

## **Appendices**

**Appendix A**  
**Agency Correspondence**



MINNESOTA HISTORICAL SOCIETY  
STATE HISTORIC PRESERVATION OFFICE

RECEIVED  
MAR 07 2007  
HDR Engineering, Inc.

March 6, 2007

Ms. Sarah Emery  
HDR Engineering  
701 Xenia Avenue South, Suite 600  
Minneapolis, MN 55416

RE: PPM Energy Elm Creek Wind Project  
Jackson and Martin Counties  
SHPO Number: 2007-1139

Dear Ms. Emery:

Thank you for the opportunity to review and comment on the above project. It has been reviewed pursuant to the responsibilities given the Minnesota Historical Society by the Minnesota Historic Sites Act and the Minnesota Field Archaeology Act.

We believe that there is a good probability that unreported archaeological properties might be present in the project area. Therefore, we recommend that a survey of the area be completed. The survey must meet the requirements of the Secretary of the Interior's Standards for Identification and Evaluation, and should include an evaluation of National Register eligibility for any properties that are identified. For your information, we have enclosed a list of consultants who have expressed an interest in undertaking such surveys.

If the project area can be documented as previously disturbed or previously surveyed, we will re-evaluate the need for survey. Previously disturbed areas are those where the naturally occurring post-glacial soils and sediments have been recently removed. Any previous survey work must meet contemporary standards.

Please note that this comment letter does not address the requirements of Section 106 of the National Historic Preservation Act of 1966 and 36CFR800, procedures of the Advisory Council on Historic Preservation for the protection of historic properties. If this project is considered for federal assistance, or requires a federal license or permit, it should be submitted to our office with reference to the appropriate federal agency.

If you have any questions on our review of this project, please contact us at (651) 259-3455.

Sincerely,

Dennis A. Gimmestad  
Government Programs and Compliance Officer

Enclosure: List of Consultants



# Minnesota Department of Natural Resources

Natural Heritage and Nongame Research Program, Box 25  
500 Lafayette Road

St. Paul, Minnesota 55155-40\_\_

Phone: (651) 259-5109 Fax: (651) 296-1811 E-mail: lisa.joyal@dnr.state.mn.us

February 13, 2007

Ms. Sarah Emery  
HDR Engineering  
701 Xenia Avenue, Suite 600  
Minneapolis, MN 55416

Re: Request for Natural Heritage information for vicinity of proposed Elm Creek Wind Project

NHNRP Contact #: ERDB 20070523

| County  | Township (N) | Range (W) | Section(s)   |
|---------|--------------|-----------|--------------|
| Jackson | 103          | 35        | 1, 12, 13    |
|         | 103          | 34        | 2-11, 14-18  |
|         | 104          | 35        | 24, 25, 36   |
|         | 104          | 34        | 19-21, 23-36 |
| Martin  | 104          | 33        | 19, 30       |

Dear Ms. Emery,

The Minnesota Natural Heritage database has been reviewed to determine if any rare plant or animal species or other significant natural features are known to occur within an approximate one-mile radius of the area indicated on the map enclosed with your information request. Based on this review, there are no known occurrences of rare species or native plant communities in the area searched.

The Natural Heritage database is maintained by the Natural Heritage and Nongame Research Program, a unit within the Division of Ecological Services, Department of Natural Resources. It is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. Its purpose is to foster better understanding and protection of these features.

Because our information is not based on a comprehensive inventory, there may be rare or otherwise significant natural features in the state that are not represented in the database. A county-by-county survey of rare natural features is now underway, and is in progress for Jackson County. Our information about native plant communities is, therefore, good for that county. However, because survey work for rare plants and animals is less exhaustive, and because there has not been an on-site survey of all areas of the county, ecologically significant features for which we have no records may exist on the project area. Martin County has not been surveyed.

Please be aware that review by the Natural Heritage and Nongame Research Program focuses only on *rare natural features*. It does not constitute review or approval by the Department of Natural Resources as a whole. If you require further information on the environmental review process for other natural resource-related issues, you may contact your Regional Environmental Assessment Ecologist, Todd Kolander, at (507) 359-6073.

An invoice in the amount of \$102.54 will be mailed to you under separate cover within two weeks of the date of this letter. You are being billed for map and database search and staff scientist review. Thank you for consulting us on this matter, and for your interest in preserving Minnesota's rare natural resources.

Sincerely,

Lisa A. Joyal  
Endangered Species Environmental Review Technician

DNR Information: 651-296-6157 • 1-888-646-6367 • TTY: 651-296-5484 • 1-800-657-3929





# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Bishop Henry Whipple Federal Building  
1 Federal Drive  
Fort Snelling, MN 55111-4056

RECEIVED  
APR 04 2007  
HDR Engineering, Inc.

IN REPLY REFER TO:

MAR 23 2007

Ms. Sarah Emery  
Senior Environmental Scientist  
HDR Engineering, Inc.  
701 Xenia Avenue South, Suite 600  
Minneapolis, Minnesota 55416

Dear Ms. Emery:

We have received your letters dated January 22, 2007, requesting review of two proposed wind farm projects in southwest Minnesota. The Elm Creek Wind Project would include a minimum of 33 to a maximum of 66 turbines located in northeastern Jackson County and two sections of Martin County (T104N, R33W, Sections 19 and 30), Minnesota. The Moraine II Wind Project is located in Pipestone and Murray Counties.

A copy of the U.S. Fish and Wildlife Service's (Service) guidelines for siting and construction of wind turbines is available at <http://www.fws.gov/habitatconservation/wind.pdf>. The specific guidelines are located on pages 2-4 of the document. These measures are meant to aid developers in minimizing wind farm effects on migratory birds and their habitat and in meeting the intent of the Migratory Bird Treaty Act (MBTA).

#### Elm Creek Wind Area resources:

There are no known Important Bird Areas, shorebird stopover sites, or other major bird resources in the Martin County portion of the project area. A limited number of northbound spring migrant raptors may utilize the corridor along/above Elm Creek (also in Jackson County) as they move towards more northerly breeding grounds. Species that occur in this area include Sharp-shinned Hawk, Cooper's Hawk, Red-tailed Hawk, Broad-winged Hawk, Northern Harrier, and American Kestrel. Both Bald and Golden Eagles occur in migration in the county and might occasionally be recorded along this minor migration route.

There are no known Important Bird Areas, Shorebird stopover sites, or other major bird resources in the Jackson County portion of the project area apart from the minor raptor migration route noted above. No significant wetlands occur in the project area although vegetated portions of Elm Creek and its North and South Forks offer some minor stopover habitat for migrant woodland passerines during spring and fall migration. Jackson County does have a remnant population of the state endangered Loggerhead Shrike. Other prairie grassland birds nesting and migrating through the county include several birds on the Region 3 Regional Conservation Priority list including Dickcissel, Sedge Wren, Upland Sandpiper, Black-billed Cuckoo,

Henslow's Sparrow, and Grasshopper Sparrow. All of these species may occur at times in all of the sections of the proposed project.

Morraine II Wind Area resources:

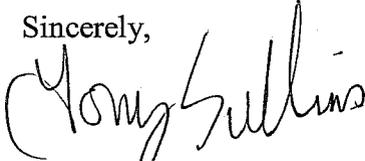
A broad-based fall and spring raptor migration route covers this region but most birds presumably move to the west of this site along a line from where the Minnesota River turns southeast, converging with the Big Sioux River as it runs south along the South Dakota border.

Two wetlands located within the project boundary are of particular concern. Klinker Slough in Sections 9 and 10 in Murray County, includes conservation lands and is valuable for waterfowl, some shorebirds, American Bitterns, Sedge Wrens, and Black Terns. The second area is Engbarth Slough in Pipestone County in Section 9. This is one of the few wetlands in the entire county and as such is extremely important as stopover habitat for waterfowl, waterbirds, and shorebirds. Species vary seasonally with water availability and water depths but species diversity is high and this slough has been identified as a prime birding area in Kim Eckert's *A Birder's Guide to Minnesota*.

Grassland birds breeding in this region include several rarities such as the Blue Grosbeak which is gradually colonizing southwestern Minnesota, Upland Sandpiper, a scarce shorebird that breeds on grassy knolls in the Coteau country and could be directly impacted by turbines, and Swainson's Hawks which breed in farm groves and shelterbelts. Additional breeding grassland birds here include Black-billed Cuckoo, Western Kingbird, Sedge Wren, Grasshopper Sparrow, and Dickcissel. There are no known gallinaceous bird leks in this region although the amount of available prairie habitat makes a future reintroduction a possibility. The presence of turbines would effectively discourage lek species like the Greater Prairie Chicken from becoming established within range of the turbines.

In addition to the avian resources present in this area, there are numerous state managed Wildlife Management Areas which should be avoided. We recommend that you contact Todd Kolander, with the Minnesota Department of Natural Resources (DNR) in New Ulm, Minnesota, to determine exact locations and ownership boundaries.

We appreciate the opportunity to provide preliminary comments on the proposed projects. We recommend that the DNR, the Service, and project representatives meet to discuss the specific turbine locations and related infrastructure concerns, especially in the resource sensitive Morraine II area. Please contact staff biologist, Ms. Laurie Fairchild, at (612) 725-3548, extension 214, regarding future project coordination.

Sincerely,  
  
Tony Sullins  
Field Supervisor

cc: Todd Kolander, MNDNR  
Mark Vaniman, Windom WMD  
Bob Russell, Migratory Birds Office

**Appendix B**  
**Cultural Resources Memorandum**

|                         |                                  |
|-------------------------|----------------------------------|
| To: Tim Seck            |                                  |
| From: Erika Eigenberger | Project: PPM Elm Creek Wind Farm |
| CC:                     |                                  |
| Date: January 30, 2007  | Job No: 54325                    |

**RE: Elm Creek Wind Farm Cultural Resources Literature Review**

This memorandum documents the cultural resources data collection (Phase Ia Inventory) for the proposed Elm Creek Wind Project. HDR Engineering, Inc. (HDR) initiated this data collection in January 2007 to assist PPM Energy, Inc. (PPM) in project planning. Data collection includes gathering information within the project area and a one-mile buffer. The standard one-mile buffer is used to gather valuable information regarding the location of previously identified cultural resources and cultural resources surveys. This information is then used to identify site types that may be encountered and landforms or areas that have a higher potential for containing significant cultural resources. The known cultural resources information, derived from previous professional cultural resources surveys and reported site leads, was collected from the State Historic Preservation Office (SHPO) in St. Paul, Minnesota. Collected data includes archaeological site files and previous cultural resources studies and reports. In addition, HDR reviewed 19<sup>th</sup>-century Public Land Survey (PLS) maps to identify potential historic-period cultural features that may yet exist in the project area.

*Cultural Background*

The proposed Project area lies completely within the Prairie Lake South Archaeological Region (Anfinson 1990). The Prairie Lake South Archaeological Region is located in southwestern and south-central Minnesota and includes all of Jackson and Martin Counties. Topography includes the typical swell and swale topography of a ground moraine. Soils within the project area consist of medium to fine textured prairie soils. Pre-contact habitation sites in this region are commonly located near wooded areas and near major lakes or river valleys. Resource procurement sites may be located in upland settings, but more commonly would be found along areas near waters edge.

*Cultural Resources Reports and Sites*

HDR reviewed existing cultural resources documentation for the following townships that comprise the Elm Creek Wind Farm project area and the one-mile buffer (Table 1).

| Township Name | Township | Range | Section                  |
|---------------|----------|-------|--------------------------|
| Elm Creek     | 103N     | 33W   | 6                        |
| Enterprise    | 103N     | 34W   | 1-24                     |
| Belmont       | 103N     | 35W   | 1, 2, 11-14, 23 and 24   |
| Cedar         | 104N     | 33W   | 17-20 and 29-32          |
| Kimball       | 104N     | 34W   | 13-36                    |
| Christiana    | 104N     | 35W   | 13, 14, 23-26, 35 and 36 |

The Phase Ia inventory documented three previous cultural resources reports associated with three cultural resources investigations within the project area and the one-mile buffer (Table 2). One of these reports pertains to investigations conducted in support of wind farm construction.

| Survey Report Date | Report Title  | Author(s)/Association   | Comment  | Associated Archaeological Sites  |
|--------------------|---|---|--|--|
| 1911               | <i>The Aborigines of North America</i>  | N.H. Winchell   | This survey was completed within Jackson and Martin Counties. It is unclear if a portion of the survey was completed within or near the project area | None of the identified sites noted in the text were located within the project area or the one-mile buffer |
| 2000               | <i>Report on Cultural Resource Reconnaissance Survey Conducted Along Proposed Reconstruction of CSAH 44 from West Martin County Line East to Trimont (Cedar and Galena Townships), Martin County, Minnesota</i> | Christina Harrison  | Inside the project area and inside the one-mile buffer   | No sites noted within the project area or the one-mile buffer  |
| 2004               | <i>Phase I Archaeological Investigation and Phase II Architectural History Investigation, Trimont Wind Project, Jackson and Martin Counties, Minnesota</i>  | Daniel R. Pratt, Dylan Eigenberger, Erika Palmer and Michael Madson | Inside the project area and inside the one-mile buffer   | No sites noted within the project area or the one-mile buffer  |

Previous investigations within the project area documented no archaeological resources within the project area or one-mile buffer. One resource was noted within the one-mile buffer consisting of a historic documentation. During the SHPO background check, the site form for this resource was not within the appropriate folder and no additional information was available. SHPO guidelines refer to these sites as ghost towns, trading posts, etc. It is also noted that these sites have not been field verified.

| Site Number | Site Type              | Comment                    | NRHP Status |
|-------------|------------------------|----------------------------|-------------|
| 21MRq       | Historic Documentation | Within the one-mile buffer | Unknown     |

### Public Land Survey Map Review

HDR reviewed PLS maps for the project area and the one-mile buffer (Table 4). The maps illustrate environmental conditions, including elevation variations across the landscape and watercourses, during the mid 1880s. The maps indicate historic-period land use within the project area, including roads and trail systems.

| Township Name | Township | Range | PLS Dates (Commenced-Completed) | Cultural Features/Location  |
|---------------|----------|-------|---------------------------------|---|
| Elm Creek     | 103N     | 33W   | 1857                            | Road traveling through Section 6                                      |
| Enterprise    | 103N     | 34W   | 1857-1858                       | Road from Mankato to Springfield in Sections 1, 11, 12, 14, 15 and 22 |
| Belmont       | 103N     | 35W   | 1857-1858                       | None  |
| Cedar         | 104N     | 33W   | 1857                            | Road traveling through Section 32                                     |
| Kimball       | 104N     | 34W   | 1857-1858                       | None  |
| Christiana    | 104N     | 35W   | 1857-1858                       | None  |

SHPO Correspondence (see attached)

A letter was sent to the Minnesota SHPO on January 22, 2007 requesting a review of the proposed project area and potential impacts to cultural resources. HDR received a response on March 6, 2007, stating that the SHPO recommended the completion of a cultural resources survey prior to project construction.

#### *Implications for Archaeological Resources*

After review of the recorded archaeological site information and the information in previous survey reports, HDR suggests that the project area has a relatively high potential for containing pre-contact archaeological resources on elevated landforms and areas within close proximity of permanent water sources. Although the review produced no previously identified cultural resources within the project area, the presence of multiple water crossings increases the areas potential.

#### *Conclusions*

HDR recommends a Phase I archaeological resources survey for areas proposed for project construction; including wind turbine locations, associated access roads, electrical cables and other construction elements. These investigations must be conducted by a professional archaeologist meeting the Secretary of the Interior's Standards for Archaeology as published in the Code of Federal Regulations, 36 CFR Part 6. Survey strategies would depend on surface exposure and the characteristics of the landforms proposed for development. After receiving the proposed turbine, access road and electrical cable layouts, HDR archaeologists will design an appropriate survey strategy. Higher potential areas will most likely include portions of the project area within close proximity of a permanent water source and areas of higher elevation. If cultural resources are identified during the survey, HDR archaeologists will provide recommendations for National Register eligibility, and offer recommendations for site avoidance, impact minimization, or mitigation if necessary.

**Appendix C**  
**Animals in Project Area**

**LIST OF DOCUMENTED BIRD SPECIES IN PROJECT AREA**

| <b>Common Name</b>            | <b>Scientific Name</b>    | <b>Habitat</b>  | <b>Distribution</b> |
|-------------------------------|---------------------------|---|---------------------|
| <i>Alder Flycatcher</i>       | Empidonax alnorum         | swamps, streamside and lakeside thickets                        | Jackson, Martin     |
| <i>American Avocet</i>        | Recurvirostra americana   | mudflats, in saline lakes, in fresh water and saltwater marshes | Jackson, Martin     |
| <i>American Bittern</i>       | Botaurus lentiginosus     | marshes, grassy lakeshores                                      | Jackson, Martin     |
| <i>American Black Duck</i>    | Anas rubripes             | marshes, ponds, lakes   | Jackson, Martin     |
| <i>American Coot</i>          | Fulica americana          | marshes, ponds, lakes   | Jackson, Martin     |
| <i>American Crow</i>          | Corvus brachyrhynchos     | Forested areas along streams, city streets and parks,           | Jackson, Martin     |
| <i>American Golden-Plover</i> | Pluvialis fulva           | Lakeshores and prairies   | Jackson, Martin     |
| <i>American Goldfinch</i>     | Carduelis tristis         | weedy fields and flood plains                                   | Jackson, Martin     |
| <i>American Kestrel</i>       | Falco sparverius          | open fields, forest edges                                       | Jackson, Martin     |
| <i>American Pipit</i>         | Anthus rubescens          | grasslands and sedge meadows                                    | Jackson, Martin     |
| <i>American Redstart</i>      | Setophaga ruticilla       | Open deciduous or mixed woodlands, forest edges, roadside trees | Jackson, Martin     |
| <i>American Robin</i>         | Turdus migratorius        | open woodlands, fields, gardens and yards                       | Jackson, Martin     |
| <i>American Tree Sparrow</i>  | Spizella arborea          | willow and birch thickets; fields, weedy woodland edges         | Jackson, Martin     |
| <i>American White Pelican</i> | Pelecanus erythrorhynchos | Shallow lakes and marshes                                       | Jackson, Martin     |
| <i>American Wigeon</i>        | Anas americana            | ponds, lakes and marshes  | Jackson, Martin     |
| <i>Baird's Sandpiper</i>      | Calidris bairdii          | marshes and wet meadows   | Jackson, Martin     |
| <i>Bald Eagle</i>             | Haliaeetus leucocephalus  | Forested areas near lakes and rivers                            | Jackson, Martin     |
| <i>Baltimore Oriole</i>       | Icterus galbula           | Deciduous woodlands and shade trees                             | Jackson, Martin     |
| <i>Bank Swallow</i>           | Riparia riparia           | found near water, nest in banks                                 | Jackson, Martin     |
| <i>Barn Swallow</i>           | Hirundo rustica           | Farmsteads, open woods  | Jackson, Martin     |
| <i>Barred Owl</i>             | Strix varia               | Forests with some mature trees near open country                | Jackson, Martin     |

| Common Name                         | Scientific Name                  | Habitat   | Distribution    |
|-------------------------------------|----------------------------------|---|-----------------|
| <i>Bay-breasted Warbler</i>         | <i>Dendroica castanea</i>        | Boreal forests  | Jackson, Martin |
| <i>Belted Kingfisher</i>            | <i>Ceryle alcyon</i>             | Lakes and marshes   | Jackson, Martin |
| <i>Black Tern</i>                   | <i>Chlidonias niger</i>          | Marshes and lakes   | Jackson, Martin |
| <i>Black-and-white Warbler</i>      | <i>Mniotilta varia</i>           | Deciduous forests   | Jackson, Martin |
| <i>Black-bellied Plover</i>         | <i>Pluvialis squatarola</i>      | Lake shores, mud flats  | Jackson, Martin |
| <i>Black-billed Cuckoo</i>          | <i>Coccyzus erythrophthalmus</i> | Moist thickets in low overgrown pastures and orchards           | Jackson, Martin |
| <i>Black-billed Magpie</i>          | <i>Pica hudsonia</i>             | Grasslands and savannah   | Martin          |
| <i>Blackburnian Warbler</i>         | <i>Dendroica fusca</i>           | Coniferous forests  | Jackson, Martin |
| <i>Black-capped Chickadee</i>       | <i>Poecile atricapillus</i>      | Deciduous and mixed forests and open woodlands                  | Jackson, Martin |
| <i>Black-crowned Night-Heron</i>    | <i>Nycticorax nycticorax</i>     | Marshes and lakes   | Jackson, Martin |
| <i>Black-headed grosbeak</i>        | <i>Pheucticus melanocephalus</i> | Deciduous forests   | Jackson         |
| <i>Black-headed gull</i>            | <i>Larus ridibundus</i>          | Marshes and lakes   | Jackson         |
| <i>Black-necked Stilt</i>           | <i>Himantopus mexicanus</i>      | Lakeshores and marshes  | Martin          |
| <i>Blackpoll Warbler</i>            | <i>Dendroica striata</i>         | Coniferous forests  | Jackson, Martin |
| <i>Black-throated Green Warbler</i> | <i>Dendroica virens</i>          | Coniferous forests  | Jackson, Martin |
| <i>Blue Jay</i>                     | <i>Cyanocitta cristata</i>       | Mixed and deciduous stands and parklands around inhabited areas | Jackson, Martin |
| <i>Blue-gray Gnatcatcher</i>        | <i>Polioptila caerulea</i>       | Moist deciduous forests   | Jackson, Martin |
| <i>Blue-headed Vireo</i>            | <i>Vireo solitarius</i>          | mixed coniferous and deciduous forest                           | Jackson, Martin |
| <i>Blue-winged Teal</i>             | <i>Anas discors</i>              | Marshes and lakeshores  | Jackson, Martin |
| <i>Blue-winged Warbler</i>          | <i>Vermivora pinus</i>           | Shrubland, old fields   | Jackson         |
| <i>Bobolink</i>                     | <i>Dolichonyx oryzivorus</i>     | Grassland, prairie  | Jackson, Martin |

| Common Name                      | Scientific Name         | Habitat                                   | Distribution    |
|----------------------------------|-------------------------|---|-----------------|
| <i>Bonaparte's Gull</i>          | Larus philadelphia      | Forested lakes and rivers                 | Jackson, Martin |
| <i>Brewer's Blackbird</i>        | Euphagus cyanocephalus  | Prairies, fields and farmyards            | Jackson, Martin |
| <i>Broad-winged Hawk</i>         | Buteo platypterus       | Deciduous woodlands                       | Jackson, Martin |
| <i>Brown Creeper</i>             | Certhia americana       | Mixed coniferous forest                   | Jackson, Martin |
| <i>Brown Thrasher</i>            | Toxostoma rufum         | Hedgerows and open forest                 | Jackson, Martin |
| <i>Brown-headed Cowbird</i>      | Molothrus ater          | Grasslands and forest edges               | Jackson, Martin |
| <i>Buff-breasted Sandpiper</i>   | Tryngites subruficollis | Prairies and grasslands                   | Jackson, Martin |
| <i>Bufflehead</i>                | Bucephala albeola       | Wooded wetlands and ponds                 | Jackson, Martin |
| <i>Burrowing Owl</i>             | Speotyto cunicularia    | Grasslands                                | Jackson, Martin |
| <i>Cackling Goose</i>            | Branta hutchinsii       | Lakes and marshes                         | Jackson, Martin |
| <i>Canada Goose</i>              | Branta canadensis       | Lakes and open water wetlands             | Jackson, Martin |
| <i>Canada Warbler</i>            | Wilsonia canadensis     | Moist mature forests                      | Jackson, Martin |
| <i>Canvasback</i>                | Aythya valisineria      | pot holes, open marshes                   | Jackson, Martin |
| <i>Cape May Warbler</i>          | Dendroica tigrina       | Open coniferous forests                   | Jackson, Martin |
| <i>Caspian Tern</i>              | Sterna caspienne        | Rivers and streams                        | Jackson, Martin |
| <i>Cattle Egret</i>              | Bubulcus ibis           | ponds, pasturelands                       | Jackson, Martin |
| <i>Cedar Waxwing</i>             | Bombycilla cedrorum     | open woodlands, fields, gardens and yards | Jackson, Martin |
| <i>Chesnut-collared Longspur</i> | Calcarius ornatus       | Prairie                                   | Jackson         |
| <i>Chestnut-sided Warbler</i>    | Dendroica pensylvanica  | open woodland and scrub                   | Jackson, Martin |
| <i>Chimney Swift</i>             | Chaetura pelagica       | Nest in man-made structures               | Jackson, Martin |
| <i>Chipping Sparrow</i>          | Spizella passerina      | Open woods and fields                     | Jackson, Martin |
| <i>Cinnamon Teal</i>             | Anas cyanoptera         | Shallow ponds, marshes, lakes             | Jackson         |

| Common Name                     | Scientific Name                 | Habitat   | Distribution    |
|---------------------------------|---------------------------------|---|-----------------|
| <i>Clark's Grebe</i>            | <i>Aechmophorus clarkii</i>     | Sloughs and shallow lakes with emergent vegetation        | Jackson         |
| <i>Clay-colored Sparrow</i>     | <i>Spizella pallida</i>         | prairies  | Jackson, Martin |
| <i>Cliff Swallow</i>            | <i>Petrochelidon pyrrhonata</i> | open country near cliffs                                  | Jackson, Martin |
| <i>Common Goldeneye</i>         | <i>Bucephala clangula</i>       | Mature forests near wetlands                              | Jackson, Martin |
| <i>Common Grackle</i>           | <i>Quiscalus quiscula</i>       | Open areas with scattered trees                           | Jackson, Martin |
| <i>Common Loon</i>              | <i>Gavia immer</i>              | Lakes and open water wetlands                             | Jackson, Martin |
| <i>Common Merganser</i>         | <i>Mergus merganse</i>          | Marshes, shallow lakes and ponds                          | Jackson, Martin |
| <i>Common Moorhen</i>           | <i>Gallinula chloropus</i>      | Near marshes, lakes, ponds                                | Jackson, Martin |
| <i>Common Nighthawk</i>         | <i>Chordeiles minor</i>         | Grasslands and open fields                                | Jackson, Martin |
| <i>Common Redpoll</i>           | <i>Carduelis flammea</i>        | open fields, forest edges                                 | Jackson, Martin |
| <i>Common Tern</i>              | <i>Sterna hirundo</i>           | Lakeshores  | Jackson, Martin |
| <i>Common Yellowthroat</i>      | <i>Geothlypis trichas</i>       | Marshes and wetlands                                      | Jackson, Martin |
| <i>Connecticut Warbler</i>      | <i>Oporornis agilis</i>         | Forested wetlands   | Jackson, Martin |
| <i>Cooper's Hawk</i>            | <i>Accipiter cooperii</i>       | Dense deciduous and coniferous forests and riparian areas | Jackson, Martin |
| <i>Dark-eyed Junco</i>          | <i>Junco hyemalis</i>           | Mixed open woods and brush                                | Jackson, Martin |
| <i>Dickcissel</i>               | <i>Spiza americana</i>          | prairies, grasslands, pastureland                         | Jackson, Martin |
| <i>Double-crested Cormorant</i> | <i>Phalacrocorax auritus</i>    | Lakes, rivers, marshes                                    | Jackson, Martin |
| <i>Downy Woodpecker</i>         | <i>Picoides pubescens</i>       | Mixed woodlands and bottomland forests, forest edges      | Jackson, Martin |
| <i>Dunlin</i>                   | <i>Calidris alpina</i>          | Wet meadows and ponds                                     | Jackson, Martin |
| <i>Eared Grebe</i>              | <i>Podiceps nigricollis</i>     | Open water with emergent vegetation                       | Jackson, Martin |
| <i>Eastern Bluebird</i>         | <i>Sialia sialis</i>            | Grasslands and open woods                                 | Jackson, Martin |
| <i>Eastern Kingbird</i>         | <i>Tyrannus tyrannus</i>        | Open areas, forest edges                                  | Jackson, Martin |
| <i>Eastern Phoebe</i>           | <i>Sayornis phoebe</i>          | Open woodlands near streams                               | Jackson, Martin |

| Common Name                     | Scientific Name            | Habitat                                      | Distribution    |
|---------------------------------|----------------------------|--|-----------------|
| <i>Eastern Screech-Owl</i>      | Otus kennicotti            | Open woods, forest edges                     | Jackson, Martin |
| <i>Eastern Towhee</i>           | Pipilo erythrophthalmus    | Open woods, forest edges                     | Jackson, Martin |
| <i>Eastern Wood-Pewee</i>       | Contopus virens            | Open woods, forest edges                     | Jackson, Martin |
| <i>European Starling</i>        | Sturnus vulgaris           | Open fields, farmland                        | Jackson, Martin |
| <i>Evening Grosbeak</i>         | Coccothraustes vespertinus | Coniferous forests                           | Jackson, Martin |
| <i>Ferruginous Hawk</i>         | Buteo regalis              | Grassland, farmland                          | Jackson         |
| <i>Field Sparrow</i>            | Spizella pusilla           | Pastures and old fields                      | Jackson, Martin |
| <i>Forster's Tern</i>           | Sterna forsteri            | Marshes                                      | Jackson, Martin |
| <i>Fox Sparrow</i>              | Passerella iliaca          | Forest edges and scrub areas                 | Jackson, Martin |
| <i>Franklin's Gull</i>          | Larus pipixcan             | Lakeshores, marshes                          | Jackson, Martin |
| <i>Gadwall</i>                  | Anas strepera              | Marshes, rivers and ponds                    | Jackson, Martin |
| <i>Glaucous Gull</i>            | Larus hyperboreus          | Large lakes                                  | Jackson         |
| <i>Golden Eagle</i>             | Aquila chrysaetos          | Open and semi-open areas                     | Jackson, Martin |
| <i>Golden-crowned Kinglet</i>   | Regulus satrapa            | Coniferous forests                           | Jackson, Martin |
| <i>Golden-winged Warbler</i>    | Vermivora chrysoptera      | Woods and forest edges                       | Jackson, Martin |
| <i>Grasshopper Sparrow</i>      | Ammodramus savannarum      | Grasslands, farmlands                        | Jackson, Martin |
| <i>Gray Catbird</i>             | Dumetella carolinensis     | Dense shrubby areas near forests and streams | Jackson, Martin |
| <i>Gray Partridge</i>           | Perdix perdix              | Grasslands and farmlands                     | Jackson, Martin |
| <i>Gray-cheeked Thrush</i>      | Catharus minimus           | Coniferous forests                           | Jackson, Martin |
| <i>Great Blue Heron</i>         | Ardea herodias             | Lakes, rivers, marshes                       | Jackson, Martin |
| <i>Great Crested Flycatcher</i> | Myiarchus crinitus         | Open woods and mixed forest                  | Jackson, Martin |
| <i>Great Egret</i>              | Ardea alba                 | Lakes, rivers, marshes                       | Jackson, Martin |

| Common Name                        | Scientific Name              | Habitat                                 | Distribution    |
|------------------------------------|------------------------------|---|-----------------|
| <i>Great Horned Owl</i>            | <i>Bubo virginianus</i>      | Woodlands                               | Jackson, Martin |
| <i>Greater Scaup</i>               | <i>Aythya marila</i>         | Lakes and bogs near forest              | Jackson, Martin |
| <i>Greater White-fronted Goose</i> | <i>Anser albifrons</i>       | Pot holes, ponds, grassland             | Jackson, Martin |
| <i>Greater Yellowlegs</i>          | <i>Tringa melanoleuca</i>    | Lakes, ponds, marshes                   | Jackson, Martin |
| <i>Green Heron</i>                 | <i>Butorides virescens</i>   | Lakes, rivers, marshes                  | Jackson, Martin |
| <i>Green-winged Teal</i>           | <i>Anas crecca</i>           | Marshes and ponds                       | Jackson, Martin |
| <i>Gyr Falcon</i>                  | <i>Falco rusticolus</i>      | Open areas near river bluffs            | Jackson, Martin |
| <i>Hairy Woodpecker</i>            | <i>Picoides villosus</i>     | Deciduous forests                       | Jackson, Martin |
| <i>Harris's Sparrow</i>            | <i>Zonotrichia querula</i>   | Wetlands and scrub areas                | Jackson, Martin |
| <i>Henslow's Sparrow</i>           | <i>Ammodramus henslowii</i>  | Grassland                               | Jackson         |
| <i>Hermit Thrush</i>               | <i>Catharus tuttatus</i>     | Mixed forest                            | Jackson, Martin |
| <i>Herring Gull</i>                | <i>Larus argentatus</i>      | Lakes and rivers                        | Jackson, Martin |
| <i>Hooded Merganser</i>            | <i>Lophodytes cucullatus</i> | Marshes and lakes                       | Jackson, Martin |
| <i>Horned Grebe</i>                | <i>Podiceps auritus</i>      | Lakes and ponds                         | Jackson, Martin |
| <i>Horned Lark</i>                 | <i>Eremophila alpestris</i>  | Grassland and farmland                  | Jackson, Martin |
| <i>House Finch</i>                 | <i>Carpodacus mexicanus</i>  | Developed areas, farmland, grassland    | Jackson, Martin |
| <i>House Sparrow</i>               | <i>Passer domesticus</i>     | Developed areas, farmland, grassland    | Jackson, Martin |
| <i>House Wren</i>                  | <i>Troglodytes aedon</i>     | Developed areas, farmland, forest edges | Jackson, Martin |
| <i>Hudsonian Godwit</i>            | <i>Limosa haemastica</i>     | Mudflats and wetland                    | Jackson, Martin |
| <i>Indigo Bunting</i>              | <i>Passerina cyanea</i>      | Farmland, old fields                    | Jackson, Martin |
| <i>Kentucky Warbler</i>            | <i>Oporornis formosus</i>    | Moist deciduous forests                 | Jackson, Martin |
| <i>Killdeer</i>                    | <i>Charadrius vociferus</i>  | Mudflats                                | Jackson, Martin |
| <i>King Rail</i>                   | <i>Rallus elegans</i>        | Marshes and ponds                       | Jackson, Martin |

| Common Name                  | Scientific Name                          | Habitat                                       | Distribution    |
|------------------------------|--|---|-----------------|
| <i>Lark Sparrow</i>          | <i>Chondestes grammacus</i>              | Grasslands and savannah                       | Jackson, Martin |
| <i>LeConte's Sparrow</i>     | <i>Ammodramus leconteii</i>              | Grasslands and wet meadows                    | Jackson, Martin |
| <i>Least Bittern</i>         | <i>Ixobrychus exilis</i>                 | Marshes                                       | Jackson, Martin |
| <i>Least Flycatcher</i>      | <i>Empidonax minimus</i>                 | Mixed forests, marsh edges                    | Jackson, Martin |
| <i>Least Sandpiper</i>       | <i>Calidris minutilla</i>                | marshes and wet meadows                       | Jackson, Martin |
| <i>Lesser Scaup</i>          | <i>Aythya affinis</i>                    | Marshes and ponds                             | Jackson, Martin |
| <i>Lesser Yellowlegs</i>     | <i>Tringa flavipes</i>                   | Open woods                                    | Jackson, Martin |
| <i>Lincoln's Sparrow</i>     | <i>Melospiza lincolnii</i>               | Marshes and wooded wetlands                   | Jackson, Martin |
| <i>Little Blue Heron</i>     | <i>Egretta caerulea</i>                  | Marshes, lakes and ponds                      | Jackson         |
| <i>Little Gull</i>           | <i>Larus minutus</i>                     | Lakes   | Jackson         |
| <i>Loggerhead Shrike</i>     | <i>Lanius ludovicianus excubitorides</i> | Fields, savannah and open woods               | Jackson, Martin |
| <i>Long-billed Curlew</i>    | <i>Numenius americanus</i>               | Grasslands, prairies                          | Jackson         |
| <i>Long-billed Dowitcher</i> | <i>Limnodromus scolopaceus</i>           | Mudflats, marshes                             | Jackson, Martin |
| <i>Long-eared Owl</i>        | <i>Asio otus</i>                         | Open woods and forest edges                   | Jackson, Martin |
| <i>Long-tailed Duck</i>      | <i>Clangula hyemalis</i>                 | Marshes and lakes                             | Jackson, Martin |
| <i>Magnolia Warbler</i>      | <i>Dendroica magnolia</i>                | Mixed coniferous woods                        | Jackson, Martin |
| <i>Mallard</i>               | <i>Anas platyrhynchos</i>                | Marshes, lakes and ponds                      | Jackson, Martin |
| <i>Marbled Godwit</i>        | <i>Limosa fedoa</i>                      | Prairies                                      | Jackson, Martin |
| <i>Marsh Wren</i>            | <i>Cistothorus palustris</i>             | Marshes                                       | Jackson, Martin |
| <i>Merlin</i>                | <i>Falco columbarius</i>                 | Prairies and coniferous forests               | Jackson, Martin |
| <i>Mourning Dove</i>         | <i>Zenaida macroura</i>                  | Open woodland and grasslands, developed areas | Jackson, Martin |
| <i>Mourning Warbler</i>      | <i>Oporornis philadelphia</i>            | Open woodlands and scrubland                  | Jackson, Martin |

| Common Name                          | Scientific Name                   | Habitat  | Distribution    |
|--------------------------------------|-----------------------------------|--|-----------------|
| <i>Nashville Warbler</i>             | <i>Vermivora ruficapilla</i>      | Forest edges                                     | Jackson, Martin |
| <i>Nelson's Sharp-tailed Sparrow</i> | <i>Ammodramus nelsoni</i>         | Marshes and wet meadows                          | Jackson, Martin |
| <i>Northern Cardinal</i>             | <i>Cardinalis cardinalis</i>      | Forest edges and scrub areas                     | Jackson, Martin |
| <i>Northern Flicker</i>              | <i>Colaptes auratus</i>           | Open woods and forest edges                      | Jackson, Martin |
| <i>Northern Harrier</i>              | <i>Circus cyaneus</i>             | Open fields, grasslands, wet meadows and marshes | Jackson, Martin |
| <i>Northern Mockingbird</i>          | <i>Mimus polyglottos</i>          | Forest edges and pastureland                     | Jackson         |
| <i>Northern Parula</i>               | <i>Parula americana</i>           | Moist forests                                    | Jackson, Martin |
| <i>Northern Pintail</i>              | <i>Anas acuta</i>                 | Pot holes, marshes                               | Jackson, Martin |
| <i>Northern Rough-winged Swallow</i> | <i>Stelgidopteryx serripennis</i> | Open woods, grasslands                           | Jackson, Martin |
| <i>Northern Saw-whet Owl</i>         | <i>Aegolius acadicus</i>          | Mixed forest                                     | Jackson         |
| <i>Northern Shoveler</i>             | <i>Anas clypeata</i>              | Pot holes, marshes                               | Jackson, Martin |
| <i>Northern Shrike</i>               | <i>Lanius excubitor</i>           | Open fields, grasslands                          | Jackson, Martin |
| <i>Northern Waterthrush</i>          | <i>Seiurus noveboracensis</i>     | Lakeshores, marshes, wooded wetlands             | Jackson, Martin |
| <i>Olive-sided Flycatcher</i>        | <i>Contopus cooperi</i>           | Woodlands  | Jackson, Martin |
| <i>Orange-crowned Warbler</i>        | <i>Vermivora celata</i>           | Shrubby mixed woodlands                          | Jackson, Martin |
| <i>Orchard Oriole</i>                | <i>Icterus spurius</i>            | Deciduous riparian forests                       | Jackson, Martin |
| <i>Osprey</i>                        | <i>Pandion halieatus</i>          | Lakes and rivers                                 | Jackson, Martin |
| <i>Ovenbird</i>                      | <i>Seiurus aurocapilla</i>        | mixed upland forests                             | Jackson, Martin |
| <i>Palm Warbler</i>                  | <i>Dendroica palmarum</i>         | open grasslands                                  | Jackson, Martin |
| <i>Pectoral Sandpiper</i>            | <i>Calidris melanotos</i>         | Flooded areas, marshes, lakeshores               | Jackson, Martin |
| <i>Peregrine Falcon</i>              | <i>Falco peregrinus</i>           | Open grasslands and wetlands near cliffs         | Jackson, Martin |
| <i>Philadelphia Vireo</i>            | <i>Vireo gilvus</i>               | Open woodlands and riparian areas                | Jackson, Martin |

| Common Name                   | Scientific Name            | Habitat                               | Distribution    |
|-------------------------------|----------------------------|---------------------------------------|-----------------|
| <i>Pied-billed Grebe</i>      | Podilymbus podiceps        | Marshes and ponds                     | Jackson, Martin |
| <i>Pileated Woodpecker</i>    | Dryocopus pileatus         | Mature forests                        | Jackson, Martin |
| <i>Pine Siskin</i>            | Carduelis pinus            | Coniferous forests                    | Jackson, Martin |
| <i>Pine Warbler</i>           | Dendroica pinus            | Coniferous forests                    | Jackson, Martin |
| <i>Piping Plover</i>          | Charadrius melodus         | Lakes and ponds                       | Jackson         |
| <i>Purple Finch</i>           | Carpodacus purpureus       | Coniferous forests                    | Jackson, Martin |
| <i>Purple Martin</i>          | Progne subis               | Open woods and pastureland            | Jackson, Martin |
| <i>Red Crossbill</i>          | Loxia curvirostra          | Coniferous forests                    | Jackson, Martin |
| <i>Red-bellied Woodpecker</i> | Melanerpes carolinus       | open and moist woodlands              | Jackson, Martin |
| <i>Red-breasted Merganser</i> | Mergus serrator            | lakes and ponds                       | Jackson, Martin |
| <i>Red-breasted Nuthatch</i>  | Sitta canadensis           | Coniferous forests                    | Jackson, Martin |
| <i>Red-eyed Vireo</i>         | Vireo olivaceus            | Deciduous forests                     | Jackson, Martin |
| <i>Redhead</i>                | Aythya americana           | Lakes, ponds, marshes                 | Jackson, Martin |
| <i>Red-headed Woodpecker</i>  | Melanerpes erythrocephalus | Open woods and forest edges           | Jackson, Martin |
| <i>Red-necked Grebe</i>       | Podiceps grisegena         | Lakes and ponds                       | Jackson, Martin |
| <i>Red-necked Phalarope</i>   | Phalaropus lobatus         | Marshes and ponds                     | Jackson, Martin |
| <i>Red-shouldered Hawk</i>    | Buteo lineatus             | Mature forests near lakes and streams | Jackson, Martin |
| <i>Red-tailed Hawk</i>        | Buteo jamaicensis          | Grasslands and deciduous forests      | Jackson, Martin |
| <i>Red-winged Blackbird</i>   | Agelaius phoeniceus        | Marshes and wet meadows               | Jackson, Martin |
| <i>Ring-billed Gull</i>       | Larus delawarensis         | Lakes and rivers                      | Jackson, Martin |
| <i>Ring-necked Duck</i>       | Aythya collaris            | Marshes                               | Jackson, Martin |
| <i>Ring-necked Pheasant</i>   | Phasianus colchicus        | Farmland, old fields                  | Jackson, Martin |
| <i>Rock Pigeon</i>            | Columba livia              | Dry rocky areas and urban zones       | Jackson, Martin |

| Common Name                      | Scientific Name                  | Habitat                             | Distribution    |
|----------------------------------|----------------------------------|-------------------------------------|-----------------|
| <i>Rose-breasted Grosbeak</i>    | <i>Pheucticus ludovicianus</i>   | Open deciduous forests              | Jackson, Martin |
| <i>Ross's Goose</i>              | <i>Chen rossii</i>               | Marshes and ponds                   | Jackson, Martin |
| <i>Rough-legged Hawk</i>         | <i>Buteo lagopus</i>             | Grasslands, farmlands, marshes      | Jackson, Martin |
| <i>Ruby-crowned Kinglet</i>      | <i>Regulus calendula</i>         | Mixed forests                       | Jackson, Martin |
| <i>Ruby-throated Hummingbird</i> | <i>Archilochus colubris</i>      | Mixed forests and forest edges      | Jackson, Martin |
| <i>Ruddy Duck</i>                | <i>Oxyura jamaicensis</i>        | Marshes, lakes, pot holes           | Jackson, Martin |
| <i>Ruddy Turnstone</i>           | <i>Arenaria interpres</i>        | Marshes, ponds                      | Jackson, Martin |
| <i>Rusty Blackbird</i>           | <i>Euphagus carolinus</i>        | swamps and riparian areas           | Jackson, Martin |
| <i>Sanderling</i>                | <i>Calidris alba</i>             | lakes                               | Jackson, Martin |
| <i>Sandhill Crane</i>            | <i>Grus canadensis</i>           | Wetlands mixed with shrubby uplands | Jackson, Martin |
| <i>Savannah Sparrow</i>          | <i>Passerculus sandwichensis</i> | Prairies, meadows and pastures      | Jackson, Martin |
| <i>Scarlet Tanager</i>           | <i>Piranga olivacea</i>          | Woodlands                           | Jackson, Martin |
| <i>Scissor-tailed flycatcher</i> | <i>Tyrannus forficatus</i>       | Prairies and agricultural fields    | Jackson, Martin |
| <i>Sedge Wren</i>                | <i>Cistothorus platensis</i>     | Marshes and wet meadows             | Jackson, Martin |
| <i>Semipalmated Plover</i>       | <i>Charadrius semipalmatus</i>   | Mudflats, lakes and marshes         | Jackson, Martin |
| <i>Semipalmated Sandpiper</i>    | <i>Calidris pusilla</i>          | Lakes and marshes                   | Jackson, Martin |
| <i>Sharp-shinned Hawk</i>        | <i>Accipiter striatus</i>        | Mixed forests                       | Jackson, Martin |
| <i>Short-billed Dowitcher</i>    | <i>Limnodromus griseus</i>       | Wooded wetlands and coniferous bogs | Jackson, Martin |
| <i>Short-eared Owl</i>           | <i>Asio flammeus</i>             | Grassland                           | Jackson, Martin |
| <i>Smith's Longspur</i>          | <i>Calcarius pictus</i>          | Forest edges and grasslands         | Jackson, Martin |
| <i>Snow Bunting</i>              | <i>Plectrophenax nivalis</i>     | Grassland and farmland              | Jackson, Martin |
| <i>Snow Goose</i>                | <i>Chen caerulescens</i>         | Marshes and agricultural fields     | Jackson, Martin |

| <b>Common Name</b>        | <b>Scientific Name</b>           | <b>Habitat</b>                            | <b>Distribution</b> |
|---------------------------|----------------------------------|---|---------------------|
| <i>Snowy Egret</i>        | <i>Egretta thula</i>             | Marshes and ponds                         | Jackson             |
| <i>Snowy Owl</i>          | <i>Nyctea scandiaca</i>          | Open fields and pastures                  | Jackson, Martin     |
| <i>Solitary Sandpiper</i> | <i>Tringa solitaria</i>          | Ponds and marshes near coniferous forests | Jackson, Martin     |
| <i>Song Sparrow</i>       | <i>Melospiza melodia</i>         | Wet meadows, marshes and riparian areas   | Jackson, Martin     |
| <i>Sora</i>               | <i>Porzana carolina</i>          | Marshes                                   | Jackson, Martin     |
| <i>Spotted Sandpiper</i>  | <i>Actitis macularius</i>        | Marshes, lakes, rivers                    | Jackson, Martin     |
| <i>Sprague's Pipit</i>    | <i>Anthus spragueii</i>          | Prairies                                  | Martin              |
| <i>Stilt Sandpiper</i>    | <i>Calidris himantopus</i>       | Lakes and ponds                           | Jackson, Martin     |
| <i>Swainson's Hawk</i>    | <i>Buteo swainsoni</i>           | Grasslands and farmlands                  | Jackson, Martin     |
| <i>Swainson's Thrush</i>  | <i>Catharus ustulatus</i>        | Mixed forests                             | Jackson, Martin     |
| <i>Swamp Sparrow</i>      | <i>Melospiza georgiana</i>       | marshes and scrub-shrub wetlands          | Jackson, Martin     |
| <i>Tennessee Warbler</i>  | <i>Vermivora peregrina</i>       | Mixed forests                             | Jackson, Martin     |
| <i>Tree Swallow</i>       | <i>Tachycineta bicolor</i>       | Wooded areas near wetlands                | Jackson, Martin     |
| <i>Trumpeter Swan</i>     | <i>Cygnus buccinator</i>         | Lakes, streams, marshes                   | Jackson, Martin     |
| <i>Tundra Swan</i>        | <i>Cygnus columbianus</i>        | Lakes and ponds                           | Jackson, Martin     |
| <i>Turkey Vulture</i>     | <i>Cathartes aura</i>            | Grasslands                                | Jackson, Martin     |
| <i>Upland Sandpiper</i>   | <i>Bartramia longicauda</i>      | Dry prairies                              | Jackson, Martin     |
| <i>Veery</i>              | <i>Catharus fuscescens</i>       | Bottomland and riparian forests           | Jackson, Martin     |
| <i>Vesper Sparrow</i>     | <i>Pooecetes gramineus</i>       | Open grasslands and pastures              | Jackson, Martin     |
| <i>Virginia Rail</i>      | <i>Rallus limicola</i>           | Marshes and ponds                         | Jackson, Martin     |
| <i>Warbling Vireo</i>     | <i>Vireo gilvus</i>              | Mixed forests                             | Jackson, Martin     |
| <i>Western Grebe</i>      | <i>Aechmophorus occidentalis</i> | Lakes and ponds                           | Jackson, Martin     |
| <i>Western Kingbird</i>   | <i>Tyrannus verticalis</i>       | Grasslands and pastureland                | Jackson             |
| <i>Western Meadowlark</i> | <i>Sturnella neglecta</i>        | Grassland                                 | Jackson, Martin     |

| Common Name                      | Scientific Name             | Habitat                                  | Distribution    |
|----------------------------------|-----------------------------|--|-----------------|
| <i>Whip-poor-will</i>            | Caprimulgus vociferus       | Upland forests                           | Martin          |
| <i>White-breasted Nuthatch</i>   | Sitta carolinensis          | Open woodlands                           | Jackson, Martin |
| <i>White-crowned Sparrow</i>     | Zonotrichia leucophyrus     | Boreal forests                           | Jackson, Martin |
| <i>White-faced Ibis</i>          | Plegadis chihi              | Marshes and flooded fields               | Jackson, Martin |
| <i>White-rumped Sandpiper</i>    | Calidris fuscicollis        | Mudflats and marshes                     | Jackson, Martin |
| <i>White-throated Sparrow</i>    | Zonotrichia albicollis      | Coniferous forests                       | Jackson, Martin |
| <i>White-winged Crossbill</i>    | Loxia leucoptera            | Coniferous forests                       | Jackson, Martin |
| <i>Wild Turkey</i>               | Meleagris gallopavo         | Upland woods and grassland               | Jackson, Martin |
| <i>Willet</i>                    | Catoptrophorus semipalmatus | Marshes and grassland                    | Jackson, Martin |
| <i>Willow Flycatcher</i>         | Empidonax traillii          | Riparian forests                         | Jackson, Martin |
| <i>Wilson's Phalarope</i>        | Phalaropus tricolor         | Marshes, ponds and mudflats              | Jackson, Martin |
| <i>Wilson's Warbler</i>          | Wilsonia pusilla            | Moist forests and riparian areas         | Jackson, Martin |
| <i>Wilson's Snipe</i>            | Gallinago delicata          | Marshes, ponds and fresh meadows         | Jackson, Martin |
| <i>Winter Wren</i>               | Troglodytes troglodytes     | Mixed forests                            | Jackson, Martin |
| <i>Wood Duck</i>                 | Aix sponsa                  | Forested wetlands and marshes near woods | Jackson, Martin |
| <i>Wood Thrush</i>               | Hylocichla mustelina        | Deciduous forests                        | Jackson, Martin |
| <i>Yellow Rail</i>               | Coturnicops noveboracensis  | Marshes and wet meadows                  | Jackson         |
| <i>Yellow Warbler</i>            | Dendroica petechia          | Riparian areas                           | Jackson, Martin |
| <i>Yellow-bellied Flycatcher</i> | Sphyrapicus varius          | Mixed forests                            | Jackson, Martin |
| <i>Yellow-bellied Sapsucker</i>  | Sphyrapicus varius          | Mixed forests                            | Jackson, Martin |

| <b>Common Name</b>                | <b>Scientific Name</b>        | <b>Habitat</b>                  | <b>Distribution</b> |
|-----------------------------------|-------------------------------|---------------------------------|---------------------|
| <i>Yellow-billed Cuckoo</i>       | Coccyzus americanus           | Open woodlands                  | Jackson, Martin     |
| <i>Yellow-breasted Chat</i>       | Icteria virens                | Forest edges and riparian areas | Jackson             |
| <i>Yellow-crowned Night-Heron</i> | Nyctanassa violacea           | Forested wetlands               | Jackson             |
| <i>Yellow-headed Blackbird</i>    | Xanthocephalus xanthocephalus | Marshes                         | Jackson, Martin     |
| <i>Yellow-rumped Warbler</i>      | Dendroica coronata            | Mixed forests                   | Jackson, Martin     |
| <i>Yellow-throated Vireo</i>      | Vireo flavifrons              | Forest edges                    | Jackson, Martin     |

\* Source: Minnesota Ornithologist's Union. 2005. *County Checklists*. <http://moumn.org/cgi-bin/countychecklist.pl>

**LIST OF MAMMALS EXPECTED TO OCCUR IN THE PROJECT AREA**

| <b>Common Name</b>      | <b>Scientific Name</b>           |
|-------------------------|----------------------------------|
| Badger                  | <i>Taxidea taxus</i>             |
| Big brown bat           | <i>Eptesieus fuscus</i>          |
| Coyote                  | <i>Canis latrans</i>             |
| Deer mouse              | <i>Peromyscus maniculatus</i>    |
| Eastern cottontail      | <i>Sylvilagus floridnus</i>      |
| Eastern fox squirrel    | <i>Sciurus niger</i>             |
| Eastern gray squirrel   | <i>Sciurus carolinensis</i>      |
| Eastern pipistrelle     | <i>Pipistrellus subflavus</i>    |
| Hoary bat               | <i>Lasiurus cinereus</i>         |
| House mouse             | <i>Mus musculus</i>              |
| Least weasel            | <i>Mustela nivalis</i>           |
| Little brown bat        | <i>Myotis lucifugus</i>          |
| Longtail weasel         | <i>Mustela frenata</i>           |
| Meadow vole             | <i>Microtus pennsylvanicus</i>   |
| Mink                    | <i>Mustela vison</i>             |
| Plains pocket gopher    | <i>Geomys bursarius</i>          |
| Prairie vole            | <i>Microtus ochrogaster</i>      |
| Raccoon                 | <i>Procyon lotor</i>             |
| Red bat                 | <i>Lasiurus borealis</i>         |
| Red fox                 | <i>Vulpes fulva</i>              |
| Short-tailed weasel     | <i>Mustela erminea</i>           |
| Silver-haired bat       | <i>Lasionycteris noctivagans</i> |
| Stripped skunk          | <i>Mephitis mephitis</i>         |
| White-tailed deer       | <i>Odocoileus virginianus</i>    |
| White-tailed jackrabbit | <i>Lepus townsendi</i>           |

**LIST OF REPTILES AND AMPHIBIANS EXPECTED TO OCCUR IN THE PROJECT AREA**

| <b>Common Name</b>          | <b>Scientific Name</b>           |
|-----------------------------|----------------------------------|
| <b>Reptiles</b>             |                                  |
| Bullsnake                   | <i>Pituophis melanoleucus</i>    |
| Northern prairie skink      | <i>Eumeces septentrionalis</i>   |
| Red-bellied snake           | <i>Storeria occipitomaculata</i> |
| Red-sided garter snake      | <i>Thamnophis sirtalis</i>       |
| Snapping turtle             | <i>Chelydra serpentina</i>       |
| Western fox snake           | <i>Elaphe vulpine</i>            |
| Western hognose snake       | <i>Heterodon nasicus</i>         |
| Western painted turtle      | <i>Chrysemys picta</i>           |
| Western plains garter snake | <i>Thamnophis radix</i>          |
| Western smooth green snake  | <i>Opheodrys vernalis</i>        |
| <b>Amphibians</b>           |                                  |
| American toad               | <i>Bufo americanus</i>           |
| Eastern tiger salamander    | <i>Ambystoma tigrinum</i>        |
| Gray treefrog               | <i>Hyla versicolor</i>           |
| Great plains toad           | <i>Bufo cognatus</i>             |
| Northern leopard frog       | <i>Rana pipiens</i>              |
| Western chorus frog         | <i>Pseudacris triseriata</i>     |

**Appendix D**  
**Prime and Other Important Farmland Soils**

**Prime and Other Important Farmlands**

| Map Symbol | County             | Map Unit Name                                 | Farmland Classification          |
|------------|--------------------|---|----------------------------------|
| 27B        | Jackson and Martin | Dickinson sandy loam, 1 to 5 percent slopes   | All areas are prime farmland     |
| 37B        | Martin             | Farrar fine sandy loam, 1 to 6 percent slopes | All areas are prime farmland     |
| 39A        | Jackson            | Wadena loam, 0 to 2 percent slopes            | All areas are prime farmland     |
| 39B        | Jackson and Martin | Wadena loam, 2 to 6 percent slopes            | All areas are prime farmland     |
| 94B        | Jackson and Martin | Terril loam, 2 to 6 percent slopes            | All areas are prime farmland     |
| 96         | Jackson and Martin | Collinwood silty clay                         | All areas are prime farmland     |
| 101B       | Jackson and Martin | Truman silty clay loam, 2 to 6 percent slopes | All areas are prime farmland     |
| 102B       | Jackson and Martin | Clarion loam, 2 to 6 percent slopes           | All areas are prime farmland     |
| 106B       | Martin             | Lester loam, 2 to 6 percent slopes            | All areas are prime farmland     |
| 118        | Jackson and Martin | Crippin clay loam                             | All areas are prime farmland     |
| 128B       | Martin             | Grogan silt loam, 1 to 6 percent slopes       | All areas are prime farmland     |
| 130        | Jackson and Martin | Nicollet clay loam                            | All areas are prime farmland     |
| 197        | Jackson and Martin | Kingston silty clay loam                      | All areas are prime farmland     |
| 275B       | Martin             | Ocheyedan loam, 1 to 5 percent slopes         | All areas are prime farmland     |
| 886        | Martin             | Nicollet-Crippin complex                      | All areas are prime farmland     |
| 887B       | Martin             | Clarion-Swanlake loams, 2 to 6 percent slopes | All areas are prime farmland     |
| 921B       | Martin             | Clarion-Storden loams, 2 to 6 percent slopes  | All areas are prime farmland     |
| 1877       | Martin             | Fostoria clay loam                            | All areas are prime farmland     |
| 1907       | Jackson and Martin | Lakefield silty clay loam                     | All areas are prime farmland     |
| L85A       | Jackson and Martin | Nicollet clay loam, 1 to 3 percent slopes     | All areas are prime farmland     |
| 35         | Jackson            | Blue Earth mucky silt loam                    | Farmland of statewide importance |
| 41A        | Jackson            | Estherville sandy loam, 0 to 2 percent slopes | Farmland of statewide importance |

| Map Symbol | County             | Map Unit Name   | Farmland Classification          |
|------------|--------------------|---|----------------------------------|
| 41B        | Jackson and Martin | Estherville sandy loam, 2 to 6 percent slopes               | Farmland of statewide importance |
| 102B2      | Jackson            | Clarion loam, 4 to 8 percent slopes, eroded                 | Farmland of statewide importance |
| 106C       | Martin             | Lester loam, 6 to 12 percent slopes                         | Farmland of statewide importance |
| 181        | Martin             | Litchfield sandy loam                                       | Farmland of statewide importance |
| 247        | Martin             | Linder loam   | Farmland of statewide importance |
| 327B       | Jackson            | Dickman sandy loam, 1 to 6 percent slopes                   | Farmland of statewide importance |
| 539        | Jackson and Martin | Palms muck  | Farmland of statewide importance |
| 548        | Martin             | Palms muck, sandy substratum                                | Farmland of statewide importance |
| 887C       | Jackson            | Clarion-Swanlake loams, 6 to 12 percent slopes              | Farmland of statewide importance |
| 909C       | Martin             | Truman-Bold silt loams, 6 to 12 percent slopes              | Farmland of statewide importance |
| 920B       | Martin             | Clarion-Estherville complex, 2 to 6 percent slopes          | Farmland of statewide importance |
| 920C2      | Martin             | Clarion-Estherville complex, 6 to 12 percent slopes, eroded | Farmland of statewide importance |
| 921C2      | Jackson and Martin | Clarion-Swanlake loams, 6 to 12 percent slopes, eroded      | Farmland of statewide importance |
| L13A       | Jackson and Martin | Klossner muck, depressional, 0 to 1 percent slopes          | Farmland of statewide importance |
| 84         | Martin             | Brownton silty clay   | Prime farmland if drained        |
| 86         | Jackson and Martin | Canisteo clay loam  | Prime farmland if drained        |
| 112        | Martin             | Harps clay loam   | Prime farmland if drained        |
| 113        | Jackson and Martin | Webster clay loam   | Prime farmland if drained        |
| 114        | Jackson and Martin | Glencoe clay loam   | Prime farmland if drained        |
| 134        | Martin             | Okobojo silty clay loam                                     | Prime farmland if drained        |

| Map Symbol | County             | Map Unit Name   | Farmland Classification   |
|------------|--------------------|---|---------------------------|
| 136        | Martin             | Madelia silty clay loam                                       | Prime farmland if drained |
| 140        | Martin             | Spicer silty clay loam  | Prime farmland if drained |
| 227        | Martin             | Lemond sandy loam   | Prime farmland if drained |
| 221        | Jackson            | Lura silty clay   | Prime farmland if drained |
| 229        | Jackson and Martin | Waldorf silty clay  | Prime farmland if drained |
| 255        | Jackson and Martin | Mayer loam  | Prime farmland if drained |
| 282        | Martin             | Hanska loam   | Prime farmland if drained |
| 336        | Jackson and Martin | Delft clay loam   | Prime farmland if drained |
| 350        | Martin             | Canisteo clay loam, depressional                              | Prime farmland if drained |
| 392        | Jackson and Martin | Biscay clay loam  | Prime farmland if drained |
| 499        | Martin             | Hanska loam, depressional                                     | Prime farmland if drained |
| 813        | Jackson            | Spicer-Lura complex   | Prime farmland if drained |
| 818        | Martin             | Lemond-Liner complex  | Prime farmland if drained |
| 956        | Jackson and Martin | Canisteo-Glencoe clay loams                                   | Prime farmland if drained |
| 1914       | Jackson            | Lura silty clay, nearly level                                 | Prime farmland if drained |
| L83A       | Martin             | Webster clay loam, 0 to 2 percent slopes                      | Prime farmland if drained |
| L84A       | Jackson and Martin | Glencoe clay loam, depressional, 0 to 1 percent slopes        | Prime farmland if drained |
| L107A      | Jackson and Martin | Canisteo-Glencoe, depressional complex, 0 to 2 percent slopes | Prime farmland if drained |
| L163A      | Martin             | Okoboji silty clay loam, depressional, 0 to 1 percent slopes  | Prime farmland if drained |
| 269        | Martin             | Millington clay loam, occasionally flooded                    | Prime farmland if drained |
| 313        | Jackson and Martin | Spillville loam, occasionally flooded                         | Prime farmland if drained |
| 664        | Martin             | Zook clay loam, occasionally flooded                          | Prime farmland if drained |
| 1833       | Jackson and Martin | Coland clay loam, occasionally flooded                        | Prime farmland if drained |