

# TECHNICAL MEMORANDUM

**To:** Amber Schorg, U.S. Fish and Wildlife Service – Illinois-Iowa Field Office

**Prepared by:** Jesse Leckband, MidAmerican Energy Company

**Date:** March 31, 2021

**RE:** **TE41434D-0 Compliance Monitoring Annual Report**

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## **INTRODUCTION**

MidAmerican Energy Company (MidAmerican), currently operates the 21 Wind I-X wind energy facilities (hereafter referred to individually as Project and collectively as Projects) totaling more than 4,040 megawatts of wind generation capacity in Iowa. Operation of these facilities, in addition to the Iowa State Fair turbine, is a Covered Activity under MidAmerican’s Wind I-X Habitat Conservation Plan (HCP). MidAmerican’s Incidental Take Permit TE41434D-0 (ITP) was issued by the U.S. Fish and Wildlife Service (USFWS) on November 20, 2019, at which point MidAmerican began to implement the HCP in compliance with the ITP. The goal of the take compliance monitoring is to assess the level of incidental take of the Covered Species in the HCP (Section 5.1); Indiana bat (*Myotis sodalis*), northern long-eared bat (*M. septentrionalis*), little brown bat (*M. lucifugus*), tri-colored bat (*Perimyotis subflavus*), and bald eagle (*Haliaeetus leucocephalus*).

This memo provides a summary of take compliance monitoring conducted between January 1, 2020, and December 31, 2020. Since no data were provided for the operations and maintenance (O&M) searcher efficiency (SEEF) trials in the first compliance monitoring report (April 2020), the update provided in this memo includes SEEF trials conducted between November 19, 2019, and December 31, 2020.

## **BAT INTENSIVE MONITORING SUMMARY**

WEST conducted the first year of the HCP’s bat intensive monitoring from July 1 – October 15, 2020, in accordance with the HCP’s compliance monitoring protocol (Section 5.41; Appendix K) and the ITP conditions (Conditions E and F). Standardized carcass searches were conducted on the entire gravel turbine pad and all gravel access roads within a 100-meter radius of each turbine. Bias trials were conducted to measure searcher efficiency and carcass persistence rates.

A total of 29,926 searches were conducted and a total of 1,189 bats were found (Table 1). A total of six Covered Bat Species were found: one little brown bat and five tri-colored bats (Table 1). No Indiana bats or northern long-eared bats were found. The little brown bat was found at Charles City on August 3, 2020. The five tri-colored bats were found on the following dates and at the

following facilities, respectively: July 6, 2020, at Charles City; August 24, 2020, at Eclipse; August 25, 2020, at Adams; August 27, 2020, at Lundgren; and September 3, 2020, at Vienna. All Covered Species were unambiguously identified using DNA analysis. Carcasses of Covered Species were preserved at the Ida Grove Wind Energy Facility O&M Building freezer. To measure detection and removal bias, 514 SEEF carcasses were placed and 400 carcass persistence trials were conducted during the 2020 compliance monitoring year.

**Table 1. Total Number of Bat Carcasses Discovered during Bat Intensive Monitoring at the MidAmerican Energy Company's Iowa Wind I-X Energy Facilities from July 1 to October 15, 2020.**

Facility	Eastern Red Bat	Hoary Bat	Big Brown Bat	Silver-haired Bat	Evening Bat	Tri-colored Bat <sup>1</sup>	Little Brown Bat <sup>1</sup>	Northern Long-eared Bat <sup>1</sup>	Indiana Bat <sup>1</sup>	Unidentified Non-Myotis <sup>2</sup>	Total
Adair	27	15	5	2	1	0	0	0	0	0	50
Adams	19	10	8	2	1	1	0	0	0	1	42
Carroll	16	23	19	3	2	0	0	0	0	0	63
Century	57	46	12	10	0	0	0	0	0	0	125
Charles City	10	8	7	7	0	1	1	0	0	0	34
Eclipse	11	7	4	5	0	1	0	0	0	0	28
Highland	37	43	20	8	0	0	0	0	0	0	108
Ida Grove	47	34	37	9	1	0	0	0	0	0	128
Intrepid	33	19	14	6	0	0	0	0	0	0	72
Laurel	17	10	9	9	0	0	0	0	0	0	45
Lundgren	44	26	12	12	0	1	0	0	0	0	95
Macksburg	14	6	11	3	2	0	0	0	0	0	36
Morning Light	4	4	0	0	0	0	0	0	0	0	8
O'Brien	28	14	4	5	0	0	0	0	0	0	51
Pomeroy	28	25	7	2	0	0	0	0	0	0	62
Rolling Hills	40	19	21	5	0	0	0	0	0	0	85
Victory	12	12	4	2	0	0	0	0	0	0	30
Vienna	27	19	8	13	0	1	0	0	0	0	68
Walnut	12	13	5	0	2	0	0	0	0	0	32
Wellsburg	11	6	1	9	0	0	0	0	0	0	27
<b>Total</b>	<b>494</b>	<b>359</b>	<b>208</b>	<b>112</b>	<b>9</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1,189</b>

<sup>1</sup>Covered species included in the HCP

<sup>2</sup>Live, injured bat; therefore, tissue sample for DNA identification not possible

## **OPERATIONS AND MAINTENENCE SCANS SUMMARY**

MidAmerican trained O&M technicians in carcass search and identification methods in accordance with the HCP's compliance monitoring protocol (Section 5.4.2; Appendix K) and the ITP conditions (Conditions E and F). Trained O&M technicians scanned roads, pads, and a surrounding 100-meter radius plot for bat and eagle carcasses at each wind turbine every month when technicians visited for regular maintenance.

O&M scans were conducted between January 1 and December 31, 2020, during which one eagle carcass was found at Eclipse and another was found at Pomeroy (Table 2). No Covered Bat Species were found during O&M scans. The first eagle carcass was found by O&M staff conducting an eagle scan at Eclipse Wind Energy Facility Turbine 74 on March 30, 2020. The USFWS was verbally notified of this find on April 1, 2020, with formal written notification provided on April 2, 2020. The carcass was preserved at the Adair Wind Energy Facility O&M Building freezer, which also services the Eclipse Wind Energy Facility, where it will remain until further arrangement can be made for delivery of the carcass to the USFWS. The second eagle was a partial carcass found at Pomeroy Wind Energy Facility by a landowner during harvest on September 27, 2020, near Turbine 138. Verbal notification to USFWS was made on September 28, 2020, followed by written notification on October 6, 2020. The remainder of the eagle carcass was found on October 7, 2020, by a WEST technician conducting compliance monitoring for bats at Pomeroy Turbine 137. Verbal notification to the USFWS was made on October 7, 2020, providing notification that the remaining portions of the carcass had been recovered. The carcass was preserved at the Pomeroy Wind Energy Facility O&M Building freezer, where it will remain until further arrangement can be made for delivery of the carcass to the USFWS.

**Table 2. Total Number of Bald Eagle Carcasses Discovered during O&M Scans and as Incidental Finds at MidAmerican Energy Company's Iowa Wind I-X Energy Facilities from January 1 to December 31, 2020.**

Facility	O&M Scans	Incidental Finds	Total
Adair	0	0	0
Adams	0	0	0
Carroll	0	0	0
Century	0	0	0
Charles City	0	0	0
Eclipse	1	0	1
Highland	0	0	0
Ida Grove	0	0	0
Intrepid	0	0	0
Laurel	0	0	0
Lundgren	0	0	0
Macksburg	0	0	0
Morning Light	0	0	0
O'Brien	0	0	0
Pomeroy	0	1	1
Rolling Hills	0	0	0
Victory	0	0	0
Vienna	0	0	0
Walnut	0	0	0
Wellsburg	0	0	0
<b>Total</b>	<b>1</b>	<b>1</b>	<b>2</b>

## **OPERATIONS AND MAINTENENCE SEARCHER EFFICIENCY**

MidAmerican is currently collecting data to measure SEEF of O&M technicians at each Project. SEEF trials were conducted in the same areas as O&M scans. Searcher efficiency estimates will be used to adjust eagle carcass counts into take estimates. SEEF trials were stratified by O&M building, under the assumption that crews associated with each O&M building conducted scans at all facilities that are serviced by that crew. WEST has placed 164 SEEF carcasses (i.e., turkey decoys) for MidAmerican since the issuance of the ITP on November 19, 2019. Due to the on-set of COVID-19, O&M SEEF trials were discontinued in March of 2020 to minimize the possibility of spread across the Projects; however, SEEF placement resumed in November of 2020. O&M personnel found a total of 28 decoys. Data compilation and analysis to determine the searcher efficiency rate is ongoing.

## **CONCLUSION**

The first full year of monitoring for the Projects has been completed, and the data presented here will be used to facilitate discussion during the annual meeting with the USFWS per requirements of the HCP (Section 5.5). Zero Indiana bats, zero northern long-eared bats, one little brown bat, and five tri-colored bats were found during 29,926 searches in 2020. One bald eagle was found during scheduled O&M scans and one was found incidentally in 2020. Reporting of each find occurred as directed by Condition O of ITP TE41434D-0. The information presented in this memo will be combined with future monitoring data collected during years two through five of the ITP (2021 – 2024) to develop five-year take estimates to inform discussion of HCP implementation, effectiveness, and adaptive management decisions during the Decision Meeting per the HCP requirements (Section 5.5).

**MidAmerican Energy Company Wind I-X Habitat Conservation Plan**  
**Five-year "Snapshot" of Commitment Compliance** (ITP effective dates: 11/20/2019 – 11/19/2049)

Commitment	HCP Section(s)	ITP Year and Date When Commitment Accomplished				
		1 2020	2 2021	3 2022	4 2023	5 2024
Implement seasonal and Project-specific turbine operational adjustments	5.3.2	Feathering, all projects: 3/15/2020-11/15/2020 Raised cut-in, four projects: 7/15/2020-9/30/2020				
Implement carcass removal program	5.3.2	1/1/2020-12/31/2020				
Initial payments to conservation funds (eagle, bat, and mitigation lands)	5.3.3.3, 6.3	Payment 2019				
Technical Review Team meeting (MidAmerican, USFWS, IDNR, Mitigation Entity).	5.3.3.3	Refer to mitigation annual report				
Annual report to USFWS (by March 31)	5.3.3.3, 5.6, 6.3	03/31/2021				
Conduct compliance monitoring	5.4, Appendix K	Intensive monitoring: 7/1/2020-10/15/2020 O&M scans: 1/1/2020-12/31/2020				
Update EoA and SC with previous year's monitoring results	5.4, Appendix K					
Decision meeting to evaluate adaptive management (April)	5.5					
Annual USFWS meeting (April)	5.5, 8.0	4/15/2021				
Report Covered Species fatalities to USFWS within 24 hours of positive identification	5.5.1.1, 5.5.2.1	Ongoing				
Annual mitigation report to the Technical Review Team (by March 31)	5.6	03/31/2021				
Letter to USFWS certifying funding has been allocated for HCP administration and compliance monitoring (by March 31)	6.1	03/31/2021				
Financial information (30 CFR § 800.23(b)(4)) to USFWS (within 90 days of FY close)	6.2	03/31/2021				
Mitigation fund report (April 30)	6.3	4/30/2021				
Notify USFWS of an administrative change (within 7 days of change)	8.4.1	Ongoing				
Store all carcasses collected in a freezer at the Project O&M & submit hair/tissue samples to USFWS	Appendix K	Ongoing				

**Note:**

An adaptive management response may trigger additional commitments during the ITP term.  
A changed circumstance response may trigger additional commitments during the ITP term.

