

California Arbovirus Surveillance Bulletin #23

Week 36 Friday, September 8, 2017



Weekly Update

Humans

A total of 21 new human cases of West Nile virus (WNV) illness were reported this week from the following nine counties: Imperial (1), Inyo (1), Kern (1), Los Angeles (7), Orange (3), Riverside (2), San Bernardino (2), San Joaquin (3), and Tulare (1). **These are the first human WNV cases reported from Imperial and Inyo counties in 2017.** To date this year, a total of 108 human cases of WNV illness have been reported from 15 counties. Of the 108 case-patients, 84 (78%) had neuroinvasive disease and four fatalities have been reported from Kern (1), Los Angeles (2), and San Bernardino (1) counties. The median age of the individuals is 59 years (range: 4–83 years) and 78 (72%) are male. Dates of symptom onset ranged from March 16 to August 26. In addition to the 108 symptomatic cases, 14 asymptomatic WNV-positive blood donors have been reported from Humboldt (1), Los Angeles (4) Orange (3), San Bernardino (5), and Stanislaus (1) counties. As of this date in 2016, 155 human WNV cases had been reported from 23 counties.

Dead Birds

A total of 34 WNV positive dead birds were reported this week from the following 15 counties: Butte (2), Contra Costa (1), Fresno (1), Orange (9), Riverside (2), Sacramento (4), San Bernardino (4), San Diego (2), San Francisco (1), Santa Clara (1), Shasta (1), Sonoma (1), Stanislaus (1), Ventura (1), and Yolo (3). **This is the first indication of WNV activity in San Francisco, Shasta, and Ventura counties in 2017.** To date this year, 298 birds from 33 counties have tested positive for WNV. As of this date in 2016, 1,186 WNV positive birds had been reported from 32 counties.

Mosquito Pools

West Nile Virus

A total of 283 WNV positive mosquito pools were reported this week from the following 18 counties: Butte (7), Fresno (17), Kings (6), Lake (3), Los Angeles (27), Madera (10), Merced (7), Orange (29), Placer (7), Riverside (17), Sacramento (22), San Bernardino (24), San Diego (2), San Joaquin (43), Stanislaus (21), Tulare (24), Yolo (16), and Yuba (1). To date this year, 2,828 WNV positive mosquito pools have been reported from 24 counties. As of this date in 2016, 3,105 WNV positive mosquito pools had been reported from 30 counties.

St. Louis Encephalitis Virus

A total of 39 mosquito pools tested positive for St. Louis encephalitis virus (SLEV) this week from seven counties: Fresno (17), Imperial (1), Kern (1), Kings (6), Madera (2), Riverside (10), and Stanislaus (2). To date this year, 109 SLEV positive mosquito pools have been reported from 11 counties: Butte (1), Fresno (47), Imperial (2), Kern (12), Kings (17), Madera (3), Placer (1), Riverside (12), Stanislaus (11), Tulare (2), and Yuba (1). As of this date in 2016, 148 SLEV positive mosquito pools had been reported from five counties.

Sentinel Chickens

West Nile Virus

A total of 34 WNV seroconversions were reported this week from three counties: Los Angeles (19), Merced (5), and San Bernardino (10). To date this year, 189 WNV seroconversions have been reported from 12 counties. As of this date in 2016, 264 WNV seroconversions had been detected from 17 counties.

St. Louis Encephalitis Virus

No SLEV seroconversions were reported this week. To date this year, seven SLEV positive chickens have been reported from Merced (1) and San Bernardino (6) counties. As of this date in 2016, two SLEV seroconversions had been detected in one flock located in San Bernardino County.

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YTD WNV Activity by Element and County, 2017					
County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens
Alameda			1		
Butte	2		4	43	25
Colusa			1		
Contra Costa		1	7	5	4
El Dorado			1		
Fresno	1	1	4	153	
Glenn		1		12	1
Imperial	1				
Inyo	1			7	
Kern	11	2	3	148	
Kings	1		1	75	
Lake			2	15	1
Lassen		1			
Los Angeles	46		51	402	85
Madera				56	
Merced			1	39	19
Monterey			1		
Nevada			1		
Orange	8		33	201	
Placer			1	39	
Plumas		1			
Riverside	5	2	28	179	
Sacramento	1		60	113	2
San Benito					1
San Bernardino	14		34	231	33
San Diego			18	5	
San Francisco			1		
San Joaquin	6	1	6	214	
San Mateo			1		
Santa Clara			7		
Santa Cruz			1		
Shasta			1		
Solano			1	5	1
Sonoma			2		
Stanislaus	6		4	173	
Sutter	1		2	16	12
Tulare	4		8	605	
Ventura			1		
Yolo			5	74	
Yuba			6	18	5
Totals	108	10	298	2,828	189

Website Information: For updated information on WNV in California, please visit the California WNV website, www.westmile.ca.gov, or the California Vectorborne Disease Surveillance System website, www.calsurv.org. For national information on WNV and other arboviruses, please visit the CDC website, www.cdc.gov, and the USGS website, www.westmilemaps.usgs.gov

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2016 & 2017 YTD West Nile Virus Comparisons		
	2016	2017
Total # Dead Bird Reports	7,851	5,853
# Positive Counties	36	40
# Human Cases	155	108
# Positive Dead Birds / # Tested	1,186 / 2,401	298 / 1,496
# Positive Mosquito Pools / # Tested	3,105 / 34,305	2,828 / 33,559
# Seroconversions / # Tested	264 / 8,038	189 / 8,362

TESTING SUMMARIES

Humans

		WNV	SLE	WEE
Human Cases	Week	21	0	0
	YTD	108	0	0

Dead Birds

		Number Tested	WNV Positive
Dead Birds	Week	58	34
	YTD	1,496	298

Chickens

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	300	34	0	0
	YTD	8,362	189	7	0

Mosquitoes

		Positive / Total Tested					
		WNV	SLEV	WEEV	CHIK	DENV	ZIKA
Mosquito Pools	Week	283 / 1,560	39 / 1,248	0 / 1,248	0 / 33	0 / 33	0 / 33
	YTD	2,828 / 33,559	109 / 27,613	0 / 25,821	0 / 1,058	0 / 1,058	0 / 1,058

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New Positives

Dead Birds

County	Agency	City	Zip Code	Species	Date Reported	Virus
Butte	Butte Co MVCD	Chico	95973	Yellow-billed Magpie	8/30/2017	WNV
Butte	Butte Co MVCD	Chico	95973	Yellow-billed Magpie	8/31/2017	WNV
Contra Costa	Contra Costa MVCD	San Ramon	94583	American Crow	9/7/2017	WNV
Fresno	Fresno Westside MAD	Firebaugh	93622	American Crow	8/31/2017	WNV
Orange	Orange Co VCD	Anaheim	92801	American Crow	8/30/2017	WNV
Orange	Orange Co VCD	Anaheim	92805	American Crow	8/30/2017	WNV
Orange	Orange Co VCD	Buena Park	90620	American Crow	8/30/2017	WNV
Orange	Orange Co VCD	Fountain Valley	92708	American Crow	8/29/2017	WNV
Orange	Orange Co VCD	Fullerton	92833	American Crow	9/5/2017	WNV
Orange	Orange Co VCD	Placentia	92870	American Crow	8/30/2017	WNV
Orange	Orange Co VCD	Placentia	92870	House Finch	8/30/2017	WNV
Orange	Orange Co VCD	Westminster	92683	American Crow	9/5/2017	WNV
Orange	Orange Co VCD	Yorba Linda	92886	American Crow	8/31/2017	WNV
Riverside	Northwest Mosquito VCD	Corona	92880	American Crow	8/24/2017	WNV
Riverside	Northwest Mosquito VCD	Norco	92860	American Crow	8/28/2017	WNV
Sacramento	Sacramento-Yolo MVCD	Elk Grove	95757	Barn Owl	9/2/2017	WNV
Sacramento	Sacramento-Yolo MVCD	Mather	95655	American Crow	8/30/2017	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95825	Yellow-billed Magpie	9/5/2017	WNV
Sacramento	Sacramento-Yolo MVCD	Wilton	95693	Western Scrub-Jay	8/31/2017	WNV
San Bernardino	San Bernardino VCP	Yucaipa	92399	American Crow	8/23/2017	WNV
San Bernardino	San Bernardino VCP	Yucaipa	92399	American Crow	8/24/2017	WNV
San Bernardino	San Bernardino VCP	Yucaipa	92399	American Crow	8/28/2017	WNV
San Bernardino	San Bernardino VCP	Yucaipa	92399	American Crow	8/29/2017	WNV
San Diego	San Diego Co VCP	Escondido	92027	American Crow	9/5/2017	WNV
San Diego	San Diego Co VCP	Escondido	92027	American Crow	9/5/2017	WNV
San Francisco	San Francisco Env Health Dept	San Francisco	94114	Townsend's Warbler	8/28/2017	WNV
Santa Clara	Santa Clara Co VCD	San Jose	95121	American Crow	9/1/2017	WNV
Shasta	Shasta MVCD	Anderson	96007	American Crow	9/1/2017	WNV
Sonoma	Marin-Sonoma MVCD	Rohnert Park	94928	American Crow	9/6/2017	WNV
Stanislaus	Turlock MAD	Turlock	95380	American Crow	8/30/2017	WNV
Ventura	Ventura Co Env Health Dept	Simi Valley	93063	American Crow	8/28/2017	WNV
Yolo	Sacramento-Yolo MVCD	Davis	95616	American Crow	9/1/2017	WNV
Yolo	Sacramento-Yolo MVCD	Davis	95616	American Crow	9/5/2017	WNV
Yolo	Sacramento-Yolo MVCD	Davis	95618	American Crow	8/31/2017	WNV

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Mosquito Pools

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Butte	BUCO127	335	Cx. tarsalis	Oroville	45	CO2	8/29/17	WNV
Butte	BUCO129	349	Cx. tarsalis	Gridley	50	CO2	8/30/17	WNV
Butte	BUCO143	369	Cx. tarsalis	Honcut	50	CO2	9/4/17	WNV
Butte	BUCO143	370	Cx. tarsalis	Honcut	50	CO2	9/4/17	WNV
Butte	BUCO43	350	Cx. tarsalis	Chico	50	CO2	8/30/17	WNV
Butte	BUCO43	351	Cx. tarsalis	Chico	50	CO2	8/30/17	WNV
Butte	BUCO43	352	Cx. tarsalis	Chico	50	CO2	8/30/17	WNV
Fresno	CNSL1245	465	Cx. quinquefasciatus	Clovis	19	GRVD	9/6/17	WNV
Fresno	FRWS100007	494	Cx. quinquefasciatus	Firebaugh	17	GRVD	9/6/17	WNV
Fresno	FRWS2105	486	Cx. tarsalis	Dos Palos	50	CO2	9/6/17	SLEV
Fresno	FRWS220001	484	Cx. quinquefasciatus	Firebaugh	34	CO2	9/6/17	SLEV
Fresno	FRWS220001	484	Cx. quinquefasciatus	Firebaugh	34	CO2	9/6/17	WNV
Fresno	FRWS220001	485	Cx. tarsalis	Firebaugh	25	CO2	9/6/17	SLEV
Fresno	FRWS220001	485	Cx. tarsalis	Firebaugh	25	CO2	9/6/17	WNV
Fresno	FRWS300011	499	Cx. tarsalis	Firebaugh	25	CO2	9/6/17	SLEV
Fresno	FRWS300026	483	Cx. tarsalis	Firebaugh	42	CO2	9/6/17	SLEV
Fresno	FRWS300026	483	Cx. tarsalis	Firebaugh	42	CO2	9/6/17	WNV
Fresno	FRWS300031	487	Cx. tarsalis		50	CO2	9/6/17	SLEV
Fresno	FRWS300031	488	Cx. tarsalis		50	CO2	9/6/17	WNV
Fresno	FRWS300031	489	Cx. tarsalis		50	CO2	9/6/17	SLEV
Fresno	FRWS300031	490	Cx. tarsalis		49	CO2	9/6/17	SLEV
Fresno	FRWS300031	490	Cx. tarsalis		49	CO2	9/6/17	WNV
Fresno	FRWS3104	492	Cx. tarsalis	Firebaugh	30	CO2	9/6/17	SLEV
Fresno	FRWS3104	492	Cx. tarsalis	Firebaugh	30	CO2	9/6/17	WNV
Fresno	FRWS3104	493	Cx. quinquefasciatus	Firebaugh	23	GRVD	9/6/17	SLEV
Fresno	FRWS400002	475	Cx. tarsalis	Mendota	50	CO2	8/31/17	SLEV
Fresno	FRWS400017	502	Cx. tarsalis	Mendota	50	CO2	9/6/17	WNV
Fresno	FRWS400017	503	Cx. tarsalis	Mendota	50	CO2	9/6/17	WNV
Fresno	FRWS400017	504	Cx. tarsalis	Mendota	50	CO2	9/6/17	WNV
Fresno	FRWS400017	505	Cx. tarsalis	Mendota	50	CO2	9/6/17	SLEV
Fresno	FRWS400017	509	Cx. quinquefasciatus	Mendota	50	CO2	9/6/17	SLEV
Fresno	FRWS400017	509	Cx. quinquefasciatus	Mendota	50	CO2	9/6/17	WNV
Fresno	FRWS400017	510	Cx. quinquefasciatus	Mendota	50	OTHER	9/6/17	SLEV
Fresno	FRWS400017	510	Cx. quinquefasciatus	Mendota	50	OTHER	9/6/17	WNV
Fresno	FRWS410001	514	Cx. quinquefasciatus	Kerman	20	OTHER	9/6/17	WNV
Fresno	FRWS4102	506	Cx. quinquefasciatus	Kerman	50	CO2	9/6/17	SLEV
Fresno	FRWS4102	506	Cx. quinquefasciatus	Kerman	50	CO2	9/6/17	WNV
Fresno	FRWS4102	508	Cx. tarsalis	Kerman	50	CO2	9/6/17	WNV
Fresno	FRWS4110	515	Cx. tarsalis	Mendota	41	CO2	9/6/17	SLEV
Fresno	FRWS5103	513	Cx. quinquefasciatus	Tranquility	15	OTHER	9/6/17	WNV
Fresno	FRWS60001	477	Cx. quinquefasciatus		14	OTHER	8/31/17	SLEV
Imperial	IMPR40	541	Cx. quinquefasciatus	Imperial	50	BGSENT	9/5/17	SLEV
Kern	WEST6208	33	Cx. tarsalis	Bakersfield	50	CO2	9/6/17	SLEV
Kings	KNGS3018	372	Cx. tarsalis	Lemoore	50	CO2	8/31/17	SLEV
Kings	KNGS3018	373	Cx. tarsalis	Lemoore	50	CO2	8/31/17	SLEV
Kings	KNGS3018	374	Cx. tarsalis	Lemoore	50	CO2	8/31/17	SLEV
Kings	KNGS3018	374	Cx. tarsalis	Lemoore	50	CO2	8/31/17	WNV
Kings	KNGS3018	376	Cx. tarsalis	Lemoore	50	CO2	8/31/17	SLEV
Kings	KNGS3018	376	Cx. tarsalis	Lemoore	50	CO2	8/31/17	WNV
Kings	KNGS3076	380	Cx. tarsalis	Hanford	21	CO2	9/1/17	WNV
Kings	KNGS3083	390	Cx. tarsalis	Lemoore	50	CO2	9/1/17	SLEV

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Kings	KNGS3083	390	Cx. tarsalis	Lemoore	50	CO2	9/1/17	WNV
Kings	KNGS3100	365	Cx. tarsalis	Hanford	33	CO2	8/30/17	WNV
Kings	KNGS4402	369	Cx. pipiens	Lemoore	20	BGSENT	8/31/17	SLEV
Kings	KNGS4501	378	Cx. pipiens	Armona	50	BGSENT	9/1/17	WNV
Lake	LAKE131	568	Cx. tarsalis	Lower Lake	50	CO2	8/30/17	WNV
Lake	LAKE131	569	Cx. tarsalis	Lower Lake	50	CO2	8/30/17	WNV
Lake	LAKE409	575	Cx. tarsalis	Clearlake	50	CO2	8/31/17	WNV
Los Angeles	GRLA2007	5683	Cx. quinquefasciatus	Toluca Lake	50	GRVD	8/29/17	WNV
Los Angeles	GRLA2017	5684	Cx. quinquefasciatus	Toluca Lake	41	GRVD	8/29/17	WNV
Los Angeles	GRLA2030	5710	Cx. quinquefasciatus	West Hills	39	GRVD	9/1/17	WNV
Los Angeles	GRLA2301	720	Cx. quinquefasciatus	Willowbrook	50	GRVD	9/1/17	WNV
Los Angeles	GRLA2567	5706	Cx. quinquefasciatus	Woodland Hills	15	GRVD	9/1/17	WNV
Los Angeles	GRLA2604	5702	Cx. quinquefasciatus	Los Angeles	34	GRVD	8/31/17	WNV
Los Angeles	GRLA2614	5692	Cx. quinquefasciatus	Newhall	50	GRVD	8/30/17	WNV
Los Angeles	GRLA2615	5695	Cx. quinquefasciatus	Newhall	47	GRVD	8/30/17	WNV
Los Angeles	GRLA2962	5712	Cx. quinquefasciatus	Chatsworth	10	GRVD	9/1/17	WNV
Los Angeles	GRLA3009	5693	Cx. quinquefasciatus	Santa Clarita	31	GRVD	8/30/17	WNV
Los Angeles	GRLA3038	5686	Cx. quinquefasciatus	Valley Village	50	GRVD	8/29/17	WNV
Los Angeles	GRLA3047	712	Cx. quinquefasciatus	Downey	50	GRVD	8/30/17	WNV
Los Angeles	GRLA3049	703	Cx. quinquefasciatus	Downey	11	GRVD	8/30/17	WNV
Los Angeles	GRLA3054	704	Cx. quinquefasciatus	Bell Gardens	50	GRVD	8/30/17	WNV
Los Angeles	GRLA3055	706	Cx. quinquefasciatus	Maywood	50	GRVD	8/30/17	WNV
Los Angeles	GRLA3056	707	Cx. quinquefasciatus	Cudahy	50	GRVD	8/30/17	WNV
Los Angeles	GRLA3062	717	Cx. quinquefasciatus	Los Angeles-Florence-Firestone	50	GRVD	9/1/17	WNV
Los Angeles	GRLA3063	718	Cx. quinquefasciatus	Watts	21	GRVD	9/1/17	WNV
Los Angeles	GRLA3065	721	Cx. quinquefasciatus	Willowbrook	50	GRVD	9/1/17	WNV
Los Angeles	GRLA3066	5689	Cx. quinquefasciatus	North Hollywood	50	GRVD	8/29/17	WNV
Los Angeles	GRLA3069	5687	Cx. quinquefasciatus	Valley Village	50	GRVD	8/29/17	WNV
Los Angeles	GRLA3076	5690	Cx. quinquefasciatus	Valley Glen	50	GRVD	8/29/17	WNV
Los Angeles	GRLA3080	5688	Cx. quinquefasciatus	North Hollywood	50	GRVD	8/29/17	WNV
Los Angeles	GRLA3086	5699	Cx. quinquefasciatus	Highland Park	43	GRVD	8/31/17	WNV
Los Angeles	GRLA3089	5704	Cx. quinquefasciatus	Glendale	50	GRVD	8/31/17	WNV
Los Angeles	GRLA3102	5685	Cx. quinquefasciatus	Studio City	42	GRVD	8/29/17	WNV
Los Angeles	GRLA3132	5703	Cx. quinquefasciatus	Eagle Rock	50	GRVD	8/31/17	WNV
Madera	FRWS300029	479	Cx. quinquefasciatus	Firebaugh	50	CO2	9/6/17	SLEV
Madera	MADR1117	295	Cx. tarsalis	Firebaugh	50	CO2	8/29/17	WNV
Madera	MADR1117	296	Cx. tarsalis	Firebaugh	50	CO2	8/29/17	SLEV
Madera	MADR1117	298	Cx. quinquefasciatus	Firebaugh	40	CO2	8/29/17	WNV
Madera	MADR195	299	Cx. quinquefasciatus	Madera	50	CO2	8/30/17	WNV
Madera	MADR208	294	Cx. quinquefasciatus	Madera	35	CO2	8/30/17	WNV
Madera	MADR239	309	Cx. quinquefasciatus	Madera	34	CO2	9/1/17	WNV
Madera	MADR265	307	Cx. quinquefasciatus	Madera	50	CO2	8/30/17	WNV
Madera	MADR266	312	Cx. quinquefasciatus		50	CO2	9/1/17	WNV
Madera	MADR299	305	Cx. quinquefasciatus	Chowchilla	50	CO2	8/31/17	WNV
Madera	MADR311	308	Cx. quinquefasciatus	Madera	32	CO2	9/1/17	WNV
Madera	MADR3334	310	Cx. quinquefasciatus	Madera	45	CO2	9/1/17	WNV
Merced	MERC201779	302	Cx. tarsalis	Balico	50	CO2	9/7/17	WNV
Merced	MERC201779	308	Cx. pipiens	Balico	50	CO2	9/7/17	WNV
Merced	MERC201779	309	Cx. pipiens	Balico	50	CO2	9/7/17	WNV
Merced	MERC405	319	Cx. pipiens	Hilmar	44	CO2	9/7/17	WNV
Merced	MERC407	321	Cx. pipiens	Gustine	40	CO2	9/7/17	WNV
Merced	MERC611	297	Cx. pipiens	Delhi	50	CO2	9/7/17	WNV
Merced	MERC611	298	Cx. pipiens	Delhi	12	CO2	9/7/17	WNV

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Orange	ORCO1005	3813	Cx. quinquefasciatus	Buena Park	35	GRVD	8/31/17	WNV
Orange	ORCO1011	3739	Cx. quinquefasciatus	La Habra	50	GRVD	8/30/17	WNV
Orange	ORCO1011	3743	Cx. quinquefasciatus	La Habra	50	GRVD	8/30/17	WNV
Orange	ORCO1011	3744	Cx. quinquefasciatus	La Habra	32	GRVD	8/30/17	WNV
Orange	ORCO1011	3745	Cx. quinquefasciatus	La Habra	50	GRVD	8/30/17	WNV
Orange	ORCO1011	3746	Cx. quinquefasciatus	La Habra	21	GRVD	8/30/17	WNV
Orange	ORCO1011	3748	Cx. quinquefasciatus	La Habra	40	GRVD	8/30/17	WNV
Orange	ORCO1011	3749	Cx. quinquefasciatus	La Habra	26	GRVD	8/30/17	WNV
Orange	ORCO1011	3750	Cx. quinquefasciatus	La Habra	22	GRVD	8/30/17	WNV
Orange	ORCO1011	3751	Cx. quinquefasciatus	La Habra	15	GRVD	8/30/17	WNV
Orange	ORCO1011	3753	Cx. quinquefasciatus	La Habra	50	GRVD	8/30/17	WNV
Orange	ORCO1011	3754	Cx. quinquefasciatus	La Habra	13	GRVD	8/30/17	WNV
Orange	ORCO1011	3755	Cx. quinquefasciatus	La Habra	30	GRVD	8/30/17	WNV
Orange	ORCO1011	3757	Cx. quinquefasciatus	La Habra	41	GRVD	8/30/17	WNV
Orange	ORCO1011	3758	Cx. quinquefasciatus	La Habra	38	GRVD	8/30/17	WNV
Orange	ORCO1011	3814	Cx. quinquefasciatus	La Habra	49	GRVD	8/31/17	WNV
Orange	ORCO1029	3760	Cx. quinquefasciatus	Lake Forest	42	GRVD	8/30/17	WNV
Orange	ORCO1040	3783	Cx. quinquefasciatus	Orange	30	GRVD	8/31/17	WNV
Orange	ORCO198	3798	Cx. quinquefasciatus	La Habra	36	GRVD	8/31/17	WNV
Orange	ORCO2	3791	Cx. quinquefasciatus	Fullerton	50	GRVD	8/31/17	WNV
Orange	ORCO202	3794	Cx. quinquefasciatus	Fullerton	46	GRVD	8/31/17	WNV
Orange	ORCO217	3809	Cx. quinquefasciatus	Santa Ana	43	GRVD	8/31/17	WNV
Orange	ORCO236	3771	Cx. quinquefasciatus	Garden Grove	50	GRVD	8/31/17	WNV
Orange	ORCO244	3768	Cx. quinquefasciatus	Garden Grove	50	GRVD	8/31/17	WNV
Orange	ORCO244	3770	Cx. tarsalis	Garden Grove	3	GRVD	8/31/17	WNV
Orange	ORCO245	3776	Cx. quinquefasciatus	Santa Ana	32	GRVD	8/31/17	WNV
Orange	ORCO34	3800	Cx. quinquefasciatus	Brea	38	GRVD	8/31/17	WNV
Orange	ORCO34	3801	Cx. quinquefasciatus	Brea	38	GRVD	8/31/17	WNV
Orange	ORCO52	3775	Cx. quinquefasciatus	Anaheim	30	GRVD	8/31/17	WNV
Placer	PLCR1044	1852	Cx. stigmatosoma	Roseville	2	CO2	9/7/17	WNV
Placer	PLCR1070	1805	Cx. tarsalis	Roseville	50	OTHER	9/6/17	WNV
Placer	PLCR1114	1793	Cx. tarsalis	Lincoln	50	CO2	9/6/17	WNV
Placer	PLCR1114	1796	Cx. tarsalis	Lincoln	50	CO2	9/6/17	WNV
Placer	PLCR191218	1816	Cx. tarsalis		50	CO2	9/6/17	WNV
Placer	PLCR30	1833	Cx. tarsalis	Lincoln	40	OTHER	9/6/17	WNV
Placer	PLCR86	1841	Cx. tarsalis	Rocklin	50	CO2	9/7/17	WNV
Riverside	COAV114	3493	Cx. tarsalis	Mecca	45	CO2	9/6/17	SLEV
Riverside	COAV115	3504	Cx. tarsalis	Mecca	5	CO2	9/6/17	SLEV
Riverside	COAV121	3488	Cx. tarsalis	Mecca	50	CO2	9/6/17	SLEV
Riverside	COAV121	3489	Cx. tarsalis	Mecca	50	CO2	9/6/17	SLEV
Riverside	COAV121	3490	Cx. tarsalis	Mecca	50	CO2	9/6/17	SLEV
Riverside	COAV402	3388	Cx. quinquefasciatus	Thousand Palms	10	CO2	8/25/17	WNV
Riverside	COAV45	3513	Cx. tarsalis	Mecca	50	CO2	9/6/17	SLEV
Riverside	COAV45	3515	Cx. tarsalis	Mecca	50	CO2	9/6/17	SLEV
Riverside	COAV45	3515	Cx. tarsalis	Mecca	50	CO2	9/6/17	WNV
Riverside	COAV46	3526	Cx. tarsalis	Mecca	50	CO2	9/6/17	SLEV
Riverside	COAV48	3499	Cx. tarsalis	Mecca	50	CO2	9/6/17	WNV
Riverside	COAV54	3503	Cx. tarsalis	Mecca	16	CO2	9/6/17	SLEV
Riverside	COAV611	3507	Cx. tarsalis	Mecca	50	CO2	9/6/17	SLEV
Riverside	COAV611	3507	Cx. tarsalis	Mecca	50	CO2	9/6/17	WNV
Riverside	COAV611	3509	Cx. tarsalis	Mecca	50	CO2	9/6/17	WNV
Riverside	COAV611	3510	Cx. tarsalis	Mecca	50	CO2	9/6/17	WNV
Riverside	NWST125	279	Cx. quinquefasciatus	Riverside	50	GRVD	8/30/17	WNV
Riverside	NWST125	280	Cx. stigmatosoma	Riverside	50	CO2	8/30/17	WNV

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Riverside	NWST133	276	Cx. quinquefasciatus	Riverside	50	CO2	8/30/17	WNV
Riverside	NWST140	277	Cx. quinquefasciatus	Riverside	10	CO2	8/30/17	WNV
Riverside	NWST154	262	Cx. quinquefasciatus	Corona	9	GRVD	8/24/17	WNV
Riverside	NWST179	259	Cx. quinquefasciatus	Lake Elsinore	25	CO2	8/24/17	WNV
Riverside	NWST197	278	Cx. quinquefasciatus	Riverside	36	CO2	8/30/17	WNV
Riverside	NWST20	253	Cx. quinquefasciatus	Santa Ana River Wildlife	13	CO2	8/23/17	WNV
Riverside	NWST218	272	Cx. quinquefasciatus	Eastvale	40	CO2	8/29/17	WNV
Riverside	NWST229	266	Cx. quinquefasciatus	Riverside	22	BGSENT	8/24/17	WNV
Riverside	NWST9403	284	Cx. tarsalis	Corona	25	CO2	8/30/17	WNV
Sacramento	SAYO201006	5356	Cx. tarsalis	Sacramento	50	CO2	9/1/17	WNV
Sacramento	SAYO202012	5517	Cx. tarsalis	Rio Linda	34	CO2	9/6/17	WNV
Sacramento	SAYO203034	5369	Cx. tarsalis	Rio Linda	6	CO2	9/1/17	WNV
Sacramento	SAYO203037	5499	Cx. tarsalis	Elverta	7	CO2	9/6/17	WNV
Sacramento	SAYO204051	5512	Cx. pipiens	Citrus Heights	8	CO2	9/6/17	WNV
Sacramento	SAYO222001	5524	Cx. tarsalis	Sacramento	3	CO2	9/6/17	WNV
Sacramento	SAYO222030	5321	Cx. tarsalis	Sacramento	20	CO2	9/1/17	WNV
Sacramento	SAYO232012	5550	Cx. pipiens	Elk Grove	30	CO2	9/6/17	WNV
Sacramento	SAYO233009	5611	Cx. tarsalis	Elk Grove	50	CO2	9/6/17	WNV
Sacramento	SAYO233009	5612	Cx. tarsalis	Elk Grove	50	CO2	9/6/17	WNV
Sacramento	SAYO233009	5615	Cx. tarsalis	Elk Grove	50	CO2	9/6/17	WNV
Sacramento	SAYO233009	5617	Cx. pipiens	Elk Grove	46	CO2	9/6/17	WNV
Sacramento	SAYO233026	5558	Cx. pipiens	Elk Grove	42	GRVD	9/6/17	WNV
Sacramento	SAYO242015	5580	Cx. tarsalis	Elk Grove	50	CO2	9/6/17	WNV
Sacramento	SAYO243025	5571	Cx. tarsalis	Elk Grove	11	CO2	9/6/17	WNV
Sacramento	SAYO243026	5589	Cx. pipiens	Elk Grove	50	CO2	9/6/17	WNV
Sacramento	SAYO245010	5311	Cx. tarsalis	Wilton	50	CO2	9/1/17	WNV
Sacramento	SAYO245026	5317	Cx. tarsalis	Wilton	36	CO2	9/1/17	WNV
Sacramento	SAYO253015	5421	Cx. tarsalis	Elk Grove	36	CO2	9/1/17	WNV
Sacramento	SAYO253015	5422	Cx. pipiens	Elk Grove	50	CO2	9/1/17	WNV
Sacramento	SAYO253015	5423	Cx. pipiens	Elk Grove	50	CO2	9/1/17	WNV
Sacramento	SAYO255007	5298	Cx. pipiens	Herald	15	CO2	9/1/17	WNV
San Bernardino	SANB157	940	Cx. quinquefasciatus	Colton	2	CO2	8/23/17	WNV
San Bernardino	SANB167	964	Cx. quinquefasciatus	Colton	2	CO2	8/31/17	WNV
San Bernardino	SANB2	929	Cx. stigmatosoma	Redlands	50	CO2	8/22/17	WNV
San Bernardino	SANB2	932	Cx. tarsalis	Redlands	2	CO2	8/22/17	WNV
San Bernardino	SANB27	277	An. hermsi	San Bernardino	4	CO2	5/23/17	WNV
San Bernardino	SANB27	284	Cx. tarsalis	San Bernardino	2	CO2	5/23/17	WNV
San Bernardino	SANB61	934	Cx. stigmatosoma	Loma Linda	11	CO2	8/22/17	WNV
San Bernardino	WVAL101	1940	Cx. quinquefasciatus	Rancho Cucamonga	10	GRVD	8/31/17	WNV
San Bernardino	WVAL2024	1899	Cx. quinquefasciatus	Chino Hills	25	GRVD	8/30/17	WNV
San Bernardino	WVAL3303	1853	Cx. quinquefasciatus	Upland	15	BGSENT	8/29/17	WNV
San Bernardino	WVAL3306	1857	Cx. quinquefasciatus	Chino Hills	12	BGSENT	8/30/17	WNV
San Bernardino	WVAL3319	1949	Cx. quinquefasciatus	Chino Hills	13	BGSENT	9/1/17	WNV
San Bernardino	WVAL5005	1924	Cx. quinquefasciatus	Rancho Cucamonga	25	GRVD	8/30/17	WNV
San Bernardino	WVAL5007	1913	Cx. quinquefasciatus	Rancho Cucamonga	13	GRVD	8/30/17	WNV
San Bernardino	WVAL6005	1892	Cx. quinquefasciatus	Ontario	27	GRVD	8/30/17	WNV
San Bernardino	WVAL6011	1916	Cx. quinquefasciatus	Ontario	15	GRVD	8/30/17	WNV
San Bernardino	WVAL6012	1933	Cx. quinquefasciatus	Ontario	30	GRVD	8/30/17	WNV
San Bernardino	WVAL6012	1934	Cx. quinquefasciatus	Ontario	30	GRVD	8/30/17	WNV
San Bernardino	WVAL6012	1935	Cx. quinquefasciatus	Ontario	30	GRVD	8/30/17	WNV
San Bernardino	WVAL6015	1893	Cx. quinquefasciatus	Ontario	30	GRVD	8/30/17	WNV
San Bernardino	WVAL7001	1912	Cx. quinquefasciatus	Montclair	5	GRVD	8/30/17	WNV
San Bernardino	WVAL7004	1914	Cx. quinquefasciatus	Montclair	21	CO2	8/30/17	WNV
San Bernardino	WVAL8002	1864	Cx. quinquefasciatus	Chino	10	CO2	8/30/17	WNV

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San Bernardino	WVAL9006	1891	Cx. quinquefasciatus	Upland	18	GRVD	8/30/17	WNV
San Diego	SAND12680	1572	Cx. quinquefasciatus	San Diego	44	GRVD	8/24/17	WNV
San Diego	SAND12698	1571	Cx. stigmatosoma		2	GRVD	8/25/17	WNV
San Joaquin	SJCM7022	2398	Cx. pipiens	Stockton	3	CO2	9/5/17	WNV
San Joaquin	SJCM8004	2386	Cx. tarsalis	Lodi	50	CO2	9/5/17	WNV
San Joaquin	SJCM8004	2387	Cx. tarsalis	Lodi	53	CO2	9/5/17	WNV
San Joaquin	SJCM8004	2388	Cx. pipiens	Lodi	50	CO2	9/5/17	WNV
San Joaquin	SJCM8004	2389	Cx. pipiens	Lodi	50	CO2	9/5/17	WNV
San Joaquin	SJCM8004	2390	Cx. pipiens	Lodi	50	CO2	9/5/17	WNV
San Joaquin	SJCM8004	2391	Cx. pipiens	Lodi	45	CO2	9/5/17	WNV
San Joaquin	SJCM8029	2320	Cx. tarsalis	Farmington	20	CO2	8/30/17	WNV
San Joaquin	SJCM8029	2321	Cx. pipiens	Farmington	19	CO2	8/30/17	WNV
San Joaquin	SJCM8029	2422	Cx. tarsalis	Farmington	5	CO2	9/7/17	WNV
San Joaquin	SJCM8041	2392	Cx. pipiens	Lodi	21	CO2	9/5/17	WNV
San Joaquin	SJCM8042	2395	Cx. pipiens	Lodi	7	CO2	9/5/17	WNV
San Joaquin	SJCM8056	2352	Cx. tarsalis	Manteca	50	CO2	9/5/17	WNV
San Joaquin	SJCM8056	2353	Cx. tarsalis	Manteca	19	CO2	9/5/17	WNV
San Joaquin	SJCM8079	2338	Cx. pipiens	Manteca	39	CO2	9/5/17	WNV
San Joaquin	SJCM8083	2348	Cx. pipiens	Escalon	40	CO2	9/5/17	WNV
San Joaquin	SJCM8094	2349	Cx. tarsalis	Manteca	50	CO2	9/5/17	WNV
San Joaquin	SJCM8094	2350	Cx. tarsalis	Manteca	22	CO2	9/5/17	WNV
San Joaquin	SJCM8094	2351	Cx. pipiens	Manteca	25	CO2	9/5/17	WNV
San Joaquin	SJCM8111	2379	Cx. pipiens	Stockton	50	CO2	9/5/17	WNV
San Joaquin	SJCM8111	2380	Cx. pipiens	Stockton	39	CO2	9/5/17	WNV
San Joaquin	SJCM8143	2405	Cx. tarsalis	Stockton	42	CO2	9/5/17	WNV
San Joaquin	SJCM8154	2404	Cx. pipiens	Lathrop	19	CO2	9/5/17	WNV
San Joaquin	SJCM8160	2357	Cx. tarsalis	Lodi	26	CO2	9/5/17	WNV
San Joaquin	SJCM8189	2325	Cx. pipiens	Acampo	50	CO2	8/30/17	WNV
San Joaquin	SJCM8189	2326	Cx. pipiens	Acampo	50	CO2	8/30/17	WNV
San Joaquin	SJCM8191	2401	Cx. tarsalis	Lodi	50	CO2	9/5/17	WNV
San Joaquin	SJCM8205	2311	Cx. pipiens	Farmington	17	CO2	8/30/17	WNV
San Joaquin	SJCM8206	2300	Cx. tarsalis	Lodi	50	CO2	8/29/17	WNV
San Joaquin	SJCM8206	2371	Cx. tarsalis	Lodi	50	CO2	9/5/17	WNV
San Joaquin	SJCM8206	2372	Cx. tarsalis	Lodi	50	CO2	9/5/17	WNV
San Joaquin	SJCM8206	2373	Cx. tarsalis	Lodi	50	CO2	9/5/17	WNV
San Joaquin	SJCM8206	2374	Cx. tarsalis	Lodi	50	CO2	9/5/17	WNV
San Joaquin	SJCM8206	2375	Cx. tarsalis	Lodi	33	CO2	9/5/17	WNV
San Joaquin	SJCM8206	2376	Cx. pipiens	Lodi	52	CO2	9/5/17	WNV
San Joaquin	SJCM8208	2431	Cx. tarsalis	Lodi	22	CO2	9/7/17	WNV
San Joaquin	SJCM8208	2432	Cx. pipiens	Lodi	21	CO2	9/7/17	WNV
San Joaquin	SJCM8209	2314	Cx. tarsalis	Lodi	28	CO2	8/30/17	WNV
San Joaquin	SJCM8209	2428	Cx. pipiens	Lodi	46	CO2	9/7/17	WNV
San Joaquin	SJCM8210	2318	Cx. tarsalis	Escalon	16	CO2	8/30/17	WNV
San Joaquin	SJCM8210	2419	Cx. tarsalis	Escalon	18	CO2	9/5/17	WNV
San Joaquin	SJCM8210	2420	Cx. pipiens	Escalon	50	CO2	9/5/17	WNV
San Joaquin	SJCM8217	2410	Cx. tarsalis	Mountain House	8	CO2	9/5/17	WNV
Stanislaus	TRLK1107	968	Cx. pipiens	Denair	50	CO2	9/6/17	WNV
Stanislaus	TRLK1107	969	Cx. pipiens	Denair	50	CO2	9/6/17	WNV
Stanislaus	TRLK1209	984	Cx. pipiens	Ceres	50	CO2	9/6/17	WNV
Stanislaus	TRLK1209	985	Cx. tarsalis	Ceres	50	CO2	9/6/17	WNV
Stanislaus	TRLK1209	986	Cx. tarsalis	Ceres	50	CO2	9/6/17	WNV
Stanislaus	TRLK1308	962	Cx. pipiens	Turlock	42	CO2	9/6/17	WNV
Stanislaus	TRLK1308	963	Cx. tarsalis	Turlock	50	CO2	9/6/17	WNV
Stanislaus	TRLK1310	982	Cx. pipiens	Hughson	20	CO2	9/6/17	WNV

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Stanislaus	TRLK1700	1005	Cx. tarsalis	Crows Landing	30	CO2	9/6/17	WNV
Stanislaus	TRLK408	951	Cx. pipiens	Turlock	48	CO2	9/6/17	WNV
Stanislaus	TRLK421	967	Cx. pipiens	Hughson	25	CO2	9/6/17	WNV
Stanislaus	TRLK432	957	Cx. tarsalis	Turlock	50	CO2	9/6/17	WNV
Stanislaus	TRLK432	958	Cx. tarsalis	Turlock	50	CO2	9/6/17	WNV
Stanislaus	TRLK432	959	Cx. tarsalis	Turlock	22	CO2	9/6/17	WNV
Stanislaus	TRLK508	939	Cx. pipiens	Turlock	50	CO2	8/31/17	WNV
Stanislaus	TRLK516	972	Cx. pipiens	Denair	50	CO2	9/6/17	WNV
Stanislaus	TRLK516	974	Cx. pipiens	Denair	50	CO2	9/6/17	WNV
Stanislaus	TRLK516	975	Cx. pipiens	Denair	50	CO2	9/6/17	WNV
Stanislaus	TRLK530	949	Cx. pipiens	Turlock	50	CO2	9/6/17	WNV
Stanislaus	TRLK548	1004	Cx. tarsalis	Newman	34	CO2	9/6/17	SLEV
Stanislaus	TRLK613	978	Cx. tarsalis	Hickman	50	CO2	9/6/17	WNV
Stanislaus	TRLK806	994	Cx. tarsalis	Grayson	25	CO2	9/6/17	WNV
Stanislaus	TRLK9706	996	Cx. tarsalis	Newman	20	CO2	9/6/17	SLEV
Tulare	DLTA6404	2545	Cx. quinquefasciatus	Dinuba	29	CO2	9/1/17	WNV
Tulare	DLTA6404	2546	Cx. tarsalis	Dinuba	50	CO2	9/1/17	WNV
Tulare	DLTA8414	2457	Cx. quinquefasciatus	Visalia	11	GRVD	8/29/17	WNV
Tulare	DLTA8422	2455	Cx. quinquefasciatus	Goshen	12	GRVD	8/29/17	WNV
Tulare	DLTA8423	2515	Cx. quinquefasciatus	Visalia	50	GRVD	9/1/17	WNV
Tulare	DLTA8424	2508	Cx. quinquefasciatus	Visalia	27	GRVD	8/31/17	WNV
Tulare	DLTA8425	2459	Cx. quinquefasciatus	Visalia	22	GRVD	8/29/17	WNV
Tulare	DLTA8425	2492	Cx. quinquefasciatus	Visalia	16	GRVD	8/31/17	WNV
Tulare	DLTA8434	2534	Cx. quinquefasciatus	Visalia	14	GRVD	9/1/17	WNV
Tulare	DLTA8435	2443	Cx. quinquefasciatus	Visalia	14	GRVD	8/29/17	WNV
Tulare	DLTA8435	2549	Cx. quinquefasciatus	Visalia	37	GRVD	9/6/17	WNV
Tulare	DLTA8507	2498	Cx. quinquefasciatus	Visalia	14	GRVD	8/31/17	WNV
Tulare	DLTA8514	2478	Cx. quinquefasciatus	Visalia	35	GRVD	8/30/17	WNV
Tulare	DLTA8519	2474	Cx. quinquefasciatus	Visalia	50	GRVD	8/30/17	WNV
Tulare	DLTA8520	2497	Cx. quinquefasciatus	Visalia	36	GRVD	8/31/17	WNV
Tulare	DLTA8522	2507	Cx. quinquefasciatus	Visalia	16	GRVD	8/31/17	WNV
Tulare	DLTA8527	2509	Cx. quinquefasciatus	Visalia	36	GRVD	8/31/17	WNV
Tulare	DLTA8529	2528	Cx. quinquefasciatus	Visalia	42	GRVD	9/1/17	WNV
Tulare	DLTA9401	2468	Cx. quinquefasciatus	Visalia	13	GRVD	8/30/17	WNV
Tulare	DLTA9403	2552	Cx. quinquefasciatus	Visalia	50	GRVD	9/6/17	WNV
Tulare	DLTA9412	2495	Cx. quinquefasciatus	Visalia	10	GRVD	8/31/17	WNV
Tulare	DLTA9505	2556	Cx. quinquefasciatus	Visalia	20	GRVD	9/6/17	WNV
Tulare	DLTA9604	2480	Cx. quinquefasciatus	Exeter	21	GRVD	8/30/17	WNV
Tulare	DLTA9610	2448	Cx. quinquefasciatus	Exeter	21	GRVD	8/29/17	WNV
Yolo	SAYO103002	5404	Cx. tarsalis	Dunnigan	50	CO2	9/1/17	WNV
Yolo	SAYO103002	5406	Cx. tarsalis	Dunnigan	50	CO2	9/1/17	WNV
Yolo	SAYO103007	5373	Cx. tarsalis	Dunnigan	50	CO2	9/1/17	WNV
Yolo	SAYO103010	5396	Cx. tarsalis	Dunnigan	50	CO2	9/1/17	WNV
Yolo	SAYO103010	5397	Cx. tarsalis	Dunnigan	50	CO2	9/1/17	WNV
Yolo	SAYO124007	5490	Cx. tarsalis	Woodland	40	CO2	9/6/17	WNV
Yolo	SAYO134003	5494	Cx. tarsalis	Woodland	47	CO2	9/6/17	WNV
Yolo	SAYO134003	5497	Cx. pipiens	Woodland	4	GRVD	9/6/17	WNV
Yolo	SAYO135005	5336	Cx. tarsalis	Woodland	50	CO2	9/1/17	WNV
Yolo	SAYO135006	5486	Cx. tarsalis	Woodland	50	CO2	9/6/17	WNV
Yolo	SAYO135016	5352	Cx. tarsalis	Woodland	50	CO2	9/1/17	WNV
Yolo	SAYO136010	5474	Cx. tarsalis	Woodland	50	CO2	9/6/17	WNV
Yolo	SAYO136010	5477	Cx. tarsalis	Woodland	50	CO2	9/6/17	WNV
Yolo	SAYO145016	5451	Cx. tarsalis	Davis	16	CO2	9/6/17	WNV
Yolo	SAYO145018	5469	Cx. tarsalis	Davis	15	CO2	9/6/17	WNV

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Yolo	SAYO146002	5464	Cx. tarsalis	Davis	50	CO2	9/6/17	WNV
Yuba	SUYA40	440	Cx. tarsalis	Marysville	44	CO2	9/6/17	WNV

Sentinel Chickens

County	Site Code	City	Date Bled	Virus	Band 01	Band 02	Band 03	Band 04	Band 05
Los Angeles	GRLA2615	Newhall	8/28/2017	WNV	4753	4754	4756	4757	
Los Angeles	LACW1003	Redondo Beach	8/16/2017	WNV	2514	2516	2518		
Los Angeles	LACW1004	Lawndale	8/17/2017	WNV	2520				
Los Angeles	LACW1007	Baldwin Hills	8/24/2017	WNV	2538				
Los Angeles	LACW1049	Inglewood	8/24/2017	WNV	2582	2584			
Los Angeles	LONG0002	Long Beach	8/28/2017	WNV	1317				
Los Angeles	LONG0003	Long Beach	8/28/2017	WNV	1328				
Los Angeles	SGVA0002	Monterey Park	8/28/2017	WNV	4530	4531	4532	4533	
Los Angeles	SGVA0006	Glendora	8/28/2017	WNV	4546	4547			
Merced	MERC0001	Merced	8/25/2017	WNV	1846				
Merced	MERC0006	Merced	8/25/2017	WNV	1868				
Merced	MERC0501	El Nido	8/25/2017	WNV	1851	1854	1856		
San Bernardino	SANB0000	San Bernardino	8/30/2017	WNV	2702				
San Bernardino	SANB0003	Colton	8/30/2017	WNV	2717	2718	2721	2722	2724
San Bernardino	SANB0006	Yucaipa	8/28/2017	WNV	2751				
San Bernardino	SANB0029	San Bernardino	8/30/2017	WNV	2710	2711	2800		

Test Protocols

Humans:

Specimens are tested by local laboratories with an IgM or IgG immunofluorescent assay (IFA) and/or an IgM enzyme immunoassay (EIA). Specimens with inconclusive results are forwarded to the California Department of Public Health Viral and Rickettsial Disease Laboratory (VRDL) for further testing or confirmation.

Dead Birds

Oral swab samples from corvids are collected onto RNA preservation cards and tested by the UC Davis Arbovirus Research and Training laboratory (DART) for West Nile virus by the singleplex qRT-PCR Taqman assay and confirmed with a second primer set. Some local agencies test birds using the RAMP© test or conduct RT-PCR on tissue samples.

Sentinel Chickens:

Dried blood spot specimens from sentinel chickens are submitted to the California Department of Public Health Vector-Borne Disease Laboratory and tested for antibodies to West Nile, western equine encephalomyelitis, and St. Louis encephalitis viruses by EIA. Positive samples are confirmed by IFA, western-blot, or PRNT.

Mosquito Pools:

Mosquito pools submitted to DART are tested for West Nile, western equine encephalomyelitis, and St. Louis encephalitis viral RNA using a multiplex qRT-PCR. Invasive *Aedes* mosquitoes (*Ae. aegypti* and *Ae. albopictus*) are also tested for chikungunya, dengue, and Zika viral RNA by a separate qRT-PCR.