

## California Arbovirus Surveillance Bulletin #24

Week 37 Friday, September 14, 2018



### Weekly Update

#### **Humans**

A total of 24 new human cases of West Nile virus (WNV) illness were reported this week from 8 counties: Humboldt (1), Kern (2), Madera (2), Placer (7), Riverside (1), San Bernardino (2), San Joaquin (5), and Yolo (4). **These are the first WNV human cases reported from Humboldt, Madera, and Placer counties this year.** In 2018, a total of 79 human WNV cases have been reported from 24 counties. Of the 79 case patients, 55 (70%) had neuroinvasive illness and 4 (5.1%) fatalities have been reported. The median age of the individuals is 59 years (range: 1–90 years) and 53 (67%) are male. Dates of symptom onset ranged from May 6 – September 1. In addition to the 79 cases, 17 asymptomatic infections have been reported from Butte (4), Fresno (1), Contra Costa (1), Los Angeles (3), Orange (2), Sacramento (1), San Joaquin (1), Stanislaus (3), and Yolo (1) counties. At this time last year, 143 human WNV cases had been reported from 15 counties.

#### **Dead Birds**

A total of 8 WNV positive dead birds were reported this week from 5 counties: Alameda (2), Los Angeles (1), Placer (1), Sacramento (3), and Shasta (1). In 2018, a total of 430 WNV positive dead birds have been reported from 18 counties. At this time last year, 336 WNV positive dead birds had been reported from 36 counties.

#### **Mosquito Pools**

##### West Nile virus

A total of 124 WNV positive mosquito pools were reported this week from 13 counties: Butte (3), Fresno (1), Kern (7), Los Angeles (2), Madera (7), Orange (22), Placer (5), Sacramento (13), San Bernardino (1), San Joaquin (41), Stanislaus (6), Tulare (12), and Yolo (4). In 2018, 1,730 mosquito pools have tested positive for WNV from 28 counties. At this time last year, 2,979 WNV positive mosquito pools had been reported from 25 counties.

##### St. Louis encephalitis virus

A total of 24 mosquito pools were reported positive for St. Louis encephalitis virus (SLEV) this week from 5 counties: Fresno (3), Kern (5), Madera (1), Riverside (3), and Tulare (12). In 2018, 319 SLEV positive mosquito pools have been reported from 8 counties: Fresno (45), Imperial (3), Kern (62), Kings (20), Los Angeles (1), Madera (3), Riverside (43), and Tulare (142). At this time last year, 135 SLEV positive mosquito pools had been reported from 13 counties.

#### **Sentinel Chickens**

##### West Nile virus

A total of 8 WNV seroconversions were reported this week from 4 flocks located in 4 counties: Placer (1) Sacramento (4), Shasta (1), and Yolo (2). These are the first WNV positive chickens reported from Sacramento County this year. In 2018, 112 WNV positive chickens have been reported from 14 counties. At this time last year, 204 WNV positive chickens had been reported from 13 counties.

##### St. Louis encephalitis virus

No new seroconversions were reported this week from Merced County. In 2018, 1 sentinel chicken has tested positive for SLEV from Merced County. At this time last year, 7 SLEV positive chickens had been reported from 2 counties.

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<b>2017 &amp; 2018 YTD West Nile Virus Comparisons</b>		
	<b>2017</b>	<b>2018</b>
Total # Dead Bird Reports	6,142	6,525
# Positive Counties	42	37
# Human Cases	143	79
# Positive Dead Birds / # Tested	336 / 1,552	430 / 1,728
# Positive Mosquito Pools / # Tested	2,979 / 35,332	1,730 / 33,859
# Seroconversions / # Tested	204 / 8,833	112 / 7,562

<b>YTD WNV Activity by Element and County, 2018</b>					
County	Humans	Horses	Dead Birds	Mosquito Pools	Sentinel Chickens
Alameda			16	11	
Amador	1				
Butte	6		3	47	32
Colusa					2
Contra Costa	1		11	15	13
El Dorado			2		
Fresno	3			102	
Glenn	2			4	
Humboldt	1		1		
Imperial				1	
Kern	5	1		45	
Kings				19	
Lake				4	1
Los Angeles	11		9	34	7
Madera	2			48	
Merced	1	1		8	14
Orange	1		5	62	
Placer	7	1	40	228	4
Riverside	7		5	34	
Sacramento	1	2	232	288	4
San Benito					1
San Bernardino	3			10	
San Diego				3	
San Joaquin	9		11	459	
San Mateo			5	2	
Santa Clara			43	4	5
Santa Cruz			2		
Shasta	1	1	4	7	4
Solano				2	
Stanislaus	6	1	1	99	
Sutter			4	28	19
Tehama	1				
Tulare	1			69	
Tuolumne	1				
Ventura	1				
Yolo	6		36	89	4
Yuba	1			8	2
<b>Totals</b>	<b>79</b>	<b>7</b>	<b>430</b>	<b>1,730</b>	<b>112</b>

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### TESTING SUMMARIES

#### Humans

		WNV	SLE	WEE
Human Cases	Week	24	0	0
	YTD	79	0	0

#### Dead Birds

		Number Tested	WNV Positive
Dead Birds	Week	64	8
	YTD	1,728	430

#### Chickens

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	345	8	0	0
	YTD	7,562	112	1	0

#### Mosquitoes

		Positive / Total Tested						
Mosquito Pools		WNV	SLEV	WEEV	CHIK	DENV	ZIKA	
		Week	124 / 1,887	24 / 1,417	0 / 1,173	0 / 131	0 / 131	0 / 131
		YTD	1,730 / 33,859	319 / 26,773	0 / 22,900	0 / 1,148	0 / 1,148	0 / 1,148

### New Positives

#### Dead Birds

County	Submitting Agency	City	Zip Code	Species	Date Reported	Virus
Alameda	Alameda Co MAD	Livermore	94550	American Crow	9/8/2018	WNV
Alameda	Alameda Co MAD	Newark	94560	Common Raven	9/11/2018	WNV
Los Angeles	Greater Los Angeles Co VCD - Sylmar	Los Angeles	91040	American Crow	9/6/2018	WNV
Placer	Placer MVCD	Granite Bay	95746	American Crow	9/6/2018	WNV
Sacramento	Sacramento-Yolo MVCD	Elk Grove	95758	Mourning Dove	9/6/2018	WNV
Sacramento	Sacramento-Yolo MVCD	Fair Oaks	95628	California Scrub-Jay	9/7/2018	WNV
Sacramento	Sacramento-Yolo MVCD	Sacramento	95821	California Towhee	9/10/2018	WNV
Shasta	Shasta MVCD	Redding	96003	California Scrub-Jay	9/9/2018	WNV

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**Mosquitoes**

County	Site Code	Pool #	Species	City	# in Pool	Trap Type	Collected	Virus
Butte	BUCO129	356	Cx. tarsalis	Gridley	22	CO2	9/10/18	WNV
Butte	BUCO173	353	Cx. tarsalis	Chico	50	CO2	9/5/18	WNV
Butte	BUCO30	355	Cx. tarsalis	Chico	17	CO2	9/5/18	WNV
Fresno	FRWS1202	327	Cx. quinquefasciatus	Dos Palos	34	GRVD	9/11/18	SLEV
Fresno	FRWS200002	322	Cx. quinquefasciatus	Firebaugh	43	GRVD	9/11/18	SLEV
Fresno	FRWS300011	323	Cx. tarsalis	Firebaugh	14	CO2	9/11/18	SLEV
Fresno	FRWS300011	324	Cx. quinquefasciatus	Firebaugh	24	CO2	9/11/18	WNV
Kern	DLNO108	213	Cx. quinquefasciatus	Delano	50	GRVD	9/11/18	WNV
Kern	DLNO36	214	Cx. quinquefasciatus	Delano	18	GRVD	9/11/18	SLEV
Kern	KERN1156	481	Cx. quinquefasciatus	Arvin	50	CO2	8/28/18	WNV
Kern	KERN1156	497	Cx. quinquefasciatus	Arvin	50	CO2	9/5/18	SLEV
Kern	KERN2001	490	Cx. tarsalis	Bakersfield	50	CO2	8/30/18	SLEV
Kern	KERN2016	483	Cx. quinquefasciatus	Bakersfield	37	GRVD	8/29/18	SLEV
Kern	KERN2040	496	Cx. quinquefasciatus	Arvin	32	GRVD	9/5/18	WNV
Kern	KERN2049	478	Cx. quinquefasciatus	Lamont	50	GRVD	8/28/18	SLEV
Kern	KERN2049	478	Cx. quinquefasciatus	Lamont	50	GRVD	8/28/18	WNV
Kern	KERN29	492	Cx. quinquefasciatus	Lamont	50	CO2	8/30/18	WNV
Kern	KERN35	486	Cx. tarsalis	Bakersfield	50	CO2	8/30/18	WNV
Kern	KERN92	487	Cx. tarsalis	Bakersfield	50	CO2	8/30/18	WNV
Los Angeles	GRLA2257	5807	Cx. quinquefasciatus	Pico Rivera	18	GRVD	9/6/18	WNV
Los Angeles	GRLA3097	5812	Cx. quinquefasciatus	Arleta	50	GRVD	9/6/18	WNV
Madera	MADR12	264	Cx. tarsalis	Madera	31	CO2	9/7/18	WNV
Madera	MADR12	266	Cx. quinquefasciatus	Madera	50	CO2	9/7/18	SLEV
Madera	MADR192	269	Cx. tarsalis	Madera	20	CO2	9/7/18	WNV
Madera	MADR195	267	Cx. quinquefasciatus	Madera	50	CO2	9/7/18	WNV
Madera	MADR208	263	Cx. quinquefasciatus	Madera	50	CO2	9/6/18	WNV
Madera	MADR3334	255	Cx. quinquefasciatus	Madera	50	CO2	9/5/18	WNV
Madera	MADR3334	256	Cx. quinquefasciatus	Madera	50	CO2	9/5/18	WNV
Madera	MADR904	247	Cx. tarsalis	Madera	50	CO2	9/5/18	WNV
Orange	ORCO1008	3693	Cx. quinquefasciatus	Fullerton	45	GRVD	8/31/18	WNV
Orange	ORCO1008	3812	Cx. quinquefasciatus	Fullerton	46	GRVD	9/6/18	WNV
Orange	ORCO1008	3819	Cx. quinquefasciatus	Fullerton	17	GRVD	9/6/18	WNV
Orange	ORCO1008	3823	Cx. quinquefasciatus	Fullerton	50	GRVD	9/6/18	WNV
Orange	ORCO1008	3889	Cx. quinquefasciatus	Fullerton	50	GRVD	9/11/18	WNV
Orange	ORCO1008	3890	Cx. quinquefasciatus	Fullerton	35	GRVD	9/11/18	WNV
Orange	ORCO1008	3892	Cx. quinquefasciatus	Fullerton	50	GRVD	9/11/18	WNV
Orange	ORCO1008	3893	Cx. quinquefasciatus	Fullerton	33	GRVD	9/11/18	WNV
Orange	ORCO1008	3897	Cx. quinquefasciatus	Fullerton	29	GRVD	9/11/18	WNV
Orange	ORCO1008	3899	Cx. quinquefasciatus	Fullerton	26	GRVD	9/11/18	WNV
Orange	ORCO1015	3734	Cx. quinquefasciatus	Orange	19	GRVD	9/5/18	WNV
Orange	ORCO1015	3765	Cx. quinquefasciatus	Orange	50	GRVD	9/5/18	WNV
Orange	ORCO1015	3767	Cx. quinquefasciatus	Orange	34	GRVD	9/5/18	WNV
Orange	ORCO1015	3768	Cx. quinquefasciatus	Orange	37	GRVD	9/5/18	WNV
Orange	ORCO1015	3878	Cx. quinquefasciatus	Orange	49	GRVD	9/7/18	WNV
Orange	ORCO1040	3747	Cx. quinquefasciatus	Orange	46	GRVD	9/5/18	WNV
Orange	ORCO217	3778	Cx. quinquefasciatus	Santa Ana	50	GRVD	9/5/18	WNV
Orange	ORCO218	3726	Cx. quinquefasciatus	Anaheim	43	GRVD	9/5/18	WNV

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Orange	ORCO218	3961	Cx. quinquefasciatus	Anaheim	19	BGSENT	9/11/18	WNV
Orange	ORCO3	3697	Cx. quinquefasciatus	Garden Grove	17	GRVD	9/5/18	WNV
Orange	ORCO3	3945	Cx. quinquefasciatus	Garden Grove	37	GRVD	9/11/18	WNV
Orange	ORCO302	3717	Cx. quinquefasciatus	Anaheim	41	GRVD	9/5/18	WNV
Placer	PLCR191235	2220	Cx. pipiens	Newcastle	2	CO2	9/12/18	WNV
Placer	PLCR411	2140	Cx. tarsalis	Roseville	50	CO2	9/11/18	WNV
Placer	PLCR411	2142	Cx. tarsalis	Roseville	50	CO2	9/11/18	WNV
Placer	PLCR672	2203	Cx. tarsalis	Granite Bay	5	CO2	9/12/18	WNV
Placer	PLCR86	2210	Cx. tarsalis	Rocklin	9	CO2	9/12/18	WNV
Riverside	COAV122	3800	Cx. tarsalis	Mecca	50	CO2	9/11/18	SLEV
Riverside	COAV45	3757	Cx. tarsalis	Mecca	50	CO2	9/11/18	SLEV
Riverside	COAV611	3752	Cx. tarsalis	Mecca	50	CO2	9/11/18	SLEV
Sacramento	SAYO201006	5926	Cx. tarsalis	Sacramento	50	CO2	9/11/18	WNV
Sacramento	SAYO201006	5928	Cx. tarsalis	Sacramento	36	CO2	9/11/18	WNV
Sacramento	SAYO204020	5887	Cx. tarsalis	Sacramento	2	CO2	9/11/18	WNV
Sacramento	SAYO214020	5773	Cx. pipiens	Rancho Cordova	4	CO2	9/7/18	WNV
Sacramento	SAYO223044	5855	Cx. pipiens		50	GRVD	9/11/18	WNV
Sacramento	SAYO233041	5801	Cx. pipiens	Elk Grove	42	GRVD	9/7/18	WNV
Sacramento	SAYO233100	5787	Cx. pipiens	Elk Grove	44	CO2	9/7/18	WNV
Sacramento	SAYO242013	5671	Cx. pipiens	Hood	50	CO2	9/7/18	WNV
Sacramento	SAYO243009	5824	Cx. pipiens	Elk Grove	50	CO2	9/11/18	WNV
Sacramento	SAYO243017	5658	Cx. tarsalis	Elk Grove	44	CO2	9/7/18	WNV
Sacramento	SAYO245026	5735	Cx. tarsalis	Wilton	50	CO2	9/7/18	WNV
Sacramento	SAYO245026	5737	Cx. tarsalis	Wilton	7	GRVD	9/7/18	WNV
Sacramento	SAYO254011	5730	Cx. tarsalis	Galt	4	CO2	9/7/18	WNV
San Bernardino	WVAL3859	1500	Cx. quinquefasciatus	Ontario	55	BGSENT	9/12/18	WNV
San Joaquin	SJCM8000	2415	Cx. pipiens	Manteca	30	CO2	9/11/18	WNV
San Joaquin	SJCM8004	2416	Cx. tarsalis	Lodi	50	CO2	9/11/18	WNV
San Joaquin	SJCM8004	2418	Cx. tarsalis	Lodi	50	CO2	9/11/18	WNV
San Joaquin	SJCM8004	2419	Cx. tarsalis	Lodi	50	CO2	9/11/18	WNV
San Joaquin	SJCM8004	2420	Cx. tarsalis	Lodi	35	CO2	9/11/18	WNV
San Joaquin	SJCM8004	2421	Cx. pipiens	Lodi	50	CO2	9/11/18	WNV
San Joaquin	SJCM8004	2422	Cx. pipiens	Lodi	22	CO2	9/11/18	WNV
San Joaquin	SJCM8029	2469	Cx. tarsalis	Farmington	11	CO2	9/13/18	WNV
San Joaquin	SJCM8029	2470	Cx. pipiens	Farmington	50	CO2	9/13/18	WNV
San Joaquin	SJCM8041	2367	Cx. tarsalis	Lodi	50	CO2	9/11/18	WNV
San Joaquin	SJCM8041	2370	Cx. pipiens	Lodi	50	CO2	9/11/18	WNV
San Joaquin	SJCM8078	2288	Cx. tarsalis	Stockton	50	CO2	9/11/18	WNV
San Joaquin	SJCM8078	2289	Cx. tarsalis	Stockton	50	CO2	9/11/18	WNV
San Joaquin	SJCM8078	2290	Cx. tarsalis	Stockton	50	CO2	9/11/18	WNV
San Joaquin	SJCM8078	2291	Cx. tarsalis	Stockton	50	CO2	9/11/18	WNV
San Joaquin	SJCM8078	2293	Cx. tarsalis	Stockton	50	CO2	9/11/18	WNV
San Joaquin	SJCM8079	2334	Cx. pipiens	Manteca	50	CO2	9/11/18	WNV
San Joaquin	SJCM8083	2413	Cx. pipiens	Escalon	35	CO2	9/11/18	WNV
San Joaquin	SJCM8084	2257	Cx. tarsalis	Stockton	48	CO2	9/11/18	WNV
San Joaquin	SJCM8094	2346	Cx. pipiens	Manteca	33	CO2	9/11/18	WNV
San Joaquin	SJCM8100	2404	Cx. pipiens	Tracy	35	CO2	9/11/18	WNV
San Joaquin	SJCM8125	2279	Cx. tarsalis	Stockton	50	CO2	9/11/18	WNV
San Joaquin	SJCM8125	2280	Cx. tarsalis	Stockton	50	CO2	9/11/18	WNV
San Joaquin	SJCM8143	2377	Cx. tarsalis	Stockton	50	CO2	9/11/18	WNV
San Joaquin	SJCM8203	2386	Cx. tarsalis	Lodi	50	CO2	9/11/18	WNV
San Joaquin	SJCM8204	2313	Cx. tarsalis	Stockton	50	CO2	9/11/18	WNV
San Joaquin	SJCM8204	2314	Cx. tarsalis	Stockton	50	CO2	9/11/18	WNV
San Joaquin	SJCM8204	2315	Cx. tarsalis	Stockton	50	CO2	9/11/18	WNV

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San Joaquin	SJCM8204	2316	Cx. tarsalis	Stockton	50	CO2	9/11/18	WNV
San Joaquin	SJCM8204	2317	Cx. tarsalis	Stockton	50	CO2	9/11/18	WNV
San Joaquin	SJCM8204	2318	Cx. tarsalis	Stockton	50	CO2	9/11/18	WNV
San Joaquin	SJCM8204	2319	Cx. tarsalis	Stockton	74	CO2	9/11/18	WNV
San Joaquin	SJCM8204	2320	Cx. pipiens	Stockton	50	CO2	9/11/18	WNV
San Joaquin	SJCM8204	2321	Cx. pipiens	Stockton	22	CO2	9/11/18	WNV
San Joaquin	SJCM8208	2439	Cx. tarsalis	Lodi	50	CO2	9/13/18	WNV
San Joaquin	SJCM8208	2440	Cx. tarsalis	Lodi	50	CO2	9/13/18	WNV
San Joaquin	SJCM8208	2441	Cx. tarsalis	Lodi	18	CO2	9/13/18	WNV
San Joaquin	SJCM8209	2443	Cx. tarsalis	Lodi	50	CO2	9/13/18	WNV
San Joaquin	SJCM8209	2445	Cx. pipiens	Lodi	50	CO2	9/13/18	WNV
San Joaquin	SJCM8214	2453	Cx. tarsalis	Lodi	7	CO2	9/13/18	WNV
San Joaquin	SJCM8215	2465	Cx. tarsalis	Stockton	50	CO2	9/13/18	WNV
Stanislaus	TRLK1219	1444	Cx. pipiens	Modesto	50	CO2	9/11/18	WNV
Stanislaus	TRLK1308	1390	Cx. pipiens	Turlock	50	CO2	9/11/18	WNV
Stanislaus	TRLK1308	1399	Cx. pipiens	Turlock	50	CO2	9/11/18	WNV
Stanislaus	TRLK1308	1400	Cx. pipiens	Turlock	50	CO2	9/11/18	WNV
Stanislaus	TRLK17152	1355	Cx. pipiens	Denair	50	CO2	9/7/18	WNV
Stanislaus	TRLK18102	1368	Cx. tarsalis	Turlock	50	CO2	9/7/18	WNV
Tulare	DLTA6404	3305	Cx. tarsalis	Dinuba	40	CO2	9/12/18	SLEV
Tulare	DLTA6404	3305	Cx. tarsalis	Dinuba	40	CO2	9/12/18	WNV
Tulare	DLTA6404	3309	Cx. stigmatosoma	Dinuba	17	CO2	9/12/18	SLEV
Tulare	DLTA6404	3311	Cx. tarsalis	Dinuba	50	CO2	9/12/18	SLEV
Tulare	DLTA6404	3313	Cx. stigmatosoma	Dinuba	20	CO2	9/12/18	SLEV
Tulare	DLTA6405	3299	Cx. quinquefasciatus	Dinuba	21	CO2	9/12/18	WNV
Tulare	DLTA6407	3254	Cx. quinquefasciatus	Dinuba	29	GRVD	9/7/18	WNV
Tulare	DLTA6408	3297	Cx. quinquefasciatus	Dinuba	25	GRVD	9/11/18	WNV
Tulare	DLTA6508	3248	Cx. quinquefasciatus	Orosi	44	GRVD	9/7/18	SLEV
Tulare	DLTA6508	3248	Cx. quinquefasciatus	Orosi	44	GRVD	9/7/18	WNV
Tulare	DLTA6518	3353	Cx. quinquefasciatus	Cutler	14	GRVD	9/13/18	WNV
Tulare	DLTA8413	3266	Cx. quinquefasciatus	Visalia	12	BGSENT	9/7/18	SLEV
Tulare	DLTA8423	3285	Cx. quinquefasciatus	Visalia	50	BGSENT	9/11/18	SLEV
Tulare	DLTA8423	3287	Cx. quinquefasciatus	Visalia	42	BGSENT	9/11/18	SLEV
Tulare	DLTA8427	3256	Cx. quinquefasciatus	Visalia	18	GRVD	9/7/18	WNV
Tulare	DLTA8434	3351	Cx. quinquefasciatus	Visalia	32	GRVD	9/13/18	WNV
Tulare	DLTA8435	3237	Cx. quinquefasciatus	Visalia	14	GRVD	9/7/18	SLEV
Tulare	DLTA8508	3261	Cx. quinquefasciatus	Visalia	22	BGSENT	9/7/18	WNV
Tulare	DLTA8519	3259	Cx. quinquefasciatus	Visalia	49	GRVD	9/7/18	SLEV
Tulare	DLTA9402	3321	Cx. quinquefasciatus	Visalia	37	BGSENT	9/12/18	SLEV
Tulare	DLTA9402	3322	Cx. tarsalis	Visalia	36	BGSENT	9/12/18	WNV
Tulare	DLTA9411	3324	Cx. quinquefasciatus	Visalia	30	BGSENT	9/12/18	WNV
Tulare	DLTA9501	3268	Cx. quinquefasciatus	Farmersville	44	CO2	9/11/18	SLEV
Tulare	DLTA9606	3290	Cx. quinquefasciatus	Farmersville	44	GRVD	9/11/18	WNV
Yolo	SAYO103007	5924	Cx. pipiens	Dunnigan	50	GRVD	9/11/18	WNV
Yolo	SAYO103007	5925	Cx. pipiens	Dunnigan	12	GRVD	9/11/18	WNV
Yolo	SAYO136010	5699	Cx. tarsalis	Woodland	50	CO2	9/7/18	WNV
Yolo	SAYO147013	5712	Cx. tarsalis	West Sacramento	10	CO2	9/7/18	WNV

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### Sentinel Chickens

County	Site Code	City	Date Bled	Virus	Band 01	Band 02	Band 03	Band 04
Placer	PLCR0757	Auburn	9/6/2018	WNV	1872			
Sacramento	SAYO203023	Elverta	9/10/2018	WNV	1911	1913	1914	1915
Shasta	SHAS5038		8/31/2018	WNV	1764			
Yolo	SAYO103013	Dunnigan	9/10/2018	WNV	1917	1918		

## 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 with a plaque reduction neutralization test (PRNT).

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### Dead Birds

Oral swab samples collected from bird carcasses are tested at the UC Davis Arbovirus Research and Training laboratory (DART) or at a local agency for West Nile virus by RT-qPCR.

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### Sentinel Chickens:

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

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### Mosquito Pools:

Mosquito pools are tested at DART or at a local agency for West Nile, western equine encephalomyelitis, and St. Louis encephalitis viral RNA using a multiplex RT-qPCR. Invasive *Aedes* mosquitoes (*Ae. aegypti* and *Ae. albopictus*) are also tested at DART for chikungunya, dengue, and Zika viral RNA by a separate RT-qPCR.

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*Website Information:* For updated information on WNV and SLEV in California, please visit the California WNV website, [www.westnile.ca.gov](http://www.westnile.ca.gov), or the California Vectorborne Disease Surveillance System website, [www.calsurv.org](http://www.calsurv.org). For national information on WNV and other arboviruses, please visit the CDC websites: [www.cdc.gov](http://www.cdc.gov) and [https://wwwn.cdc.gov/arbonet/maps/ADB\\_Diseases\\_Map/index.html](https://wwwn.cdc.gov/arbonet/maps/ADB_Diseases_Map/index.html)

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