



# CLARK COUNTY MOSQUITO CONTROL DISTRICT

## END-OF-THE-YEAR REPORT

**TO:** CCMCD Board of Trustees  
**FROM:** Mario Boisvert, District Manager  
**DATE:** December 5, 2024

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*The Board of Trustees proposed that an annual report be produced by the District Manager at the end of each year. In accordance with the Board's direction, this first year, the "End-of-the-year" report will only contain the main/most important things that occurred over the last mosquito season and should contain only a few pages. Other things such as budget, descriptions of our activities, and statistical data could be added in the future upon the Board's request.*

*The structure of the report will reflect the previous monthly reports presented during the year. Let me know if this is what the Board had in mind. Corrections and edits will be made to address your comments.*

*A table showing Key Performance Indicators (KPIs) is also provided at the end of the report to compare the main performance indicators over the last three years. This table will be updated every year with data for the current year.*

*Please find the components of our first End-of-the-Year/Annual report below.*

We received plenty of snow and rain in the Cascades and the Rockies over the 2023-2024 winter. We did not know at that point if those conditions would affect our mosquito population in the spring. Luckily, the water released in the spring by the Bonneville dam was a lot less than predicted and the Columbia River did not rise very high (around 9' max for a short period of time). Those conditions accounted for the rather quiet summer we experienced in 2024. However, the discovery of a larval resistance to one of the active ingredients used in the catch basins and the shortage of another product also used in the catch basins were not expected and planned at the beginning of the season.

The following is a general report on our different departments and activities throughout the year.

- **Administration:**
  - **CCMCD future expansion / lease renewal**
  - **County**
    - Since March 5<sup>th</sup>, 2024, we have been under contract with Public Works with a new lease agreement for our current building and

the old mosquito district building. We signed a 10-year contract plus the possibility of extensions (2 x 5 years).

- We will save up to \$10,000 per year starting in 2025 because we returned computer equipment that was leased to the County. I have kept my equipment since I require it for managing different services provided by the County.
- **Relationship with Clark County Public Health (CCPH)**
  - Nothing to report.
- **Contract with the County Treasurer**
  - Nothing to report.
- **Contract with TDJ**
  - In 2024, we transitioned from Workday (county) to the QuickBooks software owned by CCMCD but managed by TDJ CPA. The new software allows us to manage our own Account Payables (AP) instead of using the County. With this new software, we are also no longer invoiced through the County's Internal Service Delivery (ISD). Every expenditure from the County is now invoiced to CCMCD, approved, and sent to TDJ CPA for processing. With the new system, there is no more duplication (and charges) to process our invoices.
  - Since last August, we have been working on a new fiscal policy and the procedures and guidelines that will be included in that general/global policy. Creations and/or modifications of the travel, credit cards, procurement, ride-along, refreshment and meals, lost receipts procedures have been addressed so far. Draft copies of all the remaining procedures will be submitted to the Board for their review at the next Board meeting in February.
- **Budget 2023:**
  - The final expenditure report for 2023 was available in February and we finished the year about \$125,000 below our approved budget for 2023. Overall, we were able to stay within our approved budget mainly because of the extra revenues, money saved on salaries and capital expenditures.
- **Budget 2024:**
  - At the end of 2024, we should be around \$360K below our budget approved for the year. Major savings are mainly due to a few elements, such as the money we did not use for the treatments of both refugees, no money assigned for capital expenditures was used, and major savings in salaries.

- Based on discussions at the November Board meeting, we decided to use up the “extra money” to reduce our revenue budget for 2025 (by the amount of fund balance we want to use up) instead of moving it to the Reserve. A note in the budget document was added explaining that the revenue and expense difference is due to board approved fund balance reduction/use.
- One specific product was not available for purchase last summer, and it caused operational problems for our catch basin treatments. With the approval from the Executive Committee, all the quantity needed for next summer was purchased this fall (\$68K). Those purchases were subtracted from the 2025 pesticides budget.

- **Operations**

- In 2024, we added two new permanent employees to our payroll. Ms. Tarsis Jimenez is our new Administrative Assistant working part-time and Douglas Nelson, a full-time Field Supervisor. We unfortunately lost our Biologist, Jesse Maritz, who decided to go back to school.
- The Refuges Administrators are still working on their Integrated Mosquito Management (IMM) plan. We were told in July 2023 that it would probably be a one-year process. In a nutshell, it seems like they don't have control over the timeline due to other agencies working on their request, but it still remains a priority. A decision before May 2025 would be appreciated since it will have a huge impact on our operations and budget.
- In 2024, we signed a new contract for aerial application services by helicopter. This contractor possesses a different type of equipment to apply our larvicide granules that is considered “safer” than the previous contractor's equipment. That helped with the obtention of the permit needed to fly in what they call a “congested area”.
- After many trials, we finally got our Congested Area Plans (CAPs) that authorize us to fly in certain areas for our mosquito treatments. We received our CAP for adulticide treatments on June 18<sup>th</sup> and for the larvicide treatments on July 22<sup>nd</sup>
- We unfortunately found last summer that the larvae present in the catch basins have developed a resistance to the Bacillus sphaericus-based product we used to control them. This is likely due to the fact that the same product has been used for years without a rotation with other products having different modes of action. The replacement products we will use to continue treating our catch basins will have a major impact on our budget.
- Because the Columbia River did not cause major problems this summer (height of about 9' versus 13' and 16' in the past two years), we did not observe major outbreaks of adult mosquitoes in the county. We've only had

to treat with adulticides a few times this year. The area of concern was mainly around Vancouver Lake.

- We treated more than 197,000 catch basins, breaking our record from last year of 175,000. Kudos to all our employees for such a great achievement.
- We started to test a Beta version of the new VeeMAC software to manage our mosquito operations (field + lab) in 2025.
- We started a working collaboration with the TEAM 2471 (students from Camas) that can provide us replacement parts that are no longer available on the market for different equipment we have.

- **Lab**

- We sent larvae and adults of *Culex pipiens* to Rutgers University in New Jersey this year again to confirm the presence of the hybrid population identified last year. Results showed once again that there is mix of *Culex pipiens pipiens* and *Culex pipiens molestus* in our samples. We continued to collect samples in 2024 and we will send them for testing to the Center for Disease Control and Prevention (CDC) for confirmation.
- In 2024, we purchased a fourth BG counter. Those traps are allowing us to assess the time of activity of our different species (spring vs summer) and be more efficient with the timing of our fogging treatments.
- We worked with a colleague from San Joaquin County, CA to test a new design of an EVS trap they built with a 3-D printer. We compared their trap to our current EVS trap (no longer on the market). Results of that research will be published in a scientific journal.
- We also tested a new mycelium (fungi) system that generates CO<sub>2</sub> to attract mosquitoes. The bags of mycelium were provided by the Washington Department of Health. We designed a new protocol to assess if the bags were producing any CO<sub>2</sub>.
- We have a final count of 716 pools tested for West Nile virus in 2024. All tests were negative. As of 12/04/2024, there is a total of 10 positive pools of mosquitoes in Washington State, all in the Yakima/Benton County area
- The Ridgefield refuge started to flood many acres for the duck hunting season starting in October. As predicted, we started to see new peaks of activity of mosquitoes after being low over the previous last six weeks. Unfortunately, no treatments were allowed to control the larvae before they emerge as adults.
- For the next few months, we will set up traps weekly at 8-9 different locations when the weather will be conducive (November and March).

## Key Performance Indicator (KPI)

		2022	2023	2024
River height in spring <sup>(1)</sup>		16'	13'	9'
<b>Budget</b>	Budget	\$1,047,778	\$1,299,500	\$1,692,492 <sup>(2)</sup>
	Cost per parcel (including County's administration fees of \$0.75)	\$7.59	\$9.15	\$11.55
<b>Employees</b>	Number of employees	13	14	16
	Full-time	2	3	4
	Part-time	1	2	2
	Seasonal	10	9	10
<b>Operations</b>	Number of acres treated	2,086	1,228	293
	Acres by helicopter <sup>(3)</sup>	1,621	918	0
	Acres by drone	0	42	231
	Acres by other means (argo, quad, backpack, etc.)	465	268	62
	Number of catch basins treated	130,000	175,000	197,000
	Number of fogging treatments (adulticide)	54	86	6
<b>Surveillance</b>	Number of mosquitoes caught	335,000	354,000	127,000
	Number of "pools" of mosquitoes tested for West Nile virus (WNV) <sup>(4)</sup>	1,077	906	722
	# of positives for WNV	0	0	0
<b>Service Requests</b>	Number of Services requests	814	1192	160
	For nuisance	794	1172	91
	Other than nuisance	20	20	69

(1) The height of the River in spring has a very important impact on our operations

(2) In 2024, the budget includes an extra full-time employee with benefits and \$182K for potential treatments at the two National Wildlife Refuges (Ridgefield and Steigerwald Lake)

(3) The number of acres treated by helicopter is largely influenced by the number of acres flooded by the River (height)

(4) Over the last 3 years, between 30 and 40% of all the mosquito pools tested annually in WA State were from Clark County