

## California Arbovirus Surveillance Bulletin #27

Week 33 Friday, August 19, 2011



### WEEKLY UPDATE

#### **Human Cases**

Two new human cases of West Nile virus (WNV) were reported last week from Fresno (1) and Los Angeles (1) counties. To date this year, 12 WNV cases have been reported from 6 counties. Of the 12 cases, 9 (75%) developed neuroinvasive disease. The median age for all cases is 57 years (range: 19-71 years) and 7 (58%) are male. No fatalities have been reported. Additionally, 2 WNV-positive blood donors have been reported this year; one of the individuals subsequently developed symptoms and was reclassified as a case.

At this time last year, 22 WNV cases had been reported from 8 counties.

National Activity: As of August 16, 2011, 53 human cases of WNV had been reported nationwide in 14 states: Arizona (4), California (10), Colorado (1), Florida (8), Georgia (1), Louisiana (2), Mississippi (14), Nebraska (1), New Jersey (1), North Dakota (2), South Dakota (1), Texas (6), Virginia (1), and Wyoming (1). Of the 53 cases, 32 (60%) developed neuroinvasive disease. Three WNV-related fatalities have been reported in Florida (1), Mississippi (1), and Texas (1).

#### **Horses**

No new horse cases were reported last week. To date this year, one horse from Los Angeles County has tested positive for WNV. At this time last year, 4 horse cases of WNV had been reported from 3 counties.

#### **Dead Birds & Squirrels**

Twenty-three WNV positive dead birds were reported last week from 8 counties: Kern (3), Los Angeles (9), Riverside (1), Sacramento (4), San Bernardino (3), Santa Clara (1), Stanislaus (1), and Tulare (1). These are the first WNV positive dead birds reported from Kern and San Bernardino counties in 2011. To date this year, 175 dead birds from 15 counties and one tree squirrel from one county have tested positive for WNV. An additional 54 birds have tested positive for chronic\* WNV infection from 19 counties.

At this time last year, 232 birds from 22 counties, and 11 tree squirrels from 7 counties had tested positive for WNV.

*\*In 2010, The University of California, Center for Vectorborne Diseases (CVEC) and the California Department of Public Health, Vector-Borne Disease Section began differentiating between chronic and acute infections in WNV positive dead birds. Birds considered to have chronic infection with WNV are unlikely to have been infected recently with WNV and have limited surveillance utility.*

#### **Mosquito Pools**

A total of 199 WNV positive mosquito pools were reported last week from 19 counties: Contra Costa (1), Fresno (21), Imperial (1), Inyo (1), Kern (29), Kings (1), Los Angeles (33), Madera (3), Merced (5), Orange (9), Placer (8), Riverside (4), Sacramento (46), San Bernardino (19), San Joaquin (7), Santa Clara (2), Stanislaus (1), Sutter (5), and Tulare (4). This is the first detection of WNV activity in Imperial and Merced counties and the first WNV positive mosquito pool reported from Contra Costa County this year. In 2011, 808 mosquito pools from 19 counties have tested positive for WNV.

At this time last year, 784 mosquito pools from 23 counties had tested positive for WNV.

#### **Sentinel Chickens**

Eight WNV seroconversions were reported last week from 3 flocks in 2 counties: Los Angeles (3) and San Bernardino (5). To date this year, 55 WNV positive chickens have been detected among 14 flocks in 3 counties.

At this time last year, 78 chickens (23 flocks) had tested positive for WNV from 12 counties.

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2010 & 2011 YTD West Nile Virus Comparisons		
	2010	2011
Total # Dead Bird Reports	7,848	6,258
# Positive Counties	28	21
# Human Cases	22	12
# Horse Cases	4	1
# Positive Dead Birds / # Tested	232 / 1,519	175 / 1,355
# Positive Mosquito Pools / # Tested	784 / 19,525	808 / 19,366
# Seroconversions / # Tested	78 / 16,738	55 / 13,543
# Positive Squirrels / # Tested	11 / 65	1 / 56

### YTD WNV Activity by Element and County, 2011

County	Humans	Horses	Dead Birds^	Mosquito Pools	Sentinel Chickens	Squirrels
Contra Costa			2	1		
Fresno	3		6	87		
Imperial				1		
Inyo				2		
Kern			3	130	30	
Kings			1	12		
Los Angeles	3	1	67	213	8	
Madera	1			3		
Merced				5		
Orange			12	45		
Placer			1	13		
Riverside			2	7		
Sacramento			25	129		1
San Bernardino			3	30	17	
San Joaquin			3	20		
Santa Barbara	1					
Santa Clara			12	3		
Stanislaus	2		4	25		
Sutter				12		
Tulare	2		33	70		
Ventura			1			
<b>Totals</b>	<b>12</b>	<b>1</b>	<b>175</b>	<b>808</b>	<b>55</b>	<b>1</b>

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## TESTING SUMMARIES

### Humans and Horses

		WNV		WEEV		SLEV	
		Local	Imported	Local	Imported	Local	Imported
Human Cases	Week	2	0	0	0	0	0
	YTD	12	0	0	0	0	0
Horse Cases	Week	0	0	0	0	0	0
	YTD	1	0	0	0	0	0

### Dead Birds & Squirrels

		Number Tested	WNV Positive (recent only)
Dead Birds	Week	77	23
	YTD	1,355	175
Tree Squirrels	Week	5	0
	YTD	56	1

### Chickens & Mosquitoes

		Number Tested	WNV Positive	SLEV Positive	WEEV Positive
Chicken Sera	Week	1,180	8	0	0
	YTD	13,543	55	0	0
Mosquito Pools: RT-PCR	Week	1,812	198	0	0
	YTD	19,281	804	0	0
Mosquito Pools: RAMP	Week	13	1	N/A	N/A
	YTD	85	4	N/A	N/A

## NEW POSITIVES

### Humans

WNV Cases							
ID	Report Date	County	Age	Sex	Clin Pres	Onset Date	WNV Fatality?
11-0011	08/17/11	Los Angeles	19	F	WNND	08/08/11	NO
11-0012	08/18/11	Fresno	68	F	WNF	07/29/11	NO
Presumptive Viremic Blood Donors (Asymptomatic Infections)							
BD11-0001	08/17/11	Los Angeles	47	M			

### Dead Birds

County	Agency	City	Zip	Species	Reported	Virus	Type of Infection	Method
Kern	Kern MVCD	Bakersfield	93312	Western Scrub-Jay	8/5/2011	WNV	Recent	RT-PCR
Kern	Kern MVCD	Bakersfield	93309	Western Scrub-Jay	8/8/2011	WNV	Recent	RT-PCR
Kern	Kern MVCD	Bakersfield	93312	Western Scrub-Jay	8/8/2011	WNV	Recent	RT-PCR
Los Angeles	Greater Los Angeles Co VCD - Sylmar	Studio City	91604	American Crow	8/10/2011	WNV	Recent	RT-PCR
Los Angeles	Greater Los Angeles Co VCD - Sylmar	Woodland Hills	91367	American Crow	8/8/2011	WNV	Recent	RT-PCR

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Los Angeles	Los Angeles Co Veterinarian	Claremont	91711	Western Scrub-Jay	8/4/2011	WNV	Recent	RT-PCR
Los Angeles	Los Angeles Co Veterinarian	Claremont	91711	Western Scrub-Jay	8/4/2011	WNV	Chronic	RT-PCR
Los Angeles	Los Angeles Co Veterinarian	Covina	91724	American Crow	8/3/2011	WNV	Recent	RT-PCR
Los Angeles	Los Angeles Co Veterinarian	Los Angeles	90034	American Crow	8/1/2011	WNV	Recent	RT-PCR
Los Angeles	Los Angeles Co Veterinarian	Norwalk	90650	American Crow	8/1/2011	WNV	Recent	RT-PCR
Los Angeles	Los Angeles Co Veterinarian	Pico Rivera	90660	Cooper's Hawk	7/30/2011	WNV	Recent	RT-PCR
Los Angeles	Los Angeles Co Veterinarian	Valley Village	91607	American Crow	8/4/2011	WNV	Recent	RT-PCR
Los Angeles	Los Angeles Co Veterinarian	Van Nuys	91405	American Crow	8/4/2011	WNV	Recent	RT-PCR
Los Angeles	San Gabriel Valley MVCD	Covina	91724	American Crow	7/27/2011	WNV	Chronic	RT-PCR
Riverside	Riverside Co Vector Control Program	Wildomar	92595	American Crow	8/1/2011	WNV	Chronic	RT-PCR
Riverside	Riverside Public Services	Riverside	92504	American Crow	8/9/2011	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Elk Grove	95757	House Sparrow	8/4/2011	WNV	Chronic	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Sacramento	95838	American Crow	8/4/2011	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Sacramento	95838	American Crow	8/4/2011	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Wilton	95693	American Robin	8/3/2011	WNV	Recent	RT-PCR
Sacramento	Sacramento-Yolo MVCD	Wilton	95693	Western Scrub-Jay	8/8/2011	WNV	Recent	RT-PCR
San Bernardino	San Bernardino Vector Control Program	Bloomington	92316	American Crow	8/9/2011	WNV	Recent	RT-PCR
San Bernardino	San Bernardino Vector Control Program	Highland	92346	American Crow	7/25/2011	WNV	Recent	RT-PCR
San Bernardino	West Valley MVCD	Chino Hills	91709	American Crow	8/7/2011	WNV	Recent	RT-PCR
Santa Clara	Santa Clara Co VCD	San Jose	95136	American Crow	8/8/2011	WNV	Recent	VecTest
Stanislaus	Turlock MAD	Turlock	95382	Western Scrub-Jay	8/5/2011	WNV	Recent	RT-PCR
Tulare	Delta VCD	Visalia	93277	Western Scrub-Jay	8/5/2011	WNV	Recent	RT-PCR
Ventura	Ventura Co Env Health Dept	Simi Valley	93065	American Crow	8/4/2011	WNV	Chronic	RT-PCR

### Mosquitoes

County	Site Code	Pool #	# in Pool	Species	Collected	City	Virus	Method
Contra Costa	CNTR3251	232	17	Cx. tarsalis	8/17/2011	Oakley	WNV	RAMP
Fresno	CNSL1623	688	20	Cx. quinquefasciatus	8/10/2011	Fresno	WNV	RTPCR
Fresno	CNSL1653	685	50	Cx. quinquefasciatus	8/10/2011	Fresno	WNV	RTPCR
Fresno	CNSL1752	692	50	Cx. quinquefasciatus	8/12/2011	Fresno	WNV	RTPCR
Fresno	CNSL1753	693	50	Cx. quinquefasciatus	8/12/2011	Fresno	WNV	RTPCR
Fresno	CNSL1755	694	50	Cx. quinquefasciatus	8/12/2011	Fresno	WNV	RTPCR
Fresno	CNSL1785	686	50	Cx. quinquefasciatus	8/10/2011	Clovis	WNV	RTPCR
Fresno	CNSL1785	687	50	Cx. quinquefasciatus	8/10/2011	Clovis	WNV	RTPCR
Fresno	CNSL1786	690	15	Cx. quinquefasciatus	8/11/2011	Fresno	WNV	RTPCR
Fresno	CNSL2021	699	21	Cx. quinquefasciatus	8/16/2011	Clovis	WNV	RTPCR
Fresno	CNSL2070	689	12	Cx. quinquefasciatus	8/11/2011	Sanger	WNV	RTPCR
Fresno	CNSL2391	594	19	Cx. quinquefasciatus	8/10/2011	Sanger	WNV	RTPCR
Fresno	CNSL2391	596	50	Cx. stigmatosoma	8/10/2011	Sanger	WNV	RTPCR
Fresno	CNSL2400	697	22	Cx. tarsalis	8/16/2011	Sanger	WNV	RTPCR
Fresno	CNSL3023	408	25	Cx. quinquefasciatus	8/16/2011	Parlier	WNV	RTPCR
Fresno	CNSL3066	600	50	Cx. quinquefasciatus	8/11/2011	Reedley	WNV	RTPCR
Fresno	CNSL3071	405	50	Cx. quinquefasciatus	8/12/2011	Parlier	WNV	RTPCR
Fresno	CNSL3072	406	50	Cx. quinquefasciatus	8/12/2011	Parlier	WNV	RTPCR
Fresno	CNSL3214	409	50	Cx. quinquefasciatus	8/16/2011	Reedley	WNV	RTPCR
Fresno	CNSL4093	402	50	Cx. quinquefasciatus	8/12/2011	Selma	WNV	RTPCR
Fresno	CNSL4153	403	50	Cx. quinquefasciatus	8/12/2011	Selma	WNV	RTPCR
Fresno	CNSL5014	592	50	Cx. quinquefasciatus	8/10/2011	Kingsburg	WNV	RTPCR
Imperial	COAV5001	1908	50	Cx. tarsalis	8/9/2011	Niland	WNV	RTPCR
Inyo	INYO1003	25	50	Cx. tarsalis	8/15/2011	Bishop	WNV	RTPCR
Kern	KERN0121	1650	50	Cx. quinquefasciatus	8/12/2011	Bakersfield	WNV	RTPCR
Kern	KERN0121	1651	50	Cx. quinquefasciatus	8/12/2011	Bakersfield	WNV	RTPCR
Kern	KERN0121	1652	50	Cx. quinquefasciatus	8/12/2011	Bakersfield	WNV	RTPCR
Kern	KERN0121	1653	50	Cx. quinquefasciatus	8/12/2011	Bakersfield	WNV	RTPCR
Kern	KERN0121	1654	26	Cx. quinquefasciatus	8/12/2011	Bakersfield	WNV	RTPCR
Kern	KERN0015	1628	25	Cx. tarsalis	8/11/2011	Pumpkin Center	WNV	RTPCR
Kern	KERN0156	1578	50	Cx. quinquefasciatus	8/9/2011	Butttonwillow	WNV	RTPCR

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Kern	KERN2010	1647	50	Cx. quinquefasciatus	8/12/2011	Bakersfield	WNV	RTPCR
Kern	KERN2010	1648	12	Cx. quinquefasciatus	8/12/2011	Bakersfield	WNV	RTPCR
Kern	KERN2014	1639	10	Cx. quinquefasciatus	8/12/2011	Bakersfield	WNV	RTPCR
Kern	KERN2018	1605	50	Cx. quinquefasciatus	8/11/2011	Bakersfield	WNV	RTPCR
Kern	KERN2018	1606	50	Cx. quinquefasciatus	8/11/2011	Bakersfield	WNV	RTPCR
Kern	KERN2020	1641	50	Cx. quinquefasciatus	8/12/2011	Bakersfield	WNV	RTPCR
Kern	KERN2025	1655	16	Cx. quinquefasciatus	8/12/2011	Bakersfield	WNV	RTPCR
Kern	KERN2027	1640	31	Cx. quinquefasciatus	8/12/2011	Bakersfield	WNV	RTPCR
Kern	KERN2028	1656	50	Cx. quinquefasciatus	8/12/2011	Bakersfield	WNV	RTPCR
Kern	KERN2030	1596	50	Cx. quinquefasciatus	8/10/2011	Bakersfield	WNV	RTPCR
Kern	KERN3014	1543	50	Cx. quinquefasciatus	8/9/2011	Bakersfield	WNV	RTPCR
Kern	KERN3019	1660	17	Cx. quinquefasciatus	8/12/2011	Bakersfield	WNV	RTPCR
Kern	KERN3026	1617	28	Cx. tarsalis	8/11/2011	Arvin93203	WNV	RTPCR
Kern	KERN3027	1560	50	Cx. tarsalis	8/9/2011	Arvin	WNV	RTPCR
Kern	KERN3027	1561	50	Cx. tarsalis	8/9/2011	Arvin	WNV	RTPCR
Kern	KERN0031	1620	50	Cx. tarsalis	8/11/2011	Arvin	WNV	RTPCR
Kern	KERN0031	1621	30	Cx. tarsalis	8/11/2011	Arvin	WNV	RTPCR
Kern	KERN0032	1610	17	Cx. tarsalis	8/11/2011	Arvin	WNV	RTPCR
Kern	KERN0046	1633	13	Cx. tarsalis	8/11/2011	Wasco	WNV	RTPCR
Kern	KERN0083	1624	50	Cx. tarsalis	8/11/2011	Arvin	WNV	RTPCR
Kern	KERN0083	1625	50	Cx. tarsalis	8/11/2011	Arvin	WNV	RTPCR
Kern	KERN0083	1626	50	Cx. tarsalis	8/11/2011	Arvin	WNV	RTPCR
Kings	CNSL5048	593	50	Cx. quinquefasciatus	8/10/2011	Kingsburg	WNV	RTPCR
Los Angeles	GRLA2097	1201	50	Cx. quinquefasciatus	8/9/2011	La Mirada	WNV	RTPCR
Los Angeles	GRLA2097	1202	40	Cx. quinquefasciatus	8/9/2011	La Mirada	WNV	RTPCR
Los Angeles	GRLA2100	1198	50	Cx. quinquefasciatus	8/9/2011	Norwalk	WNV	RTPCR
Los Angeles	GRLA2116	1177	50	Cx. quinquefasciatus	8/9/2011	Bell	WNV	RTPCR
Los Angeles	GRLA2221	1207	50	Cx. quinquefasciatus	8/9/2011	Rowland Heights	WNV	RTPCR
Los Angeles	GRLA2221	1208	33	Cx. quinquefasciatus	8/9/2011	Rowland Heights	WNV	RTPCR
Los Angeles	GRLA2228	1209	43	Cx. quinquefasciatus	8/9/2011	Diamond Bar	WNV	RTPCR
Los Angeles	GRLA2228	1210	7	Cx. stigmatosoma	8/9/2011	Diamond Bar	WNV	RTPCR
Los Angeles	GRLA2247	1211	50	Cx. quinquefasciatus	8/9/2011	Pico Rivera	WNV	RTPCR
Los Angeles	GRLA2247	1213	50	Cx. quinquefasciatus	8/9/2011	Pico Rivera	WNV	RTPCR
Los Angeles	GRLA2247	1215	50	Cx. quinquefasciatus	8/9/2011	Pico Rivera	WNV	RTPCR
Los Angeles	GRLA2247	1218	50	Cx. quinquefasciatus	8/9/2011	Pico Rivera	WNV	RTPCR
Los Angeles	GRLA2247	1219	50	Cx. quinquefasciatus	8/9/2011	Pico Rivera	WNV	RTPCR
Los Angeles	GRLA2247	1221	47	Cx. quinquefasciatus	8/9/2011	Pico Rivera	WNV	RTPCR
Los Angeles	GRLA2247	1223	8	Cx. stigmatosoma	8/9/2011	Pico Rivera	WNV	RTPCR
Los Angeles	GRLA2268	1180	50	Cx. quinquefasciatus	8/9/2011	Cerritos	WNV	RTPCR
Los Angeles	GRLA2268	1183	18	Cx. quinquefasciatus	8/9/2011	Cerritos	WNV	RTPCR
Los Angeles	GRLA2315	1187	50	Cx. quinquefasciatus	8/9/2011	Carson	WNV	RTPCR
Los Angeles	GRLA2383	1205	40	Cx. quinquefasciatus	8/9/2011	Whittier	WNV	RTPCR
Los Angeles	GRLA2414	6121	38	Cx. quinquefasciatus	8/11/2011	Granada Hills	WNV	RTPCR
Los Angeles	GRLA2478	6129	50	Cx. quinquefasciatus	8/11/2011	Sunland	WNV	RTPCR
Los Angeles	GRLA2540	6122	33	Cx. quinquefasciatus	8/11/2011	Northridge	WNV	RTPCR
Los Angeles	GRLA2554	6123	50	Cx. quinquefasciatus	8/11/2011	Winnetka	WNV	RTPCR
Los Angeles	GRLA2554	6124	50	Cx. quinquefasciatus	8/11/2011	Winnetka	WNV	RTPCR
Los Angeles	GRLA2554	6128	26	Cx. quinquefasciatus	8/11/2011	Winnetka	WNV	RTPCR
Los Angeles	GRLA2583	6116	40	Cx. quinquefasciatus	8/11/2011	Studio City	WNV	RTPCR
Los Angeles	GRLA2592	6139	50	Cx. quinquefasciatus	8/11/2011	San Marino	WNV	RTPCR
Los Angeles	GRLA2655	6117	50	Cx. quinquefasciatus	8/11/2011	Encino	WNV	RTPCR
Los Angeles	GRLA2655	6118	50	Cx. quinquefasciatus	8/11/2011	Encino	WNV	RTPCR
Los Angeles	GRLA2655	6119	28	Cx. quinquefasciatus	8/11/2011	Encino	WNV	RTPCR
Los Angeles	GRLA2936	6132	50	Cx. quinquefasciatus	8/11/2011	Burbank	WNV	RTPCR
Los Angeles	GRLA2936	6133	50	Cx. quinquefasciatus	8/11/2011	Burbank	WNV	RTPCR
Los Angeles	GRLA2995	6125	44	Cx. quinquefasciatus	8/11/2011	Woodland Hills	WNV	RTPCR
Madera	MADR0000	33	50	Unknown	8/19/2011	Madera	WNV	RTPCR
Madera	MADR0000	35	50	Unknown	8/19/2011	Madera	WNV	RTPCR
Merced	MERC201101	41	50	Cx. pipiens	8/16/2011	Hilmar	WNV	RTPCR
Merced	MERC201101	42	50	Cx. pipiens	8/16/2011	Hilmar	WNV	RTPCR
Merced	MERC0403	53	13	Cx. tarsalis	8/17/2011	Hilmar	WNV	RTPCR

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Merced	MERC0404	59	29	Cx. pipiens	8/17/2011	Hilmar	WNV	RTPCR
Merced	MERC0909	62	24	Cx. pipiens	8/18/2011	Merced	WNV	RTPCR
Orange	ORCO0017	771	50	Cx. quinquefasciatus	8/9/2011	Orange	WNV	RTPCR
Orange	ORCO0170	789	19	Cx. quinquefasciatus	8/10/2011	Anaheim	WNV	RTPCR
Orange	ORCO0198	790	30	Cx. quinquefasciatus	8/10/2011	La Habra	WNV	RTPCR
Orange	ORCO0198	791	25	Cx. quinquefasciatus	8/10/2011	La Habra	WNV	RTPCR
Orange	ORCO002	795	45	Cx. quinquefasciatus	8/10/2011	Fullerton	WNV	RTPCR
Orange	ORCO0034	787	50	Cx. quinquefasciatus	8/10/2011	Brea	WNV	RTPCR
Orange	ORCO0005	801	38	Cx. quinquefasciatus	8/10/2011	Huntington Beach	WNV	RTPCR
Orange	ORCO0050	786	35	Cx. quinquefasciatus	8/10/2011	Buena Park	WNV	RTPCR
Orange	ORCO0050	796	15	Cx. quinquefasciatus	8/10/2011	Buena Park	WNV	RTPCR
Placer	PLCR1003	883	50	Cx. tarsalis	8/16/2011	Lincoln	WNV	RTPCR
Placer	PLCR1069	961	50	Cx. tarsalis	8/17/2011	Roseville	WNV	RTPCR
Placer	PLCR1070	951	50	Cx. tarsalis	8/17/2011	Roseville	WNV	RTPCR
Placer	PLCR1113	870	20	Cx. tarsalis	8/16/2011	Pleasant Grove	WNV	RTPCR
Placer	PLCR1113	932	50	Cx. tarsalis	8/16/2011	Pleasant Grove	WNV	RTPCR
Placer	PLCR0139	881	50	Cx. tarsalis	8/16/2011	Roseville	WNV	RTPCR
Placer	PLCR0155	880	34	Cx. tarsalis	8/16/2011	Sheridan	WNV	RTPCR
Placer	PLCR0058	889	13	Cx. tarsalis	8/16/2011	Lincoln	WNV	RTPCR
Riverside	COAV0322	1920	8	Cx. quinquefasciatus	8/12/2011	Cathedral City	WNV	RTPCR
Riverside	RIVR0002	511	50	Cx. tarsalis	8/16/2011	Nuevo	WNV	RTPCR
Riverside	RIVR0002	514	50	Cx. tarsalis	8/16/2011	Nuevo	WNV	RTPCR
Riverside	RIVR0032	521	50	Cx. tarsalis	8/16/2011	Nuevo	WNV	RTPCR
Sacramento	SAYO214023	3400	3	Cx. pipiens	8/12/2011	Rancho Cordova	WNV	RTPCR
Sacramento	SAYO232005	3524	42	Cx. tarsalis	8/12/2011	Sacramento	WNV	RTPCR
Sacramento	SAYO232005	3532	34	Cx. tarsalis	8/12/2011	Sacramento	WNV	RTPCR
Sacramento	SAYO232017	3336	15	Cx. pipiens	8/12/2011	Elk Grove	WNV	RTPCR
Sacramento	SAYO232022	3755	7	Cx. tarsalis	8/18/2011	Elk Grove	WNV	RTPCR
Sacramento	SAYO232022	3756	1	Cx. tarsalis	8/18/2011	Elk Grove	WNV	RTPCR
Sacramento	SAYO232022	3758	7	Cx. pipiens	8/18/2011	Elk Grove	WNV	RTPCR
Sacramento	SAYO233004	3721	26	Cx. pipiens	8/18/2011	Elk Grove	WNV	RTPCR
Sacramento	SAYO233018	3780	5	Cx. tarsalis	8/18/2011	Sacramento	WNV	RTPCR
Sacramento	SAYO233018	3782	16	Cx. pipiens	8/18/2011	Sacramento	WNV	RTPCR
Sacramento	SAYO233018	3783	14	Cx. pipiens	8/18/2011	Sacramento	WNV	RTPCR
Sacramento	SAYO233019	3760	2	Cx. pipiens	8/18/2011	Florin	WNV	RTPCR
Sacramento	SAYO233021	3695	50	Cx. tarsalis	8/18/2011	Elk Grove	WNV	RTPCR
Sacramento	SAYO233025	3804	15	Cx. tarsalis	8/18/2011	Elk Grove	WNV	RTPCR
Sacramento	SAYO233041	3702	14	Cx. tarsalis	8/18/2011	Elk Grove	WNV	RTPCR
Sacramento	SAYO233041	3703	19	Cx. pipiens	8/18/2011	Elk Grove	WNV	RTPCR
Sacramento	SAYO233041	3704	6	Cs. incidens	8/18/2011	Elk Grove	WNV	RTPCR
Sacramento	SAYO233043	3338	8	Cx. pipiens	8/12/2011	Elk Grove	WNV	RTPCR
Sacramento	SAYO233043	3730	15	Cx. tarsalis	8/18/2011	Elk Grove	WNV	RTPCR
Sacramento	SAYO233064	3765	21	Cx. tarsalis	8/18/2011	Sacramento	WNV	RTPCR
Sacramento	SAYO233064	3766	34	Cx. pipiens	8/18/2011	Sacramento	WNV	RTPCR
Sacramento	SAYO233064	3767	10	Cx. pipiens	8/18/2011	Sacramento	WNV	RTPCR
Sacramento	SAYO234008	3709	6	Cx. tarsalis	8/18/2011	Wilton	WNV	RTPCR
Sacramento	SAYO234015	3790	50	Cx. tarsalis	8/18/2011	Elk Grove	WNV	RTPCR
Sacramento	SAYO234020	3692	50	Cx. pipiens	8/18/2011	Elk Grove	WNV	RTPCR
Sacramento	SAYO235005	3705	10	Cx. tarsalis	8/18/2011	Wilton	WNV	RTPCR
Sacramento	SAYO235005	3706	4	Cx. pipiens	8/18/2011	Wilton	WNV	RTPCR
Sacramento	SAYO235012	3742	50	Cx. tarsalis	8/18/2011	Wilton	WNV	RTPCR
Sacramento	SAYO235012	3743	50	Cx. tarsalis	8/18/2011	Wilton	WNV	RTPCR
Sacramento	SAYO235012	3745	27	Cx. pipiens	8/18/2011	Wilton	WNV	RTPCR
Sacramento	SAYO235012	3746	10	Cx. pipiens	8/18/2011	Wilton	WNV	RTPCR
Sacramento	SAYO242013	3547	15	Cx. tarsalis	8/16/2011	Hood	WNV	RTPCR
Sacramento	SAYO243011	3700	24	Cx. tarsalis	8/18/2011	Elk Grove	WNV	RTPCR
Sacramento	SAYO243011	3701	44	Cx. pipiens	8/18/2011	Elk Grove	WNV	RTPCR
Sacramento	SAYO243025	3803	42	Cx. pipiens	8/18/2011	Elk Grove	WNV	RTPCR
Sacramento	SAYO244001	3707	15	Cx. tarsalis	8/18/2011	Wilton	WNV	RTPCR
Sacramento	SAYO244004	3784	25	Cx. tarsalis	8/18/2011	Galt	WNV	RTPCR

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Sacramento	SAYO244004	3786	5	Cx. pipiens	8/18/2011	Galt	WNV	RTPCR
Sacramento	SAYO245002	3368	50	Cx. tarsalis	8/12/2011	Wilton	WNV	RTPCR
Sacramento	SAYO245002	3369	50	Cx. tarsalis	8/12/2011	Wilton	WNV	RTPCR
Sacramento	SAYO245002	3370	29	Cx. tarsalis	8/12/2011	Wilton	WNV	RTPCR
Sacramento	SAYO245002	3372	2	Cx. pipiens	8/12/2011	Wilton	WNV	RTPCR
Sacramento	SAYO245002	3768	50	Cx. tarsalis	8/18/2011	Wilton	WNV	RTPCR
Sacramento	SAYO245006	3751	39	Cx. pipiens	8/18/2011	Wilton	WNV	RTPCR
Sacramento	SAYO245007	3375	50	Cx. tarsalis	8/12/2011	Wilton	WNV	RTPCR
Sacramento	SAYO245007	3377	36	Cx. pipiens	8/12/2011	Wilton	WNV	RTPCR
San Bernardino	SANB0001	500	21	Cx. tarsalis	7/21/2011	Needles	WNV	RTPCR
San Bernardino	SANB0011	452	29	Cx. tarsalis	7/13/2011	Rialto	WNV	RTPCR
San Bernardino	SANB0011	520	38	Cx. quinquefasciatus	7/20/2011	Rialto	WNV	RTPCR
San Bernardino	SANB0007	553	24	Cx. tarsalis	8/3/2011	Fontana	WNV	RTPCR
San Bernardino	WVAL2018	550	48	Cx. quinquefasciatus	8/16/2011	Chino	WNV	RTPCR
San Bernardino	WVAL2019	489	20	Cx. quinquefasciatus	8/8/2011	Chino	WNV	RTPCR
San Bernardino	WVAL2022	538	35	Cx. quinquefasciatus	8/16/2011	Fwy CA 60	WNV	RTPCR
San Bernardino	WVAL6003	518	50	Cx. quinquefasciatus	8/15/2011	Ontario	WNV	RTPCR
San Bernardino	WVAL6003	478	24	Cx. quinquefasciatus	8/8/2011	Ontario	WNV	RTPCR
San Bernardino	WVAL6005	527	45	Cx. quinquefasciatus	8/15/2011	Ontario	WNV	RTPCR
San Bernardino	WVAL6005	528	50	Cx. quinquefasciatus	8/15/2011	Ontario	WNV	RTPCR
San Bernardino	WVAL6005	529	50	Cx. quinquefasciatus	8/15/2011	Ontario	WNV	RTPCR
San Bernardino	WVAL6005	475	50	Cx. quinquefasciatus	8/8/2011	Ontario	WNV	RTPCR
San Bernardino	WVAL6005	476	27	Cx. quinquefasciatus	8/8/2011	Ontario	WNV	RTPCR
San Bernardino	WVAL6012	532	50	Cx. quinquefasciatus	8/15/2011	Ontario	WNV	RTPCR
San Bernardino	WVAL6012	533	50	Cx. quinquefasciatus	8/15/2011	Ontario	WNV	RTPCR
San Bernardino	WVAL6014	509	50	Cx. quinquefasciatus	8/15/2011	Fwy CA 60	WNV	RTPCR
San Bernardino	WVAL7002	470	50	Cx. quinquefasciatus	8/8/2011	Montclair	WNV	RTPCR
San Bernardino	WVAL7002	552	16	Cx. stigmatosoma	8/16/2011	Montclair	WNV	RTPCR
San Joaquin	SJCM8010	519	50	Cx. pipiens	8/18/2011	Ripon	WNV	RTPCR
San Joaquin	SJCM8010	520	24	Cx. pipiens	8/18/2011	Ripon	WNV	RTPCR
San Joaquin	SJCM8026	461	47	Cx. tarsalis	8/16/2011	Stockton	WNV	RTPCR
San Joaquin	SJCM8083	435	11	Cx. tarsalis	8/11/2011	Escalon	WNV	RTPCR
San Joaquin	SJCM8100	513	26	Cx. tarsalis	8/16/2011	Tracy	WNV	RTPCR
San Joaquin	SJCM8125	474	11	Cx. pipiens	8/16/2011	Stockton	WNV	RTPCR
San Joaquin	SJCM8159	507	3	Cx. tarsalis	8/16/2011	Stockton	WNV	RTPCR
Santa Clara	STCL2498	3950	26	Cx. pipiens	8/10/2011	San Jose	WNV	PCR
Santa Clara	STCL2498	3951	10	Cx. tarsalis	8/10/2011	San Jose	WNV	PCR
Stanislaus	TRLK9768	455	30	Cx. tarsalis	8/16/2011	Grayson	WNV	RTPCR
Sutter	SUYA0016	205	25	Cx. tarsalis	8/16/2011	Trowbridge	WNV	RTPCR
Sutter	SUYA0022	199	40	Cx. tarsalis	8/15/2011	Tudor	WNV	RTPCR
Sutter	SUYA0031	192	50	Cx. tarsalis	8/15/2011	Rio Oso	WNV	RTPCR
Sutter	SUYA0031	193	34	Cx. tarsalis	8/15/2011	Rio Oso	WNV	RTPCR
Sutter	SUYA0031	209	35	Cx. tarsalis	8/16/2011	Rio Oso	WNV	RTPCR
Tulare	TLRE0040	53	50	Cx. tarsalis	8/17/2011	Tulare	WNV	RTPCR
Tulare	TLRE0040	54	50	Cx. tarsalis	8/17/2011	Tulare	WNV	RTPCR
Tulare	TLRE0040	55	49	Cx. tarsalis	8/17/2011	Tulare	WNV	RTPCR
Tulare	TLRE0055	51	51	Cx. pipiens	8/17/2011	Tulare	WNV	RTPCR

### Chickens

County	Site Code	City	Date Bled	Virus	Band 01	Band 02	Band 03
Los Angeles	GRLA2223	Rowland Heights	8/10/2011	WNV	1523	1526	1529
San Bernardino	SANB0003	Colton	8/8/2011	WNV	2525	2527	
San Bernardino	SANB0011	Rialto	8/8/2011	WNV	2599	2601	2604

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### TEST PROTOCOLS

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#### **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 by plaque reduction neutralization test (PRNT).

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#### **Horses:**

Serum or brain tissue specimens from horses displaying neurological symptoms are submitted to the California Animal Health and Safety Laboratory (CAHFS) and tested by EIA and PRNT.

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#### **Dead Birds and Tree Squirrels:**

Dead birds and tree squirrels are necropsied at CAHFS laboratory at University of California, Davis. Oral swabs from American Crows and kidney tissue from all other dead birds and squirrels are forwarded to the UC Davis Center for Vectorborne Diseases (CVEC) for West Nile virus testing using the singleplex RT-PCR Taqman assay and confirmed with a second primer set.

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#### **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 the presence of antibodies to West Nile, western equine encephalomyelitis (WEEV), and St. Louis encephalitis (SLEV) viruses by EIA and IFA. Positive samples are confirmed by western-blot or PRNT.

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#### **Mosquito Pools:**

Mosquito pools are submitted to CVEC and screened for WEEV, SLEV, and WNV viral RNA using a Taqman multiplex RT-PCR. CVEC will cease confirmation testing on PCR-positive pools of *Cx. tarsalis* and *Cx. quinquefasciatus* but will continue to confirm multiplex PCR-positive results for other mosquito species using singleplex RT-PCR.

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*Website Information:* For updated information on WNV 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 website, [www.cdc.gov](http://www.cdc.gov), and the USGS website, [www.westnilemaps.usgs.gov](http://www.westnilemaps.usgs.gov)

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