
Appendix A – Early Agency and Tribal Coordination

List of Agencies and Tribes that Received Early Coordination Letters Requesting Information and Comments

Federal & State Agency Coordination						
Ms. MacFarlane-Faes	Martha MacFarlane-Faes	Deputy State Historic Preservation Officer	State Historic Preservation Office	300 North Washington Square	Lansing, Michigan 48913	517-643-1928
Mr. Reinke	Stan Reinke	Statewide Environmental Project Manager	MDOT Office of Aeronautics	2700 Port Lansing Road	Lansing, MI 48906	616-299-2654
Mr. Duffiney	Tony Duffiney	State Director	USDA - APHIS Wildlife Services	2803 Jolly Rd., Suite 100	Okemos, MI 48864	517-336-1928
Mr. Watling	Jim Watling	Supervisor	EGLE, Water Resources Division	P.O. Box 30458	Lansing, MI 48909-7958	517-599-9002
Mr. Simon	Charlie Simon	Chief	U.S. Army Corps of Engineers, Detroit District, Regulatory & Permits	477 Michigan Avenue, Room 603	Detroit, MI 48226-2550	313-226-2218
Mr. Sivak	Thomas Sivak	Regional Administrator	Federal Emergency Management Agency, Region 5	536 South Clark Street, 6th Floor	Chicago, Illinois 60605	312-408-5500
Ms. Gagliardo	Jean Gagliardo	District Conservationist	USDA, Natural Resource Conservation Service, Portage Service Center	5950 Portage Road, Suite B	Portage, MI 49002	269-382-5121 ext 3
Mr. Hicks	Scott Hicks	Field Office Supervisor	US Fish and Wildlife - Michigan Field Office	2651 Coolidge Road, Suite 101	East Lansing, Michigan 48823	517-351-6274
Mr. Westlake	Kenneth Westlake	Chief	EPA Region 5 , NEPA Implementation Section	77 West Jackson Boulevard	Chicago, Illinois 60604	312-886-2910
Ms. Lott	Shannon Lott	Natural Resources Deputy	Michigan Department of Natural Resources, Executive Division	P.O. Box 30028	Lansing, MI 48909	517-243-3166/517-284-5810
Local & Political Coordination						
Mr. Boogren	Joseph Boogren	Township Supervisor	Forsyth Township	186 W Flint St	Gwinn, MI 49841	906-346-9217
Mr. Erbisch	Scott Erbisch	County Administrator	Marquette County	234 W. Baraga Avenue	Marquette, MI 49855	906-225-8151
Ms. Karlstrom	Thyra Karlstrom	Manager of Planning	Marquette County, Resource Management & Development Department	234 W. Baraga Avenue	Marquette, MI 49855	906-225-8192
Mr. Nordeen	Bill Nordeen	County Commissioner, District 5	Marquette County Commissioners	P.O. Box 513	Gwinn, MI 49841	906-360-6049
Mr. Kaiser	Ken Kaiser	Chairperson	Planning Commision, Marquette County	234 W. Baraga Avenue	Marquette, MI 49855	906-225-8182
Mr. Slater	Dave Slater	Forsyth Township Representative	Planning Commision, Marquette County	234 W. Baraga Avenue	Marquette, MI 49855	906-225-8182
Native American Coordination						
Chairperson			Bay Mills Indian Community of Michigan	12140 West Lakeshore Drive	Brimley, MI 49175	
Chairperson			Grand Traverse Band of Ottawa and Chippewa Indians of Michigan	2605 NW Bayshore Drive	Suttons Bay, MI 49682	
Chairperson			Hannahville Indian Community of Michigan	N14911 Hannahville B1 Road	Wilson, MI 49896-9728	
Chairperson			Huron Potawatomi, Inc	2221 1-1/2 Mile Road	Fulton, MI 49052	
Chairperson			Keweenaw Bay Indian Community of Michigan	Keweenaw Bay Tribal Center, 107 Beartown Road	Baraga, MI 49908	
Chairperson			Lac Vieux Desert Band of Lake Superior Chippewa of Michigan	PO Box 249, N4698 US HWY 45	Watersmeet, MI 49969	
Chairperson			Little River Band of Ottawa Indians	2608 Government Center Drive	Manistee, MI 49660	
Chairperson			Little Traverse Bay Bands of Odawa Indians	7500 Odawa Circle	Harbor Springs, MI 49740-9692	
Chairperson			Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians	2800 Mission Drive	Shelbyville, MI 49344	
Chairperson			Pokagon Band of Potawatomi Indians of Michigan	PO Box 180, 901 Spruce Street	Dowagiac, MI 49047	
Chairperson			Saginaw Chippewa Indian Tribe of Michigan	7070 East Broadway	Mt. Pleasant, MI 48858	
Chairperson			Sault-Ste. Marie Tribe of Chippewa Indians of Michigan	523 Ashmun Street	Sault Ste. Marie, MI 49783	
Chairperson			Burt Lake Band of Ottawa and Chippewa Indians	6461 Brutus Road, Box 206	Brutus, MI 49716	
Chairperson	Fred Jacko, Jr.	Culture Department Manager	Nottawaseppi Huron Band of Potawatomi	1485 Mno-Bmadzewen Way	Fulton, MI 49052	269.704.8307
Chairperson			Grand River Band of Ottawa Indians	1316 Front Ave NW	Grand Rapids, MI 49504	

Template of Letter Sent to Federal, State, and Local Agencies

March 17, 2023

«Contact_Name»

«Title»

«Organization»

«Address»

«City_State_Zip»

Re: Early Coordination Review of Proposed Demolition of 14 Buildings
Sawyer International Airport, Marquette, Michigan

Dear «Salutation_line»:

Sawyer International Airport (Airport or SAW) proposes to remove 14 existing buildings on Airport property. The buildings were originally part of K. I. Sawyer Air Force Base, with construction of the various buildings beginning in 1955. All buildings are currently vacant, in poor condition, and require demolition. The buildings proposed for demolition include:

- Building 403
- Building 404
- Building 414
- Building 426
- Building 428
- Building 429
- Building 430
- Building 600
- Building 601
- Building 610
- Building 725
- Building 726
- Building 731
- Building 732

A draft Categorical Exclusion (CATEX) was previously completed for this project in 2021 that included the completion of a Section 106 cultural resources evaluation due to the age of the buildings. The Section 106 evaluation recommended that SAW was eligible for the National Register of Historic Places (NRHP) as a Historic District given its history as a military base during the Cold War era. SHPO concurred that the Airport was eligible for the NRHP, and the proposed building removals would result in an Adverse Effect to historic properties. Federal Aviation Administration (FAA) guidance states that Adverse Effects to historic properties cannot be environmentally cleared under a CATEX level National Environmental Policy Act (NEPA) document.

Therefore, to proceed with the proposed action, the FAA has directed SAW to complete an Environmental Assessment (EA) to define and analyze the potential impacts of removing the 14 buildings and to evaluate reasonable alternatives. The EA will also be developed to further determine whether any potential impacts are significant enough to necessitate an Environmental Impact Statement (EIS). During the EA process, investigations will be conducted to identify potential Social, Economic, and Environmental (SEE) impacts

related to the proposed demolition of the buildings. These SEE impacts will be documented and considered as required by NEPA.

The FAA is the lead federal agency and as such, the EA will be prepared in accordance with NEPA, FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, and FAA Order 5050.4B. *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*.

It should be noted that the FAA does not necessarily endorse the proposed project, nor have they agreed to a Preferred Alternative. The FAA has merely directed the Airport to fully evaluate the Purpose and Need, any reasonable alternatives including the No Action Alternative, and identify associated impacts in order to select a Preferred Alternative.

As part of our early agency coordination, we are attempting to identify key issues that will need to be addressed during the NEPA process. To accomplish this, your organization's comments are being requested for the above referenced project as it relates to the following:

- Your specific areas of concern / regulatory jurisdiction
- Specific benefits of the project for your organization or to the public
- Any available technical information / data for the project site
- Potential mitigation / permitting requirements for project implementation

For your convenience, several maps and figures are enclosed that illustrate the site location and approximate project area limits. To sufficiently address key project issues and maintain the project schedule, your comments are requested by **April 21, 2023**.

Please send your written or email comments to:

MEAD & HUNT, Inc.
William Ballard, AICP
2605 Port Lansing Road
Lansing, MI 48906
517-321-8334 | william.ballard@meadhunt.com

Sincerely,

Misty Peavler
Environmental Protection Specialist
Federal Aviation Administration - Detroit Airports District Office

Enclosures

Cc: Duane DuRay, Airport Manager
William Ballard, Mead & Hunt

From: William Ballard
Sent: Monday, April 10, 2023 9:38 AM
To: Dave Clawson
Subject: FW: Sawyer Airport, Marquette, MI

FYI

Bill Ballard, AICP

Project Manager | Aviation
Direct: 517-908-3105 | Cell: 989-640-1060 | Transfer Files

Mead&Hunt

LinkedIn | Twitter | Facebook | Instagram

From: Castaldi, Duane <Duane.Castaldi@fema.dhs.gov>
Sent: Monday, April 10, 2023 9:19 AM
To: William Ballard <william.ballard@meadhunt.com>
Subject: Sawyer Airport, Marquette, MI

You don't often get email from duane.castaldi@fema.dhs.gov. [Learn why this is important](#)

Good Morning

Thank you for sending your early coordination review to FEMA. Based on the information in your March 17, 2023 letter, it appears that your proposed project is located outside of any mapped floodplains. For that reason, FEMA offers no additional comments on your project.

Thank you

Duane Castaldi
Regional Environmental Officer | FEMA Region 5
Office: 312-408-5549 | Mobile: 312-576-0067
Duane.Castaldi@fema.dhs.gov

Federal Emergency Management Agency
[fema.gov](https://www.fema.gov)



To: Brauna Hartzell <brauna.hartzell@meadhunt.com>
Subject: FW: Proposed Demo - Sawyer International Airport

This just came in regarding a building demo EA I have at Sawyer in the U.P. Is this different from the MIWaters process?

Bill

Bill Ballard, AICP

Direct: 517-908-3105 | Cell: 989-640-1060 | Transfer Files
meadhunt.com | Experience Exceptional

From: Sadler, Taunia (DNR) <SadlerT@michigan.gov>
Sent: Monday, April 17, 2023 1:58 PM
To: William Ballard <william.ballard@meadhunt.com>
Cc: Whitcomb, Scott (DNR) <WHITCOMBS@michigan.gov>; Sadler, Taunia (DNR) <SadlerT@michigan.gov>
Subject: Proposed Demo - Sawyer International Airport

Dear Mr. Ballard:

Thank you for contacting the Michigan Department of Natural Resources (DNR) related to the proposed demolition of several buildings at the Sawyer International Airport. This project will need a review of state listed threatened and endangered (T&E) species impacts using the established T&E review process.

To initiate the Michigan DNR T&E review process, project proponents will need to obtain a desktop Rare Species Review (desktop review) of the Michigan Natural Features Inventory (MNFI) Biotics database from MNFI or a consultant with a subscription to MNFI Biotics. There is a fee for the desktop review.

A desktop review from MNFI or a consultant with access to Biotics will indicate whether there will be potential impacts to, or take of, a rare species. If the project will not result in take of listed species, no T&E permit is needed from the DNR. If the review indicates that there is potential take of state listed T&E species resulting from the project, the project proponent should reach out to our permit specialist, Casey Reitz at (reitzc@michigan.gov), or the state T&E Permit application can be found on the DNR website. There is no fee to apply. Applications take approximately 60 days to review.

If you need anything further, please let us know.

Thank you,

Taunia Sadler
Executive Assistant to Scott Whitcomb, Director, Office of Public Lands
Department of Natural Resources

From: William Ballard <william.ballard@meadhunt.com>
Sent: Tuesday, April 4, 2023 2:08 PM



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
MARQUETTE



DANIEL EICHINGER
ACTING DIRECTOR

April 28, 2023

Duane DuRay
Sawyer International Airport
125 Avenue G
Gwinn, Michigan 49841

Dear Duane DuRay:

SUBJECT: Preliminary Review Submission Number HPT-2H4A-5WCFY
SAW Sawyer International Airport Proposed Building Demolition

The Department of Environment, Great Lakes, and Energy, Water Resources Division (WRD), has completed a preliminary review of your proposal to remove 14 existing buildings on airport property.

Review of the site maps and information provided indicates that no permits will be required under the authority of the floodplain regulatory authority of Part 31, Water Resources Protection, Part 301, Inland Lakes and Streams, and 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

Thank you for the opportunity to review and provide preliminary comments on this proposal. Should you have further questions or concerns, please feel free to contact me at 906-203-9887; GustafsonJ2@Michigan.gov; or EGLE, Marquette District Office, 1504 West Washington Street, Marquette, Michigan 49855.

Sincerely,

John Gustafson
Environmental Quality Analyst
Transportation Review Unit
Water Resources Division

cc: William Ballard - Mead and Hunt Inc.

Appendix B – Biological Resources



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Michigan Ecological Services Field Office
2651 Coolidge Road Suite 101
East Lansing, MI 48823-6360
Phone: (517) 351-2555 Fax: (517) 351-1443



In Reply Refer To:

April 21, 2023

Project Code: 2023-0072511

Project Name: SAW Sawyer International Airport Building Demolition Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

Official Species List

The attached species list identifies any Federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat if present within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Under 50 CFR 402.12(e) (the regulations that implement section 7 of the Endangered Species Act), the accuracy of this species list should be verified after 90 days. You may verify the list by visiting the IPaC website (<https://ipac.ecosphere.fws.gov/>) at regular intervals during project planning and implementation. To update an Official Species List in IPaC: from the My Projects page, find the project, expand the row, and click Project Home. In the What's Next box on the Project Home page, there is a Request Updated List button to update your species list. Be sure to select an "official" species list for all projects.

Consultation requirements and next steps

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize Federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-Federal representative) must consult with the Fish and Wildlife Service if they determine their project may affect listed species or critical habitat.

There are two approaches to evaluating the effects of a project on listed species.

Approach 1. Use the All-species Michigan determination key in IPaC. This tool can assist you in making determinations for listed species for some projects. In many cases, the determination key

will provide an automated concurrence that completes all or significant parts of the consultation process. Therefore, we strongly recommend screening your project with the **All-Species Michigan Determination Key (Dkey)**. For additional information on using IPaC and available Determination Keys, visit <https://www.fws.gov/media/mifo-ipac-instructions> (and click on the attachment). Please carefully review your Dkey output letter to determine whether additional steps are needed to complete the consultation process.

Approach 2. Evaluate the effects to listed species on your own without utilizing a determination key. Once you obtain your official species list, you are not required to continue in IPaC, although in most cases using a determination key should expedite your review. If the project is a Federal action, you should review our section 7 step-by-step instructions before making your determinations: <https://www.fws.gov/office/midwest-region-headquarters/midwest-section-7-technical-assistance>. If you evaluate the details of your project and conclude “no effect,” document your findings, and your listed species review is complete; you do not need our concurrence on “no effect” determinations. If you cannot conclude “no effect,” you should coordinate/consult with the Michigan Ecological Services Field Office. The preferred method for submitting your project description and effects determination (if concurrence is needed) is electronically to EastLansing@fws.gov. Please include a copy of this official species list with your request.

For all **wind energy projects** and **projects that include installing communications towers that use guy wires**, please contact this field office directly for assistance, even if no Federally listed plants, animals or critical habitat are present within your proposed project area or may be affected by your proposed project.

Migratory Birds

Please see the “Migratory Birds” section below for important information regarding incorporating migratory birds into your project planning. Our Migratory Bird Program has developed recommendations, best practices, and other tools to help project proponents voluntarily reduce impacts to birds and their habitats. The Bald and Golden Eagle Protection Act prohibits the take and disturbance of eagles without a permit. If your project is near an eagle nest or winter roost area, see our Eagle Permits website at <https://www.fws.gov/program/eagle-management/eagle-permits> to help you avoid impacting eagles or determine if a permit may be necessary.

Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your consideration of threatened and endangered species during your project

planning. Please include a copy of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Michigan Ecological Services Field Office

2651 Coolidge Road Suite 101

East Lansing, MI 48823-6360

(517) 351-2555

PROJECT SUMMARY

Project Code: 2023-0072511
Project Name: SAW Sawyer International Airport Building Demolition Project
Project Type: Airport - Maintenance/Modification
Project Description: Sawyer International Airport (Airport or SAW) proposes to remove 14 existing buildings on Airport property. The buildings were originally part of K. I. Sawyer Air Force Base, with construction of the various buildings beginning in 1955. All buildings are currently vacant, in poor condition, and require demolition. An Environmental Assessment is being conducted to define and analyze the potential impacts of removing the 14 buildings and to evaluate reasonable alternatives.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@46.33986505,-87.38760284824127,14z>



Counties: Marquette County, Michigan

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Canada Lynx <i>Lynx canadensis</i> Population: Wherever Found in Contiguous U.S. There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3652	Threatened
Gray Wolf <i>Canis lupus</i> Population: U.S.A.: All of AL, AR, CA, CO, CT, DE, FL, GA, IA, IN, IL, KS, KY, LA, MA, MD, ME, MI, MO, MS, NC, ND, NE, NH, NJ, NV, NY, OH, OK, PA, RI, SC, SD, TN, TX, VA, VT, WI, and WV; and portions of AZ, NM, OR, UT, and WA. Mexico. There is final critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/4488	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045 General project design guidelines: https://ipac.ecosphere.fws.gov/project/K66TJA3FSFEHVHAPXLTXMZFPRI/documents/generated/6983.pdf	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Red Knot <i>Calidris canutus rufa</i> There is proposed critical habitat for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none">▪ Only actions that occur along coastal areas during the Red Knot migratory window of MAY 1 - SEPTEMBER 30. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Dec 1 to Aug 31
Black Tern <i>Chlidonias niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093	Breeds May 15 to Aug 20

NAME	BREEDING SEASON
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Kirtland's Warbler <i>Setophaga kirtlandii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8078	Breeds May 25 to Jul 31
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum

probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

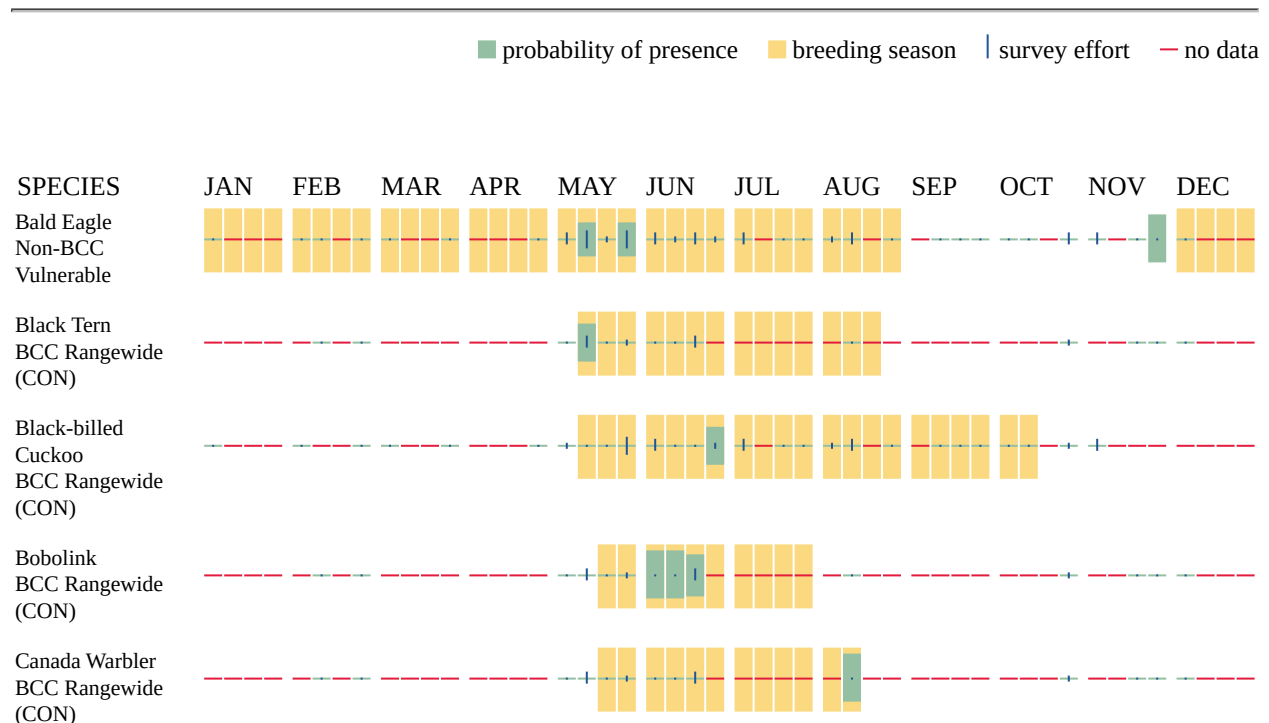
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

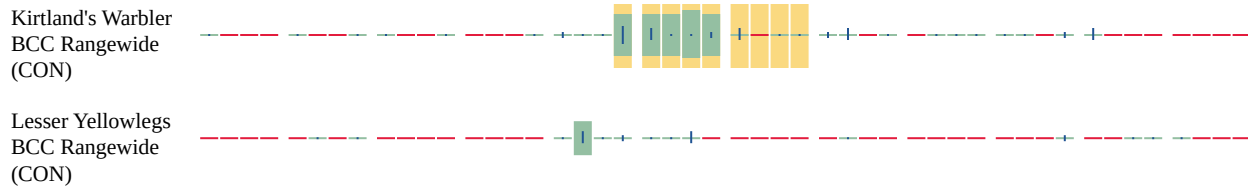
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

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State: WI

Zip: 53562

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Phone: 6082736380



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Michigan Ecological Services Field Office
2651 Coolidge Road Suite 101
East Lansing, MI 48823-6360
Phone: (517) 351-2555 Fax: (517) 351-1443



In Reply Refer To:

April 24, 2023

Project code: 2023-0072511

Project Name: SAW Sawyer International Airport Building Demolition Project

Subject: Verification letter for the project named 'SAW Sawyer International Airport Building Demolition Project' for specified threatened and endangered species that may occur in your proposed project location consistent with the Michigan Endangered Species Determination Key (Michigan DKey)

Dear Brauna Hartzell:

The U.S. Fish and Wildlife Service (Service) received on **April 24, 2023** your effect determination(s) for the 'SAW Sawyer International Airport Building Demolition Project' (the Action) using the Michigan DKey within the Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based on your answers and the assistance of the Service's Michigan DKey, you made the following effect determination(s) for the proposed Action:

Species	Listing Status	Determination
Canada Lynx (<i>Lynx canadensis</i>)	Threatened	NLAA
Gray Wolf (<i>Canis lupus</i>)	Endangered	NLAA
Monarch Butterfly (<i>Danaus plexippus</i>)	Candidate	No effect
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	No effect
Red Knot (<i>Calidris canutus rufa</i>)	Threatened	No effect
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed Endangered	No effect

The Service will notify you within 30 calendar days if we determine that this proposed Action does not meet the criteria for a "may affect, not likely to adversely affect" (NLAA) determination for Federally listed species in Michigan. If we do not notify you within that timeframe, you may proceed with the Action under the terms of the NLAA concurrence provided here. This verification period allows the Michigan Ecological Services Field Office to apply local knowledge to evaluation of the Action, as we may identify a small subset of actions having

impacts that were unanticipated. In such instances, the Michigan Ecological Services Field Office may request additional information to verify the effects determination reached through the Michigan DKey.

Your agency has met consultation requirements by informing the Service of your “No Effect” determination(s). No consultation is required for species that you determined will not be affected by the Action.

Please provide sufficient project details on your project homepage in IPaC (Define Project, Project Description) to support your conclusions and the Service’s 30-day review period. Failure to disclose important aspects of your project that would influence the outcome of your effects determinations may negate your determinations and invalidate this letter. If you have site-specific information that leads you to believe a different determination is more appropriate for your project than what the Dkey concludes, you can and should proceed based on the best available information.

The Service recommends that you contact the Service or re-evaluate the project in IPaC if: 1) the scope or location of the proposed Action is changed; 2) new information reveals that the action may affect listed species or designated critical habitat in a manner or to an extent not previously considered; 3) the Action is modified in a manner that causes effects to listed species or designated critical habitat; or 4) a new species is listed or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project changes are final or resources committed.

For non-Federal representatives: Please note that when a project requires consultation under section 7 of the Act, the Service must consult directly with the Federal action agency unless that agency formally designates a non-Federal representative (50 CFR 402.08). Non-Federal representatives may prepare analyses or conduct informal consultations; however, the ultimate responsibility for section 7 compliance under the Act remains with the Federal agency. If the Federal agency concurs with your determination, the project as proposed has completed section 7 consultation. All documents and supporting correspondence should be provided to the Federal agency for their records.

Gray Wolf:

Gray wolf may be present in the Action area. However, given the large amount of suitable wolf habitat available throughout the Upper Peninsula of Michigan, any wolves active on the landscape would be able to avoid project activities without incurring adverse impacts. Since you determined that the Action will not harm wolves directly (e.g., mammal trapping, poison bait) or indirectly ((e.g., increasing vehicle use that may result in vehicle strikes, exposure to potential human persecution), any potential effects would be insignificant.

Bald and Golden Eagles:

Bald eagles, golden eagles, and their nests are protected under the Bald and Golden Eagle Protection Act (54 Stat. 250, as amended, 16 U.S.C. 668a-d) (Eagle Act). The Eagle Act prohibits, except when authorized by an Eagle Act permit, the “taking” of bald and golden eagles and defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” The Eagle Act’s implementing regulations define disturb as “...to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific

information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”

If the Action may impact bald or golden eagles, additional coordination with the Service under the Eagle Act may be required. For more information on eagles and conducting activities in the vicinity of an eagle nest, please visit <https://www.fws.gov/library/collections/all-about-eagles>. In addition, the Service developed the National Bald Eagle Management Guidelines (May 2007) in order to assist landowners in avoiding the disturbance of bald eagles. The full Guidelines are available at <https://www.fws.gov/media/national-bald-eagle-management-guidelines-0>.

If you have further questions regarding potential impacts to eagles, please contact Chris Mensing, Chris_Mensing@fws.gov or 517-351-2555.

Monarch butterfly and other pollinators

In December 2020, after an extensive status assessment of the monarch butterfly, we determined that listing the monarch under the Endangered Species Act is warranted but precluded by higher priority actions to amend the Lists of Endangered and Threatened Wildlife and Plants. Therefore, the Service added the monarch butterfly to the candidate list. The Service will review its status each year until we are able to begin developing a proposal to list the monarch.

The Endangered Species Act does not establish protections or consultation requirements for candidate species. Some Federal and State agencies may have policy requirements to consider candidate species in planning. We encourage implementing measures that will remove or reduce threats to these species and possibly make listing unnecessary.

For all projects, we recommend the following best management practices (BMPs) to benefit monarch and other pollinators.

Monarch and Pollinator BMP Recommendations

Consider monarch and other pollinators in your project planning when possible. Many pollinators are declining, including species that pollinate key agricultural crops and help maintain natural plant communities. Planting a diverse group of native plant species will help support the nutritional needs of Michigan’s pollinators. We recommend a mix of flowering trees, shrubs, and herbaceous plants so that something is always blooming and pollen is available during the active periods of the pollinators, roughly early spring through fall (mid-March to mid-October). To benefit a wide variety of pollinators, choose a wide range of flowers with diverse colors, heights, structure, and flower shape. It is important to provide host plants for any known butterfly species at your site, including native milkweed for Monarch butterfly. Incorporating a water source (e.g., ephemeral pool or low area) and basking areas (rocks or bare ground) will provide additional resources for pollinators.

Many pollinators need a safe place to build their nests and overwinter. During spring and summer, leave some areas unmowed or minimize the impacts from mowing (e.g., decrease frequency, increase vegetation height). In fall, leave areas unraked and leave plant stems standing. Leave patches of bare soil for ground nesting pollinators.

Avoid or limit pesticide use. Pesticides can kill more than the target pest. Some pesticide residues can kill pollinators for several days after the pesticide is applied. Pesticides can also kill natural predators, which can lead to even worse pest problems.

Planting native wildflowers can also reduce the need to mow and water, improve bank stabilization by reducing erosion, and improve groundwater recharge and water quality.

Resources:

<https://www.fws.gov/initiative/monarchs>

<https://www.fws.gov/library/collections/pollinators>

Wetland impacts:

Section 404 of the Clean Water Act of 1977 (CWA) regulates the discharge of dredged or fill material into waters (including wetlands) of the United States. Regulations require that activities permitted under the CWA (including wetland permits issued by the Michigan Department of Environment, Great Lakes, and Energy (EGLE)) not jeopardize the continued existence of species listed as endangered or threatened. Permits issued by the U.S. Army Corps of Engineers must also consider effects to listed species pursuant to section 7 of the Endangered Species Act. The Service provides comments to the agencies that may include permit conditions to help avoid or minimize impacts to wildlife resources including listed species. For this project, we consider the conservation measures you agreed to in the determination key and/or as part of your proposed action to be non-discretionary. If you apply for a wetland permit, these conservation measures should be explicitly incorporated as permit conditions. Include a copy of this letter in your wetland permit application to streamline the threatened and endangered species review process.

Summary of conservation measures for your project You agreed to the following conservation measures to avoid adverse effects to listed species and our concurrence is only valid if the measures are fully implemented. These must be included as permit conditions if a permit is required and/or included in any contract language.

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

The action will not include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s).

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

SAW Sawyer International Airport Building Demolition Project

2. Description

The following description was provided for the project 'SAW Sawyer International Airport Building Demolition Project':

Sawyer International Airport (Airport or SAW) proposes to remove 14 existing buildings on Airport property. The buildings were originally part of K. I. Sawyer Air Force Base, with construction of the various buildings beginning in 1955. All buildings are currently vacant, in poor condition, and require demolition. An Environmental Assessment is being conducted to define and analyze the potential impacts of removing the 14 buildings and to evaluate reasonable alternatives.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@46.33986505,-87.38760284824127,14z>



QUALIFICATION INTERVIEW

1. Are there any possible effects to any listed species or to designated critical habitat from your project or effects from any other actions or projects subsequently made possible by your project?

Select "Yes" even if the expected effects to the species or critical habitat are expected to be 1) extremely unlikely (discountable), 2) can't meaningfully be measured, detected, or evaluated (insignificant), or 3) wholly beneficial.

Select "No" to confirm that the project details and supporting information allow you to conclude that listed species and their habitats will not be exposed to any effects (including discountable, insignificant, or beneficial effects) and therefore, you have made a "no effect" determination for all species. If you are unsure, select YES to answer additional questions about your project.

Yes

2. This determination key is intended to assist the user in the evaluating the effects of their actions on Federally listed species in Michigan. It does not cover other prohibited activities under the Endangered Species Act (e.g., for wildlife: import/export, Interstate or foreign commerce, possession of illegally taken wildlife, purposeful take for scientific purposes or to enhance the survival of a species, etc.; for plants: import/export, reduce to possession, malicious destruction on Federal lands, commercial sale, etc.) or other statutes. Click yes to acknowledge that you must consider other prohibitions of the ESA or other statutes outside of this determination key.

Yes

3. Is the action the approval of a long-term (i.e., in effect greater than 10 years) permit, plan, or other action? (e.g., a new or re-issued hydropower license, a land management plan, or other kinds of documents that provide direction for projects or actions that may be conducted over a long term (>10 years) without the need for additional section 7 consultation).

No

4. Is the action being funded, authorized, or carried out by a Federal agency?

Yes

5. Does the action involve the installation or operation of wind turbines?

No

6. Are there at least 30 days prior to your action occurring? Endangered species consultation must be completed before taking any action that may have effects to listed species. The Service also needs 30 days to review projects before we can verify conclusions in some dkey output letters. For example, if you have already started some components of the project on the ground (e.g., removed vegetation) before completing this key, answer “no” to this question. The only exception is if you have a Michigan Field Office pre-approved emergence survey (i.e., if you have conducted pre-approved emergence surveys for listed bats before tree removal, you can still answer yes to this question).

Yes

7. Does the action involve constructing a new communication tower or modifying an existing communications tower?

No

8. Does the activity involve aerial or other large-scale application of any chemical (including insecticide, herbicide, etc.)?

No

9. Does your project include water withdrawal (ground or surface water) greater than 10,000 gallons/day?

No

10. Will your action permanently affect hydrology?

No

11. Will your action temporarily affect hydrology?

No

12. Will your project have any direct impacts to a stream or river (e.g., Horizontal Directional Drilling (HDD), hydrostatic testing, stream/road crossings, new storm-water outfall discharge, dams, other in-stream work, etc.)?

No

13. Does your project have the potential to indirectly impact the stream/river or the riparian zone (e.g., cut and fill, horizontal directional drilling, hydrostatic testing, construction, vegetation removal, discharge, etc.)?

No

14. Will your action disturb the ground or existing vegetation? This includes any off road vehicle access, soil compaction, digging, seismic survey, directional drilling, heavy equipment, grading, trenching, placement of fill, pesticide application, vegetation management (including removal or maintenance using equipment or chemicals), cultivation, development, etc.

Yes

15. Is the action a utility-scale solar development project?

No

16. [Hidden semantic] Does the action intersect the MOBU AOI?

Automatically answered

Yes

17. Under the ESA, monarchs remain warranted but precluded by listing actions of higher priority. The monarch is a candidate for listing at this time. The Endangered Species Act does not establish protections or consultation requirements for candidate species. Some Federal and State agencies may have policy requirements to consider candidate species in planning. We encourage implementing measures that will remove or reduce threats to these species and possibly make listing unnecessary. If your project will have no effect on monarch butterflies (for example, if your project won't affect their habitat or individuals), then you can make a "no effect" determination for this project. Are you making a "no effect" determination for monarch?

Yes

18. [Hidden Semantic] Does the action area intersect the rufa red knot area of influence?

Automatically answered

Yes

19. [Hidden Semantic] Does the action area intersect the gray wolf area of influence?

Automatically answered

Yes

20. Does the action area intersect with a known gray wolf denning or rendezvous area?

No

21. Is there any potential for the action to harm wolves directly (e.g., mammal trapping, poison bait), or indirectly (e.g., increasing vehicle use that may result in vehicle strikes, exposure to potential human persecution)?

No

22. [Hidden Semantic] Does the action area intersect the lynx area of influence?

Automatically answered

Yes

23. Is there any potential for this action to harm Canada lynx directly (e.g., mammal trapping, poison bait)?

No

24. The project has the potential to affect federally listed bats. Does the action area contain any known or potential bat hibernacula (natural caves, abandoned mines, or underground quarries)?

No

25. Has a presence/absence bat survey or field-based habitat assessment following the Service's Range-wide [Indiana Bat and Northern Long-eared Bat Summer Survey Guidelines](#) been conducted within the action area?

No

26. Does the action involve removal/modification of a human structure (barn, house or other building) known to contain roosting bats?

No

27. Does the action include removal/modification of an existing bridge or culvert?

No

28. Does the action include temporary or permanent lighting of roadway(s), facility(ies), and/or parking lot(s)?

No

29. Does the action include one or more of the following: (1) tree cutting/trimming, (2) prescribed fire, (3) pesticide (including insecticide and/or rodenticide), and/or (4) herbicide/fungicide application?

No

30. [Hidden Semantic] Does this project intersect the northern long-eared bat area of influence?

Automatically answered

Yes

31. [Hidden semantic] Does the action intersect the Tricolored bat AOI/SLA/range?

Automatically answered

Yes

32. The tricolored bat was proposed for listing as endangered on September 13, 2022. In Michigan, the tricolored bat was rare pre-white nose syndrome (WNS) and is exceedingly rare post-WNS. The species has been observed in 12 Michigan counties to date, largely during the fall or winter. With very few exceptions, the species has not been observed in Michigan in the summer months, and no maternity colonies have been found. During winter, tricolored bats hibernate in caves, abandoned mines, and abandoned tunnels ranging from small to large in size. During spring, summer and fall months, they roost primarily among leaf clusters of live or recently dead deciduous/hardwood trees.

Are you making a no effect determination on this project for the tricolored bat?

Yes

IPAC USER CONTACT INFORMATION

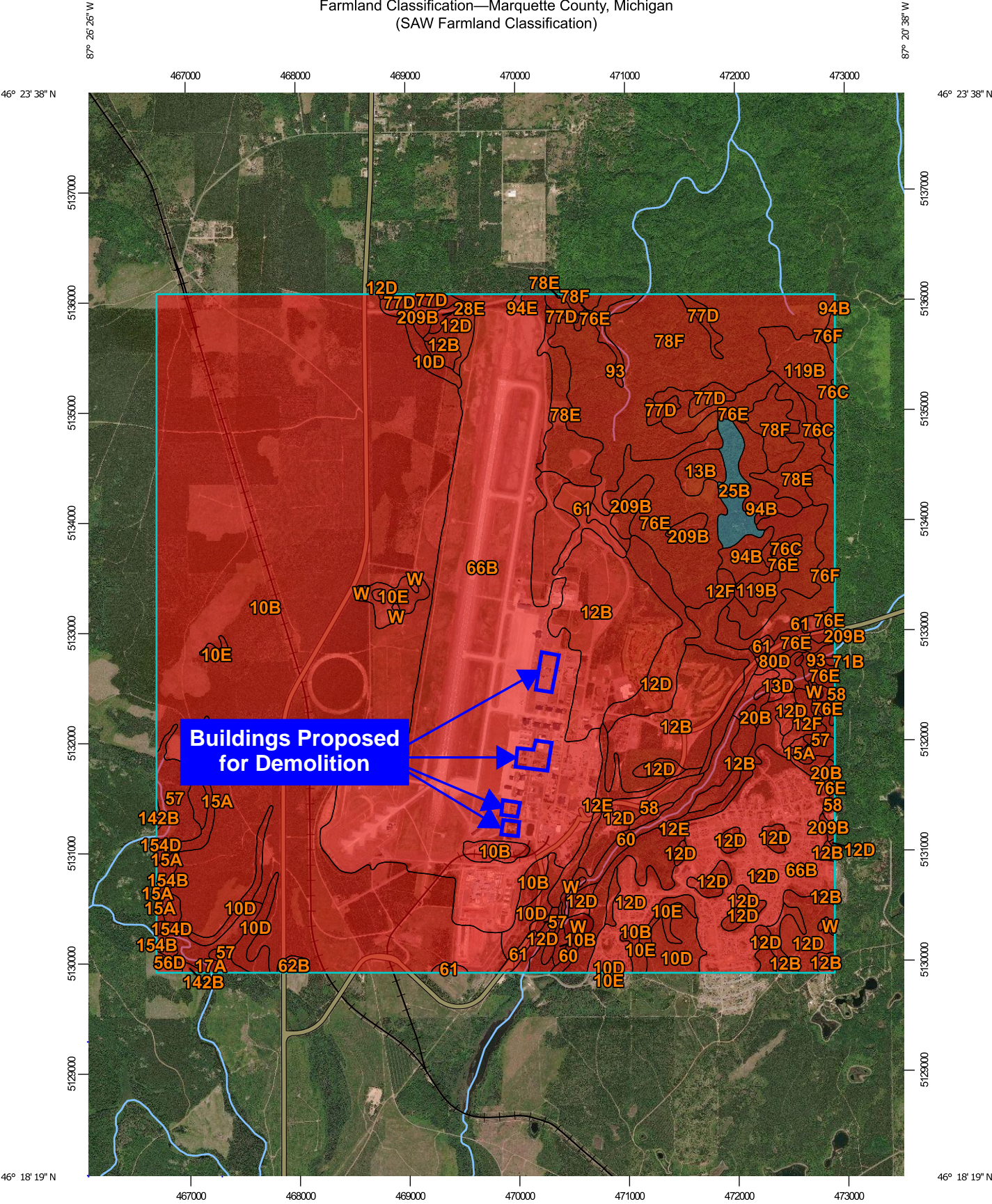
Agency: Mead & Hunt, Inc.
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LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Aviation Administration

Appendix C – Farmland


Farmland Classification—Marquette County, Michigan
(SAW Farmland Classification)



Farmland Classification—Marquette County, Michigan
(SAW Farmland Classification)









MAP LEGEND








Area of Interest (AOI)






 Area of Interest (AOI)








Soils



Soil Rating Polygons

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season









-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of statewide importance, if drained
-  Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if irrigated

-  Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if irrigated and drained
-  Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
-  Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60


































-  Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if warm enough
-  Farmland of statewide importance, if thawed
-  Farmland of local importance
-  Farmland of local importance, if irrigated

-  Farmland of unique importance
-  Not rated or not available




















Soil Rating Lines

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Farmland Classification—Marquette County, Michigan
(SAW Farmland Classification)

	Prime farmland if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium		Farmland of unique importance		Prime farmland if subsoiled, completely removing the root inhibiting soil layer
	Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of statewide importance, if irrigated and drained		Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season	Soil Rating Points			Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
	Prime farmland if irrigated and reclaimed of excess salts and sodium		Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season		Not prime farmland		Prime farmland if irrigated and reclaimed of excess salts and sodium
	Farmland of statewide importance						Prime farmland if drained		Farmland of statewide importance
	Farmland of statewide importance, if drained		Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer				Prime farmland if protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if drained
	Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of statewide importance, if warm enough		Prime farmland if irrigated		Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
	Farmland of statewide importance, if irrigated				Farmland of statewide importance, if thawed		Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated
					Farmland of local importance		Prime farmland if irrigated and drained		
					Farmland of local importance, if irrigated		Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season		

Farmland Classification—Marquette County, Michigan
(SAW Farmland Classification)

 Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season	 Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium	 Farmland of unique importance	<p>The soil surveys that comprise your AOI were mapped at 1:24,000.</p> <p>Please rely on the bar scale on each map sheet for map measurements.</p> <p>Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)</p> <p>Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.</p> <p>This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.</p> <p>Soil Survey Area: Marquette County, Michigan Survey Area Data: Version 17, Aug 26, 2022</p> <p>Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.</p> <p>Date(s) aerial images were photographed: Dec 31, 2009—Oct 17, 2017</p> <p>The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.</p>
 Farmland of statewide importance, if irrigated and drained	 Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season	 Not rated or not available	
 Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season	 Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season	Water Features  Streams and Canals	
 Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer	 Farmland of statewide importance, if warm enough	Transportation  Rails	
 Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60	 Farmland of statewide importance, if thawed	 Interstate Highways	
	 Farmland of local importance	 US Routes	
	 Farmland of local importance, if irrigated	 Major Roads	
		 Local Roads	
		Background  Aerial Photography	

Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
10B	Grayling sand, 0 to 6 percent slopes	Not prime farmland	3,409.0	36.1%
10D	Grayling sand, 6 to 18 percent slopes	Not prime farmland	190.5	2.0%
10E	Grayling sand, 18 to 35 percent slopes	Not prime farmland	60.2	0.6%
12B	Rubicon sand, 0 to 6 percent slopes	Not prime farmland	650.9	6.9%
12D	Rubicon sand, 6 to 15 percent slopes	Not prime farmland	391.7	4.1%
12E	Rubicon sand, 15 to 35 percent slopes	Not prime farmland	185.3	2.0%
12F	Rubicon sand, 35 to 60 percent slopes	Not prime farmland	100.7	1.1%
13B	Kalkaska sand, 0 to 6 percent slopes	Not prime farmland	33.2	0.4%
13D	Kalkaska sand, 6 to 15 percent slopes	Not prime farmland	15.3	0.2%
15A	Croswell sand, 0 to 3 percent slopes	Not prime farmland	23.7	0.3%
17A	Au Gres sand, 0 to 3 percent slopes	Not prime farmland	42.1	0.4%
20B	Rousseau-Ocqueoc fine sands, 0 to 6 percent slopes	Not prime farmland	23.7	0.3%
25B	Munising-Yalmer complex, 1 to 6 percent slopes	Farmland of local importance	63.9	0.7%
28E	Keweenaw loamy sand, 18 to 35 percent slopes	Not prime farmland	9.8	0.1%
56D	Peshekee-Rock outcrop complex, 6 to 18 percent slopes, very bouldery	Not prime farmland	6.1	0.1%
57	Carbondale and Tawas soils	Not prime farmland	97.5	1.0%
58	Greenwood and Dawson soils	Not prime farmland	12.7	0.1%
60	Histosols and Aquents, ponded	Not prime farmland	97.1	1.0%
61	Pits, borrow	Not prime farmland	70.1	0.7%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
62B	Udorthents and udipsamments, nearly level and gently sloping	Not prime farmland	9.3	0.1%
66B	Udipsamments-Urban land complex, nearly level and gently sloping	Not prime farmland	2,176.0	23.0%
71B	Evart-Pelkie-Sturgeon complex, 0 to 4 percent slopes	Not prime farmland	1.7	0.0%
76C	Garlic-Alcona-Voelker complex, 1 to 12 percent slopes, dissected	Not prime farmland	29.7	0.3%
76E	Garlic-Alcona-Voelker complex, 8 to 35 percent slopes, dissected	Not prime farmland	419.3	4.4%
76F	Garlic-Alcona-Voelker complex, 15 to 70 percent slopes, dissected	Not prime farmland	108.3	1.1%
77D	Garlic-Alcona-Voelker complex, 6 to 18 percent slopes	Not prime farmland	64.3	0.7%
78E	Keweenaw-Kalkaska complex, 8 to 35 percent slopes, dissected	Not prime farmland	154.9	1.6%
78F	Keweenaw-Kalkaska complex, 15 to 60 percent slopes, dissected	Not prime farmland	600.4	6.4%
80D	Sayner-Rubicon complex, 6 to 18 percent slopes	Not prime farmland	12.2	0.1%
93	Tawas-Deford mucks	Not prime farmland	30.7	0.3%
94B	Keweenaw-Kalkaska complex, 1 to 6 percent slopes	Not prime farmland	85.7	0.9%
94E	Keweenaw-Kalkaska complex, 18 to 35 percent slopes	Not prime farmland	4.2	0.0%
119B	Yalmer-Kalkaska complex, 1 to 6 percent slopes	Not prime farmland	115.6	1.2%
142B	Pelissier gravelly sandy loam, 1 to 6 percent slopes, rocky	Not prime farmland	5.1	0.1%
154B	Rubicon-Sayner complex, 1 to 6 percent slopes, rocky	Not prime farmland	32.5	0.3%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
154D	Rubicon-Sayner complex, 6 to 18 percent slopes, rocky	Not prime farmland	8.8	0.1%
209B	Garlic-Fence complex, 1 to 6 percent slopes	Not prime farmland	72.0	0.8%
W	Water	Not prime farmland	31.4	0.3%
Totals for Area of Interest			9,445.8	100.0%

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The majority of soil attributes are associated with a component of a map unit, and such an attribute has to be aggregated to the map unit level before a thematic map can be rendered. Map units, however, also have their own attributes. An attribute of a map unit does not have to be aggregated in order to render a corresponding thematic map. Therefore, the "aggregation method" for any attribute of a map unit is referred to as "No Aggregation Necessary".

Tie-break Rule: Lower

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.