

Targeting: Directing Surveillance Efforts to Optimally Deploy Control Resources

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Tristan Hallum, MPH

Director of Scientific Programs

San Gabriel Valley Mosquito and Vector Control District



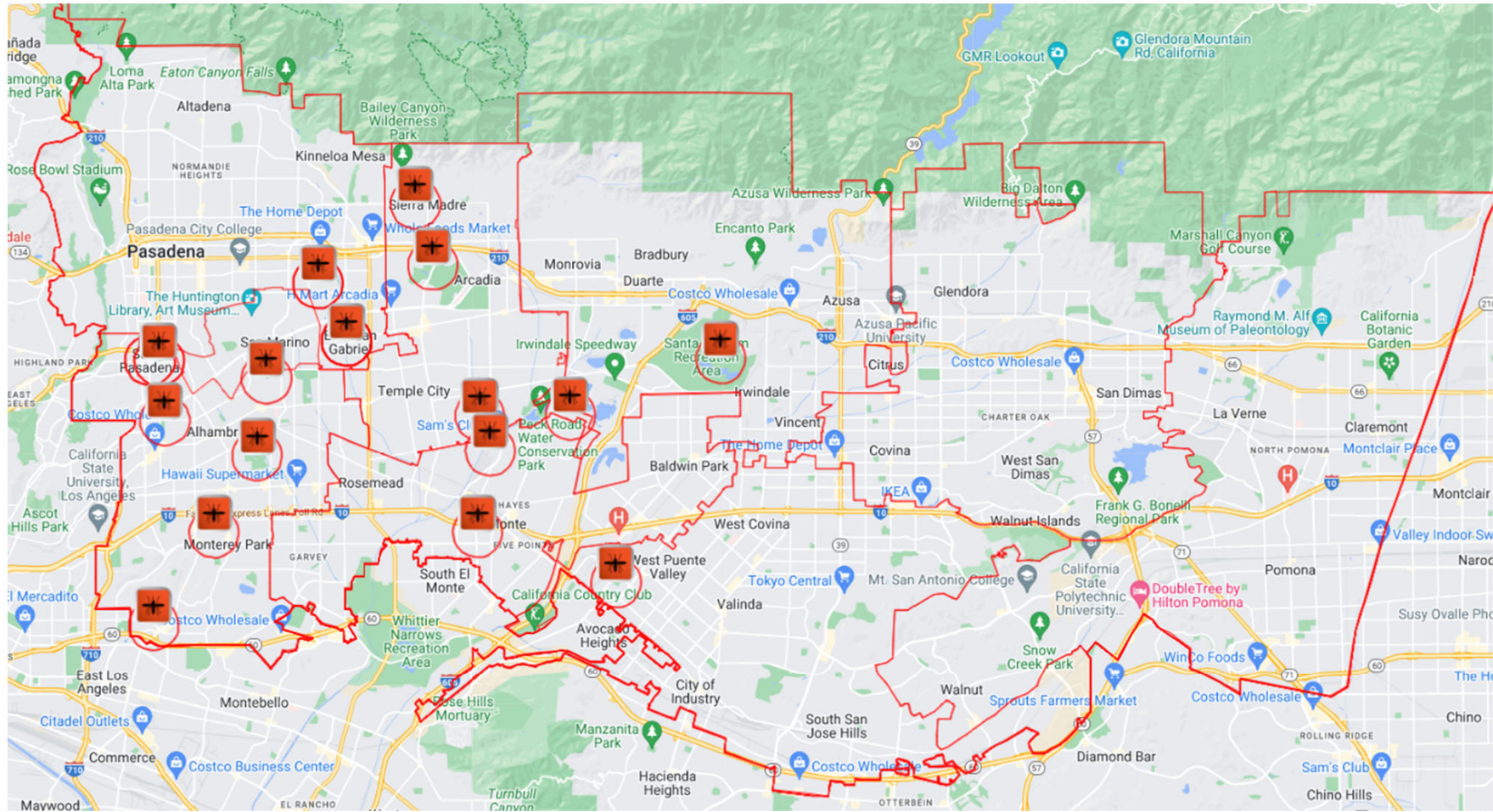
Outline

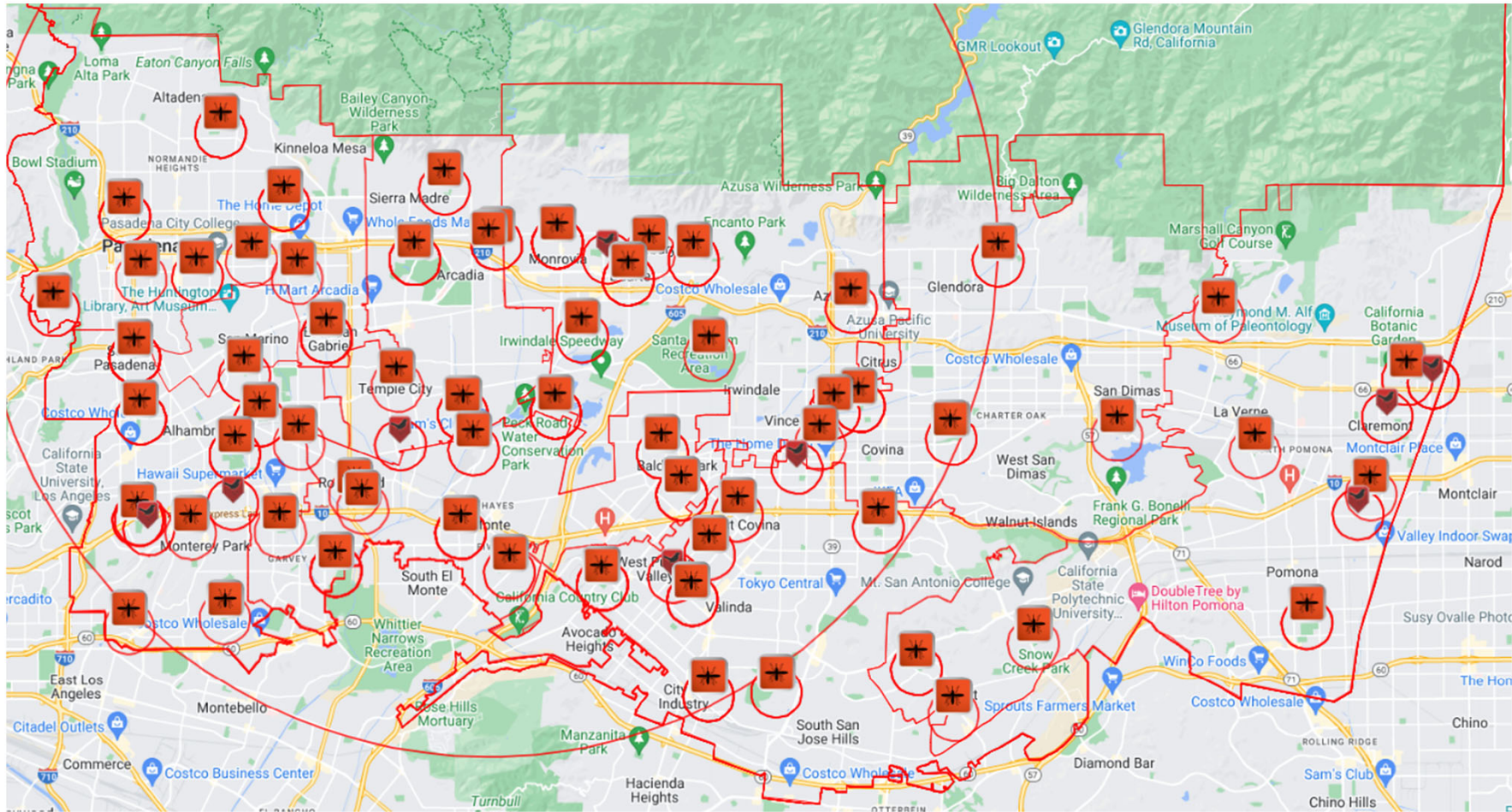
- Description of the situation and challenge
- Targeting as a model and in practice
- 2023 results and considerations



The challenge







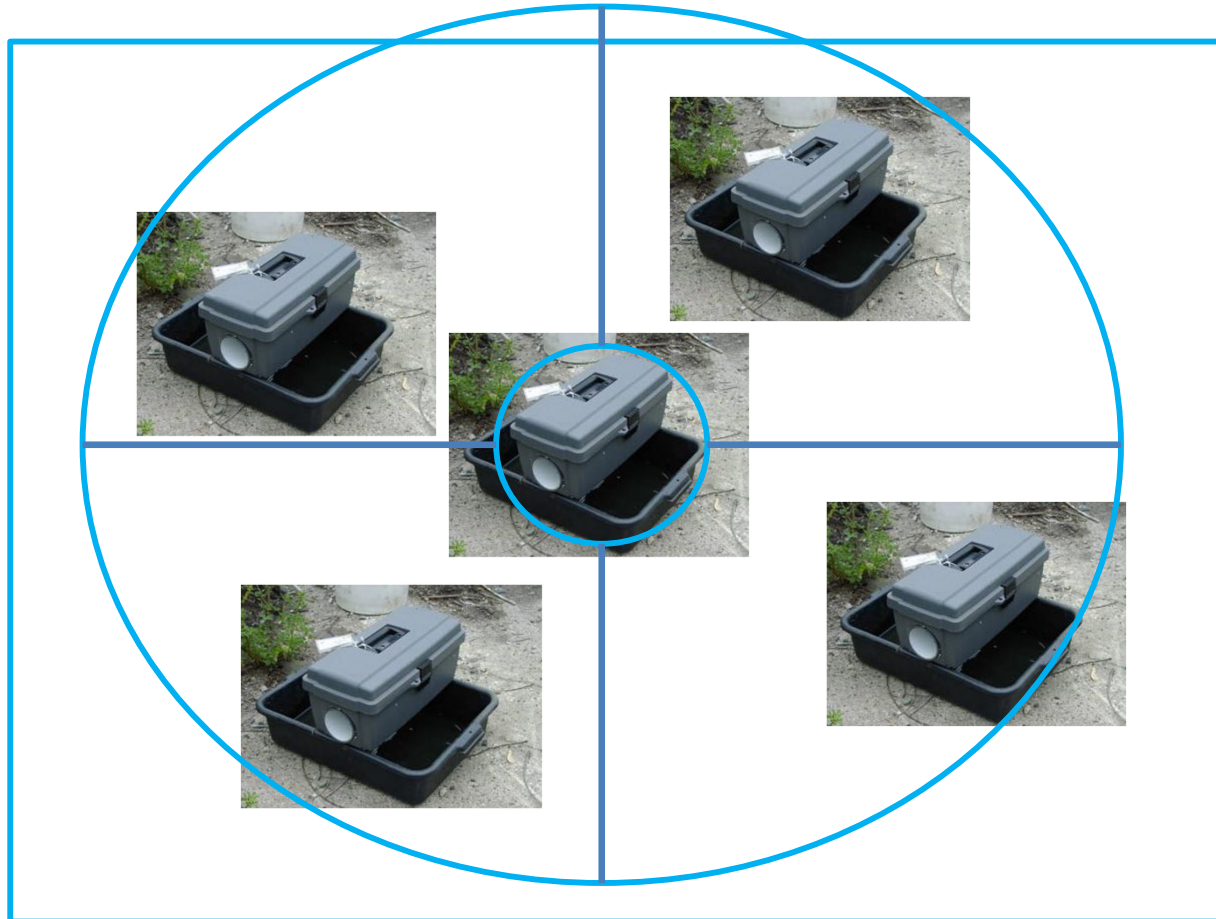


What are the Needs?

- Rapidly, prioritize cases
- Investigate multiple cases, simultaneously
- Repeatable
- Actionable



Targeting



Targeting, for Surveillance



- 5 distinct areas
- Overall, 1/2-mile radius
- 150-meter radius
- Additional canvassing
- Flexible deployment

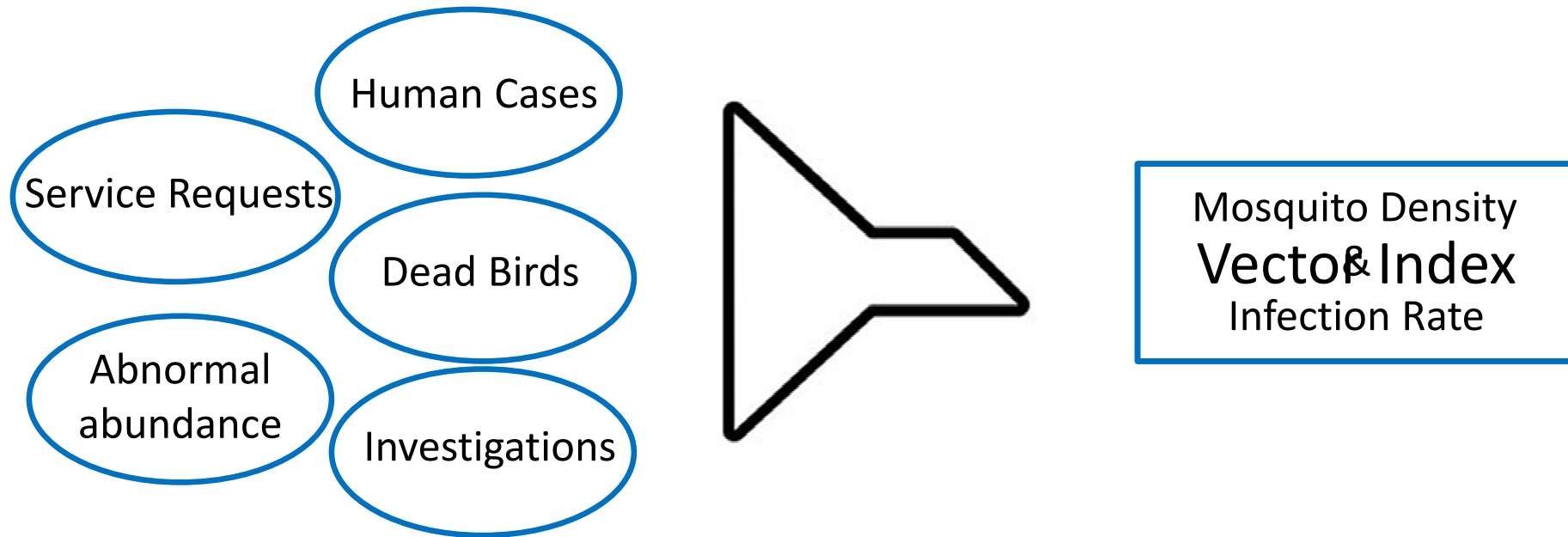
Targeting, for Surveillance

- Additive and scalable model



Targeting, for the District

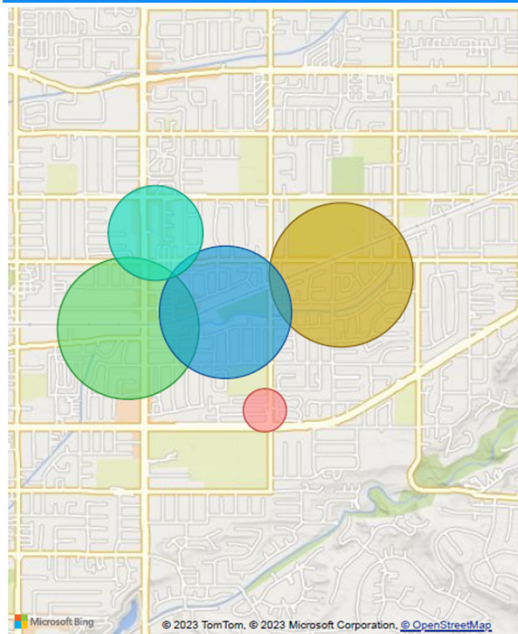
- Standardizes responses



Targeting Results

Enhanced Trapping: Covina

Week
32



Zone	Site Name	Collection Date	Trap Type	Percent Males	Total Mosquitoes	Total Invasive Aedes	Results
7	Grand Ave Plaza	8/10/2023	GRVD	3%	31	3	Positive
7	Grand Ave/E San Bernadino Rd	8/10/2023	GRVD	0%	51	1	Positive
7	Kahler Russel Park (formerly Wingate)	8/10/2023	GRVD	15%	47	1	Positive
7	Banna Park (CO)	8/10/2023	GRVD	35%	52	0	Negative
7	Glendora Ave/Badillo St	8/10/2023	GRVD	22%	9	2	Negative

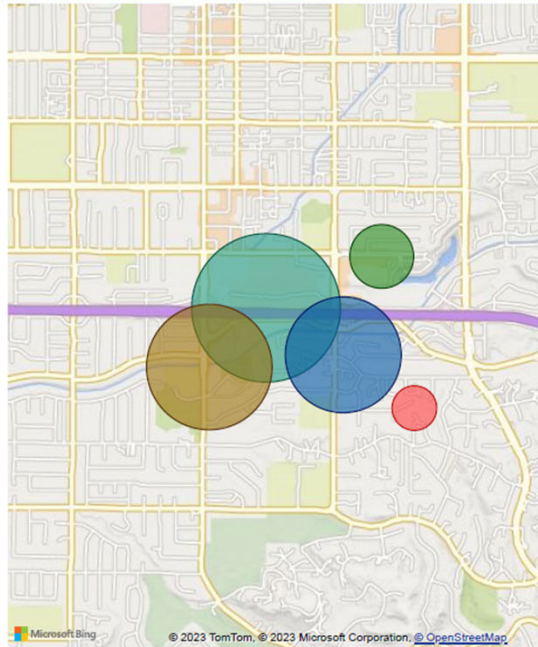
Note: This enhanced trapping event was in response to high WNV activity in the areas around Covina



Targeting Results

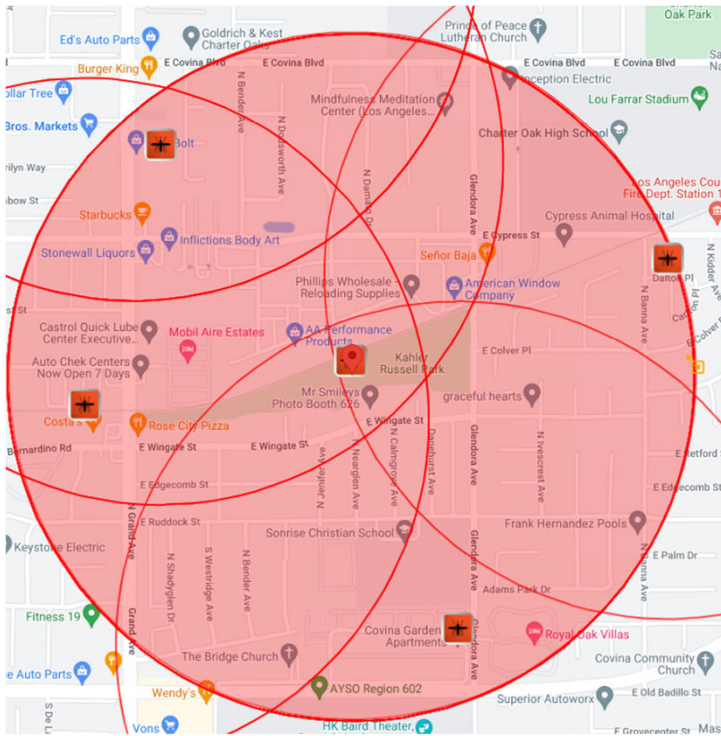
Enhanced Trapping: West Covina

Week
32

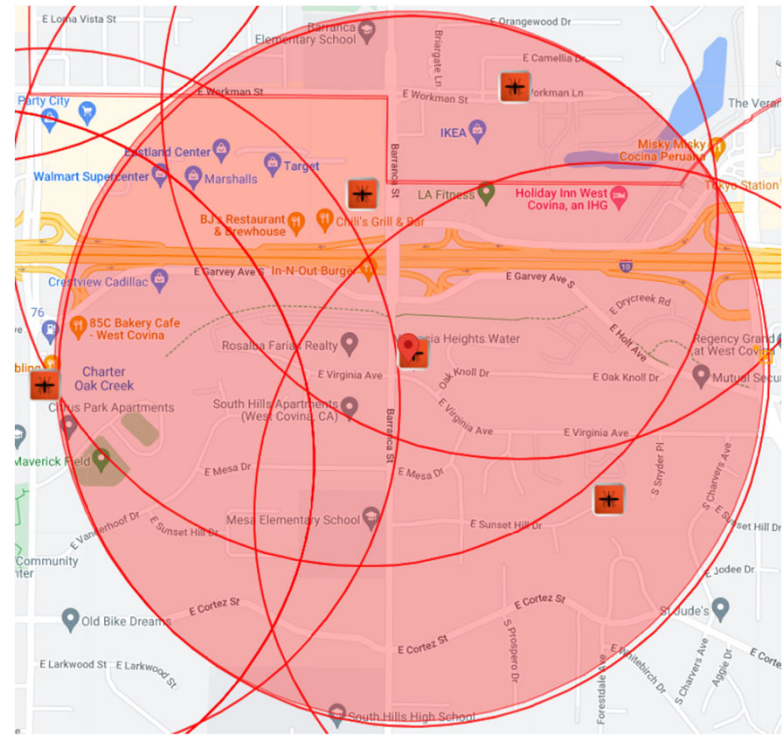


Zone	Site Name	Collection Date	Trap Type	Percent Males	Total Mosquitoes	Total Invasive Aedes	Results
6	Charter Oak Creek	8/10/2023	GRVD	2%	65	0	Positive
6	E Sunset Hill St	8/10/2023	GRVD	9%	23	4	Positive
6	Eastland Center	8/10/2023	GRVD	5%	77	1	Positive
6	Valencia Heights Water Co	8/10/2023	GRVD	2%	60	1	Positive
7	Ikea	8/10/2023	GRVD	12%	33	0	Positive

Prioritize and Rank Cases



VI: 700



VI: 1500

Targeted Surveillance in Review

- 2023
 - 34 events (25 WNV/Culex and 9 Travel Dengue/Aedes)
 - Pre/post adulticiding evaluations
 - Extended surveillance for local Dengue transmission
 - Alternatives to permanent standard trap sites



Rapid Response

- 58% of human cases investigated within one week
 - 88% within two
- All cases, trapped, sampled and tested within same week



Future Directions



- Tool for escalating and peak season
- Using Vector Index standards as pre-emptive treatment points
- Identify limiting factors to increase deployment

Conclusions

- Targeting did not impact standard surveillance
- Every relevant WNV human and travel related *Aedes*-borne case was investigated
- Set a standard for case investigations





THANK YOU

Tristan Hallum, MPH

Director of Scientific Programs

San Gabriel Valley Mosquito and
Vector Control District

thallum@SGVmosquito.org

626-814-9466

    @SGVmosquito

