an "area of land where all of the water that is under it or drains off of it goes into the same place." What Is a Watershed? United States Environmental Protection Agency (June 10, 2013, 2:50PM0, water.epa.gov/type/watersheds/whatis.cfm. Watersheds are different than watershed districts. Watershed districts are "local, special-purpose units of government that work to solve and prevent water-related problems." District boundaries tend to be along those of a natural watershed and "consist of land in which all water flows to one outlet." What Is a Watershed District? Minnesota Association of Watershed Districts, Inc. (June 10, 2013, 2:53PM), www.mnwatershed.org/index.asp?Type=B_BASIC&SEC={1F1ACEE4-3C71-478E-8830-469FA9E1C8CE}.

environment and an analysis of measures to mitigate those impacts. The differences in the triggering events, requirements, and details of these two laws are beyond the scope of this memo.⁵⁸ It is, nonetheless, important to mention that the requirements of MEPA and NEPA may differ so that an EA and/or EIS prepared under NEPA may not suffice for the requirements of MEPA, and vice versa.

APPLICATION TO THE RESILIENT REGION PROJECT

A. Policy Objectives

While wildlife habitat protection seems to aim solely at benefitting wildlife species, it also has several important objectives that are related to the improvement of our communities, especially in Region Five.

1. Recreation and the Economy

Wildlife habitats add to the scenic beauty of Region Five and generate revenue through local recreation and tourism. Outdoor recreation, such as hunting, fishing, wildlife viewing, bird watching, hiking, camping, and boating, all provide significant opportunities to increase economic development in Region Five. Additionally, tourism is "one of the main economic engines" in the region. Wildlife habitat protection supports these activities by providing sustainable game populations for hunting and fishing, by allowing outdoor recreational businesses to flourish, and by building local government revenue from the parks and trails within the region.

⁵⁹ Region Profile.

The Citizen's Guide to the National Environmental Policy Act and other information about NEPA is available online at http://ceq.hss.doe.gov/ and information about MEPA is available at http://www.pca.state.mn.us/index.php/topics/environmental-review/index.html.

2. Biodiversity

Preservation of biodiversity is one of the primary aims of wildlife habitat protection. The variety of plant and animal species that live in a particular area make up an ecological community. 60 These species interact with one another within the ecological community, thereby creating an ecosystem. 61 Biodiversity is "the number of different species populations combined with the genetic differences between individuals within the same population and species."62 Biodiversity within an ecological community provides for a healthy ecosystem. For instance, phytoplankton utilize the sun to produce nutrients in the lake upon which other species survive. Zooplankton eat bacteria and algae within the lake, which in turn, are eaten by other predators such as small fish and lake invertebrates. Larger carnivorous fish eat the smaller fish. Decomposing bacteria and microorganisms complete the ecosystem and provide nutrients within the lake upon which the other species depend. Biodiversity fills each piece of this ecosystem. Without substantial species to fulfill these roles, the entire ecosystem is at risk of falling apart. In this instance, fishing and other benefits from the lake would be strained without first preserving the biodiversity within the lake. An off balance ecosystem could lead to underproduction of resources that Region Five values, as well as the gradual degradation of the environment in that area.

Humans play a vital role in ecosystems, especially when they interfere with the natural balance of a particular species. ⁶³ Human destruction of wildlife habitat may lead to unhealthy populations of plant and animal species. For example, if humans pollute a lake, the fish

⁶⁰ Ecosystem Service 6: Wildlife Habitat & Biodiversity, City of Bloomington, Indiana (June 9, 2013, 10:33 PM), http://bloomington.in.gov/documents/viewDocument.php?document_id=3017. ⁶¹ Id.

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⁶³ Robert V. Percival, Environmental Regulation: Law, Science, and Policy (6th ed. 2009).

population may get sick and decrease, impacting fishing. Plant and wildlife species require particular habitats to thrive. By implementing wildlife habitat regulations to preserve biodiversity, Region Five can protect the natural resources that are important to the biodiversity of its communities.

3. Ecosystem Services

Ecosystem services are benefits that humans receive from the environment, including clean drinking water, food production, and decomposition. For example, a wetland purifies water and maintains the biodiversity within that ecosystem to sustain a healthy fish population.

Protecting wildlife habitat ensures the continuing of these services for sustainable communities within Region Five. Using the ecosystem services already provided from the environment can also help Region Five develop sustainable communities by using fewer of its man-made resources and products to do those jobs.

4. Historical and Cultural Development

Wildlife and its habitats provide historical and cultural enrichment to a community by helping us better understand our relationship to the environment. Certain communities within Region Five may have an interest in preserving specific wildlife habitats, including the community within the Leech Lake Native American Reservation in Cass County. Preservation of wildlife habitats provides enrichment and educational opportunities in addition to recreational value, as previously discussed.

⁶⁴ Sharri A. Venno, *Integrating Wildlife Habitat into Local Planning: A Handbook for Maine Communities*, University of Maine (June 9, 2013, 10:35 PM), http://www.umaine.edu/mafes/elec_pubs/miscpubs/mp712.pdf.

B. Themes and Recommendations of the Resilient Region Project

Wildlife habitat protection is correlated to the natural resources themes and recommendations of the Resilient Region Project. In discussing measures to implement the ideas discussed below, the RRP should keep these themes and recommendations in mind.

1. Themes

- a. Achieve balance by creating healthy, livable affordable communities for humans that are also healthy, livable spaces for other plant and animal life.
- b. Water quality/lake clarity improves significantly because the region invests in our lakes. The region needs good water quality to maintain lakeshore property values and to attract tourism.

2. Recommendations

- a. All development in the region should meet rigorous standards for natural resources protection, not only recognizing the economic value that natural resources provide, but also affirming the innate aesthetic value of a healthy environment. A healthy green infrastructure is just as important to a community as the infrastructure of roads, sewer, and water pipes that they build. Green infrastructure includes a network of wildlife travel corridors, greenways, wetlands, agricultural lands, and unfragmented open spaces.
- b. To shift current development patterns away from sprawl and automobile-centric designs, the region should embrace and implement fiscally, socially, and environmentally sound land-use decisions. This type of development will provide residents with environmental, economic, social, cultural, and civic benefits that are in agreement with the desires and visions that communities express in their comprehensive plans.
- c. Healthy lakes, rivers, streams, and wetlands contribute to a healthy regional economy, and communities with a clean, abundant supply of fresh water will always attract people to live, work, and recreate. In addition, millions of people downstream in St. Cloud and the Twin Cities depend on the Mississippi River for their drinking water. Therefore, this region must protect its surface and subsurface water quality for both its own future viability and for those living outside the region that depend on a stable source of clean drinking water.

C. Ideas for Local Regulations

1. Wildlife Habitat Overlay District

Region Five could promote the adoption of a wildlife habitat zoning overlay district, similar to the others already in-place within the Model Ordinances. Similar to other types of overlay districts, a wildlife habitat overlay district would not be an additional land use zone: the overlay district adds an additional layer of protection for wildlife habitats on top of existing land use zones without impacting permitted uses in underlying zoning districts. Several towns and counties have successfully used some form of a wildlife habitat overlay district.

For example, Chelen County, Washington, has a well-developed Fish and Wildlife Habitat Conservation Areas Overlay District ordinance. ⁶⁶ This ordinance puts habitats into different classes depending on how much protection is needed for a particular area. Instead of separating wildlife habitats from human community infrastructure, the ordinance incorporates human infrastructure needs into the ordinance so that wildlife habitats are integrated into the area without sacrificing the utilities that its public needs for a sustainably developed community. For instance, the overlay district has separate ordinances for septic systems, pedestrian and bike trails, and water resources. This overlay district is a particularly helpful example for Region Five since it implements many of the same goals that the region has iterated in its planning document, such as protecting wildlife as a part of its community and the aesthetic and environmental role it plays outside of the community. The incentives and education programs that Chelen included within the overlay district ordinances are also worth noting.

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⁶⁵ Wildlife Habitat, Hillsdale County Community Center (June 9, 2013, 10:37 PM), http://hillsdalecounty.info/planningeduc0065.asp.

⁶⁶ Chelen Co., Wash. Code §§ 11.78.005-11.78.260 (2007); http://www.codepublishing.com/WA/chelancounty/html/Chelco11/Chelco1178.html.

Wildlife habitat overlay districts can be particularly helpful when used to protect trees or other vegetative cover, enforce setbacks from sensitive habitat areas, like wetlands and streams, require open space preservation, and protect identified mating, nesting, and other critical habitat areas.⁶⁷

2. Other Wildlife Habitat Ordinances

Region Five could also propose the adoption of generic wildlife habitat protection ordinances without creating a zoning overlay district. These ordinances could have more specific focuses depending on what resources Region Five would like to protect with the ordinance, or it can provide more generalized protection for all types of wildlife habitats and natural resources.

Many cities and counties have implemented generic wildlife habitat protection ordinances in lieu of creating an overlay zoning district because it is more suited to that city's needs. 68

The City of Tumwater, Washington provides a great example of a Fish and Wildlife Habitat Protection ordinance because it provides comprehensive protections for various wildlife habitat areas.⁶⁹ Of particular note, this set of ordinances lays out the authority to create habitat buffer areas on a case-by-case basis, which gives the jurisdiction the flexibility to adapt the buffer zone to a specific habitat protection plan that is prepared by a "qualified professional," as

⁶⁷ Overlay District, Macomb County, Michigan (June 10, 2013, 3:02 PM), http://www.macombgov.org/MCPED/Project_Programs/planning_mapping/pdf/Model%20Ord. https://www.macombgov.org/MCPED/Project_Programs/planning_mapping/pdf/Model%20Ord. https://www.macombgov.org/MCPED/Project_Programs/planning_mapping/pdf/Model%20Ord. https://www.macombgov.org/MCPED/Project_Programs/planning_mapping/pdf/Model%20Ord. https://www.macombgov.org/MCPED/Project_Programs/planning_mapping/pdf/Model%20Ord. https://www.macombgov.org/MCPED/Project_Programs/planning_mapping/pdf/Model%20Ord. https://www.macombgov.org/MCPED/Project_Programs/planning_mapping/pdf/Model%20Ord. https://www.macombgov.org/mcPed/ <a href="https:

The Sonoran Institute has created a great guide that discusses wildlife-friendly ordinances in cities and counties across the United States. The guide can be found at http://www.sonoraninstitute.org/images/stories/pdfs/Recommended_Reading/2011MorongoBasinWorkshopResources/city%20wildlife%20and%20habitat%20protection%20ordinance%20summaries.pdf. It is important to note that some of these examples are focused specifically on wildlife protection rather than habitat protection. As previously mentioned, Region Five should consider how much it would like to focus on specific species of wildlife or plants, but land use ordinances focus primarily on habitat protection.

⁶⁹ Tumwater, Wash. Code §§ 16.32.010-16.32.110 (1991); http://www.codepublishing.com/wa/tumwater/html/Tumwater16/Tumwater1632.html#16.32.06

defined in the ordinance. Tailored buffer zones could be particularly helpful to Region Five since it contains many types of wildlife habitats that span three different biomes. Protected habitats and ordinances are best prepared with the help of qualified environmental professionals; suggested regulations are likely to differ, depending upon the type of habitat or biome. Cities and county legislators often do not have the expertise required to create or modify natural resources ordinances because their success heavily depends upon specialized areas of scientific study. This ordinance makes clear the times where the jurisdiction should defer to other qualified individuals to aide their legislative determinations. Buffer areas could also be particularly helpful to Region Five because of the many lakes within the region. Buffer areas can be added around the lakes to add more protection for the wildlife habitats that immediately surround them. For example, a stream or wetland buffer would be helpful for the protection of the lake's wildlife resources because that habitat depends largely upon what happens within the same watershed. 70 By protecting other wetland and aquatic areas within the region through land use ordinances or buffer zones, those same laws would have an indirect impact on the lakes in the region as well. Another example within the Tumwater code is an adjacent upland habitat ordinance that protects the wildlife area immediately surrounding a lake for those wildlife species that are dependent on the lake as a healthy water source for their survival. 71 While the jurisdictions within Region Five implement their sustainable development plans, they can use buffer areas and zones to streamline the natural environment into their communities without major disruption to either.

⁷⁰ How to Conserve Habitats, New York Department of Environmental Conservation (June 9, 2013, 10:38 PM), http://www.dec.ny.gov/docs/remediation_hudson_pdf/hrebch5.pdf; This PDF also provides a more in-depth discussion of the use of habitat buffer zones and other local government conservation ordinances that could be helpful for Region Five.

⁷¹ Id.

The Metro Council in Oregon also has several resources on wildlife habitat land use ordinances: it has created a model wildlife habitat protection ordinance of its own for its Urban Growth Management Functional Plan. Its "Nature in Neighborhoods" model ordinance is a particularly applicable example for Region Five because Oregon Metro shares many of the same sustainability goals as the region. The ordinance is also geared specifically towards integrating wildlife habitat protection into neighborhoods rather than keeping it separate from communities. Since the ordinance is focused on urban growth management, it incorporates many sustainability features for development, including construction management and development standards. While many of these features have been discussed in other Resilient Region Model Ordinances, it is important to apply these ideas to habitat protection as well to ensure that biodiversity and its habitats are protected to support Region Five's sustainable community.

3. Wetland Protection Ordinances

Wetlands and other water sources are a major part of Region Five and should therefore be given substantial attention when drafting wildlife habitat protection ordinances. Wetlands are often protected separately from land habitats because of water quality issues and the different factors that play into water resources protection. This is important for Region Five to consider since water resources and recreation make up a large part of its economy and community.

The Gardner, Massachusetts, Wetlands Protection Ordinance contains many features of a comprehensive wetlands ordinance.⁷³ The ordinance sets forth activities that require additional approval beyond federal and state protections. Since Minnesota is known for its water resources and has equivalent legislative protections in place for their conservation, Region Five

⁷² Exhibit E—Ordinance No. 05-1077C, Oregon Metro Council (June 10, 2013, 3:06 PM), http://library.oregonmetro.gov/files/title 13 model ordinance.pdf.

⁷³ Gardner, Mass. Code § 161 (2004); http://www.gardner-ma.gov/pages/gardnerma_bcomm/conservation/wet.pdf.

jurisdictions may not need to adopt comprehensive regulation for wetlands or lakes, but may wish to consider whether to add more protection for those areas on top of state constraints. Some cities and counties within Region Five have already adopted a comprehensive wetlands ordinance.

NEXT STEPS

In order to create a successful wildlife habitat protection ordinance, the RRP must decide how to incorporate the themes and recommendations from its Resilient Region Plan in the context of wildlife habitat protection.

We recommend one or more of the existing working groups, or perhaps a new one focused on this topic, identify the various habitats and species that require protection with the region and then discuss and further research ordinances that have been implemented in other communities. From this research, the working group can then create an action plan tailored towards wildlife habitat protection. We recommend that the working group include at least one individual with a background in natural resources management or a similar field of study. Working groups would be a valuable yet effective option for Region Five to gather community input and specialized research in one place without sacrificing project organization and Resilient Region Plan goals.

The RRP should also incorporate the interests of the Native American community when discussing natural resource protection in general and wildlife habitat protection in particular. Natural resources and wildlife cross jurisdictional boundaries, and measures to achieve sustainable growth will impact the entire area. Implementation of culturally specific programs alongside these protections could be a valuable educational opportunity for the tourism industry and school curriculums in the region.