Butte County Mosquito and Vector Control District

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Matthew C. Ball
Manager

AGENDA

Regular Meeting of the Board of Trustees of the Butte County Mosquito and Vector Control District

(BCMVCD) Board Room, 444 Otterson Drive, Chico, CA 95928. The Board of Trustees is committed to making its proceedings accessible to all citizens. Individuals with special needs should call District staff at 530-533-6038 or 530-342-7350, Monday through Thursday, 6:00 a.m. to 4:30 p.m. to request disability-related modifications/accommodations or to request materials in alternate formats. All requests for special accommodation and/or alternative format documents must be made 48 hours prior to the meeting.

1. ***Regular Board of Trustees Meeting Time:*** 4:00 PM ***Date:*** July 8, 2026

2. ***Call to Order –*** 4:00 PM (Call Roll)

3. ***Persons Wishing to Address the Board on Items Not on the Agenda (limit to 5 minutes):***

4. ***Approval of Minutes of the Meeting of:*** June 10, 2026

5. ***Persons Wishing to Address the Board Pertaining to Closed Session Matters:***

6. ***Closed Session Announcement (District Legal Counsel Present):*** None

7. ***Public Hearing / Public Comment Regarding Resolution No. 26-03 A Resolution of the Board of Trustees of the Butte County Mosquito and Vector Control District, A Resolution Approving the Engineer's Reports, Confirming the Assessment Diagram and Assessment, and Ordering the Levy of Assessments for Fiscal Year 2026-27 for The Mosquito, Vector and Disease Control Assessment.***

    a. Open public hearing.
    b. Close public hearing.
    c. The Board will consider approving and adopting Resolution No. 26-03 approving the Engineer's Report, confirming the diagram and assessment, and ordering the levy of The Mosquito, Vector and Disease Control Assessment for fiscal year 2026-27.

8. ***Reports: (8.1 – 8.4)***

8.1 District Manager's Report

The District Manager will provide a brief report on current District business and activities. The Manager will also report on District employees, meetings attended, and current projects.

8.2 District Departments Report

The Assistant Manager and District staff members present, will provide reports on the business and activities of the District's departments. District departments include, Entomology, Ground Operations, Aircraft Operations, and Public Information and Outreach.

8.3 2025/2026 Fourth Quarter Fiscal Report

By the time of the Board Meeting, staff will have the 2024/2025 4th quarter fiscal report prepared and available for review. The Administrative Manager will discuss and explain the report.

8.4 2026 BCMVCD 2nd Quarter Newsletter

The Assistant Manager will review the District's 2nd Quarter Newsletter.

9. Policy Matters: (9.1 – 9.3)

9.1 Consider Adopting the Final 2026/2027 Fiscal Budgets and Adopt Resolution No. 26-04

The Board will be asked to consider adopting the 2026/2027 fiscal budgets as final as well as Resolution No. 26-04. The District Manager and Administrative Manager will review and explain the budgets and the amendments/adjustments made since the April 8, 2026, regular meeting of the Board of Trustees.

9.2 Consider Adoption of Resolution 26-05 A Resolution for Meritorious Service, Del Boyd

The Board will be asked to consider adoption of Resolution 26-05 A Resolution of Appreciation for Meritorious Service to the Citizens of Butte County and Hamilton City, Del Boyd.

9.3 Consider Budget Transfer from Salaries and Benefits to Services and Supplies and Capital Outlay

The Board will be asked to consider a budget transfer of $50,000.00 from Salaries and Benefits to Services and Supplies in the amount of $39,500.00 and to Capital Outlay in the amount of $10,500.00 to cover end of fiscal year unanticipated expenditures.

10. Topic of the Month:

The Board will hear a brief report on the biology of *Culex tarsalis*.

11. Approve Payment of The Bills:

The Board will be asked to review the demands made upon the District for the past month and consider approving the payment of the bills.

12. Personnel:

After twenty one years, Del Boyd retired from the District on July 2, 2026. Glen Williams separated from the District as Mosquito and Vector Control Specialist on June 25, 2026.

13. Correspondence: N/A

14. Other Business: N/A

15. Persons Wishing to Address the Board Pertaining to Closed Session Matters: N/A

16. Closed Session Matters (District Legal Counsel Not Present): N/A

17. Adjournment: *(Next Regular Meeting of the BCMVCD Board of Trustees is August 12, 2026)*

Regular Minutes of the Board of Trustees of the Butte County Mosquito and Vector Control District Meeting held June 10, 2026

Members Present: Darlene Fredericks, Andy Haymond, Hank Irick, Assistant Secretary Bruce Johnson, Philip LaRocca, Vice President Dr. Larry Kirk, Steve Ostling, President Sheppard, Member Schuster, Eric Smith, and Carl Starkey.

Members Excused: None.

Members Absent: None.

Also Present: District Manager Matt Ball, Assistant Manager AAron Lumsden, Administrative Manager Maritza Sandoval, and Entomologist Amanda Bradford.

1. The Regular Meeting of the Board of Trustees of the Butte County Mosquito and Vector Control District held on June 10, 2026, at 444 Otterson Drive, Chico, CA 95928.

2. The June 10, 2026, Butte County Mosquito and Vector Control District regular meeting of the Board of Trustees was called to order at 4:00 PM by President Sheppard.

3. Under persons wishing to address the Board on items not on the agenda, Member Schuster provided an update on the Paradise sewer plant location. Seeing and hearing no additional persons wishing to address the Board on items not on the agenda, President Sheppard proceeded to request approval of the minutes.

4. After review, it was then moved by Member Johnson, seconded by Member Ostling, and passed unanimously with a vote of 8 ayes and 0 nays with Member Fredericks, Member LaRocca, and Member Starkey abstaining due to their excused absence to approve the minutes of the Board of Trustees meeting held May 13, 2026, as written.

5. No persons wishing to address the Board on closed session matters.

6. No closed session matters needing legal counsel.

7. Reports (7.1 – 7.2)

7.1 Under item 7.1 of reports, the District Manager reported that on May 14, 2026, the District completed the monthly management meeting, staff meeting, and all vehicle inspections. The District's Safety Committee held their monthly meeting as well as management. District management also attended a webinar presented by the VCJPA on vector-borne disease and the best ways to avoid such diseases.

On May 19, 2026, District management attended a webinar presented by the VCJPA on reasonable suspicion. The District Manager attended a webinar provided by Limelight on new employer-employee laws regarding leaves of absence, paid and unpaid and also met with Butte County Public Health to discuss the possibilities of BCPH conducting in-county testing on the District's mosquito and tick pools.

On May 20, 2026, the Assistant Manager attended the annual meeting between area mosquito and vector control districts and USFWS to review the Special Use Permit, the Pesticide Use Permits, and review the projected flood dates and flooding maps.

On May 21, 2026, the District Manager met with a representative of Valent Biosciences to discuss products, pricing, and availability.

On May 22, 2026, the District Manager attended the biweekly Legislative Regulatory Committee call. MVCAC lobbyists and committee members reviewed legislation and current regulatory issues.

The District was closed on May 25, 2026, in observance of Memorial Day.

On May 26, 2026, District management met with CSU Chico, GIS Department, to continue to negotiate the terms of the agreement between the project with CSU Chico and the District.

On May 28, 2026, the District Manager attended a workshop presented by Target Specialty Products on the automation and identification of mosquitoes using new technologies. The District Manager also spoke with the President of Valent Biosciences to discuss some ongoing issues with logistics, availability, and pricing.

On June 4, 2026, the District Manager gave a presentation on “What’s So Special About this Special District” to the Gridley Rotary Club.

On June 5, 2026, the District Manager attended the biweekly Legislative Regulatory Committee call. MVCAC lobbyists and committee members reviewed legislation and current regulatory issues throughout the state.

On June 8, 2026, District management hosted and attended the month West Nile virus task force call with Butte County Public Health. The task force discussed public education and outreach efforts and the District shared surveillance and control efforts that are currently underway.

On June 9, 2026, the District Manager attended the monthly MVCAC Regulatory Affairs Committee meeting. Topics discussed were cannabis, Pollinator Protection Act, storm water recapture, the Monarch butterfly, and the new draft of the NPDES Permit.

7.2 Under item 7.2 of Reports, the Assistant Manager reported that the District's New Jersey light traps and gravid traps have continued catching mosquitoes. *Culex pipiens* populations are higher than the previous year. *Culex tarsalis* populations are slightly higher than the previous year at this time. Most mosquito species populations have increased over the past month. Sentinel chickens sera samples are continuing to be taken biweekly. CO2 trapping has continued and traps are being deployed routinely. Mosquito pools are being submitted for mosquito-borne disease. As of June 3rd, 2026, 17 pools have been submitted for virus testing. Also, *Aedes aegypti* has been detected in several areas throughout the county.

No West Nile virus (WNV) activity has been reported within the District's service area. WNV has been identified in 14 dead birds, and 10 mosquito pools in California to date.

The District’s four indoor fish tanks have been shut down for the season and are undergoing annual maintenance. The District has begun utilizing the outdoor fish ponds, which are producing fish. The public fish tanks were placed into the field on June 4th.

Mosquito and Vector Control Specialists (Specialists) have continued with mosquito surveillance and treatments in rock pits, dredger pits, flood water areas, agricultural, ditches, drains and urban sources. Service requests for inspections, fish, and treatments have increased, with a total of 207 requests taken in the month of May, compared to 363 last year.

Under Air Operations, as of June 3rd, the District has treated 690 acres of wetlands; compared to 826 acres at this time last year. The District has treated 846 acres of rice this year, compared to 1,217 acres at this time last year. The District has made 0 ULV adulticide treatments thus far, which was the same at this time last year.

The Public Relations (PR) Department reported the District’s public service announcements have continued to run on newspapers, radio, television, digital advertising, billboards, bus stop shelters, and on buses. The Public Relations Department continues to review and update the District's website, brochures, photo and video files, and other informational documents as needed. The District attended the Red Suspenders Day Parade on May 16th.

After this final item of reports, President Sheppard asked the District Manager to proceed to policy matters.

8. Policy matters (8.1 – 8.6)

8.1 Under item 8.1 of policy matters, the Board was asked to consider approving and adopting Resolution No. 26-02 which affirms the District's intent to continue assessments for fiscal year 2026-2027, preliminarily approving the Engineer's Report, and providing for notice of hearing for the Butte County Mosquito and Vector Control District, Mosquito, Vector and Disease Control Assessment. It was then moved by Member Kirk, seconded by Member Johnson, and passed unanimously with a vote of 11 ayes and 0 nays to approve and adopt Resolution No. 26-02 which affirms the District's intent to continue assessments for fiscal year 2026-2027, preliminarily approving the Engineer's Report, and providing for notice of hearing for the Butte County Mosquito and Vector Control District, Mosquito, Vector and Disease Control Assessment.

8.2 Under item 8.2 of policy matters, the Board was asked to consider amendments to Personnel Policy, Policy No. 7110, Dismissal of Regular Employees. The amendments were recommended by the District’s legal counsel. It was then moved by Member Starkey and seconded by Member Irick and passed unanimously with 11 ayes and 0 nays to adopt amendments to Personnel Policy, Policy No. 7110, Dismissal of Regular Employees.

8.3 Under item 8.3 of policy matters, the Board was asked to consider amendments to Personnel Policy, Policy No. 7260, Disciplinary Action. The amendments were recommended by the District’s

legal counsel. It was then moved by Member Johnson, seconded by Member Smith, and passed unanimously with 11 ayes and 0 nays to adopt amendments to Personnel Policy, Policy No. 7260, Disciplinary Action.

8.4 Under item 8.4 of policy matters, the Board was asked to consider renewing the annual membership with the American Mosquito Control Association (AMCA) in the amount of $5,250.00. AMCA membership provides the District with legislative advocacy at the National level, continuing education programs, public education and outreach, and offers reduced cost attendance at AMCA sponsored events. It was then moved by Member Schuster, seconded by Member Ostling, and passed unanimously with a vote of 11 ayes and 0 nays to renew annual membership with AMCA in the amount of $5,250.00.

8.5 Under item 8.5 of policy matters, the Board was asked to consider renewing the annual membership with the Mosquito and Vector Control Association of California (MVCAC) in the amount of $11,965.00. MVCAC membership provides the District with legislative advocacy at the State level, continuing education programs, facilitates state certification programs, and coordinates the arbo-virus surveillance program. The District is a MVCAC NPDES Coalition Member which requires MVCDs to be members of the MVCAC. It was then moved by Member Kirk, seconded by Member Johnson, and passed unanimously with a vote of 11 ayes and 0 nays to renew annual membership with MVCAC in the amount of $11,965.00.

8.6 Under item 8.6 of policy matters, the Board was asked to consider a budget transfer from Salaries and Benefits to Service and Supplies in the amount of $100,000.00 to cover unanticipated expenditures. It was then moved by Member Schuster, seconded by Member Irick, and passed unanimously with a vote of 11 ayes and 0 nays to do a budget transfer from Salaries and Benefits to Services and Supplies in the amount of $100,000.00.

9. Under topic of the month, the Entomologist gave a presentation on the biology of *Culex pipiens*.

10. After reviewing the demands made upon the District for the past month, it was then moved by Member Starkey, seconded by Member Fredericks, and passed unanimously with a vote of 11 ayes 0 nays to authorize checks numbered 56988 through 57038 be signed and distributed. Expenditures for the month totaled $307,965.79.

11. Under personnel, the District Manager reported that on May 26, 2026, all seasonal employees commenced employment with the District.

14. No correspondence to report.

15. Under other business, the District Manager reported to the Board that there is training available through California Special District's Association that meets the mandated SB 827 fiscal and financial management training requirements. Trustees were asked if they wish to have the training assigned to them by the District.

16. No persons wishing to address the Board pertaining to closed session matters.

17. No closed session item to report.

18. President Sheppard announced adjournment at 4:40 PM and concluded by stating that the next regular meeting of the BCMVCD Board of Trustees would meet at 4:00 PM on July 8, 2026, at the Chico Substation's Board Room at 444 Otterson Drive, Chico, CA 95928.

Respectfully submitted,

Melissa Schuster,
Secretary

RESOLUTION NO. 26-03

A RESOLUTION OF THE BOARD OF TRUSTEES OF THE BUTTE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT

A RESOLUTION APPROVING THE ENGINEER'S REPORT, CONFIRMING THE ASSESSMENT DIAGRAM AND ASSESSMENT AND ORDERING THE CONTINUATION OF THE LEVY OF ASSESSMENTS FOR FISCAL YEAR 2026-27 FOR THE BUTTE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT, MOSQUITO, VECTOR AND DISEASE CONTROL ASSESSMENT

WHEREAS, the Butte County Mosquito and Vector Control District ("District") is authorized, pursuant to the authority provided in Health and Safety Code Section 2082 and Article XIIID of the California Constitution, to levy the continued assessments for mosquito and disease control projects and services; and

WHEREAS, such mosquito control services provide tangible public health benefits, reduced nuisance benefits and other special benefits to the public and properties with the areas of service; and

WHEREAS, an assessment for mosquito, vector and disease control projects and services has been given the distinctive designation of the "Mosquito, Vector and Disease Control Assessment" ("Assessment"), and is primarily described as encompassing the boundaries of Butte County and Hamilton City of Glenn County; and

WHEREAS, the Assessment was authorized by an assessment ballot proceeding conducted in 2014 and approved by 54.96% of the weighted ballots returned by property owners, and such assessments were levied by the Board of Trustees of the Butte County Mosquito and Vector Control District by Resolution No. 14-07 passed on July 9, 2014;

WHEREAS, SCI Consulting Group, the Engineer of Work, prepared an engineer's report in accordance with Article XIIID of the California Constitution and Section 2082, et seq., of the Health and Safety Code for the Assessment (the "Report"). The Report has been made, filed with the District and duly considered by the Board and is hereby deemed sufficient and approved. The Report shall stand as the Engineer's Report for all subsequent proceedings under and pursuant to the foregoing resolution.

WHEREAS, on June 10, 2026, this Board adopted Resolution No. 26-02 to continue to levy and collect Assessments for fiscal year 2026-27 preliminarily approving the Engineer's Report, and providing for notice of hearing on July 8, 2026, at the hour of 4:00 p.m. at the Butte County Mosquito and Vector Control District offices, located at 444 Otterson Dr, Chico, CA 95928.

WHEREAS, at the appointed time and place the hearing was duly and regularly held, and all persons interested and desiring to be heard were given an opportunity to be heard, and all matters and things pertaining to the continuation of Assessments were fully heard and considered by this Board, an all oral statements and all written protests or communications were duly heard, considered and overruled, and this Board there by acquired jurisdiction to order the continuation of assessments prepared by and made a part of the Engineer's Report to pay the costs and expenses thereof.

NOW, THEREFORE, BE IT RESOLVED by the Board of Trustees of the Butte County Mosquito and Vector Control District that:

SECTION 1. The above recitals are true and correct

SECTION 2. The public interest, convenience and necessity require that the assessments continue to be approved and collected.

SECTION 3. The assessment is levied without regard to property valuation.

SECTION 4. The Engineer's Report for the Assessment together with the proposed assessment roll for fiscal year 2026-27 is hereby confirmed and approved.

SECTION 5. That based on the oral and documentary evidence, including the Engineer's Report offered and received at the public hearing, the Board expressly finds and determines that: (a) each of the several lots and parcels of land subject to the Assessment will be specially benefited by the services to be financed by the assessment proceeds in at least the amount of the assessment apportioned against such lots and parcels of land, respectively; and (b) that there is substantial evidence to support , and the weight of the evidence preponderates in favor of, said finding and determination as to special benefit to property from the mosquito and disease control services to be financed with assessment proceeds.

SECTION 6. That assessments for fiscal year 2026-27 shall be levied at the rate of THIRTEEN DOLLARS AND SEVENTY-SIX CENTS ($13.76) per single-family equivalent benefit unit for Zone A, and THREE DOLLARS AND FORTY-FOUR ($3.44) per single-family equivalent benefit unit for Zone B, as specified in the Engineer's Report for fiscal year 2026-27 with estimated total annual assessment revenues as set forth in the Engineer's Report; and

SECTION 7. That the mosquito, vector, and disease control services to be financed with assessment proceeds described in the Engineer's Report are hereby ordered.

SECTION 8. No later than August 10th following such adoption, the Board shall file a certified copy of the diagram and assessment and a certified copy of this resolution with the Auditors of the County of Butte and Glenn ("County Auditor"). Upon such filing, the County Auditor shall enter on the County assessment roll opposite each lot or parcel of land the amount of assessment thereupon as shown in the assessment. Pursuant to Government Code 54718, the assessments shall be collected at the same time and in the same manner as County taxes are collected and all the laws providing for collection and enforcement shall apply to the collection and enforcement of the assessments. After collection by the County, the net amount of the assessments, after deduction of any compensation due the County for collection, shall be paid to the Mosquito, Vector and Disease Control Assessment.

SECTION 9. All revenues collected from the Assessments shall be deposited in a Benefit Assessment account established by the District, which allows the District to properly account for the Assessments. Funds collected from Mosquito, Vector and Disease Control Assessment shall be expended only for the special benefit of parcels within the District.

SECTION 10. The Assessment, as it applies to any parcel, may be corrected, cancelled or a refund granted as appropriate, by order of the Board of Trustees of the District. Any such corrections, cancellations or refunds shall be limited to the current fiscal year.

PASSED and ADOPTED by the Board of Trustees of the Butte County Mosquito and Vector Control District, State of California on July 8, 2026, by the following vote:

AYES:

NOES:

ABSENT:

ATTEST:

_____
President or officer of the Board of Trustees

_____
Matthew C. Ball, District Manager

STAFF REPORT

DATE: July 8, 2026

TO: The Board of Trustees

FROM: Matt C. Ball, District Manager

SUBJECT: Public Hearing and Resolution No. 26-03, Approving the Engineer's Report, Confirming the Assessment Diagram and Assessment and Ordering the Levy of Assessments for Fiscal Year 2026-27 for the Mosquito, Vector and Disease Control Assessment.

RECOMMENDATION

It is recommended that the Board hold a public hearing, consider all public comments, and subsequently approve the resolution that would approve the Engineer's Report, confirm the diagram and assessment, and order the levy of assessments for fiscal year 2026-27 for the Mosquito, Vector and Disease Control Assessment as the final step in levying the annual assessments.

RESULT OF RECOMMENDED ACTION

The Board will order the levy of the assessments for fiscal year 2026-27 and will cause those levies to be submitted by SCI Consulting Group to the County Auditors of Butte and Glenn to be included on the 2026-27 property tax bills.

DISCUSSION

In order to continue to levy the assessments each year, SCI Consulting Group, the District's assessment engineer, prepared the Engineer's Reports that include the special and general benefits from the assessments, the proposed budget for the assessments for fiscal year 2026-27 the updated proposed assessments for each parcel in the Assessment District, and the proposed assessments per single family equivalent benefit unit. At the June 10, 2026, Board meeting, the Board reviewed the Engineer's Reports and adopted Resolution No. 26-02 to declare its intention to continue the assessments, preliminarily approve the Engineer's Report, and provide for notice of the annual public hearing.

Each year, the Board conducts a noticed public hearing and receives public input on the proposed assessments and the services that they would fund, in order to continue to levy the assessments for the coming fiscal year. After hearing the public testimony, the Board may take final action on setting the assessment rate, establishing the services and improvements to be funded and ordering the continuation of the assessments for fiscal year 2026-27.

PROPOSED RATE AND CPI HISTORY

The Mosquito, Vector and Disease Control Assessment is subject to annual increases tied to the Consumer Price Index-U for the San Francisco Bay Area as of December of each succeeding year (CPI), with a maximum annual increase not to exceed 3%. Any change in the CPI in excess of 3% shall be cumulatively reserved as the "Unused CPI" and shall be used to increase the maximum authorized assessment rate in years in which the CPI is less than 3%. The maximum authorized assessment rate is equal to the maximum assessment rate in the first fiscal year the assessment was levied, adjusted annually by the minimum of 1) 3% or 2) the change in the CPI plus any Unused CPI as described above. The annual change in the CPI from December 2024 to December 2025 for All Urban Consumers in San Francisco Bay Area as reported by the United States Department of Labor, Bureau of Labor and Statistics was 3.0365% and the unused CPI carried over from the previous fiscal

year is 2.71%. Therefore, the maximum authorized assessment rate for Fiscal Year 2026-27 has been increased by 3.00%, from $13.36 to $13.76 per SFE in Zone A and from $3.34 to $3.44 per SFE in Zone B per Single Family Equivalent unit (SFE). The estimate of cost and budget in the Engineer's Report proposes assessments for fiscal year 2026-27 at the rate of $13.76. The total amount of revenues that would be generated by the assessments in fiscal year 2026-27 at the proposed rate of $13.76 is approximately $1,172,128. The following table summarizes the historical assessment rates.

FY	Zone A	Zone B
2014-15	$9.69	
2015-16	$9.69	$2.42
2016-17	$9.69	$2.42
2017-18	$9.69	$2.42
2018-19	$10.87	$2.71
2019-20	$10.87	$2.71
2020-21	$10.87	$2.71
2021-22	$10.87	$2.71
2022-23	$10.87	$2.71
2023-24	$12.60	$3.15
2024-25	$12.60	$3.15
2025-26	$13.36	$3.34
2026-27	**$13.76**	**$3.44**

The following table displays the CPI history, the CPI applied each year, the annual assessment rates used, and the maximum allowable rates.

Bay Area CPI history (Dec to Dec)		FY	Unused CPI carried over to next year	asmt/sfe used	Maximum Rate Allowed (Zone A)	Maximum Rate Allowed (Zone B)
1st year		FY 14-15		$9.69		
Dec-14	2.67%	FY 15-16	0.00%	$9.95	$9.94	$2.49
Dec-15	3.17%	FY 16-17	0.17%	$10.25	$10.24	$2.56
Dec-16	3.53%	FY 17-18	0.70%	$10.55	$10.55	$2.63
Dec-17	2.94%	FY 18-19	0.64%	$10.87	$10.87	$2.71
Dec-18	4.49%	FY 19-20	2.13%	$10.87	$11.18	$2.79
Dec-19	2.45%	FY 20-21	1.58%	$10.87	$11.52	$2.88
Dec-20	2.00%	FY 21-22	0.58%	$10.87	$11.87	$2.97
Dec-21	4.24%	FY 22-23	1.82%	$10.87	$12.22	$3.06
Dec-22	4.88%	FY 23-24	3.70%	$12.60	$12.60	$3.15
Dec-23	2.62%	FY 24-25	3.33%	$12.98	$12.98	$3.25
Dec-24	2.38%	FY 25-26	2.71%	$13.36	$13.36	$3.34
Dec-25	3.04%	FY 26-27	2.74%	$13.76	$13.76	$3.44

Please note: Since the annual increase is capped at 3%, the remaining 2.74% cannot be applied to the maximum rates from FY 2026-27. This amount will be carried forward for use in future years when the CPI is below 3%.

The following table lists the historical revenues for each Zone:

Fiscal Year	Zone A	Zone B	Glenn	TOTAL 3 Zones	
	asmt	asmt	asmt	assessment	increase from prev year
2014-15	$767,391		$6,062	**$773,453**	
2015-16	$765,507	$1,638	$6,075	**$773,220**	-$233
2016-17	$768,535	$1,622	$6,077	**$776,234**	$3,014
2017-18	$772,464	$1,628	$6,137	**$780,229**	$3,995
2018-19	$872,209	$1,832	$6,894	**$880,934**	$100,705
2019-20	$762,551	$1,834	$6,936	**$771,321**	-$109,614
2020-21	$779,469	$1,823	$6,993	**$788,285**	$16,964
2021-22	$784,565	$1,725	$6,992	**$793,281**	$4,997
2022-23	$887,262	$1,711	$6,998	**$895,970**	$102,689
2023-24	$1,045,114	$1,982	$8,117	**$1,055,213**	$159,243
2024-25	$1,053,505	$1,990	$8,126	**$1,063,622**	$8,409
2025-26	$1,124,757	$2,101	$8,620	**$1,135,478**	$71,856
2026-27 projected	$1,161,071	$2,177	$8,879	**$1,172,128**	$36,649

The assessment columns are the final amounts submitted to the Butte Couny Auditor in August each year.

CONCLUSION

It is recommended that the Board approve the Resolution Approving the Engineer's Report, Confirming the Assessment Diagram and Assessment and Ordering the Continuation of Assessments for Fiscal Year 2026-27 for the Mosquito, Vector and Disease Control Assessment.

Respectfully submitted,

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Matt C. Ball, District Manager

Fiscal Year 2026-27

ENGINEER'S REPORT

Butte County Mosquito and Vector Control District

Mosquito, Vector and Disease Control Assessment

June 2026
Final Report

Engineer of Work:

SCIConsultingGroup
Public Finance Consulting Services

4745 Mangels Boulevard
Fairfield, California 94534
707.430.4300
www.sci-cg.com

Butte County Mosquito and Vector Control District

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Melissa Schuster	Town of Paradise	Secretary
Steve Ostling	County at Large	Trustee

District Manager

Matthew C. Ball

Engineer of Work

SCI Consulting Group

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Introduction

Overview

The Butte County Mosquito Abatement District was established in June 1948 as an independent special district. In April 1994, the District's name was changed from "Butte County Mosquito Abatement District" to "Butte County Mosquito and Vector Control District" (the "District") to reflect all the services provided by the District, which include comprehensive mosquito and vector control services and public health protection services.

The District covers 1,700 square miles, and includes all of Butte County, except the small area served by the Durham Mosquito Abatement District, which was formed earlier. The District also includes the Hamilton City area of Glenn County. On June 7, 2018, the Local Agency Formation Commission of Butte County adopted Resolution No. 13 2017/18 approving the detachment and annexation of a portion of the Durham Mosquito Abatement territory to the Butte County Mosquito and Vector Control District, increasing the District's service area by approximately 14,775 acres. Additionally, on August 6, 2020, Local Agency Formation Commission of Butte County adopted Resolution No. 01 2020/21 approving the dissolution of the Oroville Mosquito District and annexation to the Butte County Mosquito and Vector Control District, increasing the District's service area by approximately 7,660 acres. Collectively, all these areas served by the District are known as the "Service Area." The District is the only agency providing mosquito and vector control and vector-borne disease protection and prevention services in the Service Area and provides its services to properties accommodating approximately 220,000 residents.

The Butte County Mosquito and Vector Control District is governed by a Board of Trustees (the "Board"). The Board consists of eleven Trustees with one Trustee appointed by each City Council of the Cities of Biggs, Chico, Gridley, Oroville, Paradise, five Trustees appointed by the Butte County Board of Supervisors, and one Trustee appointed by the Glenn County Board of Supervisors. The Board meetings are held at 4:00 PM on the second Wednesday of every month at the District's Chico substation at 444 Otterson Drive in Chico. The public is welcome to attend.

The District provides mosquito control; surveillance of ticks, yellow jackets, and other vectors; and disease control services within its boundaries. The District services are available to all properties in the Service Area. The Mission of the Butte County Mosquito and Vector Control District is to protect public health by preventing and reducing mosquito-borne disease, minimizing nuisance mosquito populations, and combating the spread of diseases associated with ticks, fleas, and other vectors. The District accomplishes this through science-based, environmentally responsible control strategies, proactive surveillance, and community education and engagement.

The District is funded primarily by a portion of Butte County property taxes. The District receives reimbursement of costs for services provided to landowners and land managers that have lands 3 acres or larger and 3 or more larvae per dip. In addition, the District receives a $4.00 per household service charge from the Hamilton City area. For the last ten years, a significant portion of the District's property tax share has been transferred by the State and the County to other agencies and is not available to the District for use. In addition, cost increases, costs of complying with new legislation and regulations (e.g., NPDES permit[1], ESA permit[2], etc.), the significant increased cost of controlling West Nile virus, increasing aerial operation costs, the recent financial challenges resulting from the 2018 Campfire, the fluctuating market, and the detection and establishment of a newly invasive mosquito species, known as *Aedes aegypti*, have further stressed the District's limited budget. As a result, and in order to maintain current levels of service, enhance disease surveillance and vector control services, and better respond to the threat of West Nile virus and other public health issues, the District proposed a new assessment (the "Assessment") on all specially benefiting properties within the District boundaries (the "Assessment Area" or "Assessment District").

Introduction to Benefit to Property

The District currently provides a "baseline" level of mosquito, vector, and disease control services in the Service Area. The services to be provided to the Assessment Area will consist of expanded services, above the existing baseline level of services previously provided. The services include intensive surveillance, disease prevention, abatement, and control of mosquitoes for properties within the Assessment Area. Such mosquito and disease prevention services, projects and programs include, but are not limited to, mosquito source reduction, biological control, larvicide applications, adulticide applications, disease monitoring, public education, reporting, accountability, research, and interagency cooperative activities, as well as capital costs, and maintenance and operation expenses as further described below, which are above the existing baseline level of services currently provided.

[1] The National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States.

[2] The Endangered Species Act (ESA) prohibits the "take" of listed species through direct harm or habitat destruction. The U.S Fish and Wildlife Service may issue permits for the "incidental take" of endangered and threatened wildlife species.

The Assessment Area is narrowly drawn to include only properties that may request and/or receive direct and more frequent service, are located within the scope of the vector surveillance area, are located within flying or traveling distance of potential vector sources monitored by the District and will benefit from a reduction in the number of vectors reaching and impacting the property as a result of the enhanced vector surveillance and control. The Assessment Diagram included in this report shows the boundaries of the Assessment Area.

Summary of Services

The improved mosquito and vector control and disease prevention services materially increase the usefulness, utility, livability, and desirability of properties in the Assessment Area. The following is an outline of the primary programs, projects, services, and improvements (collectively "Services") that will be funded by the Mosquito, Vector and Disease Control Assessment.

- Improved mosquito inspections, surveillance, and control in the Assessment District
- Treatment of sources within the Assessment District with environmentally sound products wherever mosquito larvae and/or pupae are found
- Improved mosquitofish program which provides free mosquito-eating fish for backyard ponds and other static water features to property owners in the Assessment District
- Faster response to requests in the Assessment District concerning mosquitoes, insects, and other vectors
- Expanded identification of mosquitoes, ticks, and other arthropods in the Assessment District
- Improved testing for mosquito- and other vector-borne diseases in the Assessment District
- Upgrades to facilities and equipment utilized by the District
- Improved surveillance and testing of ticks in the Assessment District, and the diseases they carry
- Adult mosquito control within the Assessment District when necessary to protect public health on property in the Assessment District
- Expanded community education, presentations, and other outreach programs to educate property owners and the occupants of property within the Assessment District about mosquitoes, vectors, and the diseases they can transmit

This Engineer's Report ("Report") defines the benefit assessment that provides funding for these improved mosquito, vector, and disease control services for property throughout the Assessment District, as well as related costs for equipment, capital improvements and services, and facilities necessary and incidental to mosquito, vector, and disease control programs.

As used within this Report and the benefit assessment ballot proceeding, the following terms are defined:

"Vector" means any animal capable of transmitting the causative agent of human disease or capable of producing human discomfort or injury, including, but not limited to, mosquitoes, flies, mites, ticks, other arthropods, and rodents and other vertebrates (Health and Safety Code Section 2002(k)).

"Vector Control" means any system of public improvements or services that is intended to provide for the surveillance, prevention, abatement, and control of vectors as defined in subdivision (k) of Section 2002 of the Health and Safety Code and a pest as defined in Section 5006 of the Food and Agricultural Code (Government Code Section 53750(m)).

The District operates under the authority of the Mosquito Abatement and Vector Control District Law of the State of California. Following are excerpts from the Mosquito Abatement and Vector Control District Law of 2002, codified in the Health and Safety Code, Section 2000, *et seq*. which serve to summarize the State Legislature's findings and intent with regard to mosquito abatement and other vector control services:

2001. (a) The Legislature finds and declares all of the following:

(1) California's climate and topography support a wide diversity of biological organisms.

(2) Most of these organisms are beneficial, but some are vectors of human disease pathogens or directly cause other human diseases such as hypersensitivity, envenomization, and secondary infections.

(3) Some of these diseases, such as mosquitoborne viral encephalitis, can be fatal, especially in children and older individuals.

(4) California's connections to the wider national and international economies increase the transport of vectors and pathogens.

(5) Invasions of the United States by vectors such as the Asian tiger mosquito and by pathogens such as the West Nile virus underscore the vulnerability of humans to uncontrolled vectors and pathogens.

(b) The Legislature further finds and declares:

(1) Individual protection against the vectorborne diseases is only partially effective.

(2) Adequate protection of human health against vectorborne diseases is best achieved by organized public programs.

(3) The protection of Californians and their communities against the discomforts and economic effects of vectorborne diseases is an essential public service that is vital to public health, safety, and welfare.

(4) Since 1915, mosquito abatement and vector control districts have protected Californians and their communities against the threats of vectorborne diseases.

(c) In enacting this chapter, it is the intent of the Legislature to create and continue a broad statutory authority for a class of special districts with the power to conduct effective programs for the surveillance, prevention, abatement, and control of mosquitoes and other vectors.

(d) It is also the intent of the Legislature that mosquito abatement and vector control districts cooperate with other public agencies to protect the public health, safety, and welfare. Further, the Legislature encourages local communities and local officials to adapt the powers and procedures provided by this chapter to meet the diversity of their own local circumstances and responsibilities.

Further the Health and Safety Code, Section 2082 specifically authorizes the creation of benefit assessments for vector control, as follows:

(a) A district may levy special benefit assessments consistent with the requirements of Article XIIID of the California Constitution to finance vector control projects and programs.

This Engineer's Report ("Report") was prepared by SCI Consulting Group ("SCI") to describe the mosquito and vector control services to be funded by this assessment, to establish the estimated costs for those Services, to determine the special benefits and general benefits received by property from the Services and to apportion the assessments to lots and parcels within the District based on the estimated special benefit each parcel receives from the Services funded by the benefit assessment.

Legislative Analysis

Proposition 218

This assessment is formed consistent with Proposition 218, The Right to Vote on Taxes Act, which was approved by the voters of California on November 6, 1996, and is now Article XIIIC and XIIID of the California Constitution. Proposition 218 provides for benefit assessments to be levied to fund the cost of providing services, improvements, as well as maintenance and operation expenses to a public improvement which benefits the assessed property.

Proposition 218 describes a number of important requirements, including a property-owner balloting, for the formation and continuation of assessments, and these requirements are satisfied by the process used to establish this assessment. When Proposition 218 was initially approved in 1996, it allowed for certain types of assessments to be "grandfathered" in, and these were exempted from the property–owner balloting requirement.

Beginning July 1, 1997, all existing, new, or increased assessments shall comply with this article. Notwithstanding the foregoing, the following assessments existing on the effective date of this article shall be exempt from the procedures and approval process set forth in Section 4:

(a) Any assessment imposed exclusively to finance the capital costs or maintenance and operation expenses for sidewalks, streets, sewers, water, flood control, drainage systems or vector control.

Legal Analysis of Proposition 218

This assessment complies with Proposition 218, The Right to Vote on Taxes Act, which was approved by the voters of California on November 6, 1996, and is now Article XIIIC and XIIID of the California Constitution. Proposition 218 provides for benefit assessments to be levied to fund the cost of providing services, improvements, as well as maintenance and operation expenses of a public improvement which provides a special benefit to the assessed property.

Proposition 218 imposes a number of important requirements, including property-owner balloting, for the formation and continuation of assessments, and these requirements are satisfied by the process used to establish this assessment.

Silicon Valley Taxpayers Association, Inc. v Santa Clara County Open Space Authority *(2008) 44 Cal.4th 431*

On July 14, 2008, the California Supreme Court issued its ruling on the Silicon Valley Taxpayers Association, Inc. v. Santa Clara County Open Space Authority ("*Silicon Valley*"). Several of the most important elements of the ruling included further emphasis that:

- Benefit assessments are for special, not general benefit
- The services and/or improvements funded by assessments must be clearly defined
- Special benefits are directly received by and provide a direct advantage to property in the Assessment District
- All public improvements or services provide some level of general benefit
- If a district is narrowly drawn, the fact that a benefit is conferred throughout the district does not make it general

Other Legal Cases

Other relevant cases include:

- Dahms v. Downtown Pomona Property (2009) 174 Cal.App.4th 708
- Bonander v. Town of Tiburon (2009) 46 Cal.4th 646
- Beutz v. County of Riverside (2010) 184 Cal.App.4th 1516
- Golden Hill Neighborhood Association V. City of San Diego (2011)199 Cal.App.4th 416
- Concerned Citizens for Responsible Government v. West Point Fire Protection District (2011)149 Cal. Rptr. 3d 640

Compliance with Current Law

This Report is consistent with the requirements of Article XIIIC and XIIID of the California Constitution and with the *Silicon Valley* decision because the Services to be funded are clearly defined; the Services are available to and will be directly provided to all benefited property in the Assessment District; the Services provide a direct advantage to property in the Assessment District that would not be received in absence of the assessment, and are benefits that are over and above general benefits conferred on real property located in the district or to the public at large by other public entities that make up the membership of the Authority.

Engineer's Report and Continuation of Assessment

In order to allow property owners to ultimately decide whether additional funding should be provided for the District's mosquito abatement services, the Board, on February 12th, 2014, authorized the initiation of proceedings for a proposed benefit assessment to provide local funding for improved mosquito, vector, disease surveillance and control services and related costs. The proposed assessment was named the Mosquito, Vector and Disease Control Assessment (the "Assessment District"). In April through July of 2014, the District conducted an assessment ballot proceeding pursuant to the requirements of Article XIIID of the California Constitution ("The Taxpayer's Right to Vote on Taxes Act") and the Government Code. During this ballot proceeding, owners of property in the Assessment District were provided with a notice and ballot for the proposed special assessment. A 45-day period was provided for balloting and a public hearing was conducted on June 11, 2014. This hearing was continued to July 9, 2014, to allow adequate time for the tabulation of ballots.

It was determined after the conclusion of the public hearing that 54.96% of the weighted ballots returned were in support of the assessment. Since the assessment ballots submitted in opposition to the proposed assessments did not exceed the assessment ballots submitted in favor of the assessments (with each ballot weighted by the proportional financial obligation of the property for which ballot was submitted), the District gained the authority to approve the levy of the assessments for fiscal year 2014-15 and to continue to levy them in future years. The authority granted by the ballot proceeding includes an annual adjustment in the maximum authorized assessment rate equal to the annual change in the Consumer Price Index for the San Francisco Bay Area, not to exceed 3%. In the event that the annual change in the CPI exceeds 3%, any percentage change in excess of 3% can be cumulatively reserved and can be added to the annual change in the CPI for years in which the CPI change is less than 3%. Board took action, by Resolution No. 14-07 passed on July 9, 2014, to approve the levy of the assessments for the first time for fiscal year 2014-15.

In each subsequent year for which the assessments will be continued, the Board must preliminarily approve an updated Engineer's Report for the upcoming fiscal year at a noticed public hearing. The Engineer's Report should include a budget for the upcoming fiscal year's costs and services and an updated assessment roll listing all parcels and their proposed assessments for the upcoming fiscal year.

This Engineer's Report ("Report") was prepared by SCI Consulting Group (SCI) to establish the estimated costs for the mosquito, vector, disease surveillance and control services and related costs that will be funded by the assessments, to determine the special benefits and general benefits received from the services and to apportion the assessments to lots and parcels within the District based on the estimated special benefit each parcel receives from the services funded by the benefit assessment.

If the Board approves this Engineer's Report and the continuation of the assessments it establishes for fiscal year 2026-27, the assessments would be submitted to the County Auditor for inclusion on the property tax rolls for fiscal year 2026-27.

General Description of the District and Services

About the District

The Butte County Mosquito and Vector Control District is an independent special district (not part of any county or city) that controls and monitors mosquitoes, and other harmful pests such as ticks and yellow jackets. The District protects the usefulness, desirability and livability of property and the inhabitants of property within its jurisdictional area through the abatement of vertebrate and invertebrate vectors. In addition, the District regularly tests for diseases carried by mosquitoes and ticks and educates property owners and the occupants of property in the District about how to protect themselves from diseases transmitted by these and other organisms.

As mentioned earlier, the District currently provides a "baseline" level of services within the District's Service Area as permitted with the limited funding available. The Assessment provides the additional funding to operate the program above the baseline level, and expand the services provided in the Assessment Area to an optimum level necessary to protect the usefulness, utility, desirability and livability of property and the inhabitants of property within its jurisdictional area. The formula below describes the relationship between the final level of service, the existing baseline level of service, and the enhanced level of service to be funded by the assessment.

Final Level of Service	=	**Baseline Level of Service**	+	**Enhanced Level of Service**

Description of Vector Control Program

In addition to being nuisances by disrupting human activities and the use and enjoyment of public and private areas, certain insects and animals may transmit diseases. The diseases of most concern are West Nile virus (WNV), western equine encephalitis (WEE) virus, St. Louis encephalitis (SLE) virus, chikungunya, dengue, yellow fever, Zika, dog heartworm, and malaria, which are transmitted by mosquitoes; and Lyme disease, rickettsiosis, bartonellosis, Rocky Mountain spotted fever (RMSF), babesiosis, and ehrlichiosis, which are transmitted by ticks. The District also conducts regular surveillance and control for the biting yellow jackets and works with the California Department of Public Health—Vector-borne Disease Service to conduct surveillance for plague, leptospirosis, hantavirus, and other new or remerging diseases that could affect the health of county residents and visitors.

The spread of these diseases is minimized through ongoing vector surveillance activities, source reduction, source treatment, abatement, and educational outreach. These efforts also minimize the nuisance impacts vectors can have on residents. To fulfill this purpose, the District may take any and all necessary steps to control mosquitoes, monitor rodents and other vectors, and perform other related vector control services.

Specifically, the assessment provides an adequate funding source for the continuation of the projects and programs for surveillance, prevention, abatement, and control of vectors on property within the District. Such mosquito abatement and vector control projects and programs include, but are not limited to, source reduction, biological control, larvicide applications, adulticide applications, disease monitoring, public education, reporting, accountability, research, and interagency cooperative activities, as well as capital costs, and maintenance and operation expenses (collectively "Services"). The cost of these services also includes capital costs comprised of equipment, capital improvements and facilities necessary and incidental to the vector control program.

The Services are further defined as follows:

- Response to mosquito problems as well as other pestiferous or other vectors capable of transmitting disease on properties within the District.
- Control of mosquito larvae in mosquito-breeding sources including, but not limited to residential property, agricultural sources, ditches, drain lines, vaults, seasonally flooded ponds, horse troughs, wastewater treatment plants, under buildings, freshwater marshes, creeks, catch basins, runoff and ponding from urban evaporative cooler and air conditioning units, and other sources on property within the District's Service Area.
- Control of adult mosquito populations within areas identified by the District's vector abundance and virus surveillance operations.
- Survey and data analysis of mosquito larvae populations to assess public health risks and allocate control efforts on property in the District.
- Monitoring of mosquito and other hematophagous dipteran populations using carbon dioxide-baited traps, resting boxes, New Jersey light traps, gravid traps, ovitraps, B & G traps, and other surveillance methods on property in the District.
- Monitoring for diseases carried and transmitted by mosquitoes and other arthropods on property in the District, such as encephalitis, West Nile virus, and Zika.
- Deployment and testing of sentinel chicken flocks, testing of dead birds, dead squirrels, and mosquitoes for arboviruses and other diseases, and other disease surveillance methods to detect vector-borne diseases on property in the District.
- Testing of new insecticide materials and investigation of their efficacy.
- Cooperation with the local health department, the State Department of Public Health, State Universities, and other agencies to survey and identify arthropod-borne diseases such as Lyme disease, rickettsiosis, and plague found in parks, on trails and other locations frequented by the public.

- Facilitation of testing and monitoring for diseases carried and transmitted by ticks on property in the District, such as Lyme disease, rickettsiosis, ehrlichiosis, anaplasmosis, Rocky Mountain spotted fever, and babesiosis.
- Monitoring and/or advice for controlling other nuisance and potentially hazardous organisms and vectors such as yellow jackets, ticks, mites, and fleas on property in the District.
- Education of residents on property in the District about the risks of diseases carried by mosquitoes, ticks, and other disease vectors, and how to better protect themselves and their pets.
- Assisting State and universities in testing for hantavirus, arenavirus, plague, and other diseases carried by small mammal populations.
- Monitoring of new and emerging vectors such as the Asian Tiger Mosquito (*Aedes albopictus*) and/or the Yellow Fever Mosquito (*Aedes aegypti*).
- Monitoring and testing for and control of new and emerging pathogens such as West Nile virus, Rift Valley fever, chikungunya, dengue, yellow fever, Zika and rickettsiosis.
- Education programs on vectors and disease abatement at schools, community, and civic group meetings in the District.
- Distribution of printed material and brochures that describe what residents, employees, and property owners in the District can do to keep their homes and property free of mosquitoes and other vectors, and brochures that describe and explain the risks of vectors and vector-borne disease.
- Maintenance, updates, and enhancements to the District's ADA compliant website.
- Maintenance, updates, and enhancements to the District's adult mosquito control notification program.

The District protects the public from vector-borne disease and mosquito nuisance while protecting the environment, through a coordinated set of activities collectively known as the Integrated Vector Management Program (IVMP). For all vector species, public education is a primary control strategy. In addition, the District determines the abundance of vectors and the risk of vector-borne disease or discomfort through evaluation of public service requests and field and laboratory surveillance activities. If the populations exceed or are anticipated to exceed predetermined criteria, District staff employs the most efficient, effective, and environmentally sensitive means of control for the situation. Where feasible, water management or other physical control activities are instituted to reduce vector populations and production. In some circumstances, the District also uses biological control such as the planting of mosquitofish. When these approaches are not effective or are otherwise inappropriate, public health pesticides are used to treat specific pest-producing or pest-harboring areas.

Vectors and Vector-Borne Diseases in the District Service Area

The District undertakes activities through its Integrated Vector Management Program to control the following vectors of disease and/ or discomfort within the District:

Mosquitoes

Certain species of mosquitoes found in Butte and Glenn County can transmit West Nile virus, western equine encephalomyelitis, St. Louis encephalitis, malaria, and potentially other encephalitis viruses. A few species of mosquitoes are also capable of transmitting dog heartworm. Although some species of mosquitoes have not been shown to transmit disease, all species can cause human discomfort when the female mosquito bites to obtain blood. Reactions range from irritation in the area of the bite to severe allergic reactions or secondary infections resulting from scratching the irritated area. Additionally, an abundance of mosquitoes can cause economic losses, and loss of use or enjoyment of recreational, agricultural, or industrial areas.

Of the world's 3,000 mosquito species, more than 50 live in California, and 27 have been identified in Butte and Glenn County. Continuous surveillance and special control efforts are aimed at the most troublesome species: *Aedes washinoi, Aedes sierrensis, Aedes nigromaculis, Aedes melanimon, Anopheles freeborni, Anopheles franciscanus, Culex stigmatosoma, Culex pipiens, Culex erthrothorax, Culex tarsalis,* and now *Aedes aegypti*. *Aedes aegypti* was first discovered in Butte County in 2020 and has been found each year since its arrival and is now considered endemic to Butte County. The Aedes aegypti has the ability to carry and transmit viruses such as, but not limited to, Zika, yellow fever, chikungunya, and dengue fever. Before the arrival of this mosquito, these viruses would not be risks. They are now risks that will exist in Butte County for years to come.

Mosquito	Common Name	Larval Habitats	Biting Behavior		Approximate Flight Ranges	Medical Importance
			Host(s)	Time of Day		
Aedes nigromaculis	Irrigated pasture mosquito	Sunlight flooded agricultural sources, pastures, wetlands,	Large mammals, humans	Dusk, day, evening	5-10 miles	Western equine encephalitis
Aedes melanimon	Flood water mosquito	Managed wetlands, duck clubs, pastures	Humans	Dusk, day, evening	10 – 20 miles	Western equine encephalitis
Aedes sierrensis	Western treehole mosquito	Treeholes, tires, containers	Small mammals Humans	Dusk, day, evening	Less than 1 mile	Dog heartworm
Aedes tahoensis	Snowpool mosquito	Snow-melt pools	Large mammals, humans	Day and dusk	Less than 1 mile	California encephalitis
Aedes vexans	Inland floodwater mosquito	Managed wetlands, duck clubs, pastures, flooded orchards, flooded habitats	Large mammals Humans	Dusk, day, evening	10-20 miles	Western equine encephalitis Localized pest
Aedes washinoi	Flood water mosquito	Managed wetlands, duck clubs, inland shaded pools, flooded habitats	Humans	Dusk, day, evening	Less than 2.5 miles	Localized pest
Anopheles franciscanus	None	Shallow, sunlit pools with algae	Large mammals	Dusk and dawn	Less than 1 mile	Occasional pest
Anopheles freeborni	Western malaria mosquito	Irrigation ditches, rain pools, margins of lakes and streams, rice fields	Large mammals Humans	Dusk and dawn	10 miles	Malaria
Anopheles punctipennis	Woodland malaria mosquito	Cool, shaded, grassy pools in streams and creeks	Large mammals	Dusk and day	More than 1 mile	Malaria
Culex apicalis	None	Woodland streams	Reptiles, amphibians, birds, small mammals	Night	Less than 1 mile	Occasional pest
Culex boharti	None	Slow moving streams, permanent to semipermanent stream ponds	Reptiles and amphibians	Night	Less than 1 mile	Occasional pest
Culex erythrothorax	Tule mosquito	Ponds, lakes, and marshes with tules and cattails	Birds Humans	Dusk and day (shaded areas)	Less than 2 miles	West Nile virus
Culex pipiens	House mosquito	Polluted water, septic tanks,	Birds	Night	Less than 1 mile	St. Louis encephalitis

		catch basins, residential and commercial sources	Mammals			West Nile virus
			Humans			
Culex stigmatosoma	Banded foul water mosquito	Polluted water, dairy ponds, sewer ponds, log ponds	Birds	Night	Less than 10 miles	St. Louis encephalitis
						West Nile virus
Culex tarsalis	Western encephalitis mosquito	Agricultural, commercial, man-made or natural sources	Birds	Dusk and dawn	10 – 15 miles	St. Louis encephalitis
			Mammals			Western equine encephalitis
			Humans			West Nile virus
Culex territans	None	Sunlit cut-off pools along woodland creeks	Reptiles and amphibians	Dawn and dusk	Less than 1 mile	Occasional pest
Culex thriambus	None	Pools, ponds, hoofprints, and rock holes along creeks and streams	Birds	Night	Less than 1 mile	Occasional pest
Culiseta incidens	Cool-weather mosquito	Shaded, clear, natural or man-made sources	Large mammals	Dusk and dawn	Less than 5 miles	Localized pest
			Humans			
Culiseta inornata	Large winter mosquito	Sunlit ground pools or	Large mammals	Dusk and dawn	Less than 5 miles	Localized pest
		man-made sources	Humans			
Culiseta particeps	none	Freshwater marshes, ponds and creeks, woodland pools	Large mammals	Dusk and dawn	Less than 3 miles	Localized pest
			Humans			

Other Animals of Importance

Although certain animal species such as bats, ground squirrels, chipmunks, fleas, opossums, wood rats, roof rats, and house mice will not be regularly monitored or controlled, these animals play important roles in the transmission of plague, rickettsiosis, anaplasmosis, ehrlichiosis, murine typhus, hantavirus, and Lyme disease, and may be surveyed for other diseases. The District routinely provides education and consulting services to the public about disease risk associated with these vectors and appropriate measures to protect human health. In extreme cases where the transmission of disease is likely, as with the other District activities, control efforts may be employed. Control of these animals will be done in consultation with the California Department of Health Services, Butte and Glenn County Department of Health Services, Butte and Glenn County Animal Control Departments, Butte and Glenn County Agricultural Commissioner's Offices, and other State and local agencies.

Most of the vectors mentioned above are extremely mobile and cause the greatest hazard or discomfort away from their sources. Each of these potential vectors has a unique life cycle and most occupy different habitats. In order to effectively control these vectors, an integrated vector management program must be employed. District policy is to identify those species that are currently vectors, to recommend techniques for their prevention and control, and to anticipate and minimize any new interactions between vectors and humans.

Integrated Vector Management

The Integrated Vector Management Program of the Butte County Mosquito and Vector Control District is a long-standing, ongoing program of surveillance and control of mosquitoes and other vectors of human disease and discomfort. The program consists of six types of activities:

1. **SURVEILLANCE** for vector populations, vector habitats, disease pathogens, and public distress associated with vectors; this includes trapping and laboratory analysis of vectors to evaluate populations and disease threats, direct visual inspection of known or suspected vector habitats, by use of all-terrain vehicles, maintenance of access ways, and public surveys;
2. **PUBLIC EDUCATION** to encourage and assist reduction or prevention of vector habitats on private and public property and to encourage the public to safeguard themselves from the bites of mosquitoes;
3. Management of vector habitat, especially through water control and maintenance or improvement of channels, drainage systems, levees, and other water control facilities, etc. ("**PHYSICAL CONTROL**");
4. **VEGETATION MANAGEMENT** to improve surveillance or reduce vector populations, usually through education and cooperation of property owners;

5. Rearing, stocking, and provision to the public of the "mosquitofish" *Gambusia affinis*; application of Bti (*Bacillus thuringiensis israelensis*), the bacterium *Bacillus sphaericus* or the fungus *Lagenidium giganteum*; and possibly use of other predators or pathogens of vectors ("**BIOLOGICAL CONTROL**");
6. Application of non-persistent selective public health pesticides to reduce populations of larval or adult mosquitoes and other invertebrate threats to public health ("**CHEMICAL CONTROL**").

The District's activities address mosquitoes and other arthropods – but both share general principles and policies including identification of vector problems; responsive actions to control existing populations of vectors, prevent new sources of vectors from developing, and manage habitat to minimize vector production; education of land-owners and others on measures to minimize vector production or interaction with vectors; and provision and administration of funding and institutional support necessary to accomplish these goals.

In order to accomplish effective and environmentally sound vector management, the manipulation and control of vectors must be based on careful surveillance of their abundance, habitat (potential abundance), pathogen load, and/or potential contact with people; the establishment of treatment criteria (thresholds); and appropriate selection from a wide range of control methods. This dynamic combination of surveillance, treatment criteria, and use of multiple control activities in a coordinated program is generally known as Integrated Pest Management (IPM).[3]

The District's Vector Management Program, like any other IPM program, by definition involves procedures for minimizing potential environmental impacts. The District's Project employs IPM principles by first determining the species and abundance of vectors through evaluation of public service requests and field surveys of immature and adult pest populations; and then, if the populations exceed predetermined criteria, using the most efficient, effective, and environmentally sensitive means of control. For all vector species, public education is an important control strategy, and for some vectors (rodents, ticks) it is the District's primary control method. In some situations, water management or other physical control activities (historically known as "source reduction" or "permanent control") can be instituted to reduce and/or eliminate vector sources. The District also uses biological control such as the planting of mosquitofish in some settings. When these approaches are not effective or are otherwise inappropriate, public health pesticides are used to treat specific pest-producing or pest-harboring areas.

[3] Glass 1975, Davis et al 1979, Borror et al 1981, Durso 1996, Robinson 1996.

In order to maximize familiarity by the operational staff with specific vector sources in the Service Area, the District is divided into mosquito and other arthropod zones (currently ten). Each zone is assigned a full-time Mosquito and Vector Control Specialist, whose responsibilities include public education and outreach, inspection, and treatment of known vector sources, finding and controlling new sources, minor to moderate physical control, and responding to service requests from the public.

Vector control activities are conducted at a wide variety of sites throughout the District's Service Area. These sites can be roughly divided into those where activities may have an effect on the natural environment either directly or indirectly (through drainage), and sites where the potential environmental impacts are negligible "Non-Environmental Sites." Examples of "Environmental Sites" in the Service Area include lakes and ponds, rivers and streams, vernal pools and other seasonal wetlands, storm water detention basins, flood control channels, street drains and gutters, wash drains, irrigated pastures, or agricultural ditches. Examples of "Non-Environmental Sites" include animal troughs, artificial containers, tire piles, fountains, ornamental fishponds, swimming pools, animal waste detention ponds, urban retention/detention ponds, runoff and ponding from urban evaporative cooler and air conditioning units, and non-natural harborage (such as wood piles, residential and commercial landscape, trash receptacles, etc.).

Surveillance and Site Access

In addition to the nuisance of disrupting human activities and causing our environment to be uninhabitable, certain insects and animals may transmit a number of diseases. The diseases of most concern in Butte and Glenn County are West Nile virus (WNV), western equine encephalomyelitis (WEE) virus, and St. Louis encephalitis (SLE) virus transmitted by mosquitoes; rabies transmitted by skunks and bats; plague and murine typhus transmitted by fleas; leptospirosis and hantavirus pulmonary syndrome associated with rats and other rodents; and Lyme disease, rickettsiosis, babesiosis, and ehrlichiosis transmitted by ticks.

The District has found mosquito and other potential vector sources scattered throughout the District. All properties within the District are within mosquito-flying range of one or more mosquito sources, and/or the normal travel range of one or more other vectors. Furthermore, the District area has long suffered from mosquitoes and other vectors and includes a large number of sources.

Mosquito populations are surveyed using a variety of field methods and traps. Surveillance is conducted in a manner based upon an equal spread of resources throughout the District boundaries, focusing on areas of likely sources. Treatment strategies are based upon the results of the surveillance program and are specifically designed for individual area. Small volume mosquito "dippers" and direct observation are used to evaluate larval populations, and service requests from the public, light traps, resting boxes, B&G traps, gravid traps, ovitraps, and carbon dioxide-baited traps are used to evaluate adult populations. The surveillance traps are located and spread throughout the District in a balanced approach such that the traps measure mosquito levels throughout the District.

Sentinel chickens, adult mosquitoes, and wild birds and squirrels are tested for mosquito-borne diseases. Coops with sentinel chickens are maintained on the property of willing landowners, public agencies, and the District's own properties. The District employs standard practices of good animal husbandry to ensure the health and well-being of the sentinel animals.

Adult mosquitoes are collected and tested for infection with WNV, SLE, and WEE viruses. Collections are made with small battery-powered traps baited with carbon dioxide in the form of dry ice from gravid traps and/or aspirated from resting boxes and natural resting sites. Although the traps must be placed in vegetated areas with little light competition, care is taken to ensure that placement of traps does not significantly damage any vegetation.

Surveillance is also conducted to determine vector habitat (e.g., standing water) and the effectiveness of control operations. Inspections will be conducted using techniques with insignificant impacts on the environment. Staff routinely uses pre-existing accesses such as roadways, open areas, walkways, and trails. Vegetation management (i.e., pruning trees, clearing brush, and herbicide application) is conducted where overgrowth impedes safe access. All of these actions only result in a temporary/localized physical change to the environment with regeneration/regrowth occurring within a span of six to nine months.

In order to access various sites throughout the District for surveillance and for control, District staff utilizes specialized equipment such as light trucks, all-terrain vehicles, amphibious vehicles, boats, and aircraft. District policies on use of this equipment are designed to avoid environmental impact.

In addition, the District's jurisdictional powers allow for testing for the presence of plague and murine typhus by collecting ground squirrels, wild rodents, opossums, and fleas. (Currently the District does not anticipate it will provide this service due to a lack of manpower and certified specialists to perform the work.) Testing for the presence of hantavirus pulmonary syndrome could be conducted by collecting wild rodents. Small animals could be trapped using live traps baited with food. The traps would be set in late afternoon and would be collected within 24 hours. The animals would be anesthetized, and blood, tissue, and flea samples would be obtained. Threatened and endangered species and other legally protected animals that might become trapped would be released immediately and would not be used in these tests.

Disposable supplies contaminated while collecting blood and tissue would be stored in appropriate biohazard containers in the District's laboratory and disposed of in accordance with all applicable laws. Reusable items would be cleaned and sterilized before being used again. The disposal of animal carcasses would be in compliance with all Federal, State, and local laws and regulations.

Education

The primary goal of the District's activities is to prevent vectors from reaching public nuisance or disease thresholds by managing their habitat while protecting habitat values for their predators and other beneficial organisms. Vector prevention is accomplished through public education, including site-specific recommendations on water and land use, and by physical control (discussed in a later section).

The District's education program teaches the people within the District how to recognize, prevent, and suppress vector breeding and harborage on their property and how to recognize, prevent, and minimize exposure to adult mosquito populations and the bite of a mosquito. This part of the District's Services is accomplished through the distribution of brochures, fact sheets, and newsletters, participation in local fairs and events, presentations to community organizations, contact with Technicians in response to service requests, and public service announcements and news releases. Education also includes a school program to teach future adults in the District to be responsible by eliminating vector sources, and to educate their parents or guardians about District services and how they can reduce vector-human interaction on property within the District. The District also maintains and utilizes a website to promote vector awareness and virus prevention. The District also employees a specialized notification system to raise awareness of vector populations, virus surveillance, spray areas, and other important District news.

Control of Mosquitoes

When a mosquito source produces mosquitoes above District treatment thresholds, the Technician will generally work with the landowner or responsible agency to reduce the habitat value of the site for mosquitoes ("physical control"). If this is ineffective or not possible, then the Technician will determine the best method of further treatment, including biological control and/or chemical control. The District's objective is to provide the properties a District-wide level of consistent mosquito and vector control such that all properties would benefit from equivalent reduced levels of mosquitoes and other vectors. Surveillance and monitoring are provided on a District-wide basis. The District, though, cannot predict where control measures will be applied because the type and location of control depends on the surveillance and monitoring results. However, the control thresholds and objectives are comparable throughout the District.

Physical Control

The District physically manipulates and manages mosquito habitat areas ("sources") within the District to reduce mosquito populations. This may include removal of containers and debris, removing standing water from unmaintained swimming pools and spas, removal of vegetation or sediment, interrupting water flow, rotating stored water, pumping and/or filling sources, improving drainage, water conveyance systems, and water circulation systems, breaching or repairing levees, and installing, improving, or removing culverts, and other water control structures in wetlands.

Biological Control

The mosquitofish, *Gambusia affinis*, is the District's primary bio-control agent used against mosquitoes. Mosquitofish are not native to California but have been widely established in the state since the early 1920s, and now inhabit most natural and constructed water bodies. The District rears mosquitofish in its ponds and aquaculture center. The District owns, operates, and maintains five ponds onsite at the Oroville Headquarters where mosquitofish reproduction takes place during the warmer months of the year (usually April through October).

With the approval of the Benefit Assessment, the District created, installed, and is operating its own aquaculture center at the Oroville Headquarters. The District has four tanks with heating, filtration, lighting, and automatic feeders. This allows the District to generate "clean" fish if there is ever a need and allows the District to produce and provide mosquitofish year-round.

The District periodically uses nets to collect mosquitofish from these and other water bodies located in the District. When catching mosquitofish from natural settings, other aquatic animals that are caught accidentally, such as bluegill, sunfish, other freshwater fish, amphibians and crustaceans, are returned to the habitat. District technicians place mosquitofish in natural and man-made settings within the District where either previous surveillance has demonstrated a consistently high production of mosquitoes, or where current surveillance indicates that mosquito populations will likely exceed chemical control thresholds without prompt action.

Mosquitofish are also made available to people to control mosquito production only in artificial containers such as ornamental fishponds, water plant barrels, horse troughs, abandoned swimming pools, and other man-made containers within the District. Year round (when fish are available) residents may pick up mosquitofish free of charge from either of the two District offices. During mosquito season (generally May-Oct) residents may pick up free mosquitofish from any of the ten sites throughout the District's Service Area.

Material Control

Since many mosquito sources cannot be adequately controlled with physical control measures or mosquitofish, the District also uses biological materials and/or public health pesticides approved by the U. S. Environmental Protection Agency, the California Department of Pesticide Regulation, and other environmental agencies to control mosquito production where observed mosquito production exceeds District thresholds. When field inspections indicate the presence of vector populations which meet District criteria for chemical control (including abundance, density, species composition, proximity to human settlements, water temperature, presence of predators, prevalence of disease, and others), the District's California-certified Vector Control Technicians apply these materials to the site in full accordance with the label instructions. When possible, the District uses selective larvicides; if adult mosquito populations exceed treatment threshold criteria or public health is threatened, the District may apply selective, low persistence UVL aerosol adulticides to reduce the number of adult mosquitoes.

Mosquito Larvicides: Depending on time of year, water temperature, organic content, mosquito species present, larval density, and other variables, pesticide applications may be repeated at any site at recurrence intervals ranging from annually to weekly. Larvicides routinely used by the District include Cocobear, Methoprene (Altosid), Bti (*Bacillus thuringiensis israelensis*), Spinosad, Agnique, and Bs (*Bacillus sphaericus*).

1. Cocobear is a mineral oil with low phytotoxicity and fast environmental breakdown that forms a thin film on water and kills larvae through suffocation and/or direct toxicity. It is typically applied by hand, ATV, or truck at application rates of 3-5 gallons per acre.

2. Methoprene, or Altosid, is a synthetic juvenile hormone designed to disrupt the transformation of a juvenile mosquito into an adult. It is applied either in response to observed high populations of mosquito larvae at a site, or as a sustained-release product that can persist for approximately four months. Application can be by hand, ATV, or aircraft.
3. Bti (*Bacillus thuringiensis israelensis*) and Spinosad are a bacterium that is ingested by larval mosquitoes and disrupts their gut lining, leading to death before pupation. Bti is applied by the District as a liquid or bonded to inert substrate (typically corncob granules) to assist penetration of vegetation. Persistence is low in the environment, and efficacy depends on careful timing of application relative to the larval instar. Therefore, use of Bti requires frequent inspections of larval sources during periods of larval production, and may require frequent applications of material. Application can be by hand, ATV, or aircraft.
4. Agnique is the trade name for a surface film larvicide, comprised of ethoxylated alcohol. It is used as an alternative to Cocobear. Application is made by hand.
5. Finally, *Bacillus sphaericus* is a biological larvicide that the District uses. The mode of action is similar to that of Bti, but *B. sphaericus* may be used more than Bti in some sites because of its greater effectiveness in water with high organic content. Application can be by hand, ATV, or aircraft.

Mosquito Adulticides: In addition to chemical control of mosquito larvae, the District also makes aerosol applications of pesticides for control of adult mosquitoes within the District if specific criteria are met, including species composition, population density (as measured by landing count or other quantitative method), proximity to human populations, and/or human disease risk. The adulticides classes used by the District include natural pyrethrum, synthetic pyrethroids and one organophosphate. As with larvicides, adulticides are applied in strict compliance with label requirements.

Control and Surveillance of Other Vectors

Routinely, per the request of a public agency or resident, the District controls yellow jacket populations and performs yellow jacket nest removal. Other animals, such as ground squirrels and fleas, could be controlled by the District in response to the threat to property and of disease transmission to humans. These animals would only be controlled after consultation with local and State health officials. In specific situations, control of other vectors would be considered either as policy of the Board of Trustees or as directed by management. During the fall, winter, and spring months, the District monitors tick populations in high use public areas. Ticks are collected by conducting tick "flagging." Tick flagging is the practice of dragging a light colored piece of fabric (usually flannel) attached to a pole along the sides of a trail. After a couple of yards, the fabric is turned over and the ticks are collected. The ticks are then identified, recorded, and sent off to the Placer Mosquito and Vector Control District for testing. This data is used for risk assessment purposes.

Other Services

The District provides a service to identify insects and arthropods that are submitted by residents, pest control companies, and other agencies. The identification is free of charge. After the insect or arthropod is identified the District will contact the submitter and inform them of what has been identified and how best to handle an infestation, problem, or any associated risks. The District is also available upon request to attend any public, civic, or agency event to make presentations, raise awareness, and answer any questions. The District has a K-8 program where students at a young age can learn how to avoid bites of vectors and minimize mosquitoes at their homes.

Service Requests

The District responds to service requests within its boundaries. Any property owner, business or resident in the District may contact the District to request vector control related service or inspection and a District field technician will respond promptly to the particular property to evaluate the property and situation and to perform appropriate surveillance and control services. The District responds to all service requests in a timely manner, regardless of location, within its boundaries.

Estimate of Cost

Figure 1 – Cost Estimate – FY 2026-27

Butte County Mosquito & Vector Control District **Mosquito, Vector and Disease Control Assessment** Estimate of Cost Fiscal Year 2026-27			***Total Budget***
Vector Control Services and Related Expenditures			
Mosquito, Vector & Disease Control Services			$3,714,558
Operations, Materials, Supplies			$2,331,535
Capital Facilities			
Capital Improvements, Facilities and Equipment			$255,000
Total Vector Control Services and Related Expenditures			$6,301,093
Incidental Costs [3]			
County Collection, Levy Administration and Other Incidentals			$49,977
Subtotal - Incidentals			$49,977
Total Vector Control Services and Incidental Expenses			**$6,351,070**
Total Benefit of Improvements			**$6,351,070**
SFE units			85,183.71
Benefit received per Single Family Equivalent Unit			**$74.56**
Less:			
District Contribution and Other Sources for General Benefit [1]			($117,213)
District Contribution and Other Sources for Special Benefit			($5,037,729)
District Contribution for Non-Assessed Parcels [2]			($24,000)
			($5,178,942)
Net Cost of Vector Control Services			$1,172,128
Budget Allocation to Property			
Total Assessment Budget			**$1,172,128**
	Parcels	SFE Units [4]	Adjusted SFE
Zone A: [7]			
Butte County	81,324	75,943.91	75,943.91
Glenn County (Hamilton C	691	645.26	645.26
Oroville	7,743	8,436.30	8,436.30
Zone B: Butte County	1165	632.95	158.24
	90,923	85,658.42	85,183.71
Assessment per Single Family Equivalent			**$13.76**

Notes:
1. As determined in the following section, at least 10.0% of the cost of the Services funded by the Assessments must be funded from sources other than the assessments, to cover any general benefits from these improved Services. Therefore, out of the total cost to provide the improved Services of $1,172,128 the District must contribute at least $117,213 from sources other than the assessments. The District will contribute $5,178,942, which is well over the estimated general benefits.
2. District Contribution for Non-Assessed Parcels includes revenue from other sources other than the assessments as an allowance to offset uncollectible assessments on public agency parcels.
3. Incidental Costs includes county collection charges, and assessment administration costs.
4. SFE Units means Single Family Equivalent benefit units. See method of assessment in the following Section for further definition.
5. The assessment rate per SFE is the total amount of assessment per Single Family Equivalent benefit unit.
6. The proceeds from the assessments will be deposited into a fund separated by a special revenue code. Funds raised by the assessment shall be used only for the purposes stated within this Report. Any balance remaining at the end of the fiscal year, June 30, must be carried over to the next fiscal year. The assessment amounts are rounded down to the even penny for purposes of complying with the collection requirements from the County Auditor. Therefore, the total assessment amount for all parcels subject to the assessments may vary slightly from the net amount to be assessed.
7. In fiscal year 2015-16, the District reevaluated the services provided throughout the Assessment Area and determined that some areas within the Assessment Area receive a relatively lower level of service. As a result, two Zones of Benefit: Zone A and Zone B were introduced. Zone B parcels receive a significant reduction in the level of general surveillance and control services as compared to the areas inside Zone A. It was calculated, based on the overall distribution of those types of services, that general or routine adult mosquito trapping, and control represents 75% of the District Services. Therefore, Zone B parcels will be subject to a 75% assessment reduction. See the Zones of Benefit section on page 43 for further description and the Assessment Diagram on page 57 for zone boundaries.

Method of Assessment

This section of the Report explains the benefits to be derived from the Services provided for property in the District, and the methodology used to apportion the total assessment to properties within the Assessment Area.

The Butte County Mosquito and Vector Control District Service Area includes all of Butte County except the small area served by the Durham Mosquito Abatement District. The District also includes the Hamilton City area of Glenn County. On June 7, 2018, the Local Agency Formation Commission of Butte County adopted Resolution No. 13 2017/18 approving the detachment and annexation of a portion of the Durham Mosquito Abatement territory to the Butte County Mosquito and Vector Control District, increasing the District's service area by approximately 14,775 acres. Additionally, on August 6, 2020, Local Agency Formation Commission of Butte County adopted Resolution No. 01 2020/21 approving the dissolution of the Oroville Mosquito District and annexation to the Butte County Mosquito and Vector Control District, increasing the District's service area by approximately 7,660 acres. The Assessment Area consists of all the Assessor Parcels within the Service Area, as defined by the approved boundary description (boundary will be coterminous with the Service Area).

The method used for apportioning the assessment is based upon the proportional special benefits to be derived by the properties in the District over and above the general benefits conferred to real property in the Assessment District. Special benefit is calculated for each parcel in the Assessment District using the following process:

1. Identification of total benefit to the properties derived from the Services
2. Calculation of the proportion of these benefits that are special vs. general
3. Determination of the relative special benefit within different areas within the Assessment District
4. Determination of the relative special benefit per property type and property characteristic
5. Calculation of the specific assessment for each individual parcel based upon special vs. general benefit, location, property type and property characteristics

Discussion of Benefit

In summary, the assessments can only be levied based on the special benefit to property. This benefit is received by property over and above any general benefits. This special benefit is received by property over and above any general benefits from the additional Services. With reference to the engineering requirements for property related assessments, under Proposition 218, an Engineer must determine and prepare a report evaluating the amount of special and general benefit received by property within the Assessment District as a result of the improvements or services provided by a local agency. The special benefit is to be determined in relation to the total cost to that local entity of providing the service and/or improvements.

Proposition 218 as codified in Article XIIID of the California Constitution has confirmed that assessments must be based on the special benefit to property:

> *"No assessment shall be imposed on any parcel which exceeds the reasonable cost of the proportional special benefit conferred on that parcel."*

The below benefit factors, when applied to property in the Assessment Area, confer special benefits to property and ultimately improve the safety, utility, functionality, and usability of property in the Assessment Area. These are special benefits to property in the Assessment Area in much the same way that storm drainage, sewer service, water service, lighting, sidewalks, and paved streets enhance the safety, utility and functionality of each parcel of property served by these improvements, providing them with more utility of use and making them safer and more usable for occupants.

It should also be noted that Proposition 218 included a requirement that existing assessments in effect upon their effective date were required to be confirmed by either a majority vote of registered voters in the Assessment Area, or by weighted majority property owner approval using the new ballot proceeding requirements. However, certain assessments were excluded from these voter approval requirements. Of note is that in California Constitution Article XIIID Section 5(a) this special exemption was granted to assessments for sidewalks, streets, sewers, water, flood control, drainage systems and vector control. The Howard Jarvis Taxpayers Association explained this exemption in their Statement of Drafter's Intent:

> *"This is the "traditional purposes" exception. These existing assessments do not need property owner approval to continue. However, future assessments for these traditional purposes are covered."*[4]

Therefore, the drafters of Proposition 218 acknowledged that vector control assessments were a "traditional" and therefore acknowledged and accepted use.

[4] Howard Jarvis Taxpayers Association, "Statement of Drafter's Intent", January 1997.

Since all assessments existing before or after Proposition 218 must be based on special benefit to property, the drafters of Proposition 218 indicated that vector control services potentially confer special benefit on property based on the specific circumstances of the services and properties. Moreover, the statement of the drafter's intent also acknowledges that any new or increased vector control assessments after the effective date of Proposition 218 would need to comply with the engineering and voter approval requirements they established. Therefore, the drafters of Proposition 218 clearly recognized vector assessments as a "traditional" use of assessments, acknowledged that new vector assessments may be formed after Proposition 218 and inherently were satisfied that vector control services potentially confer special benefit to properties.

The Legislature also made a specific determination after Proposition 218 was enacted that vector control services constitute a proper subject for special assessment. Health and Safety Code section 2082, which was signed into law in 2002, provides that a district may levy special assessments consistent with the requirements of Article XIIID of the California Constitution to finance vector control projects and programs. The intent of the Legislature to allow and authorize benefit assessments for vector control services after Proposition 218 is shown in the Assembly and Senate analysis the Mosquito Abatement and Vector Control District Law where it states that the law:

> *Allows special benefit assessments to finance vector control projects and programs, consistent with Proposition 218.* [5]

Therefore, the State Legislature unanimously found that vector control services are a valuable and important public service that can be funded by benefit assessments. To be funded by assessments, vector control services must confer special benefit to property.

Mosquito and Vector Control Is a Special Benefit to Properties

As described below, this Engineer's Report concludes that mosquito and vector control is a special benefit that provides direct advantages to property in the Assessment District. For example, the assessment provides for 1) surveillance throughout the Assessment Area to measure and track the levels and sources of mosquitoes impacting property in the area and the people who live and work on the property; 2) mosquito and mosquito source control, treatment and abatement throughout the Assessment Area such that all property in the area benefits from a comparable reduction of mosquito levels; 3) monitoring throughout the Assessment Area to evaluate the effectiveness of District treatment and control and to ensure that all properties are receiving the equivalent level of mosquito reduction benefits; and 4) service requests which result in District staff directly visiting, inspecting and treating property.

[5] Senate Bill 1588, Mosquito Abatement and Vector Control District Law, Legislative bill analysis

The services provided by the District are provided throughout the Assessment Area, that is, the benefit received in the Assessment Area would be District wide. All property receives benefits from the comprehensive mosquito, vector and disease monitoring, control and prevention services.

Moreover, the Services funded by the Assessments reduce the level of mosquitoes and vectors arriving at and negatively impacting properties within the Assessment District.

The following section, Benefit Factors, describes how and why mosquito and vector control services specially benefit properties in the Assessment Area. These benefits are particular and distinct from their effect on property in general or the public at large.

Benefit Factors

In order to allocate the assessments, the Assessment Engineer identified the types of special benefit arising from the aforementioned Services and that would be provided to property in the Assessment Area. The following benefit factors represent the types of special benefit to parcels resulting from the Services to be financed with the assessment proceeds. These types of special benefit are as follows:

Reduced mosquito and vector populations on property and as a result, enhanced desirability, utility, usability, and functionality of property in the Assessment Area

The assessments provide new and enhanced services for the control and abatement of nuisance and disease-carrying mosquitoes. These Services materially reduce the number of mosquitoes and vectors on properties throughout the Assessment Area. The lower mosquito and vector populations on property in the Assessment Area is a direct advantage to property that serves to increase the desirability and "usability" of property. Clearly, properties are more desirable and usable in areas with lower mosquito populations and with a reduced risk of vector-borne disease. This is a special benefit to residential, commercial, agricultural, industrial, and other types of properties because all such properties directly benefit from reduced mosquito and vector populations and properties with lower vector populations are more usable, functional and desirable.

Excessive mosquitoes and other vectors in the area can materially diminish the utility and usability of property. For example, prior to the commencement of mosquito control and abatement services, properties in many areas in the State were considered to be nearly uninhabitable during the times of year when the mosquito populations were high.[6] The prevention or reduction of such diminished utility and usability of property caused by mosquitoes is a clear and direct advantage and special benefit to property in the Assessment Area.

The State Legislature made the following finding on this issue:

> *"Excess numbers of mosquitoes and other vectors spread diseases of humans, livestock, and wildlife, reduce enjoyment of outdoor living spaces, both public and private, reduce property values, hinder outdoor work, reduce livestock productivity; and mosquitoes and other vectors can disperse or be transported long distances from their sources and are, therefore, a health risk and a public nuisance; and professional mosquito and vector control based on scientific research has made great advances in reducing mosquito and vector populations and the diseases they transmit."* [7]

Mosquitoes and other vectors emerge from sources throughout the Assessment Area, and with an average flight range of two miles (although the flight range of a female mosquito may be up to 20 miles), mosquitoes from known sources can reach all properties in the Assessment Area. These sources include standing water in rural areas, such as marshes, pools, wetlands, ponds, drainage ditches, drainage systems, tree holes and other removable sources such as old tires and containers. The sources of mosquitoes also include numerous locations throughout the urban areas in the Assessment Area. These sources include underground drainage systems, containers, unattended swimming pools, leaks in water pipes, tree holes, flower cups in cemeteries, over-watered landscaping and lawns, exposed septic tanks, and many other sources. By controlling mosquitoes at known and new sources, the Services will materially reduce mosquito populations on property throughout the Assessment Area.

A recently increasing source of mosquitoes is unattended swimming pools and exposed septic tanks:

> *"Anthropogenic landscape change historically has facilitated outbreaks of pathogens amplified by peridomestic vectors such as Cx. pipiens complex mosquitoes and associated commensals such as house sparrows. The recent widespread downturn in the housing market and increase in adjustable rate mortgages have combined to force a dramatic increase in home foreclosures and abandoned homes and produced urban landscapes*

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[6] Prior to the commencement of modern mosquito control services, areas in the State of California such as the San Mateo Peninsula, Napa County, Lake County and areas in Marin and Sonoma Counties had such high mosquito populations or other vector populations that they were considered to be nearly unlivable during certain times of the year and were largely used for part-time vacation cottages that were occupied primarily during the months when the natural vector populations were lower.

[7] Assembly Concurrent Resolution 52, chaptered April 1, 2003

dotted with an expanded number of new mosquito habitats. These new larval habitats may have contributed to the unexpected early season increase in WNV cases in Bakersfield during 2007 and subsequently have enabled invasion of urban areas by the highly competent rural vector Cx. tarsalis. These factors can increase the spectrum of competent avian hosts, the efficiency of enzootic amplification, and the risk for urban epidemics."[8]

Increased safety of property in the Assessment Area

The Assessments will result in improved year-round proactive Services to control and abate mosquitoes and other vectors that otherwise would occupy properties throughout the Assessment Area. Mosquitoes and other vectors are transmitters of diseases, so the reduction of mosquito and vector populations makes property safer for use and enjoyment. In absence of the assessments, these Services would not be provided, so the Services funded by the assessments make properties in the Assessment Area safer, which is a distinct special benefit to property in the Assessment Area.[9] This is not a general benefit to property in the Assessment Area or the public at large because the Services are tangible mosquito, vector and disease control services that will be provided directly to the properties in the Assessment Area and the Services are over and above the baseline services that could be provided by the Butte County Mosquito and Vector Control District without the assessment.

This finding was confirmed in 2003 by the State Legislature:

"Mosquitoes and other vectors, including but not limited to, ticks, Africanized honey bees, rats, fleas, and flies, continue to be a source of human suffering, illness, death, and a public nuisance in California and around the world. Adequately funded mosquito and vector control, monitoring and public awareness programs are the best way to prevent outbreaks of West Nile virus and other diseases borne by mosquitoes and other vectors." [10]

Also, the Legislature, in Health and Safety Code Section 2001, finds that:

"The protection of Californians and their communities against the discomforts and economic effects of vectorborne diseases is an essential public service that is vital to public health, safety, and welfare."

[8] Riesen William K. (2008). Delinquent Mortgages, Neglected Swimming Pools, and West Nile Virus, California. Emerging Infectious Diseases.Vol. 14(11).

[9] By reducing the risk of disease and increasing the safety of property, the proposed Services will materially increase the usefulness and desirability of certain properties in the Assessment Area.

[10] Assembly Concurrent Resolution 52, chaptered April 1, 2003

Reductions in the risk of new diseases and infections on property in the Assessment Area

Mosquitoes have proven to be a major contributor to the spread of new diseases such as West Nile virus, among others. A highly mobile population combined with migratory bird patterns can introduce new mosquito-borne diseases into previously unexposed areas.

> *"Vector-borne diseases (including a number that are mosquito-borne) are a major public health problem internationally. In the United States, dengue and malaria are frequently brought back from tropical and subtropical countries by travelers or migrant laborers, and autochthonous transmission of malaria and dengue occasionally occurs. In 1998, 90 confirmed cases of dengue and 1,611 cases of malaria were reported in the USA and dengue transmission has occurred in Texas."*[11]

> *"In 2009 and 2010, Florida experienced its first documented cases of autochthonous dengue since 1946. The first case, recognized in a woman who had traveled to Monroe County, Florida, was identified in September 2009. Subsequent investigation led to recognition of an outbreak in the Key West area of Monroe County. In 2009, 29 cases of locally acquired dengue were confirmed in Key West, and a serosurvey revealed that approximately 5% of Key West residents had been recently infected with dengue. During 2010, 67 cases of locally acquired dengue had been reported: 65 cases were in Key West, and one case each occurred in Broward County and in Miami-Dade County."*[12]

> *In 2018, 48 states and the District of Columbia (DC) have reported 2,647 cases of human WNV illness to CDC through ArboNET. Of these, 251 (9.5%) cases were reported in Nebraska, 217 (8.2%) in California, and 204 (7.7%) in North Dakota. A total of 1,638 (59%) of the 2,647 cases for which such data were available occurred in males; the median age of patients was 59 years. A total of 1,774 (67%) patients were hospitalized and 167 (6%) cases were fatal."* [13]

Florida experienced an outbreak of the mosquito-borne Zika virus (ZIKV) in 2016 that was attributed to incoming passenger traffic from regions with ZIKV transmission:

> *"The high volume of traffic entering Florida from ZIKV-affected regions, especially the Caribbean, is likely to have provided a substantial supply of ZIKV-infected individuals. Because Florida is unlikely to sustain long-term ZIKV transmission, the potential for future ZIKV outbreaks in this region is dependent*

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[11] Rose, Robert. (2001). Pesticides and Public Health: Integrated Methods of Mosquito Management. Emerging Infectious Diseases. Vol. 7(1); 17-23.

[12] Bouri, N., Sell, T. K., Franco, C., Adalja, A. A., Henderson, D. A., & Hynes, N. A. (2012). Return of Epidemic Dengue in the United States: Implications for the Public Health Practitioner. *Public Health Reports*, *127*(3), 259–266.

[13] Center for Disease Control. (2018). West Nile Virus and Other Domestic Nationally Notifiable Arboviral Diseases --- United States, August 9, 2019. Morbidity and Mortality Weekly Report. 68(31); 673-678.

upon activity elsewhere. Therefore, we expect that outbreaks in Florida will cycle with ZIKV transmission dynamics in the Americas."[14]

More recently, Florida experienced a dengue outbreak between May 2022 and April 2023. Similarly, Texas reported an outbreak in 2023, including a rare locally acquired case. In 2024, Los Angeles County confirmed the first locally transmitted cases of dengue fever in California's history, representing a major milestone in the state's public health landscape.

"During May 2022-April 2023, dengue virus serotype 3 was identified among 601 travel-associated and 61 locally acquired dengue cases in Florida, USA. All 203 sequenced genomes belonged to the same genotype III lineage and revealed potential transmission chains in which most locally acquired cases occurred shortly after introduction, with little sustained transmission".[15]

"According to the Texas Department of Health Services statement in November 2024, 665 cases of dengue virus were reported in Texas, most from returning travelers. Only 40 cases in the previous 11 years have been locally acquired, including one case in 2024 in Cameron County, the southernmost county of the state".[16]

"On October 2, 2023, the Pasadena Public Health Department received a laboratory report of elevated dengue antibodies from a symptomatic patient with no recent travel history".[17]

A study of the effect of aerial spraying conducted by the Sacramento-Yolo Mosquito and Vector Control District (SYMVCD) to control a West Nile virus disease outbreak found that the SYMVCD's mosquito control efforts materially decreased the risk of new diseases in the treated areas:

After spraying, infection rates decreased from 8.2 (95% CI 3.1–18.0) to 4.3 (95% CI 0.3–20.3) per 1,000 females in the spray area and increased from 2.0 (95% CI 0.1–9.7) to 8.7 (95% CI 3.3–18.9) per 1,000 females in the untreated area. Furthermore, no additional positive pools were detected in the northern treatment area during the remainder of the year, whereas positive pools were detected in the untreated area until the end of September (D.-E.A Elnaiem, unpub. data). These independent lines of evidence corroborate our conclusion that actions taken by SYMVCD were effective in disrupting the

[14] Grubaugh, Nathan D. et al. (2017), Genomic epidemiology reveals multiple introductions of Zika virus into the United States. Nature. Vol 546(7658); 401-405.
[15] Jones FK, Morrison AM, Santiago GA, et al. Introduction and Spread of Dengue Virus 3, Florida, USA, May 2022–April 2023. Emerging Infectious Diseases. 2024;30(2):376-379. doi:10.3201/eid3002.231615.
[16] Mora BL. Dengue virus in Texas. The Southwest Respiratory and Critical Care Chronicles 2025; 13(54):43–44
[17] Feaster M, Patrick R, Oshiro M, et al. Notes from the Field: First Locally Acquired Dengue Virus Infections — Pasadena, California, October–December 2023. MMWR Morb Mortal Wkly Rep 2024;73:955–956.

WNV transmission cycle and reducing human illness and potential deaths associated with WNV.[18]

The Services funded by the assessments will help prevent, on a year-round basis, the presence of mosquito- and vector-borne diseases on property in the Assessment Area. This is another tangible and direct special benefit to property in the Assessment Area that would not be received in absence of the assessments.

Protection of economic activity on property in the Area

As demonstrated by the SARS outbreak in China, outbreaks of Avian Flu, and the Covid-19 pandemic, outbreaks of pathogens can materially and negatively impact economic activity in the affected area. Such outbreaks and other public health threats can have a drastic negative effect on tourism, business, and residential activities in the affected area. The assessments will help prevent the likelihood of such outbreaks in the Assessment Area.

Mosquitoes hinder, annoy and harm residents, guests, visitors, farm workers, and employees. A vector-borne disease outbreak and other related public health threats would have a drastic negative effect on agricultural, business, and residential activities in the Assessment Area.

The economic impact of diseases is well documented. There are several published studies which have looked at the economic impact of the West Nile virus in the United States as well as California. From 1999 to 2012 the West Nile virus has cost the United States an estimated $800 million in hospitalizations and lost productivity.[19] According to a study prepared for the Centers for Disease Control and Prevention, economic losses due to the outbreak of West Nile virus in Sacramento County, California was estimated to cost $2.98 million in 2005:

In 2005, an outbreak of West Nile virus (WNV) disease occurred in Sacramento County, California; 163 human cases were reported. In response to WNV surveillance indicating increased WNV activity, the Sacramento-Yolo Mosquito and Vector Control District conducted an emergency aerial spray. We determined the economic impact of the outbreak, including the vector control event and the medical cost to treat WNV disease. WNV disease in Sacramento County cost ≈$2.28 million for medical treatment and patients' productivity loss for both West Nile fever and West Nile neuroinvasive disease. Vector control cost ≈$701,790, including spray procedures and overtime hours. The total economic impact of WNV was $2.98 million. A cost-benefit analysis indicated that only 15 cases of West Nile neuroinvasive disease would need to be prevented to make the emergency spray cost-effective. [20]

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[18] Carney, Ryan. (2008), Efficiency of Aerial Spraying of Mosquito Adulticide in Reducing the Incidence of West Nile Virus, California, 2005. Emerging Infectious Diseases, Vol 14(5)

[19] Frellick, Marcia. West Nile Cost United States Nearly $800 Million in 14 years. Medscape. 2014.

[20] Barber LM, Schleier JJ III, Peterson RKD. Economic cost analysis of West Nile virus outbreak, Sacramento County, California, USA, 2005. Emerg Infect Dis 2010 16(3).

Moreover, a study conducted in 1996-97 of La Crosse Encephalitis (LACE), a human illness caused by a mosquito-transmitted virus, found a lifetime cost per human case at $48,000 to $3,000,000 and found that the disease significantly impacted lifespans of those who were infected. Following is a quote from the study which references the importance and value of active vector control services of the type that are funded by the assessments:

> *The socioeconomic burden resulting from LACE is substantial, which highlights the importance of the illness in western North Carolina, as well as the need for active surveillance, reporting, and prevention programs for the infection.* [21]

The Services funded by the assessments help prevent the likelihood of such outbreaks on property in the Assessment Area and will reduce the harm to economic activity on property caused by existing mosquito populations. This is another direct advantage received by property in the Assessment Area that would not be received in absence of the assessments.

Protection of Assessment Area's agriculture, tourism, and business industries

The agriculture, tourism and business industries in the Assessment Area will benefit from reduced levels of harmful or nuisance mosquitoes and other vectors. Conversely, any outbreaks of emerging vector-borne pathogens such as West Nile virus could also materially negatively affect these industries. Diseases transmitted by mosquitoes and other vectors can adversely impact business and recreational functions.

> *A study prepared for the United States Department of Agriculture in 2003 found that over 1,400 horses died from West Nile virus in Colorado and Nebraska and that these fatal disease cases created over $1.2 million in costs and lost revenues. In addition, horse owners in these two states spent over $2.75 million to vaccinate their horses for this disease. The study states that "Clearly, WNV has had a marked impact on the Colorado and Nebraska equine industry."* [22]

> *Pesticides for mosquito control impart economic benefits to agriculture in general. Anecdotal reports from farmers and ranchers indicate that cattle, if left unprotected, can be exsanguinated by mosquitoes, especially in Florida and other southeast coastal areas. Dairy cattle produce less milk when bitten frequently by mosquitoes.* [23]

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[21] Utz, J. Todd, Apperson, Charles S., Maccormack, J. Newton, Salyers, Martha, Dietz, E. Jacquelin, Mcpherson, J. Todd, Economic and Social Impacts Of La Crosse Encephalitis In Western North Carolina, Am J Trop Med Hyg 2003 69: 509-518

[22] S. Geiser, A. Seitzinger, P. Salazar, J. Traub-Dargatz, P. Morley, M. Salman, D. Wilmot, D. Steffen, W. Cunningham, Economic Impact of West Nile Virus on the Colorado and Nebraska Equine Industries: 2002, April 2003, Available from http://www.aphis.usda.gov/vs/ceah/cnahs/nahms/equine/wnv2002_CO_NB.pdf

[23] Jennings, Allen. (2001). USDA Letter to EPA on Fenthion IRED. United States Department of Agriculture, Office of Pest Management Policy. March 8, 2001.

The assessments serve to protect the businesses and industries in the Assessment Area. This is a direct advantage and special benefit to property in the Assessment Area.

Reduced risk of nuisance and liability on property in the Assessment Area

In addition to health-related factors, uncontrolled mosquito and vector populations create a nuisance for residents, employees, customers, tourists, farm workers and guests in the Assessment Area. Properties in the Assessment Area will benefit from the reduced nuisance factor that will be created by the Services. Agricultural and rangeland properties also benefit from the reduced nuisance factor and harm to livestock and employees from lower mosquito and vector populations.

Agricultural, range, golf course, cemetery, open space and other such lands in the Assessment Area contain large areas of mosquito and vector habitat and are therefore a significant source of mosquito and vector populations. In addition, residential and business properties in the Assessment Area can also contain significant sources.[24] It is conceivable that sources of mosquitoes could be held liable for the transmission of diseases or other harm. For example, in August 2004 the City of Los Angeles approved an ordinance to impose new fines of up to $1,000 per day for property owners who don't remove standing water sources of mosquitoes on their property. Furthermore, pursuant to the Health and Safety Code, Section 2061(b) a district may impose civil penalties of up to $1000 per day if a public nuisance exists on any property within a district or on any property outside of the district from which vectors may enter the district, for property owners who fail to abate the nuisance within the specified time.

The Services provided by the District will reduce the mosquito and vector related nuisance and health liability to properties in the Assessment Area. The reduction of that risk of liability constitutes a special benefit to property in the Assessment Area and this special benefit would not be received, or only received minimally, in absence of the Services funded by the assessments.

[24] Sources of mosquitoes on residential, business, agricultural, range and other types of properties include removable sources such as containers that hold standing water.

Benefit Finding

In summary, the special benefits described in this Report and the expansion of Services in the Assessment Area ("enhanced level of service") will directly benefit and protect the real properties in the Assessment District in excess of the assessments for these properties. Therefore, the Assessment Engineer finds that the cumulative special benefits to property from the Services are reasonably equal to or greater than the assessment of $13.76 per benefit unit or Single Family Equivalent, SFE, for Zone A, and $3.44 for Zone B (Figure 1 – Cost Estimate). These rates per SFE generate revenues of $1,172,128 which is the amount needed to fund the District's budget total of $6,351,070 less the District contribution of $5,178,942. Further, the Engineer has judged that the special benefit to each parcel reasonably exceeds the assessment imposed on each parcel.

General vs. Special Benefit

Article XIIID of the California Constitution requires any local agency proposing to increase or impose a benefit assessment to "separate the general benefits from the special benefits conferred on a parcel." The rationale for separating special and general benefits is to ensure that property owners subject to the benefit assessment are not paying for general benefits. The assessment can fund the special benefits to property in the Assessment Area but cannot fund any general benefits. Accordingly, a separate estimate of the special and general benefit is given in this section.

In other words:

Total Benefit	=	General Benefit	+	Special Benefit

There is no widely-accepted or statutory formula for general benefit from vector control services. General benefits are benefits from improvements or services that are not special in nature, are not "particular and distinct" and are not "over and above" benefits received by other properties. General benefits are conferred to properties located "in the district,[25]" but outside the narrowly-drawn Assessment District and to "the public at large." The *Silicon Valley* decision provides some clarification by indicating that general benefits provide "an indirect, derivative advantage" and are not necessarily proximate to the improvements and services funded by the assessments.

[25] The *Silicon Valley* decision explains as follows:
OSA observes that Proposition 218's definition of "special benefit" presents a paradox when considered with its definition of "district." Section 2, subdivision (i) defines a "special benefit" as "a particular and

A formula to estimate the general benefit is listed below:

General Benefit	=	**Benefit to Real Property Outside the Assessment District**	+	**Benefit to Real Property Inside the Assessment District that is Indirect and Derivative**	+	**Benefit to the Public at Large**

Special benefit, on the other hand, is defined in the state constitution as "a particular and distinct benefit over and above general benefits conferred on real property located in the district or to the public at large." The *Silicon Valley* decision indicates that a special benefit is conferred to a property if it "receives a direct advantage from the improvement (e.g., proximity to a park)." In this assessment, the overwhelming proportion of the benefits conferred to property is special, since the advantages from the mosquito and disease protection funded by the Assessments are directly received by the properties in the Assessment District and are only minimally received by property outside the Assessment District or the public at large.

Proposition 218 twice uses the phrase "over and above" general benefits in describing special benefit. (Art. XIIID, sections 2(i) & 4(f).) Significantly, without this assessment, only the existing limited baseline services would be provided. The majority of the Services funded by this assessment therefore would be a special benefit because the Services would particularly and distinctly benefit and protect the Assessment Area over and above the minimal baseline benefits and service. However, some of the Services could benefit the public at large and properties outside the Assessment Area. In this report, the general benefit is liberally estimated and described, and then budgeted so that it is funded by sources other than the assessment.

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distinct benefit over and above general benefits conferred on real property located in the district or to the public at large." (Art. XIII D, § 2, subd. (i), italics added.) Section 2, subdivision (d) defines "district" as "an area determined by an agency to contains all parcels which will receive a special benefit from a proposed public improvement or property-related service." (Art. XIII D, § 2, subd. (d), italics added.) In a well-drawn district — limited to only parcels receiving special benefits from the improvement — every parcel within that district receives a shared special benefit. Under section 2, subdivision (i), these benefits can be construed as being general benefits since they are not "particular and distinct" and are not "over and above" the benefits received by other properties "located in the district."
We do not believe that the voters intended to invalidate an assessment district that is narrowly drawn to include only properties directly benefiting from an improvement. Indeed, the ballot materials reflect otherwise. Thus, if an assessment district is narrowly drawn, the fact that a benefit is conferred throughout the district does not make it general rather than special.

In the 2009 *Dahms* case, the court upheld an assessment that was 100% special benefit on the rationale that the services funded by the assessments were directly provided to property in the assessment district. Similar to the assessments in Pomona that were validated by *Dahms*, the Assessments described in this Engineer's Report fund mosquito and disease control services directly provided to property in the assessment area. Moreover, as noted in this Report, the Services directly reduce mosquito and vector populations on all property in the assessment area. Therefore, *Dahms* establishes a basis for minimal or zero general benefits from the Assessments. However, in this report, the general benefit is more liberally estimated and described, and then budgeted so that it is funded by sources other than the assessment.

Calculating General Benefit

Without this assessment the District would lack the funds to extend the additional Services to the Assessment Area. Consistent with footnote 8 of the *Silicon Valley* decision, and for the reasons described above, the District has determined that all parcels in the Assessment Area receive a shared direct advantage and special benefit from the Services. The Services directly and particularly serve and benefit each parcel, and are not a mere indirect, derivative advantage. As explained above, Proposition 218 relies on the concept of "over and above" in distinguishing special benefits from general benefits. As applied to an assessment proceeding this concept means that the baseline general benefits are minimal and that the majority of the vector control services, which provide direct advantage to property in the Assessment Area, are over and above the baseline and therefore are special.

Nevertheless, the Services may provide a degree of general benefit, in addition to the predominant special benefit. This section provides a liberal measure of the general benefits from the Assessments.

Benefit to Property Outside the District

Properties within the Assessment Area receive almost all of the special benefits from the Services because the Services funded by the Assessments will be provided directly to protect property within the Assessment Area from mosquitoes and vector-borne diseases. However, properties adjacent to, but just outside of, the boundaries may receive some benefit from the Services in the form of reduced mosquito populations on property outside the Assessment Area. Since this benefit is conferred to properties outside the district boundaries, it contributes to the overall general benefit calculation and will not be funded by the assessment.

A measure of this general benefit is the proportion of Services that would affect properties outside of the Assessment Area. Each year, the District will provide some of its Services in areas near the boundaries of the Assessment Area. By abating mosquito populations near the borders of the Assessment Area, the Services could provide benefits in the form of reduced mosquito populations and reduced risk of disease transmission to properties outside the Assessment Area. If mosquitoes were not controlled inside the Assessment Area, more of them would fly from the Assessment Area. Therefore, control of mosquitoes within the Assessment Area provides some benefit to properties outside the Assessment Area but within the normal flight range of mosquitoes, in the form of reduced mosquito populations and reduced vector-borne disease transmission. This is a measure of the general benefits to property outside the Assessment Area because this is a benefit from the Services that is not specially conferred upon property in the assessment area.

The mosquito potential outside the Assessment Area is based on studies of mosquito dispersion concentrations. Although the flight range of a female mosquito may be up to 20 miles, for the purpose of this calculation an average mosquito destination range of two miles is used. Based upon a 2003 study in Santa Cruz County average concentration of mosquitoes from the Assessment Area on properties within two miles of the Assessment Area is calculated to be 6%.[26] This relative mosquito and vector population reduction factor within the destination range is combined with the number of parcels outside the Assessment Area and within the destination range to measure this general benefit. This is calculated as follows:

CRITERIA:

THERE ARE 15,982 PARCELS WITHIN TWO MILES OF, BUT OUTSIDE OF THE ASSESSMENT DISTRICT, THAT MAY RECEIVE SOME MOSQUITO AND DISEASE PROTECTION BENEFIT

6 % PORTION OF RELATIVE BENEFIT THAT IS RECEIVED (FROM STUDY)

THERE ARE 94,702 ASSESSABLE PARCELS IN THE ASSESSMENT DISTRICT

CALCULATIONS:

TOTAL BENEFIT = 15,982 PARCELS X 6% = 959 PARCEL EQUIVALENTS

[26]Tietze, Noor S., Stephenson, Mike F., Sidhom, Nader T. and Binding, Paul L., "Mark-Recapture of *Culex Erythrothorax* in Santa Cruz County, California", Journal of the American Mosquito Control Association, 19(2):134-138, 2003.

Therefore, for the overall benefits provided by the Services to the Assessment District, it is determined that 1.01% of the benefits would be received by the parcels within two miles of the Assessment District boundaries. Recognizing that this calculation is an approximation, this benefit will be rounded up to 1.50%.

Benefit to Property *Inside* the District that is *Indirect and Derivative*

The "indirect and derivative" benefit to property within the Assessment Area is particularly difficult to calculate. As explained above, all benefit within the Assessment Area is special because the mosquito and disease control services in the Assessment Area would provide direct service and protection that is clearly "over and above" and "particular and distinct" when compared with the level of such protection under current conditions. Further, the properties are within the Assessment Area boundaries, and this Engineer's Report demonstrates the direct benefits received by individual properties from mosquito and disease control services.

The Assessment Engineer has drawn the assessment area to include parcels that will directly receive the services. (There are a small number of parcels within the District Boundary that do not receive special benefit such as certain right of way parcels, etc.) All parcels within the District boundaries will directly benefit from the surveillance, monitoring and treatment that will be provided on an equivalent basis throughout the Assessment Area in order to maintain the same improved level of protection against mosquitoes and reduced mosquito populations throughout the area. The surveillance and monitoring sites would be spread on a balanced basis throughout the area. Mosquito and vector control and treatment would be provided as needed throughout the area based on the surveillance and monitoring results. The shared special benefit - reduced mosquito and vector levels and reduced presence of vector-borne diseases - would be received on an equivalent basis by all parcels in the Assessment Area. Furthermore, all parcels in the Assessment District would directly benefit from the ability to request service from the District and to have a District field technician promptly respond directly to the parcel and address the owner's or resident's service need. The *Silicon Valley* decision indicates that the fact that a benefit is conferred throughout the assessment district area does not make the benefit general rather than special, so long as the assessment district is narrowly drawn and limited to the parcels directly receiving shared special benefits from the service. This concept is particularly applicable in situations involving a landowner-approved assessment-funded extension of a local government service to benefit lands previously not receiving that particular service or receiving only minimal services. The District therefore concludes that, other than the small general benefit to properties outside the Assessment District (discussed above) and to the public at large (discussed below), all of the benefits of the Services to the parcels within the Assessment District are special benefits and it is not possible or appropriate to separate any general benefits from the benefits conferred on parcels in the Assessment Area.

Benefit to the Public at Large

With the type and scope of Services to be provided to the Assessment District, it is very difficult to calculate and quantify the scope of the general benefit conferred on the public at large. Because the Services directly serve and primarily benefit the property in the Assessment Area, any general benefit conferred on the public at large would be minimal. Nevertheless, there would be some indirect general benefit to the public at large.

The public at large uses the public highways, streets, sidewalks, parks, sports fields, railroads, lakes, and airports, and when traveling in and through the Assessment Area they will benefit from the Services. It is understood that there are other regional facilities, like shopping centers, that attract the general public from outside of the District's boundaries. However, since all of these facilities, including highways, streets, sidewalks, parks, sports fields, railroads, lakes, and airports, are primarily used by property owners within the District, the use of the complete area of these public areas is a reasonable proxy. A fair and appropriate measure of the general benefit to the public at large therefore is the amount of highway, street, sidewalk, park, sports field, railroad, lake, and airport area within the Assessment Area relative to the overall land area. An analysis of maps of the Assessment Area shows that approximately 4.5% of the land area in the Assessment Area is covered by highways, streets, sidewalks, parks, sports fields, railroads, lakes, and airports. This 4.5% therefore is a fair and appropriate measure of the general benefit to the public at large within the Assessment Area.

Summary of General Benefits

Using a sum of the measures of general benefit for the public at large and land outside the Assessment Area, we find that approximately 6.0% of the benefits conferred by the Mosquito, Vector and Disease Control Assessment may be general in nature and should be funded by sources other than the Assessment.

General Benefit Calculation

	1.5%	**(Outside the District)**
+	**0.0%**	**(Inside the district – indirect and derivative)**
+	**4.5%**	**(Public at Large)**
=	**6.0%**	**(Total General Benefit)**

Although this analysis supports the findings that 6.0% of the assessment may provide general benefit only, this number is increased by the Assessment Engineer to 10% to more liberally ensure that no assessment revenue is used to support general benefit. This additional amount allocated to general benefit also covers general benefit to parcels in the Assessment Area if it is later determined that there is some general benefit conferred on those parcels.

The cost of the improved Services is $1,172,128. Of this total budget amount, the District must contribute at least $172,128 or 10% of the total budget from sources other than the Mosquito, Vector and Disease Control Assessment. The District will contribute $5,178,942 from other revenue sources other than the Mosquito, Vector and Disease Control assessment (Ad Valorem revenue and service charges), which is approximately 82% of the total budget. This contribution more than offsets any general benefits from the Mosquito, Vector and Disease Control Assessment Services.

Zones of Benefit

The boundaries of the Assessment Area have been carefully drawn to include all of the properties in the Butte County Mosquito and Vector Control District that would receive special benefit from the Services. Such parcels are in areas with a material population of people, pets, and livestock on the property. The current and future population of property is a conduit of benefit to property because people, pets and livestock are ultimately affected by mosquitoes and vector-borne diseases and the special benefit factors of desirability, utility, usability, livability, and marketability are ultimately determined by the population and usage potential of property.

In other words, the boundaries of the Assessment Area have been narrowly drawn to include only properties that will specially benefit from the mosquito and vector control services, and do not currently receive services from the District.

The Silicon Valley decision indicates:

> *In a well-drawn district — limited to only parcels receiving special benefits from the improvement — every parcel within that district receives a shared special benefit. Under section 2, subdivision (i), these benefits can be construed as being general benefits since they are not "particular and distinct" and are not "over and above" the benefits received by other properties "located in the district."*
>
> *We do not believe that the voters intended to invalidate an assessment district that is narrowly drawn to include only properties directly benefitting from an improvement. Indeed, the ballot materials reflect otherwise. Thus, if an assessment district is narrowly drawn, the fact that a benefit is conferred throughout the district does not make it general rather than special. In that circumstance, the characterization of a benefit may depend on whether the parcel receives a direct advantage from the improvement (e.g., proximity to*

park) or receives an indirect, derivative advantage resulting from the overall public benefits of the improvement (e.g., general enhancement of the district's property values).

In the assessment, the advantage that each parcel receives from the mosquito and vector control services is direct, and the boundaries are narrowly drawn to include only parcels that benefit from the assessment. Therefore, the even spread of assessment throughout the narrowly drawn district is indeed consistent with the OSA decision.

The District uses field surveillance techniques such as dipping, landing count rates, and mosquito traps to collect and quantify mosquito species, quantities, concentrations, viral loads, etc. The selection of the locations of these traps requires a multi-attribute evaluation, with trap locations changing seasonally and when high concentrations of mosquitoes are identified. District staff visits areas within the Assessment Area to observe potential sources of mosquito production and perform adult and larval mosquito surveillance as appropriate. As part of the evaluation of service levels, the District's review also showed that some areas within the Assessment Area submit fewer service requests, are far less accessible, and require a lesser amount of surveillance due to the significantly reduced usage by human population. Additionally, these areas support a lower concentration and number of mosquito breeding sites.

These areas of reduced service requests and surveillance, described as Zone of Benefit B, or Zone B, are indicated in the assessment diagram. These Zone B areas are located in the northern portion of Butte County and include the rugged mountainous areas stretching south along the eastern border of the Assessment Area. The mountainous portion in Zone B has significantly reduced accessibility and as a result is minimally inhabited. This lack of habitation, combined with relatively few sources of breeding activity, necessitates a significant lower level of surveillance and control compared to the levels required in Zone A. The District analyzed the overall services provided throughout the entire Assessment Area, and compared it with the level of services provided within Zone B, and determined that Zone B parcels receive a significant reduction in the level of general surveillance and control services as compared to the areas inside Zone A. It was calculated based on the overall distribution of those types of services that general or routine adult mosquito trapping and control represents 75% of the District Services. Therefore, Zone B parcels will be subjected to a 75% assessment reduction.

The Zone B parcels will be subject to reduced assessments, commensurate with the different benefit levels within those two zones. (If in the future, the routine adult mosquito trapping service is extended into part or all of Zone B, the boundaries of the affected zone will be modified accordingly.)

Method of Assessment

As previously discussed, the Assessments will fund enhanced, comprehensive, year-round mosquito and vector control, disease surveillance and control Services that will reduce mosquito and vector populations on property and will clearly confer special benefits to properties in the Assessment Area. These benefits can partially be measured by the property owners, guests, employees, tenants, pets, and animals on property in the Assessment Area who will enjoy a more habitable, safer and more desirable place to live, work or visit. As noted, these benefits ultimately flow to the underlying property.

Therefore, the apportionment of benefit is partially based on people who potentially live on, work at, or otherwise use the property. This methodology of determining benefit to property through the extent of use by people is a commonly used method of apportionment of benefits from assessments.

Moreover, assessments have a long history of use in California and are in large part based on the principle that any benefits from a service or improvement funded by assessments that is enjoyed by tenants and other non-property owners ultimately is conferred directly to the underlying property.[27]

With regard to benefits and source locations, the Assessment Engineer determined that since mosquitoes and other vectors readily fly from their breeding locations to all properties in their flight range, and since mosquitoes are actually attracted to properties occupied by people or animals, the benefits from mosquito and vector control extend beyond the source locations to all properties that would be a "destination" for mosquitoes and other vectors. In other words, the control and abatement of mosquito and vector populations ultimately confers benefits to all properties that are a destination of mosquitoes and vectors, rather than just those that are sources of mosquitoes.

[27] For example, in *Federal Construction Co. v. Ensign (1922) 59 Cal.App. 200 at 211*, the appellate court determined that a sewer system specially benefited property even though the direct benefit was to the people who used the sewers: "Practically every inhabitant of a city either is the owner of the land on which he resides or on which he pursues his vocation, or he is the tenant of the owner, or is the agent or servant of such owner or of such tenant. And since it is the inhabitants who make by far the greater use of a city's sewer system, it is to them, as lot owners or as tenants, or as the servants or agents of such lot owners or tenants, that the advantages of actual use will redound. But this advantage of use means that, in the final analysis, it is the lot owners themselves who will be especially benefited in a financial sense."

Although some primary mosquito and vector sources may be located outside of residential areas, residential properties can and do generate their own, often significant, populations of mosquitoes and vector organisms. For example, storm water catch basins in residential areas in the Assessment Area are a common source of mosquitoes. Since the typical flight range for a female mosquito, on average is 2 miles, most homes in the Assessment Area are within the flight zone of many mosquito sources. Moreover, there are many other common residential sources of mosquitoes, such as miscellaneous backyard containers, neglected swimming pools, leaking water pipes and tree holes. Clearly, there is a potential for mosquito sources on virtually all types of property. More importantly, all properties in the Assessment Area are within the destination range of mosquitoes and most properties are actually within the destination range of multiple mosquito source locations.

Because the Services will be provided throughout the Assessment Area with the same level of control objective, mosquitoes can rapidly and readily fly from their breeding locations to other properties over a large area, and because there are current or potential breeding sources throughout the Assessment Area, the Assessment Engineer determined that all similar properties in the Assessment Area have generally equivalent mosquito "destination" potential and, therefore, receive equivalent levels of benefit.

In the process of determining the appropriate method of assessment, the Assessment Engineer considered various alternatives. For example, a fixed assessment amount per parcel for all residential improved property was considered but was determined to be inappropriate because agricultural lands, commercial property and other property also receive benefits from the assessments. Likewise, an assessment exclusively for agricultural land was considered but deemed inappropriate because other types of property, such as residential and commercial, also receive the special benefit factors described previously.

A fixed or flat assessment was deemed to be inappropriate because larger residential, commercial, and industrial properties receive a higher degree of benefit than other similarly used properties that are significantly smaller. (For two properties used for commercial purposes, there is clearly a higher benefit provided to a property that covers several acres in comparison to a smaller commercial property that is on a 0.25 acre site. The larger property generally has a larger coverage area and higher usage by employees, customers, tourists, and guests that would benefit from reduced mosquito and vector populations, as well as the reduced threat from diseases carried by mosquitoes and other vectors. This benefit ultimately flows to the property.) Larger commercial, industrial and apartment parcels, therefore, receive an increased benefit from the assessments.

In conclusion, the Assessment Engineer determined that the appropriate method of assessment apportionment should be based on the type and use of property, the relative size of the property, its relative population and usage potential, and its destination potential for mosquitoes. This method is further described below.

Assessment Apportionment

The special benefits derived from the Mosquito, Vector and Disease Control Assessment are conferred on property and are not based on a specific property owner's occupancy of property or the property owner's demographic status, such as age or number of dependents. However, it is ultimately people who do or could use the property and who enjoy the special benefits described above. The opportunity to use and enjoy property within the Assessment District without the excessive nuisance, diminished "livability" or the potential health hazards brought by mosquitoes, vectors, and the diseases they carry is a special benefit to properties in the Assessment District. This benefit can be in part measured by the number of people who potentially live on, work at, visit or otherwise use the property, because people ultimately determine the value of the benefits by choosing to live, work and/or recreate in the area, and by choosing to purchase property in the area.[28]

In order to apportion the cost of the Services to property, each property in the Assessment Area is assigned a relative special benefit factor. This process involves determining the relative benefit received by each property in relation to a single family home, or, in other words, on the basis of Single Family Equivalents (SFE). This SFE methodology is commonly used to distribute assessments in proportion to estimated special benefit. For the purposes of this Engineer's Report, all properties are designated a SFE value, which is each property's relative benefit in relation to a "benchmark" parcel in the Assessment District. The "benchmark" property is the single family detached dwelling on a parcel of less than one acre. This benchmark parcel is assigned one Single Family Equivalent benefit unit or one SFE.

The special benefit conferred upon a specific parcel is derived as a sum function of the applicable special benefit type (such as improved safety (i.e. disease risk reduction) on a parcel for a mosquito assessment) and a parcel-specific attributes (such as the number of residents living on the parcel for a mosquito assessment) which supports that special benefit. Calculated special benefit increases accordingly with an increase in the product of special benefit type and supportive parcel-specific attribute.

[28] It should be noted that the benefits conferred upon property are related to the average number of people who could potentially live on, work at or otherwise could use a property, not how the property is currently used by the present owner.

The calculation of the special benefit per parcel is summarized in the following equation:

Special Benefit $_{\text{(per parcel)}}$ $= \sum \int$ **(Special Benefits, Property Specific Attributes**[1]**)**$_{\text{(per parcel)}}$

[1.] Such as use, property type, and size.

Residential Properties

Certain residential properties in the Assessment Area that contain a single residential dwelling unit and are on a lot of less than or equal to one acre are assigned one Single Family Equivalent or 1.0 SFE. Traditional houses, zero-lot line houses, and town homes are included in this category of single family residential property. Properties with more than one detached single family residence on one acre or less are assigned 1.0 SFE per single family home.

Single family residential properties in excess of one acre receive additional benefit relative to a single family home on up to one acre, because the larger parcels provide more area for mosquito sources and the mosquito, vector, and disease control Services. Therefore, such larger parcels receive additional benefits relative to a single family home on less than one acre and are assigned 1.0 SFE for each residential unit and an additional rate equal to the agricultural rate described below of 0.0021 SFE per one-fourth acre of land area in excess of one acre. Mobile home parcels on a separate parcel and in excess of one acre also receive this additional acreage rate.

Other types of properties with residential units, such as agricultural properties, are assigned the residential SFE rates for the dwelling units on the property and are assigned additional SFE benefit units for the agricultural-use land area on the property.

Properties with more than one residential unit (other than properties with more than one single family home as described above) are designated as multi-family residential properties. These properties, along with condominiums, benefit from the Services in proportion to the number of dwelling units that occupy each property, the average number of people who reside in each property, and the average size of each property in relation to a single family home in the Assessment Area. This Report analyzed Butte County population density factors from the 2010 US Census as well as average dwelling unit size for each property type. After determining the Population Density Factor and Square Footage Factor for each property type, an SFE rate is generated for each residential property structure, as indicated in Figure 2 below.

The SFE factor of 0.47 per dwelling unit for multi-family residential properties applies to such properties with two to four units (duplex, triplex, fourplex). Properties in excess of 5 units typically offer on-site management, monitoring and other control services that tend to offset some of the benefits provided by the Mosquito, Vector and Disease Control Assessment District. Therefore, the benefit for properties in excess of 5 units is determined to be 0.39 SFE per unit for the first 20 units and 0.10 SFE per each additional unit in excess of 20 dwelling units.

Figure 2 – Residential Assessment Factors

Type of Residential Property	Pop. Density Equivalent	SqFt Factor	SFE Factor
Single Family Residential	1.00	1.00	1.00
Condominium	0.97	0.67	0.65
Duplex, Triplex, Fourplex	0.83	0.57	0.47
Multi-Family Residential (5+ Units)	0.76	0.52	0.39
Mobile Home on Separate Lot	0.86	0.65	0.56

Source: 2010 Census, Butte County, and property dwelling size information from the Butte County Assessor data and other sources.

Commercial/Industrial Properties

Commercial and industrial properties are generally open and operated for more limited times, relative to residential properties. Therefore, the relative hours of operation can be used as a measure of benefits since employee density also provides a measure of the relative benefit to property. Since commercial and industrial properties are typically open and occupied by employees approximately one-half the time of residential properties, it is reasonable to assume that commercial land uses receive one-half of the special benefit on a land area basis relative to single family residential property.

The average size of a single family home with 1.0 SFE factor in the Assessment Area is 0.25 acres. Therefore, a commercial property with 0.25 acres receives one-half the relative benefit, or a 0.50 SFE factor.

The SFE values for various commercial and industrial land uses are further defined by using average employee densities because the special benefit factors described previously are also related to the average number of people who work at commercial/industrial properties.

To determine employee density factors, this Report utilizes the findings from the San Diego County Association of Governments Traffic Generators Study (the "SANDAG Study") because these findings were approved by the State Legislature which determined the SANDAG Study to be a good representation of the average number of employees per acre of land area for commercial and industrial properties. As determined by the SANDAG Study, the average number of employees per acre for commercial and industrial property is 24. As presented in Figure 3, the SFE factors for other types of businesses are determined relative to their typical employee density in relation to the average of 24 employees per acre of commercial property.

Commercial and industrial properties in excess of 5 acres generally involve uses that are more land intensive relative to building areas and number of employees (lower coverage ratios). As a result, the benefit factors for commercial and industrial property land area in excess of 5 acres is determined to be the SFE rate per ¼ acre for the first 5 acres and the relevant SFE rate per each additional acre over 5 acres. Institutional properties that are used for residential, commercial, or industrial purposes are also assessed at the appropriate residential, commercial or industrial rate.

Self-storage and golf course property benefit factors are similarly based on average usage densities. Figure 3 below lists the benefit assessment factors for such business properties.

Agricultural, Dry Rangeland, Cemetery and Golf Course Properties

Utilizing research and agricultural employment reports from UC Davis and the California Employment Development Department and other sources, this Report calculated an average usage density of 0.05 people per acre for agriculture property, 0.01 for rangelands and timber, 1.2 for cemeteries and 3.0 for golf courses. Since these properties typically are a source of mosquitoes and vectors and/or are typically closest to other sources of mosquitoes and other vectors, it is reasonable to determine that the benefit to these properties is twice the usage density ratio of commercial and industrial properties. The SFE factors per 0.25 acres of land area, after adjustment for the usage density, are shown in the following Figure 3.

Figure 3 – Commercial/Industrial Benefit Assessment Factors

Type of Commercial/Industrial Land Use	Average Employees Per Acre [1]	SFE Units per Fraction Acre [2]	SFE Units per Acre After 5
Commercial	24	0.500	0.500
Office	68	1.420	1.420
Shopping Center	24	0.500	0.500
Industrial	24	0.500	0.500
Self Storage or Parking Lot	1	0.021	
Wineries	12	0.250	
Golf Course	3	0.033	
Cemeteries	1.20	0.050	
Agriculture / Rice Fields	0.050	0.0021	
Timberland / Dry Rangeland	0.010	0.00042	

1. Source: San Diego Association of Governments Traffic Generators Study, University of California, Davis and other studies and sources.
2. The SFE factors for commercial and industrial parcels indicated above are applied to each fourth acre of land area or portion thereof. Additional acres over five for commercial, office, shopping center and industrial parcels are calculated per acre or portion thereof. (Therefore, the minimum assessment for any assessable parcel in these categories is the SFE Units listed herein.)

Vacant Properties

The benefit to vacant properties is determined to be proportional to the corresponding benefits for similar type developed properties. However, vacant properties are assessed at a lower rate due to the lack of active benefits, as measured by use by residents, employees, customers, and guests. A measure of the benefits accruing to the underlying land is the average value of land in relation to improvements for developed property. An analysis of the assessed valuation data from Butte County found that 49% of the assessed value of improved properties is classified as land value. Since vacant properties have very low to zero population/use densities until they are developed, a 50% benefit discount is applied to the valuation factor of 0.49 to account for the current low use density and potential for harm or nuisance to the property owner, residents, employees, customers, and guests. The combination of these measures results in a 0.25 factor. It is reasonable to assume, therefore, that approximately 25% of the benefits are related to the underlying land and 75% are related to the day-to-day use of the property. Using this ratio, the SFE factor for vacant parcels is 0.25 per parcel.

It must be noted that in future years, the SFE factors for properties in the Service Area will be reviewed and updated to reflect changes in land use (i.e., vacant land that has been developed, residential land that has been rezoned to commercial) for assessment calculation purposes.

Other Properties

Article XIIID stipulates that publicly owned properties must be assessed unless those properties are reasonably determined to receive no special benefit from the assessment.

All properties that are specially benefited are assessed. Publicly owned property that is used for purposes similar to private residential, commercial, industrial, agricultural, or institutional uses is benefited and assessed at the same rate as such privately owned property.

Miscellaneous, small, and other parcels such as roads, right-of-way parcels, and common areas typically do not generate significant numbers of employees, residents, customers, or guests and have limited economic value. These miscellaneous parcels receive minimal benefit from the Services and are assessed an SFE benefit factor of 0.

Duration of Assessment

It is proposed that the Assessment be levied for the first time in fiscal year 2014-15 and every year thereafter, so long as mosquitoes and vectors remain in existence and the Butte County Mosquito and Vector Control District requires funding from the Assessment for its Services. As noted previously, since the Assessment and the duration of the Assessment was approved by property owners in an assessment ballot proceeding, the Assessment can be levied annually after the Butte County Mosquito and Vector Control District Board of Trustees approves an annually updated Engineer's Report, budget for the Assessment, Services to be provided, and other specifics of the Assessment. In addition, the District Board of Trustees must hold an annual public hearing to continue the Assessment.

Appeals and Interpretation

Any property owner who feels that the assessment levied on the subject property is in error as a result of incorrect information being used to apply the foregoing method of assessment, may file a written appeal with the District Manager of the Butte County Mosquito and Vector Control District or his or her designee. Any such appeal is limited to correction of an assessment during the then current fiscal year or, if before July 1, the upcoming fiscal year. Upon the filing of any such appeal, the District Manager or his or her designee will promptly review the appeal and any information provided by the property owner. If the District Manager or his or her designee finds that the assessment should be modified, the appropriate changes shall be made to the assessment roll. If any such changes are approved after the assessment roll has been filed with Butte County for collection, the District Manager or his or her designee is authorized to refund to the property owner the amount of any approved reduction. Any dispute over the decision of the District Manager, or his or her designee, shall be referred to the District Board of Trustees. The decision of the District Board of Trustees shall be final.

Assessment

WHEREAS, the Butte County Mosquito and Vector Control District Board of Trustees contracted with the undersigned Engineer of Work to prepare and file a report presenting an estimate of costs of Services, a diagram for the benefit assessment district, an assessment of the estimated costs of Services, and the special and general benefits conferred thereby upon all assessable parcels within the Assessment Area;

NOW, THEREFORE, the undersigned, by virtue of the power vested in me under Article XIIID of the California Constitution, the Government Code and the Health and Safety Code and the order of the Butte County Mosquito and Vector Control District Board of Trustees, hereby make the following determination of an assessment to cover the portion of the estimated cost of the Services, and the costs and expenses incidental thereto to be paid by the Mosquito, Vector and Disease Control Assessment.

The District has evaluated and estimated the costs of extending and providing the Services to the Assessment District. The estimated costs are detailed in Figure 1 and summarized in Figure 4, below.

The amount to be paid for the Services and the expenses incidental thereto, to be paid by the Butte County Mosquito and Vector Control District for fiscal year 2026-27 is generally as follows:

Figure 4 – Summary Cost Estimate – FY 2026-27 Budget

Mosquito, Vector & Disease Control Services	$3,443,871
Operations, Materials, Supplies	$2,288,669
Capital Improvements, Facilities and Equipment	$70,000
Total Vector Control Services and Related Expenditures	$5,802,540
Incidental Costs	$49,336
Total Budget	$5,851,876
Less: District Contributions and Other Sources for General Benefit	($113,286)
District Contributions and Other Sources for Special Benefit	($4,581,727)
District Contribution for Non-Assessed Parcels	($24,000)
Total District Contribution	($4,719,013)
Net Amount to be Assessed	**$1,132,863**

An Assessment Diagram is hereto attached and made a part hereof showing the exterior boundaries of the Assessment Area. The distinctive number of each parcel or lot of land in the Assessment Area is its Assessor Parcel Number appearing on the Assessment Roll.

I do hereby determine and apportion the net amount of the cost and expenses of the Services, including the costs and expenses incidental thereto, upon the parcels and lots of land within the Mosquito, Vector and Disease Control Assessment, in accordance with the special benefits to be received by each parcel or lot, from the Services, and more particularly set forth in this Engineer's Report.

The assessment determination is made upon the parcels or lots of land within the Assessment Area in proportion to the special benefits to be received by the parcels or lots of land, from the Services.

The assessment is subject to an annual adjustment tied to the Consumer Price Index-U for the San Francisco Bay Area as of December of each succeeding year (the "CPI"), with a maximum annual adjustment not to exceed 3%. Any change in the CPI in excess of 3% shall be cumulatively reserved as the "Unused CPI" and shall be used to increase the maximum authorized assessment rate in years in which the CPI is less than 3%. The maximum authorized assessment rate is equal to the maximum assessment rate in the first fiscal year the assessment was levied adjusted annually by the minimum of 1) 3% or 2) the change in the CPI plus any Unused CPI as described above.

Based on the preceding annual adjustments, the maximum assessment rate for Fiscal Year 2025-26 per Single Family Equivalent unit (SFE) was $13.36 for Zone A and $3.34 for Zone B. The annual change in the CPI from December 2024 to December 2025 was 3.0365% and the unused CPI carried forward from the previous fiscal year is 2.71%. Therefore, the maximum authorized assessment rate for Fiscal Year 2026-27 has been increased by 3.00%, from $13.36 to $13.76 per SFE in Zone A and from $3.34 to $3.44 per SFE in Zone B. The estimate of cost and budget in this Engineer's Report proposes assessments for Fiscal Year 2026-27 at the rate of $13.76 per SFE unit, which is equal to the maximum authorized rate.

Each parcel or lot of land is described in the Assessment Roll by reference to its parcel number as shown on the Assessor's Maps of the County of Butte for the fiscal year 2026-27. For a more particular description of the property, reference is hereby made to the deeds and maps on file and of record in the office of the County Assessor of Butte County.

I hereby place opposite the Assessor Parcel Number for each parcel or lot within the Assessment Roll, the proposed amount of the assessment for the fiscal year 2026-27 for each parcel or lot of land within the Mosquito, Vector and Disease Control Assessment District.[29]

[29] Each parcel has a uniquely calculated assessment based on the estimated level of special benefit to the property as determined in accordance with this Engineer's Report.

Dated: June 12, 2026

Engineer of Work

By_____

John W. Bliss, License No. C052091

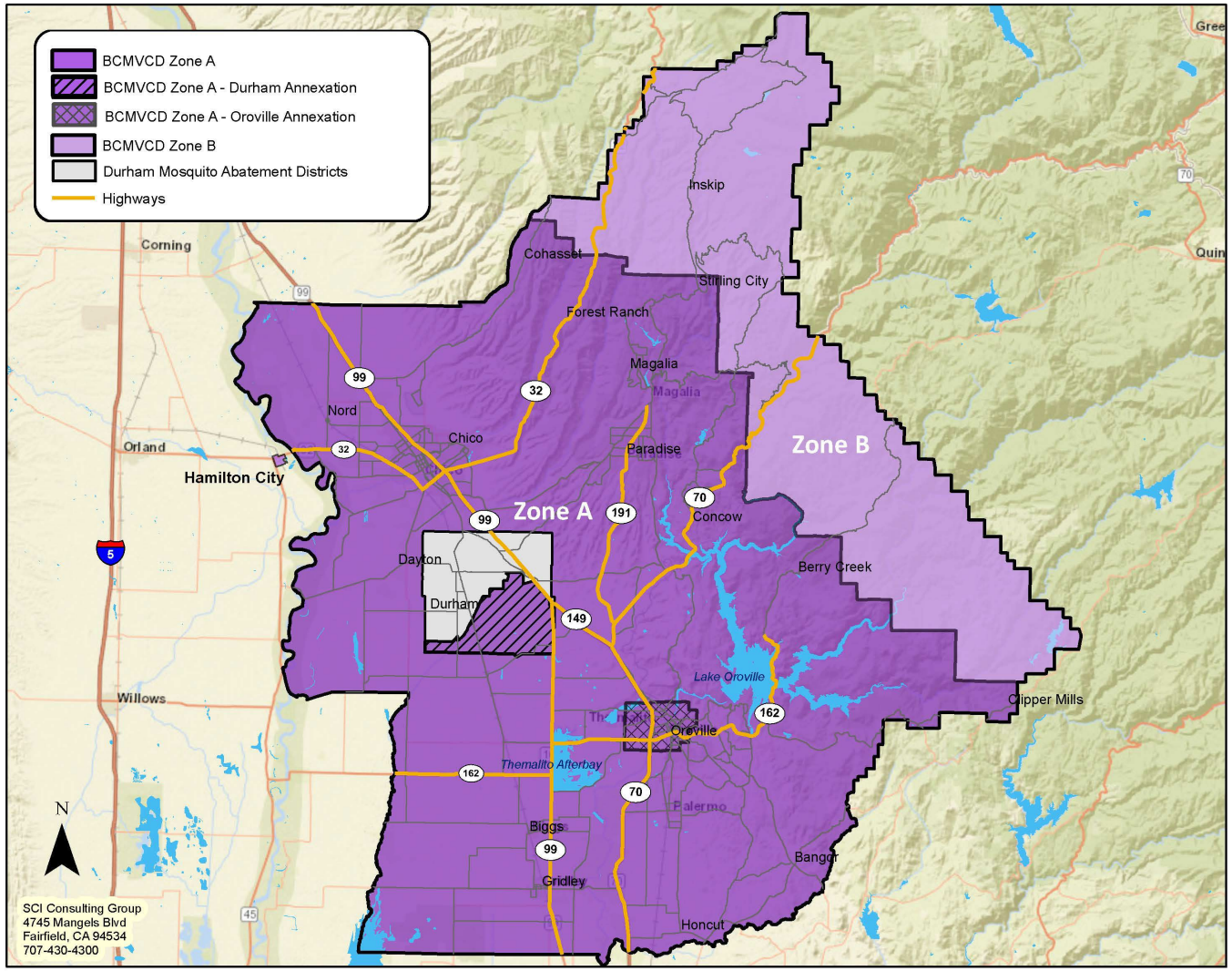
Assessment Roll

Reference is hereby made to the Assessment Roll in and for the assessment proceedings on file in the office of the Butte County Mosquito and Vector Control District, as the Assessment Roll is too voluminous to be bound with this Report.

Assessment Diagram

The Butte County Mosquito and Vector Control District, Mosquito, Vector and Disease Control Assessment Area includes all properties within the boundaries of the Assessment Area.

The boundaries of the Mosquito, Vector and Disease Control Assessment Area are displayed on Assessment Diagram on the following page.



FILED IN THE OFFICE OF THE DISTRICT MANAGER OF THE BUTTE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT, COUNTY OF BUTTE,
CALIFORNIA, THIS _____ DAY OF _____, 2026.

_____
SECRETARY OF THE BOARD

RECORDED IN THE OFFICE OF THE DISTRICT MANAGER OF THE BUTTE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT, COUNTY OF BUTTE, CALIFORNIA
THIS _____ DAY OF _____, 2026.

_____
SECRETARY OF THE BOARD

AN ASSESSMENT WAS CONFIRMED AND LEVIED BY THE BUTTE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT, COUNTY OF BUTTE, ON THE
LOTS, PIECES AND PARCELS OF LAND ON THIS ASSESSMENT DIAGRAM ON THE _____ DAY OF _____, 2026 FOR THE FISCAL YEAR 2026-27 AND SAID ASSESSMENT DIAGRAM AND THE ASSESSMENT ROLL FOR SAID FISCAL YEAR WERE FILED IN THE OFFICE OF THE COUNTY AUDITOR OF THE COUNTY OF BUTTE ON
THE _____ DAY OF _____, 2026.

REFERENCE IS HEREBY MADE TO SAID RECORDED ASSESSMENT ROLL FOR THE EXACT AMOUNT OF EACH ASSESSMENT LEVIED AGAINST EACH PARCEL OF LAND.

_____
SECRETARY OF THE BOARD

Note:
REFERENCE IS HEREBY MADE TO THE MAPS AND DEEDS OF RECORD IN THE OFFICE OF THE ASSESSOR OF THE COUNTY OF BUTTE FOR A DETAILED DESCRIPTION OF THE LINES AND DIMENSIONS OF ANY PARCEL SHOWN HEREIN. THOSE MAPS SHALL GOVERN FOR ALL DETAILS CONCERNING THE LINES AND DIMENSIONS OF SUCH PARCELS. EACH PARCEL IS IDENTIFIED IN SAID MAPS BY ITS DISTINCTIVE ASSESSOR'S PARCEL NUMBER.

Butte County Mosquito and Vector Control District, Mosquito, Vector and Disease Control Assessment Diagram

On June 11, 2026, the District completed the monthly management meeting, staff meeting, and all vehicle inspections.

On June 16, 2026, District management met with CSU Chico, GIS Department, to continue to negotiate the terms of the agreement between the project with CSU Chico and the District.

On June 17, 2026, the District met with representatives of Central Life Sciences and Orion to discuss the current status of MapVision 2.0, how long the system will be supported, and what options the District will have.

On June 18, 2026, the District Manager met with Member Schuster to assess potential mosquito-breeding sites and/or attractants at Burnt Barn Distilling Co.

On June 26, 2026, the District Manager attended the biweekly Legislative Regulatory Committee call. MVCAC lobbyists and committee members reviewed legislation and current regulatory issues.

On June 29, 2026, the District met with representatives of Central Life Sciences and Orion to discuss the current status of MapVision 2.0, how long the system will be supported, and what options the District will have.

On June 30, 2026, District management attended a conference call to listen to an updated report from representatives of Golden State Risk Management.

On July 1, 2026, The District's Safety Committee held their monthly meeting to discuss the previous month's close calls, accidents and/or safety issues if any. The committee also reviewed past and upcoming safety training ideas for future staff meetings.

The District remained open and operational on July 6, 2026, instead of celebrating and recognizing the 4th of July, District employees volunteered to work.

DISTRICT DEPARTMENT'S REPORT JULY 2026

LAB / VECTOR SURVEILLANCE: The District's New Jersey light traps and gravid traps have continued catching mosquitoes (Attachment #1). Both *Culex pipiens* and *Culex tarsalis* populations are slightly lower than the previous year. Most mosquito species populations have increased over the past month. Sentinel chickens sera samples are continuing to be taken biweekly. CO2 trapping has continued and traps are being deployed routinely. Mosquito pools are being submitted for mosquito-borne disease. Also, *Aedes aegypti* has been detected throughout the county and the District has provided countermeasures through surveillance, inspections, and treatments.

VIRUS SURVEILLANCE: As of July 1st, West Nile Virus (WNV) activity has not been detected within the District's service area. WNV has been identified in 1 human, 135 mosquito pools, 89 dead birds, and 1 horse in California to date (Attachment #2). As of July 1st, 146 pools have been submitted, with zero pools testing positive

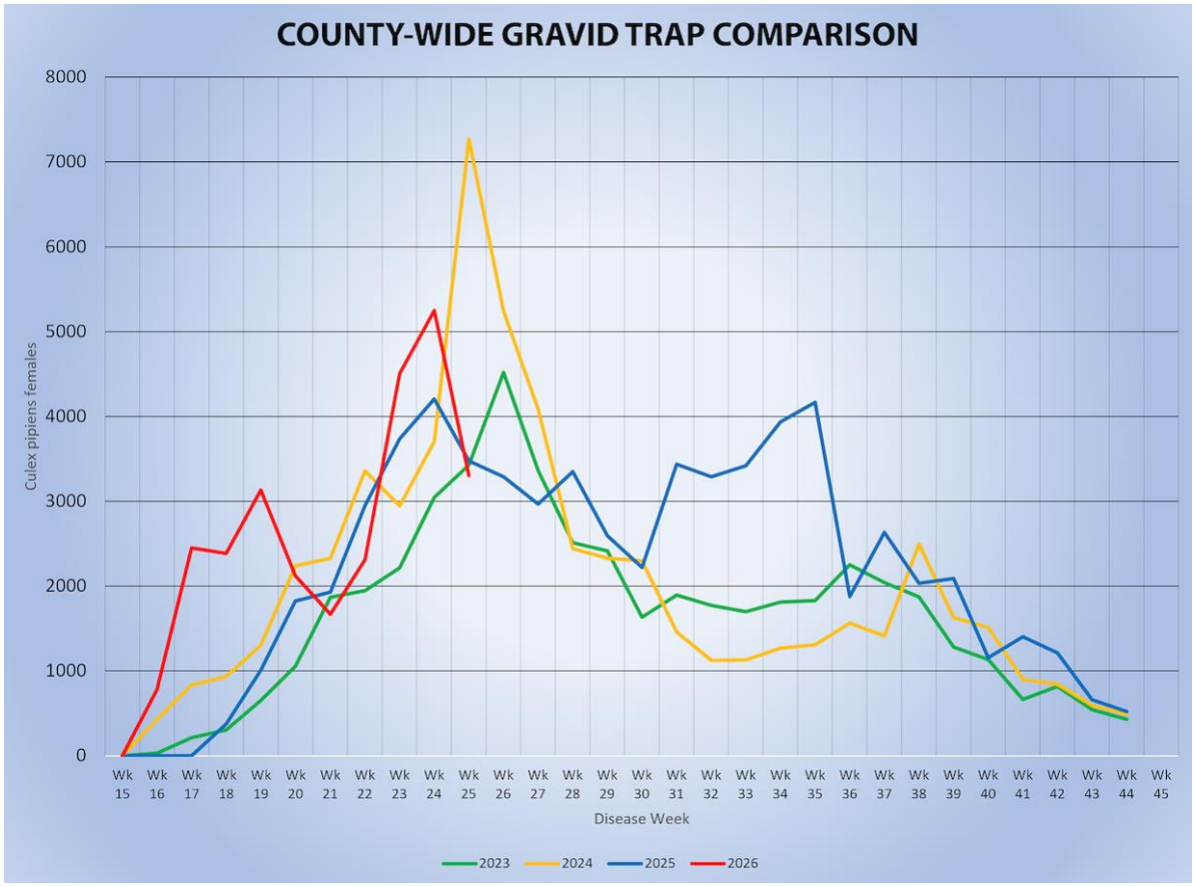
MOSQUITOFISH OPERATIONS: The District's four indoor fish tanks are still offline, undergoing annual maintenance. The District's outdoor fish ponds are continuing to produce high amounts of fish and those fish are being deployed to the field for control as well as the public stock tanks.

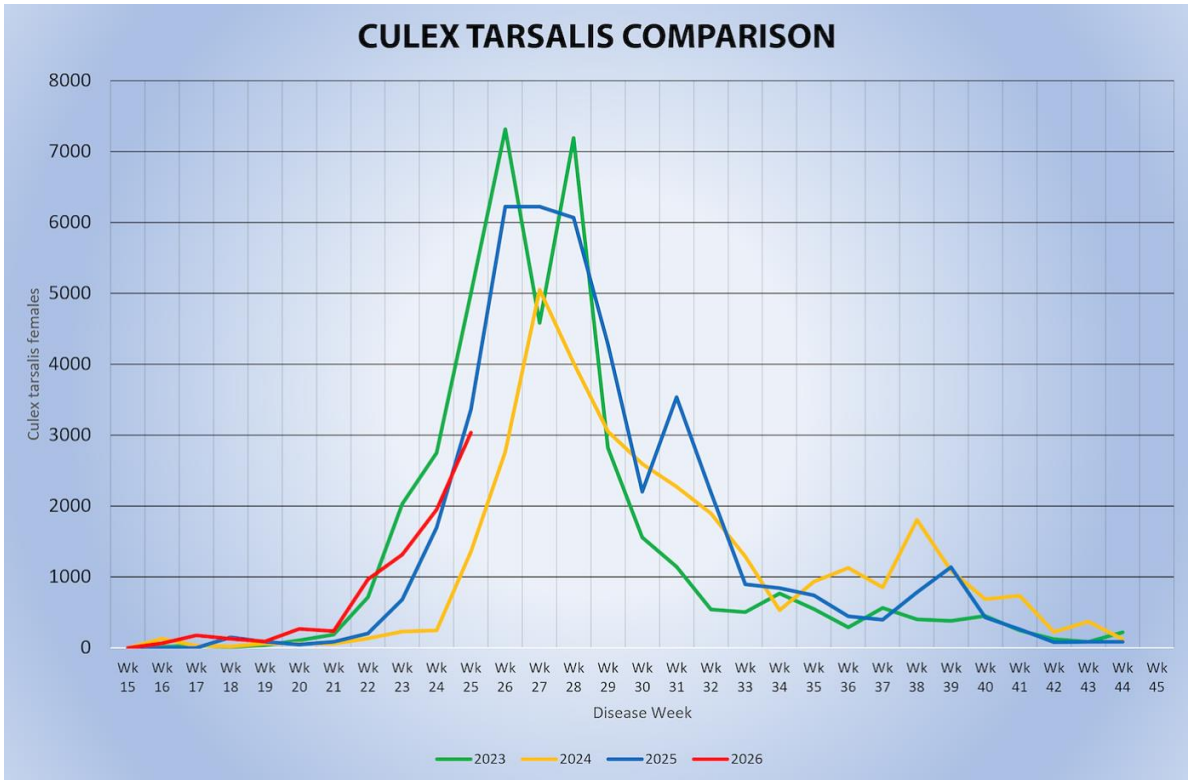
CONTROL OPERATIONS: Mosquito and Vector Control Specialists (Specialists) have continued with mosquito surveillance and treatments in rock pits, dredger pits, flood water areas, agricultural, ditches, drains and urban sources. Service requests for inspections, fish, and treatments have increased over the past month, with 377 requests taken in the month of June compared to 533 last year. The District has also commenced ground adulticiding operations on a regular basis.

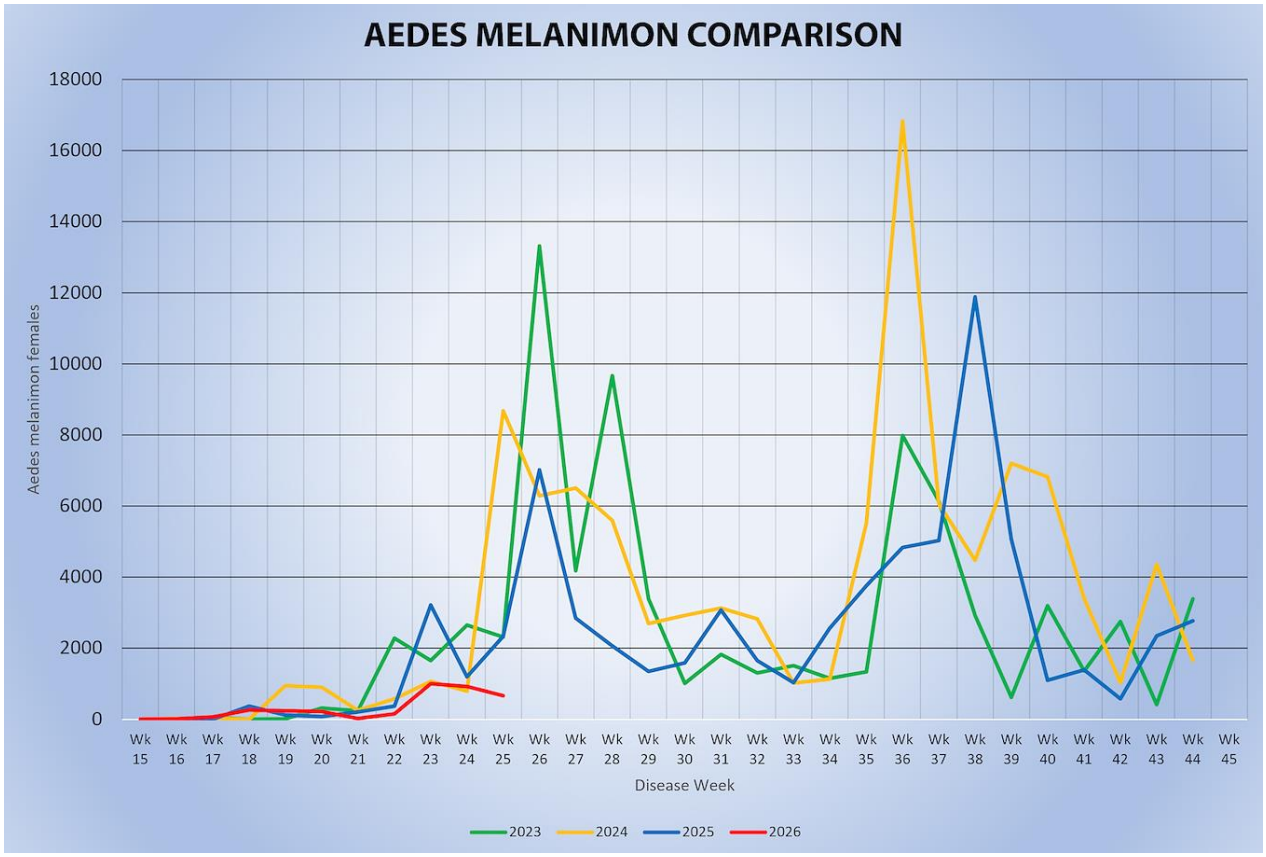
AIRCRAFT OPERATIONS: As of July 1st, the District has treated 3,303 acres of wetlands; compared to 3,941 acres at this time last year. The District has treated 15,261 acres of rice this year, compared to 11,602 acres at this time last year. The District has made 0 ULV adulticide treatments thus far, compared to 0 ULV adulticide treatments at this time last year.

PUBLIC INFORMATION & OUTREACH: The District's public service announcements have continued to run on newspapers, radio, television, digital advertising, billboards, bus stop shelters, and on buses. The Public Relations Department continues to review and update the District's website, brochures, photo and video files, and other informational documents as needed.

Attachment #1






AEDES MELANIMON COMPARISON
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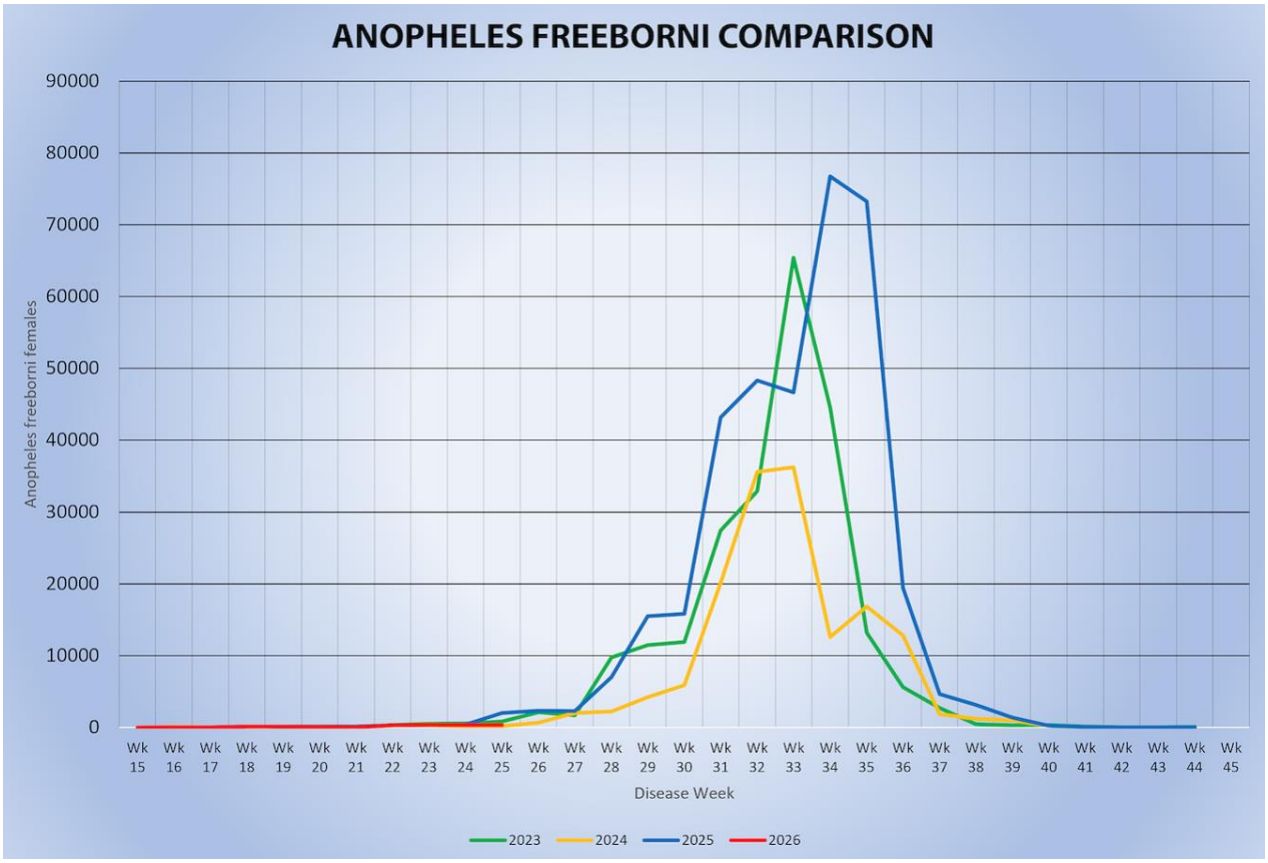
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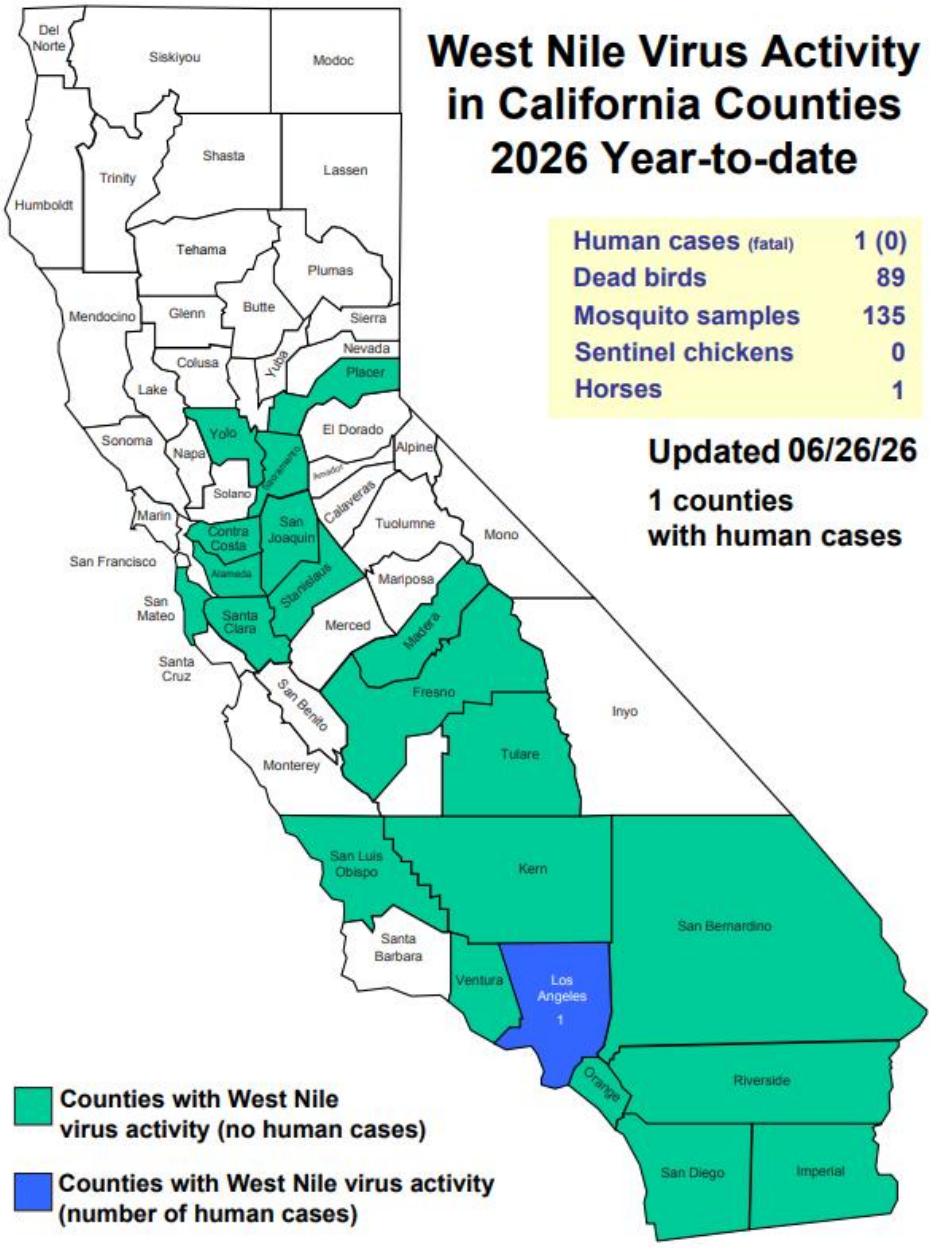
Attachment # 2



	Humans	Horses	Dead Birds	Dead Squirrels	Mosquito Pools	Sentinel Chickens
2004	7	18	118	0	1	50
2005	25	7	79	0	4	15
2006	34	0	40	1	1	49
2007	16	0	27	0	5	32
2008	6	0	38	0	5	31
2009	2	0	13	0	5	36
2010	1	1	6	1	7	7
2011	3	0	0	0	1	20
2012	10	2	53	2	27	43
2013	24	0	42	1	38	57
2014	25	0	22	0	43	37
2015	55	0	38	0	101	37
2016	21	0	22	0	48	38
2017	3	0	5	0	49	31
2018	12	0	4	0	49	37
2019	5	0	1	0	45	34
2020	4	1	4	0	31	23
2021	12	0	2	0	80	26
2022	3	0	2	0	39	26
2023	18	1	2	0	70	31
2024	12	0	4	0	70	28
2025	3	0	0	0	28	14
2026	0	0	0	0	0	0
Totals	302	30	522	5	747	705

Butte County Mosquito and Vector Control District
5117 Larkin Road
Oroville, CA. 95965

MISSION STATEMENT

The mission of the Butte County Mosquito and Vector Control District is to protect public health by preventing and reducing mosquito-borne disease, minimizing nuisance mosquito populations, and combating the spread of diseases associated with ticks, fleas, and other vectors. The District accomplishes this through science-based, environmentally responsible control strategies, proactive surveillance, and community education and engagement.

MOSQUITOFISH

Requested by phone or website
Free mosquitofish available for pickup at these locations:

Chico

BCMVCD Substation
444 Otterson Dr.
(530) 533-6038

C Bar D Feeds
68 Transit Way
(530) 342-5361

Magnolia Gift & Garden
1367 East Ave.
(530) 894-5410

Wilbur's Feed
139 Meyers St.
(530) 895-0569

Oroville

BCMVCD
5117 Larkin Rd.
(530) 533-6038

Ace Hardware
1845 Mitchell Ave.
(530) 533-5600

Gridley

Ace Hardware
1626 State Hwy 99
(530) 846-3625

Concow

The Pine's Yankee Hill
11300 Miller Flat Rd.
(530) 534-1265

Butte Valley

Earthworm Soil Factory
2552 Clark Rd.
(530) 895-9676

Hamilton City

Fire Department
4120 1st St.
(530) 826-3355

Paradise

Déjà Vu Gardens
5424 Foster Rd.
(530) 877-7341

Foothill Mill & Lumber
1698 Wagstaff Rd.
(530) 877-3395

CONTACT INFORMATION

Butte County Mosquito & Vector Contol District
5117 Larkin Road, Oroville, CA. 95965
Phone: (530) 533-6038, (530) 342-7350
Fax: (530) 534-9916
www.buttemosquito.com

This institution is an equal opportunity provider and employer.

Butte County Mosquito & Vector Control District

Since 1948

2nd Quarter, 2026 **Newsletter**

MOSQUITO SURVEILLANCE

Mosquito numbers are rising across Butte County, and our team is actively working to protect public health. The District continues monitoring for West Nile virus and other mosquito-borne illnesses using mosquito traps, sentinel chickens, mosquito pool testing, and testing of deceased wild birds. We have also detected the return of ***Aedes aegypti***, an invasive mosquito capable of spreading diseases such as yellow fever, dengue, and Zika virus. At this time, there is no local transmission of these viruses in Butte County. Our fully staffed surveillance and control crews are actively treating mosquito breeding sources with targeted larvicide applications to help reduce mosquito populations and nuisance activity throughout the county.

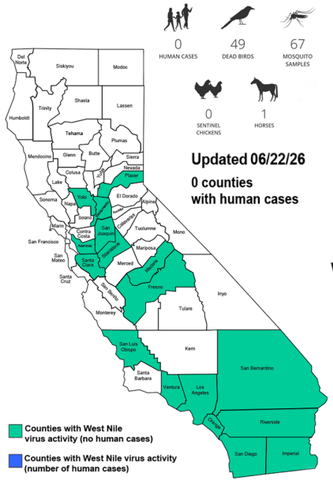
Urban
Storm Drains, Catch Basins, Swimming Pools, Containers, Tires, Gutters, Storm Water Channels

Rural
Roadside Ditches, Pastures, Sewer Ponds, Sumps, Canal Leakage, Containers, Tires, Tree-Holes

Agricultural
Rice, Wetlands, Orchard Runoff, Ditches, Pump Leaks, Containers, Tires, Wildlife Area Ponds

WEST NILE VIRUS ACTIVITY

WestNile.ca.gov
VECTOR-BORNE DISEASE SECTION • CA DEPT OF PUBLIC HEALTH



As of June 23rd, 2026, West Nile virus (WNV) has not been found in Butte County using any of our surveillence techniques.

WNV has been found in 17 Californian counties. Many in southern California and near the bay area.

AERIAL OPERATIONS

As of June 23rd, 2026, aerial operations has treated 7,085 acres of rice and 2,454 acres of wetlands. The District's aircraft play a vital role in protecting public health across Butte County by providing rapid, large-scale mosquito control treatments in areas that are difficult to access by ground. These aerial operations allow crews to quickly target mosquito populations in wetlands, rice fields, and other breeding habitats, helping reduce the risk of mosquito-borne diseases such as West Nile virus.

7,085 acres Rice

2,454 acres Wetlands

Thrush Aircraft - N533MC - 'Le Frog'

MOSQUITO LIFE CYCLE

There are more than 3,500 species of mosquitoes around the world.

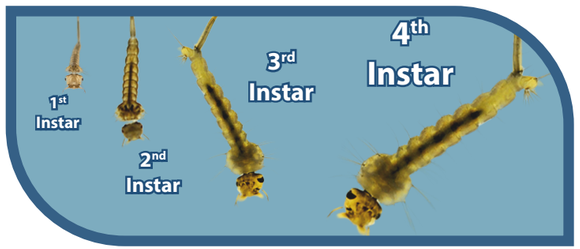
In California, we have about 50 species and of those, only a few are considered public health threats due to their potential to transmit mosquito-borne diseases to humans. People who have been bitten by a mosquito infected with viruses such as West Nile, Saint Louis Encephalitis, Dengue, and Zika may develop life-threatening or life-altering diseases. For the District and residents of Butte County to effectively reduce mosquito populations and the chance of getting a mosquito-borne disease, it is important to understand the habits and behaviors of the different mosquito species.

All mosquitoes must have water to complete their lifecycle.

This water can range in quality and it can be in any container imaginable. The mosquito goes through four separate and distinct stages of its lifecycle: egg, larva, pupa, and adult. Some species can go through their entire life cycle in as little as four days.

Egg

Eggs are laid on or near water or where water will be. They may be laid one at a time or stuck together in rafts of 100-300 eggs. Most eggs hatch into larvae within 48 hours of coming into contact with water. Eggs vary in form between different species.

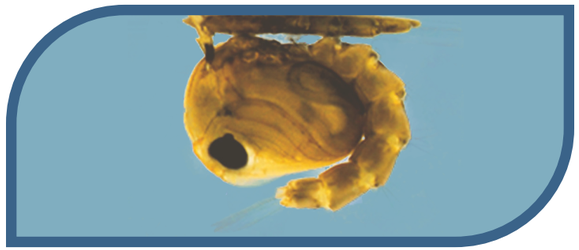


Larva

Larvae live in water and breathe air from the surface. Larvae feed on micro-organisms and organic matter in the water. They shed their skin four times growing larger after each molt. The stages between molts are called instars. When the 4th instar larva molts it becomes a pupa.

Pupa

Mosquito pupae also float at the water surface and breathe air. When disturbed, they dive in a tumbling motion and then float back to the surface. The pupal stage does not eat food. This is the time the mosquito turns into an adult. It takes two days before the adult is fully developed.



Adult

Newly emerged adults rest on the surface of the water for a short time to allow itself to dry before taking flight. Female mosquitoes feed to get a sufficient blood meal to develop eggs. Male mosquitoes feed only on plant nectar. The life span of the adult mosquito usually depends on several factors: species, temperature, humidity, gender, and time of year. Males live shorter lives.

PUBLIC EDUCATION CAMPAIGN

The District's ongoing public education campaign has been off to a strong start with several successful events already completed. The Home & Garden Show, Gold Nugget Craft Faire, Kids Free Fishing Day, and Red Suspenders Days were particularly well-received. These events featured an impressive insect exhibit, showcasing mosquitofish and mosquito larvae, along with complimentary items such as fly and mosquito swatters, tick identification cards, recyclable shopping bags, and mosquito repellent.

The District has partnered with Lamar Advertising on a billboard, bus, and bus stop shelter campaign. This year's slogan is:

"Don't Let Small Bugs Become Big Problems".

Moreover, the District has partnered with Action News Now to produce a 30-second animated public service announcement and to feature the "Skeeter Meter" buzz activity during the weather report, both aimed at raising mosquito awareness and enhancing outreach efforts.

Lastly, the District will continue its outreach through radio and print public service announcements. Radio ads are currently airing on Deer Creek Broadcasting and Results Radio stations, while detailed information on mosquito prevention measures and contact details for the District will be featured in local printed materials.

RESOLUTION NO. 26-04

A RESOLUTION OF THE BOARD OF TRUSTEES OF THE BUTTE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT

ADOPTING THE BUTTE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT 2026/2027 ANNUAL FISCAL BUDGETS

WHEREAS, the 2026/2027 annual fiscal budgets of the Butte County Mosquito and Vector Control District have been recommended for adoption by the District Manager, Assistant Manager, and the Administrative Manager;

WHEREAS, the 2026/2027 preliminary annual fiscal budgets were considered by the Board of Trustees at the regular meeting of the Board of Trustees on April 8, 2026;

WHEREAS, the Board of Trustees received, reviewed, and ordered posted for thirty days the 2026/2027 annual fiscal budgets;

WHEREAS, pursuant to Health and Safety Code Section 2070, the Board of Trustees is required to adopt an annual budget for the District;

NOW, THEREFORE, IT BE RESOLVED by the Board of trustees of the Butte County Mosquito and Vector Control District as follows:

1. The Fiscal Year 2026/2027 Budget, attached hereto as Schedule A, is hereby approved and adopted.
2. The appropriations contained in the adopted budget are hereby authorized for District operations during Fiscal Year 2026-2027.
3. Pursuant to Government Code section 29125, the District Manager is authorized to approve transfers and revisions of appropriations between budget categories, line items, or budget units as necessary for the efficient administration of the District operations, provided the overall appropriations of the District's fiscal budget are not increased.

PASSED and ADOPTED by the Board of Trustees of the Butte County Mosquito and Vector Control District, State of California on July 8, 2026, by the following vote:

AYES:

NOES:

ABSENT:

ATTEST:

_____ _____

President or officer of the Board of Trustees Matthew C. Ball, District Manager

Schedule A

Butte County Mosquito and Vector Control District
Final Revenue Budget
Fiscal Year 2026/2027
Combined

	Received 2022/2023	Received 2023/2024	Received 2024/2025	Received 2025/2026	Proposed Budget 2026/2027	Proposed Changes 2026/2027	Final Budget 2026/2027
REVENUE							
Current Secured Property Taxes	$ 2,448,134	$ 2,722,879	$ 2,804,983	$ 2,654,832	$ 2,943,473	$ -	$ 2,943,473
Current Unsecured	$ 172,417	$ 195,966	$ 208,946	$ 197,470	$ 224,630	$ -	$ 224,630
Prior Unsecured	$ 13,312	$ 8,114	$ 4,972	$ 4,600	$ 4,590	$ -	$ 4,590
Supplemental Current Secured	$ 100,393	$ 69,300	$ 43,561	$ 18,025	$ 35,000	$ -	$ 35,000
RDA Residual	$ 493,371	$ 553,924	$ 608,610	$ 658,305	$ 550,800	$ 25,000	$ 575,800
RDA Pass-Thru	$ 819,753	$ 884,842	$ 899,540	$ 971,812	$ 969,000	$ -	$ 969,000
Miscellaneous Taxes	$ 5,088	$ 2,580	$ 4,900	$ 4,071	$ 5,000	$ -	$ 5,000
Interest Income	$ 116,506	$ 199,745	$ 274,450	$ 170,634	$ 80,000	$ 30,000	$ 110,000
State Back Fill Secured	$ -	$ 28,592	$ -	$ -	$ -	$ -	$ -
State Back Fill Unsecured	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other State	$ -	$ 1,617	$ -	$ -	$ -	$ -	$ -
HOPTR - Homeowner's Exemption	$ 30,827	$ 31,263	$ 30,939	$ 15,125	$ 30,000	$ -	$ 30,000
Benefit Assessment	$ 860,746	$ 1,018,748	$ 1,027,235	$ 1,024,326	$ 1,119,000	$ -	$ 1,119,000
Special Household Assessments	$ 2,977	$ 2,798	$ 2,966	$ 2,928	$ 2,800	$ -	$ 2,800
Benefit Assessment Hamilton City	$ 7,027	$ 7,868	$ 8,136	$ 8,625	$ 6,800	$ -	$ 6,800
Charges for Current Services	$ 239,470	$ 429,646	$ 545,782	$ 334,977	$ 300,000	$ (30,000)	$ 270,000
Miscellaneous Revenues	$ 95,854	$ 65,689	$ 394,532	$ 52,191	$ 30,000	$ -	$ 30,000
Grants Other Agencies	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transfer Ins	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Grand Total	$ 5,405,876	$ 6,223,569	$ 6,859,553	$ 6,117,922	$ 6,301,093	$ 25,000	$ 6,326,093

Schedule A

Butte County Mosquito and Vector Control District
Final Revenue Budget
Fiscal Year 2026/2027
Fund - 2270

	Received 2022/2023	Received 2023/2024	Received 2024/2025	Received 2025/2026	Proposed Budget 2026/2027	Proposed Changes 2026/2027	Final Budget 2026/2027
REVENUE							
Current Secured Property Taxes	$ 2,448,134	$ 2,722,879	$ 2,804,983	$ 2,654,832	$ 2,943,473	$ -	$ 2,943,473
Current Unsecured	$ 172,417	$ 195,966	$ 208,946	$ 197,470	$ 224,630	$ -	$ 224,630
Prior Unsecured	$ 13,312	$ 8,114	$ 4,972	$ 4,600	$ 4,590	$ -	$ 4,590
Supplemental Current Secured	$ 100,393	$ 69,300	$ 43,561	$ 18,025	$ 35,000	$ -	$ 35,000
RDA Residual	$ 493,371	$ 553,924	$ 608,610	$ 658,305	$ 550,800	$ 25,000	$ 575,800
RDA Pass-Thru	$ 819,753	$ 884,842	$ 899,540	$ 971,812	$ 969,000	$ -	$ 969,000
Miscellaneous Taxes	$ 5,088	$ 2,580	$ 4,900	$ 4,071	$ 5,000	$ -	$ 5,000
Interest Income	$ 116,506	$ 199,745	$ 274,450	$ 170,634	$ 80,000	$ 30,000	$ 110,000
State Back Fill Secured	$ -	$ 28,592	$ -	$ -	$ -	$ -	$ -
State Back Fill Unsecured	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other State	$ -	$ 1,617	$ -	$ -	$ -	$ -	$ -
HOPTR - Homeowner's Exemption	$ 30,827	$ 31,263	$ 30,939	$ 15,125	$ 30,000	$ -	$ 30,000
Benefit Assessment	$ 860,746	$ 1,018,748	$ 1,027,235	$ 1,024,326	$ 1,119,000	$ -	$ 1,119,000
Charges for Current Services	$ 239,470	$ 429,646	$ 545,782	$ 334,977	$ 300,000	$ (30,000)	$ 270,000
Miscellaneous Revenues	$ 95,854	$ 65,689	$ 394,532	$ 52,191	$ 30,000	$ -	$ 30,000
Grants Other Agencies	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transfer Ins	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Grand Total	$ 5,395,872	$ 6,212,904	$ 6,848,451	$ 6,106,368	$ 6,291,493	$ 25,000	$ 6,316,493

Butte County Mosquito and Vector Control District
Final Hamilton City Revenue Budget
Fiscal Year 2026/2027
Fund - 2272

	Received 2022/2023	Received 2023/2024	Received 2024/2025	Received 2025/2026	Proposed Budget 2026/2027	Proposed Changes 2026/2027	Final Budget 2026/2027
REVENUE							
Special Household Assessments	$ 2,977	$ 2,798	$ 2,966	$ 2,928	$ 2,800	$ -	$ 2,800
Benefit Assessment Hamilton City	$ 7,027	$ 7,868	$ 8,136	$ 8,625	$ 6,800	$ -	$ 6,800
Grand Total	$ 10,004	$ 10,666	$ 11,102	$ 11,553	$ 9,600	$ -	$ 9,600

Schedule A

Butte County Mosquito and Vector Control District
Final Budget
Fiscal Year 2026/2027
Combined

	Final Budget 2022/2023	Final Budget 2023/2024	Final Budget 2024/2025	Final Budget 2025/2026	Proposed Budget 2026/2027	Proposed Changes 2026/2027	**Final Budget 2026/2027**
SALARIES & BENEFITS							
Salaries	$ 1,527,531	$ 1,675,588	$ 1,887,855	$ 2,030,225	$ 2,184,860	$ -	**$ 2,184,860**
FICA & U I	$ 129,111	$ 142,122	$ 158,858	$ 170,068	$ 182,332	$ -	**$ 182,332**
Workers Compensation	$ 70,000	$ 70,000	$ 75,000	$ 75,000	$ 75,000	$ 16,000	**$ 91,000**
Health Insurance	$ 443,819	$ 502,152	$ 618,193	$ 635,931	$ 693,513	$ -	**$ 693,513**
PERS	$ 487,522	$ 468,740	$ 554,132	$ 532,646	$ 578,853	$ -	**$ 578,853**
PERS- ADP	$ 700,000	$ 350,000	$ 200,000	$ -	$ -	$ -	**$ -**
PERS- 115 Trust	$ 150,000	$ 150,000	$ 200,000	$ -	$ -	$ -	**$ -**
TOTAL	$ 3,507,983	$ 3,358,602	$ 3,694,038	$ 3,443,871	$ 3,714,558	$ 16,000	**$ 3,730,558**
SERVICES & SUPPLIES							
Gas, Oil, & Grease	$ 150,000	$ 150,000	$ 150,000	$ 165,000	$ 185,000	$ -	**$ 185,000**
Facilities Maintenance & Repairs	$ -	$ -	$ 25,000	$ 30,000	$ 30,000	$ -	**$ 30,000**
Repairs & Parts-Airplane	$ 45,000	$ 30,000	$ 30,000	$ 40,000	$ 40,000	$ -	**$ 40,000**
Repairs & Parts- Vehicle & Equipment	$ 45,000	$ 55,000	$ 42,500	$ 60,000	$ 55,000	$ -	**$ 55,000**
Office Supplies	$ 25,000	$ 15,000	$ 20,000	$ 25,000	$ 25,000	$ -	**$ 25,000**
Shop and PPE Supplies	$ 32,800	$ 30,000	$ 25,000	$ 35,000	$ 30,000	$ -	**$ 30,000**
Education & Publicity	$ 70,000	$ 75,000	$ 80,000	$ 85,000	$ 85,000	$ -	**$ 85,000**
Pesticides	$ 870,000	$ 875,263	$ 1,000,248	$ 1,001,869	$ 1,021,335	$ 12,000	**$ 1,033,335**
Tools & Equipment	$ 70,000	$ 40,000	$ 42,500	$ 43,000	$ 40,000	$ -	**$ 40,000**
Communications	$ 34,000	$ 35,000	$ 25,000	$ 30,000	$ 35,000	$ -	**$ 35,000**
Travel	$ 25,000	$ 10,000	$ 10,000	$ 25,000	$ 20,000	$ -	**$ 20,000**
Utilities	$ 45,000	$ 48,000	$ 56,500	$ 62,500	$ 65,000	$ -	**$ 65,000**
Rent	$ 5,200	$ 5,500	$ 6,000	$ 15,100	$ 17,000	$ -	**$ 17,000**
Special Services	$ 160,000	$ 170,000	$ 441,200	$ 150,000	$ 150,000	$ -	**$ 150,000**
Trustee Allowance	$ 13,000	$ 13,200	$ 13,200	$ 13,200	$ 13,200	$ -	**$ 13,200**
General Insurance	$ 165,000	$ 194,000	$ 215,000	$ 313,000	$ 320,000	$ 37,000	**$ 357,000**
Employee Training, Fees, & Dues	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ -	**$ 15,000**
District Memberships, Fees, & Dues	$ 40,000	$ 43,000	$ 45,000	$ 55,000	$ 55,000	$ -	**$ 55,000**
Miscellaneous	$ 15,000	$ 15,000	$ 15,000	$ 12,000	$ 15,000	$ (3,000)	**$ 12,000**
Laboratory Research & Supplies	$ 60,000	$ 50,000	$ 53,000	$ 55,000	$ 55,000	$ -	**$ 55,000**
IT Equipment	$ 1,000	$ -	$ 10,000	$ 10,000	$ 10,000	$ -	**$ 10,000**
Special Discretionary	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ (5,000)	**$ 25,000**
Gambusia	$ 15,000	$ 15,000	$ 17,500	$ 18,000	$ 20,000	$ (2,000)	**$ 18,000**
TOTAL	$ 1,931,000	$ 1,913,963	$ 2,367,648	$ 2,288,669	$ 2,331,535	$ 39,000	**$ 2,370,535**
CAPITAL OUTLAY							
Building & Improvements	$ 50,000	$ 25,000	$ 50,000	$ 10,000	$ 30,000	$ -	**$ 30,000**
Vehicles	$ 50,000	$ 160,000	$ 200,000	$ 50,000	$ 210,000	$ (30,000)	**$ 180,000**
Spray Equipment	$ 90,000	$ -	$ -	$ -	$ -	$ -	**$ -**
Aircraft	$ 30,000	$ 120,000	$ 3,555,000	$ 195,000	$ 15,000	$ -	**$ 15,000**
Office Equipment	$ 2,500	$ -	$ 10,000	$ -	$ -	$ -	**$ -**
Laboratory Equipment	$ 2,500	$ 10,000	$ 10,000	$ -	$ -	$ -	**$ -**
Shop Equipment	$ 2,500	$ -	$ 10,000	$ -	$ -	$ -	**$ -**
Education & Publicity	$ 2,500	$ -	$ -	$ -	$ -	$ -	**$ -**
Miscellaneous	$ 1,000	$ -	$ -	$ -	$ -	$ -	**$ -**
Communications	$ 1,000	$ -	$ 40,000	$ -	$ -	$ -	**$ -**
TOTAL	$ 232,000	$ 315,000	$ 3,875,000	$ 255,000	$ 255,000	$ (30,000)	**$ 225,000**
Grand Total	$ 5,670,983	$ 5,587,565	$ 9,936,686	$ 5,987,540	$ 6,301,093	$ 25,000	**6,326,093**
Appropriation for Contingencies	$ 1,317,746	$ 1,470,641	$ 1,469,122	$ 1,002,700	$ 1,575,273	$ -	**$ 1,575,273**
Restricted - UST Fund	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ -	**$ 5,000**
Committed - Accumulated Capital Outlay Reserve	$ 2,250,000	$ 500,000	$ 750,000	$ -	$ 200,000	$ 50,000	**$ 250,000**
Assigned- Accumulated Capital Outlay Reserve	$ -	$ 1,500,000	$ 750,000	$ 250,000	$ 500,000	$ -	**$ 500,000**
Committed - Aircraft	$ 1,000,000	$ 800,000	$ 900,000	$ 100,000	$ 350,000	$ -	**$ 350,000**
Assigned - Research Reserve	$ 200,000	$ 175,000	$ 100,000	$ 500,000	$ 100,000	$ -	**$ 100,000**
Assigned - Vector Borne Disease Emergency	$ 750,000	$ 500,000	$ 500,000	$ 500,000	$ 500,000	$ -	**$ 500,000**
Assigned - Aerial Program	$ -	$ -	$ 700,000	$ 500,000	$ 600,000	$ -	**$ 600,000**
Assigned - Emergency Operations	$ -	$ -	$ -	$ 500,000	$ 600,000	$ -	**$ 600,000**
General Reserve	$ 300,000	$ 250,000	$ 50,000	$ 100,000	$ 125,000	$ -	**$ 125,000**
TOTAL	$ 5,822,746	$ 5,200,641	$ 5,224,122	$ 3,457,700	$ 4,555,273	$ 50,000	**$ 4,605,273**

Schedule A

Butte County Mosquito and Vector Control District
Final Budget
Fiscal Year 2026/2027
Fund - 2270

	Final Budget 2022/2023	Final Budget 2023/2024	Final Budget 2024/2025	Final Budget 2025/2026	Proposed Budget 2026/2027	Proposed Changes 2026/2027	**Final Budget 2026/2027**
SALARIES & BENEFITS							
Salaries	$ 1,522,031	$ 1,670,088	$ 1,882,355	$ 2,023,925	$ 2,179,360	$ -	**$ 2,179,360**
FICA & U I	$ 129,111	$ 142,122	$ 158,858	$ 170,068	$ 182,332	$ -	**$ 182,332**
Workers Compensation	$ 70,000	$ 70,000	$ 75,000	$ 75,000	$ 75,000	$ 16,000	**$ 91,000**
Health Insurance	$ 443,819	$ 502,152	$ 618,193	$ 635,931	$ 693,513	$ -	**$ 693,513**
PERS	$ 487,522	$ 468,740	$ 554,132	$ 532,646	$ 578,853	$ -	**$ 578,853**
PERS- ADP	$ 700,000	$ 350,000	$ 200,000	$ -	$ -	$ -	**$ -**
PERS- 115 Trust	$ 150,000	$ 150,000	$ 200,000	$ -	$ -	$ -	**$ -**
TOTAL	$ 3,502,483	$ 3,353,102	$ 3,688,538	$ 3,437,571	$ 3,709,058	$ 16,000	**$ 3,725,058**
SERVICES & SUPPLIES							
Gas, Oil, & Grease	$ 150,000	$ 150,000	$ 150,000	$ 165,000	$ 185,000	$ -	**$ 185,000**
Facilities Maintenance & Repairs	$ -	$ -	$ 25,000	$ 30,000	$ 30,000	$ -	**$ 30,000**
Repairs & Parts-Airplane	$ 45,000	$ 30,000	$ 30,000	$ 40,000	$ 40,000	$ -	**$ 40,000**
Repairs & Parts- Vehicle & Equipment	$ 45,000	$ 55,000	$ 42,500	$ 60,000	$ 55,000	$ -	**$ 55,000**
Office Supplies	$ 25,000	$ 15,000	$ 20,000	$ 25,000	$ 25,000	$ -	**$ 25,000**
Shop and PPE Supplies	$ 32,800	$ 30,000	$ 25,000	$ 35,000	$ 30,000	$ -	**$ 30,000**
Education & Publicity	$ 70,000	$ 75,000	$ 80,000	$ 85,000	$ 85,000	$ -	**$ 85,000**
Pesticides	$ 866,500	$ 871,163	$ 996,148	$ 997,369	$ 1,017,235	$ 12,000	**$ 1,029,235**
Tools & Equipment	$ 70,000	$ 40,000	$ 42,500	$ 43,000	$ 40,000	$ -	**$ 40,000**
Communications	$ 34,000	$ 35,000	$ 25,000	$ 30,000	$ 35,000	$ -	**$ 35,000**
Travel	$ 25,000	$ 10,000	$ 10,000	$ 25,000	$ 20,000	$ -	**$ 20,000**
Utilities	$ 45,000	$ 48,000	$ 56,500	$ 62,500	$ 65,000	$ -	**$ 65,000**
Rent	$ 5,200	$ 5,500	$ 6,000	$ 15,100	$ 17,000	$ -	**$ 17,000**
Special Services	$ 160,000	$ 170,000	$ 441,200	$ 150,000	$ 150,000	$ -	**$ 150,000**
Trustee Allowance	$ 13,000	$ 13,200	$ 13,200	$ 13,200	$ 13,200	$ -	**$ 13,200**
General Insurance	$ 165,000	$ 194,000	$ 215,000	$ 313,000	$ 320,000	$ 37,000	**$ 357,000**
Employee Training, Fees, & Dues	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ -	**$ 15,000**
District Memberships, Fees, & Dues	$ 40,000	$ 43,000	$ 45,000	$ 55,000	$ 55,000	$ -	**$ 55,000**
Miscellaneous	$ 15,000	$ 15,000	$ 15,000	$ 12,000	$ 15,000	$ (3,000)	**$ 12,000**
Laboratory Research & Supplies	$ 60,000	$ 50,000	$ 53,000	$ 55,000	$ 55,000	$ -	**$ 55,000**
IT Equipment	$ 1,000	$ -	$ 10,000	$ 10,000	$ 10,000	$ -	**$ 10,000**
Special Discretionary	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ (5,000)	**$ 25,000**
Gambusia	$ 15,000	$ 15,000	$ 17,500	$ 18,000	$ 20,000	$ (2,000)	**$ 18,000**
TOTAL	$ 1,927,500	$ 1,909,863	$ 2,363,548	$ 2,284,169	$ 2,327,435	$ 39,000	**$ 2,366,435**
CAPITAL OUTLAY							
Bldg & Improvements	$ 50,000	$ 25,000	$ 50,000	$ 10,000	$ 30,000	$ -	**$ 30,000**
Vehicles	$ 50,000	$ 160,000	$ 200,000	$ 50,000	$ 210,000	$ (30,000)	**$ 180,000**
Spray Equipment	$ 90,000	$ -	$ -	$ -	$ -	$ -	**$ -**
Aircraft	$ 30,000	$ 120,000	$ 3,555,000	$ 195,000	$ 15,000	$ -	**$ 15,000**
Office Equipment	$ 2,500	$ -	$ 10,000	$ -	$ -	$ -	**$ -**
Laboratory Equipment	$ 2,500	$ 10,000	$ 10,000	$ -	$ -	$ -	**$ -**
Shop Equipment	$ 2,500	$ -	$ 10,000	$ -	$ -	$ -	**$ -**
Education & Publicity	$ 2,500	$ -	$ -	$ -	$ -	$ -	**$ -**
Miscellaneous	$ 1,000	$ -	$ -	$ -	$ -	$ -	**$ -**
Communications	$ 1,000	$ -	$ 40,000	$ -	$ -	$ -	**$ -**
TOTAL	$ 232,000	$ 315,000	$ 3,875,000	$ 255,000	$ 255,000	$ (30,000)	**$ 225,000**
Grand Total	$ 5,661,983	$ 5,577,965	$ 9,927,086	$ 5,976,740	$ 6,291,493	$ 25,000	**$ 6,316,493**
Appropriation for Contingencies	$ 1,315,496	$ 1,468,391	$ 1,466,747	$ 1,000,300	$ 1,572,873	$ -	**$ 1,572,873**
Restricted - UST Fund	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ -	**$ 5,000**
Committed - Accumulated Capital Outlay Reserve	$ 2,250,000	$ 500,000	$ 750,000	$ -	$ 200,000	$ 50,000	**$ 250,000**
Assigned- Accumulated Capital Outlay Reserve	$ -	$ 1,500,000	$ 750,000	$ 250,000	$ 500,000	$ -	**$ 500,000**
Committed - Aircraft	$ 1,000,000	$ 800,000	$ 900,000	$ 100,000	$ 350,000	$ -	**$ 350,000**
Assigned - Research Reserve	$ 200,000	$ 175,000	$ 100,000	$ 500,000	$ 100,000	$ -	**$ 100,000**
Assigned - Vector Borne Disease Emergency	$ 750,000	$ 500,000	$ 500,000	$ 500,000	$ 500,000	$ -	**$ 500,000**
Assigned - Aerial Program	$ -	$ -	$ 700,000	$ 500,000	$ 600,000	$ -	**$ 600,000**
Assigned - Emergency Operations	$ -	$ -	$ -	$ 500,000	$ 600,000	$ -	**$ 600,000**
General Reserve	$ 300,000	$ 250,000	$ 50,000	$ 100,000	$ 125,000	$ -	**$ 125,000**
TOTAL	$ 5,820,496	$ 5,198,391	$ 5,221,747	$ 3,455,300	$ 4,552,873	$ 50,000.00	**$ 4,602,873**

Schedule A

Hamilton City Benefit Assessment Area
Final Budget
Fiscal Year 2026/2027
Fund - 2272

	Final Budget 2022/2023	Final Budget 2023/2024	Final Budget 2024/2025	Final Budget 2025/2026	Proposed 2026/2027	Proposed Changes 2026/2027	**Final Budget 2026/2027**
Salaries & Benefits	$ 5,500	$ 5,500	$ 5,500	$ 6,300	$ 5,500	$ -	**$ 5,500**
Services & Supplies	$ 3,500	$ 4,100	$ 4,100	$ 4,500	$ 4,100	$ -	**$ 4,100**
TOTAL	$ 9,000	$ 9,600	$ 9,600	$ 10,800	$ 9,600	$ -	**$ 9,600**
Appropriation for Contingency	$ 2,375	$ 2,400	$ 2,400	$ 2,700	$ 2,400	$ -	**$ 2,400**
Assigned- Vector Borne Disease	$ 10,000	$ 10,000	$ 10,000	$ 15,000	$ 15,000	$ -	**$ 15,000**
General Reserve	$ -	$ -	$ -	$ 10,000	$ 10,000	$ -	**$ 10,000**
TOTAL	$ 12,375	$ 12,400	$ 12,400	$ 27,700	$ 27,400	$ -	**$ 27,400**

RESOLUTION NO. 26-05

A RESOLUTION OF THE BOARD OF TRUSTEES OF THE BUTTE COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT RESOLUTION OF APPRECIATION FOR MERITORIOUS SERVICE TO THE CITIZENS OF BUTTE COUNTY AND HAMILTON CITY

DEL BOYD

WHEREAS, the Butte County Mosquito and Vector Control District Board of Trustees, with grateful appreciation, does hereby acknowledge, commend, and honor Del Boyd, an employee of the District for over twenty-one years, for his commitment and dedication; and

WHEREAS, his knowledge and technical expertise have provided valuable contributions to the technical, financial, and governmental aspects of the District program; and

WHEREAS, he has been a strong and consistent advocate of public health protection for the residents of Butte County, Hamilton City, the State of California, and the nation; and

WHEREAS, his service and experience have been a valuable contribution to the mosquito and vector control program of Butte County and Hamilton City; and

WHEREAS, Del had freely given his time and talents to strengthen the essential operations of the District, to further the District's progress toward reaching and fulfilling the District's mission and has worked to ensure that the District continues its tradition of outstanding service to its residents; and

WHEREAS, Del faced the dangers of flying the District's aircraft in high-risk environments, as well as logged thousands of hours of flight time, and flew early morning missions lasting into late nights; and

WHEREAS, Del exemplified resolute commitment to the protection of the residents of Butte County and Hamilton City throughout his entire career; and

WHEREAS, Del was one of the very few that have received the prestigious American Mosquito Control Association's highest honor, the Boyd-Ariaz Grass Roots award and is one of only four District employees to ever receive this award; and

WHEREAS, upon Del's retirement, Del's callsign number, "Q56" will be retired with him and will never be issued to another District employee in the future; and

WHEREAS, the Board and District employees will miss Del's participation, leadership, service, and ideas.

NOW, THEREFORE, IT IS HEREBY RESOLVED that the Board of Trustees, the President of the Board, and District Management do hereby recognize these efforts by Del Boyd, an employee of the Butte County Mosquito and Vector Control District, and commend him for his outstanding work effort in protecting the health of the residents within the District. The Board of Trustees of the Butte County Mosquito and Vector Control District also does hereby recognize, thank, and publicly declare its appreciation to Del Boyd for his twenty-one plus years of service to the District and publicly commend his unselfish service to the people of Butte County and Hamilton City as an employee of this District.

Butte County Mosquito and Vector Control District Board of Trustees
July 8, 2026

Bo Sheppard, President	Carl Starkey	Bruce Johnson, Asst. Secretary
Dr. Larry Kirk, Vice-President	Andrew Haymond	Phil LaRocca
Darlene Fredericks	Melissa Schuster, Secretary	Steve Ostling
Hank Irick	Eric Smith	Matthew Ball, District Manager