

### Follow-up report No.10

Report reference: , Reference OIE : 17453, Report Date : 31/03/2015, Country : United States of America

#### Report Summary

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<b>Animal type</b>	Terrestrial	<b>Date of report</b>	31/03/2015
<b>Disease</b>	Highly pathogenic avian influenza	<b>Date of start of the event</b>	10/12/2014
<b>Causal Agent</b>	Highly pathogenic avian influenza virus	<b>Date of pre-confirmation of the event</b>	15/12/2014
<b>Serotype(s)</b>	H5N2	<b>Date of last occurrence</b>	2004
<b>Reason</b>	Reoccurrence of a listed disease	<b>Diagnosis</b>	Laboratory (advanced)
<b>Country or zone</b>	a zone or compartment	<b>Clinical signs</b>	Yes
<b>Number of reported outbreaks</b>	submitted= 34, Draft= 0		

#### Outbreak details

State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
WASHINGTON-other report - submitted	-	Whatcom		Not applicable	Whatcom County	48.9	-122.48	15/12/2014	
<b>Species</b>	<b>Measuring units</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>			
Northern Pintail: Anatidae(Anas acuta)	Animals	...	...	...	...	...			
Affected Population	Wild pintail ducks								

State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
WASHINGTON-other report - submitted	-	Benton		Backyard	Benton County	46.283	-119.521	24/12/2014	
<b>Species</b>	<b>Measuring units</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>			
Birds	Animals	253	37	37	216	0			
Affected Population	The affected premises was a small backyard mixed free-range flock of geese, turkeys, chickens, ducks, and pigeons that were allowed access to the outdoors and regularly exposed to wild migratory waterfowl. The affected premises also included a related epidemiology linked backyard flock that received birds (ducks) from the index flock.								

State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
WASHINGTON-other report - submitted	-	Whatcom		Not applicable	Whatcom County	48.785	-122.1858	24/12/2014	
<b>Species</b>	<b>Measuring units</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>			
Mallard: Anatidae(Anas platyrhynchos)	Animals	...	...	...	...	...			
Affected Population	Hunter harvested wild mallard duck.								

State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
IDAHO-other report - submitted	-	Canyon		Backyard	Canyon County	43.615	-116.683	07/01/2015	
<b>Species</b>	<b>Measuring units</b>	<b>Susceptible</b>	<b>Cases</b>	<b>Deaths</b>	<b>Destroyed</b>	<b>Slaughtered</b>			
Birds	Animals	31	5	5	26	0			
Affected Population	The affected premises was a small backyard poultry flock of chickens and two ducks which were periodically allowed to range freely.								

Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
WASHINGTON-other report - submitted	-	Clallam		Backyard	Clallam County	48.102	-123.28	08/01/2015	
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Birds	Animals	100	3	3	97	0			
Affected Population	The affected premises was a small mixed free-range backyard flock of geese, ducks, and chickens that were allowed access to the outdoors and regularly exposed to wild migratory waterfowl.								

State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
OREGON-other report - submitted	-	Lane		Not applicable	Lane County	44.049	-123.28	12/01/2015	
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Mallard:Anatidae(Anas platyrhynchos)	Animals	...	...	...	...	...			
Affected Population	Hunter harvested wild mallard duck.								

State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
OREGON-other report - submitted	-	Columbia		Not applicable	Columbia County	45.9453	-123.067	16/01/2015	
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Mallard:Anatidae(Anas platyrhynchos)	Animals	...	...	...	...	...			
Affected Population	Hunter harvested wild mallard duck.								

State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
IDAHO-other report - submitted	-	Canyon		Not applicable	Canyon County	43.649	-116.763	16/01/2015	
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Peregrin falcon:Falconidae(Falco peregrinus)	Animals	...	...	...	...	...			
Affected Population	Captive peregrin falcon.								

State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
WASHINGTON-other report - submitted	-	Clark		Not applicable	Clark County	45.7456	-122.4953	16/01/2015	
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Northern Pintail:Anatidae(Anas acuta)	Animals	...	...	...	...	...			
Affected Population	Hunter harvested wild pintail duck.								

State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
WASHINGTON-other report - submitted	-	Okanogan		Backyard	Okanogan County	48.4431	-119.652	21/01/2015	
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Birds	Animals	70	40	40	30	0			
Affected Population	The affected premises was a small backyard poultry flock of chickens.								

State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
WASHINGTON-other report - submitted	-	Okanogan		Backyard	Okanogan County	48.51	-119.6522	25/01/2015	

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State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Birds	Animals	4873	52	52	4821	0			
Affected Population	The affected premises was a backyard game bird raising premises consisting of pheasants, mallard ducks, geese, partridges, and chickens.								
State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
WASHINGTON-other report - submitted	-	Skagit		Not applicable	Skagit County	48.4876	-121.784	26/01/2015	
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Red-tailed hawk:Accipitridae(Buteo jamaicensis)	Animals	...	...	...	...	...			
Affected Population	Wild bird surveillance								
State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
WASHINGTON-other report - submitted	-	Whatcom		Not applicable	Whatcom County	48.902	-122.5297	26/01/2015	
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Cooper's Hawk:Accipitridae(Accipiter cooperii)	Animals	...	...	...	...	...			
Affected Population	Wild bird surveillance								
State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
WASHINGTON-other report - submitted	-	Whatcom		Not applicable	Whatcom County	48.8312	-122.2025	30/01/2015	
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Mallard:Anatidae(Anas platyrhynchos)	Animals	...	...	...	...	...			
Affected Population	Hunter harvested wild mallard duck.								
State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
OREGON-other report - submitted	-	Columbia		Not applicable	County - Columbia	45.9852	-122.4717	02/02/2015	
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Northern Pintail:Anatidae(Anas acuta)	Animals	...	...	...	...	...			
Affected Population	Hunter harvested wild northern pintail duck.								
State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
IDAHO-other report - submitted	-	Canyon		Not applicable	Canyon County	43.5055	-121.2926	02/02/2015	
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Great Horned owl:Strigidae(Bubo virginianus)	Animals	...	...	...	...	...			
Affected Population	Captive great horned owl.								
State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
OREGON-other report - submitted	-	Morrow		Not applicable	County - Morrow	45.595	-119.62	02/02/2015	

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State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Northern Shoveler:Anatidae(Anas clypeata)	Animals	...	...	...	...	...	...	...	...
Affected Population	Hunter harvested wild Northern Shoveler ducks.								

State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
OREGON-other report - submitted	-	Morrow		Not applicable	Morrow County	45.4515	-119.6146	02/02/2015	
Wood Duck:Anatidae(Aix sponsa)	Animals	...	...	...	...	...	...	...	...
Affected Population	Hunter harvested wild wood ducks.								

State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
OREGON-other report - submitted	-	Columbia		Not applicable	Columbia County	45.9855	-122.898	02/02/2015	
Mallard:Anatidae(Anas platyrhynchos)	Animals	...	...	...	...	...	...	...	...
Affected Population	Hunter harvested wild mallard ducks								

State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
OREGON-other report - submitted	-	Lane		Not applicable	County - Lane	43.7293	-122.3465	03/02/2015	
Northern Pintail:Anatidae(Anas acuta)	Animals	...	...	...	...	...	...	...	...
Affected Population	Hunter harvested wild northern pintail duck.								

State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
OREGON-other report - submitted	-	Lane		Not applicable	Lane County	43.8247	-122.4717	03/02/2015	
Mallard:Anatidae(Anas platyrhynchos)	Animals	...	...	...	...	...	...	...	...
Affected Population	Hunter harvested wild mallard duck								

State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
IDAHO-other report - submitted	-	Canyon		Not applicable	Canyon County	43.7012	-116.8638	09/02/2015	
Mallard:Anatidae(Anas platyrhynchos)	Animals	...	...	...	...	...	...	...	...
Affected Population	Hunter harvested wild mallard duck.								

State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
OREGON-other report - submitted	-	Deschutes		Backyard	Deschutes County	43.925	-121.2926	09/02/2015	

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State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Birds	Animals	80	9	9	71	0			
Affected Population	The affected premises was a mixed backyard poultry flock of chickens, ducks, turkeys, and one goose that were allowed access to the outdoors and regularly exposed to wild migratory waterfowl.								
State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
WASHINGTON-other report - submitted	-	Walla Walla		Not applicable	Walla Walla County	46.2133	-118.5903	12/02/2015	
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Mallard:Anatidae(Anas platyrhynchos)	Animals	...	...	...	...	...			
Affected Population	Hunter harvested wild mallard duck.								
State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
WASHINGTON-other report - submitted	-	Benton		Not applicable	Benton County	46.0625	-119.6002	12/02/2015	
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Red-tailed hawk:Accipitridae(Buteo jamaicensis)	Animals	...	...	...	...	...			
Affected Population	Wild bird surveillance.								
State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
MINNESOTA-other report - submitted	-	Pope		Farm	Pope County	45.5805	-95.4546	26/02/2015	
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Birds	Animals	21500	...	15000	6500	0			
Affected Population	Commercial turkey breeding replacement flock. The premises consists of two barns with 18 week old breeder replacement turkey hens. One barn contained approximately 15,000 birds with high mortality and the other barn of approximately 6,500 birds has not shown any increased mortality.								
State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
MISSOURI-other report - submitted	-	Moniteau		Farm	Moniteau County	38.5806	-92.7414	04/03/2015	
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Birds	Animals	23000	...	3260	...	...			
Affected Population	A commercial turkey flock.								
State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
MISSOURI-other report - submitted	-	Jasper		Farm	Jasper County	37.1919	-94.3286	05/03/2015	
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Birds	Animals	30100	...	1925	28175	0			
Affected Population	A 20 week old commercial turkey flock.								
State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
WASHINGTON-other report - submitted	-	Jefferson		Not applicable	Jefferson County	47.7141	-123.6441	05/03/2015	
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Canada Goose:Anatidae(Branta canadensis)	Animals	...	...	...	...	...			
Affected Population	Wild bird surveillance.								

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State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
KANSAS-other report - submitted	-	Leavenworth		Backyard	Leavenworth County	39.1913	-95.0336	05/03/2015	
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Birds	Animals	21	...	8	13	0			
Affected Population	The affected premises was a small backyard poultry flock of chickens and ducks that had exposure to wild ducks.								

State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
ARKANSAS-other report - submitted	-	Boone		Farm	Boone County	36.2852	-93.0893	08/03/2015	
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Birds	Animals	40020	...	1766	38254	0			
Affected Population	A 8 week old commercial turkey flock.								

State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
MINNESOTA- (this report - submitted)	-	Lac Qui Parle		Farm	Lac Qui Parle County	44.9275	-96.3022	23/03/2015	
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Birds	Animals	65800	...	1600	64200	0			
Affected Population	A commercial turkey flock.								

State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
WYOMING- (this report - submitted)	-	Laramie		Not applicable	Laramie County	41.2921	-104.674	25/03/2015	
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Canada Goose: Anatidae(Branta canadensis)	Animals	...	...	...	...	...			
Affected Population	Wild bird surveillance.								

State	Number of outbreaks	County		Unit Type	Location	Latitude	Longitude	Start Date	End Date:
MINNESOTA- (this report - submitted)	-	Stearns		Farm	Stearns County	45.5844	-94.5865	26/03/2015	
Species	Measuring units	Susceptible	Cases	Deaths	Destroyed	Slaughtered			
Birds	Animals	45140	...	...	45140	0			
Affected Population	A commercial turkey flock.								

### Outbreak summary: Total outbreaks = 34 (Submitted)

Species	Susceptible	Cases	Deaths	Destroyed	Slaughtered
Northern Pintail					
Birds	230988	146	23705	187543	0
Mallard					
Peregrin falcon					
Red-tailed hawk					
Cooper's Hawk					
Great Horned owl					
Northern Shoveler					
Wood Duck					
Canada Goose					

### Epidemiology

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The USDA Animal and Plant Health Inspection Service (APHIS), in conjunction with State Departments of Agriculture and Wildlife, are continuing to conduct a comprehensive epidemiological investigation and enhanced surveillance (including wild bird surveillance of hunter harvested birds) in response to the HPAI H5N8 and H5N2 wild bird related events.

Novel avian influenza virus of Eurasian origin (EA-H5N8 clade 2.3.4.4) spread rapidly along wild bird migratory pathways during 2014. Introduction of this EA-H5N8 virus into the Pacific Flyway sometime during 2014 has allowed mixing with North American (AM) lineage viruses and generated new combinations with genes from both EA and AM origin (or “reassortant” viruses) such as this EA/AM H5N2-reassortant detected in Canada and the US. These findings are not unexpected as the EA-H5N8 virus continues to circulate. The EA-H5 clade 2.3.4.4 viruses are highly pathogenic for poultry.

On 27 March 2015, the USDA APHIS National Veterinary Services Laboratories (NVSL) confirmed HPAI EA/AM H5N2 positive results from a commercial turkey flock in Lac Qui Parle County, Minnesota. Whole genome sequence from the Midwest EA/AM H5N2 HPAI isolations in Minnesota, Missouri, Arkansas, and Kansas are all >99% similar to the index isolation (A/northern pintail/Washington/40964/2014). This is the second detection of HPAI EA/AM H5N2 in Minnesota.

On 28 March 2015, the USDA APHIS National Veterinary Services Laboratories (NVSL) confirmed HPAI EA/AM H5N2 positive results from a commercial turkey flock in Stearns County, Minnesota. Whole genome sequence from the Midwest EA/AM H5N2 HPAI isolations in Minnesota, Missouri, Arkansas, and Kansas are all >99% similar to the index isolation (A/northern pintail/Washington/40964/2014). This is the third detection of HPAI EA/AM H5N2 in Minnesota.

**Source of the outbreak(s) or origin of infection**

- Contact with wild species

**Epidemiological comments**

The USDA Animal and Plant Health Inspection Service (APHIS), in conjunction with State Departments of Agriculture and Wildlife, are continuing to conduct a comprehensive epidemiological investigation and enhanced surveillance (including wild bird surveillance of hunter harvested birds) in response to the HPAI H5N8 and H5N2 wild bird related events.

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On 27 March 2015, the USDA APHIS National Veterinary Services Laboratories (NVSL) confirmed HPAI EA/AM H5N2 positive results from a commercial turkey flock in Lac Qui Parle County, Minnesota. Whole genome sequence from the Midwest EA/AM H5N2 HPAI isolations in Minnesota, Missouri, Arkansas, and Kansas are all >99% similar to the index isolation (A/northern pintail/Washington/40964/2014). This is the second detection of HPAI EA/AM H5N2 in Minnesota.

On 28 March 2015, the USDA APHIS National Veterinary Services Laboratories (NVSL) confirmed HPAI EA/AM H5N2 positive results from a commercial turkey flock in Stearns County, Minnesota. Whole genome sequence from the Midwest EA/AM H5N2 HPAI isolations in Minnesota, Missouri, Arkansas, and Kansas are all >99% similar to the index isolation (A/northern pintail/Washington/40964/2014). This is the third detection of HPAI EA/AM H5N2 in Minnesota.

**Source of the outbreak(s) or origin of infection**

- Contact with wild species

**Measures applied**

Applied	To be applied
<ul style="list-style-type: none"> <li>• stamping out</li> <li>• quarantine</li> <li>• movement control inside the country</li> <li>• zoning</li> <li>• disinfection of infected premises/establishment(s)</li> </ul>	<ul style="list-style-type: none"> <li>• no planned control measures</li> </ul>
Animals treated	Vaccination Prohibited
No	Yes

**Diagnostic test results**

Laboratory Type	Name of Laboratory	Species	Test Type	Date Results Provided	Result
National laboratory	National Veterinary Services Laboratories (NVSL)	Birds	virus sequencing	28/03/2015	Positive
National laboratory	National Veterinary Services Laboratories (NVSL)	Birds	real-time reverse transcriptase/polymerase chain reaction (RRT-PCR)	28/03/2015	Positive
National laboratory	National Veterinary Services Laboratories (NVSL)	Birds	real-time reverse transcriptase/polymerase chain reaction (RRT-PCR)	27/03/2015	Positive
National laboratory	National Veterinary Services Laboratories (NVSL)	Birds	virus sequencing	27/03/2015	Positive
National laboratory	National Veterinary Services Laboratories (NVSL)	Canada Goose	virus sequencing	25/03/2015	Positive
National laboratory	National Veterinary Services Laboratories (NVSL)	Canada Goose	real-time reverse transcriptase/polymerase chain reaction (RRT-PCR)	25/03/2015	Positive

**Future Reporting**

**The event is continuing. Weekly follow-up reports will be submitted.**

## Outbreak maps

