



After a very busy summer, probably the most intense we ever had in Clark County based on the number of service requests, number of mosquitoes in our traps and the number of times we had to spray, we can finally catch our breath. Although we are still seeing presence of mosquito larvae in our catch basins, we are now having the time to reassess decisions made last summer, propose adjustments and be ready for next spring.

Below, please find a general report on our different departments/activities.

- **Administration:**

- **CCMCD future expansion / lease renewal**

- **County**

- We are still working with Public Works on a new lease agreement. Since the final agreement won't be signed before the Board meeting in November, we will have to assess the best we can for our budget the annual rent we will have to pay for both buildings in 2024.
 - We should have an agreement signed by the end of the year if everything goes as planned.

- **Relationship to Clark County Public Health (CCPH)**

- Nothing to report.

- **Contracts with the County Treasurer**

- Nothing to report.

- **Budget 2023:**

- Looking at the expenses forecast for the rest of the year 2023, we will likely be able to finish the year under the voted budget. Some ledgers showed more expenses than expected :
 - Drugs and Chemicals (Pesticides) : Over budget by \$30,000. This is mainly because we had to purchase more adulticides than expected. We had a very bad year and had to spray a lot more than originally planned.
 - Fuel : Over budget by \$7,000. The cost of the fuel was higher than expected and a lot more mileage on our vehicles when we went out more than 100 times to spray adulticides.
 - Supplies (trapping) : Over budget by \$4,000. We had to buy more RAMP kits to test for West Nile virus.

- Professional Services : Over budget by \$15,000. Mainly because of the payment of the contract with CCPH (\$20K) that was supposed to be paid in 2022 but was invoiced too late.
 - Insurance : Over budget by \$3,300. Higher costs for drone coverage and we also had to add “chemical” coverage.
- Overall, we should be under budget (all ledgers combined) at the end of the year. This was possible mainly because we were able to save some money on salaries and we did not make some purchases that were planned in the Equipment < \$5K and Capital Outlay ledgers.

- **Operations**

- We recently sat with employees to discuss what went well and what did not in 2023. We learned a lot again this year and we would like to use this experience to improve our operations next year. At least one consensus, we need better training and support for our new employees to start the season.
- If approved by the Board at our next Board meeting, we will post for a new full-time Field Supervisor position. That new position would be essential to better train and support our new employees in the field. Many activities are new and have been barely done before (fogging, calibration of equipment, follow up on treatments, use of the proper products, etc.) and the presence of a Supervisor with prior experience in mosquito control would be welcome.
- We started to use our new drone for treatment in the field. We received help from Frontier Precision to learn more about how to operate the drone and Valent BioSciences for the calibration. We are very pleased with the results and are planning to treat more acres in 2024.
- The Refuge is still working on its Integrated Mosquito Management (IMM) plan. We are helping them by providing data they are requesting and scientific papers justifying the need of mosquito control in an environment such as the refuge.

We hope that the process will be finished by next March-April so we can discuss the possibility of treating some areas of the refuge. A meeting is scheduled for November 1st to discuss and answer questions they might have.

Again, there are two sides of a coin. Being allowed to treat both refuges will mean hundreds of acres never treated before and this will be reflected in the 2024 budget.

- Although we had a very busy season with adulticiding, our employees were able to catch up on the treatments of the catch basins. We reached a new plateau with our treatments this year. At the end of October, we had treated 175,000 catch basins (vs 150,000 in 2022) to control our mosquito population thriving in this environment. Different products were used over those three rounds of treatments to avoid resistance.

- We did not have time to start a fourth round of treatment in our catch basins as it was planned. We will reevaluate this possibility for 2024. We still have mosquito present in our catch basins in the fall and we need to see how we could control them. Catch basins showed again the presence of two different genera (*Culex* and *Culiseta*) in the fall.
- We collected *Culex pipiens* larvae all summer and we will contact our colleagues at Rutgers University to verify the status of our hybrid population in Clark County. We have a more diverse sampling this year (6 months) compared to last year (2 months).

- **Lab**

- As of October 30th, we have tested more than 950 pools of mosquitoes and no pools have tested positive for West Nile virus. Again, this year, our tests represent close to 40% of all the pools of mosquitoes tested statewide. Our colleagues from Benton County recognized our effort in newsletters published at the state level and nationwide.
- In 2023 we did not purchase the fourth BG counter that was budgeted but we are planning to do so in 2024. Traps will be located in Camas, Vancouver, Refuge and Ridgefield.
- This year we were able to identify at least two (waiting for the result on a third one) new species that had never been identified in Clark County. Those species are new or could have been overlooked in the past.
- For the first time this year we ran efficacy trials on our two adulticide products we are using. This is something that must be done and part of the Integrated Mosquito Management plan but that we never really had the chance to do before. The two trials went great, and we were happy to learn that both products were killing adult mosquitoes efficiently. Some adjustments will be made next year on our protocol to improve our trials.
- Again, this year the WA Department of Health (DOH) helped us with the purchase of RAMP test kits (to test mosquito samples for West Nile virus). Their contribution was again of two boxes (200 cartridges) for a cost of about \$4,400.
- We talked about switching to PCR technology in our last Board report. We are just back from the Northwest Mosquito Control Association where I was able to get a quote to set up our lab with PCR. The cost would be about the same than continuing running RAMP tests on the first year. After the second year, we would make substantial savings with PCR. The cost on the second year would be less than \$3,000 to buy reagents and RNA extraction kits compared to close to \$25,000 that we would still continue to pay annually with RAMP. Results from PCR will also be more accurate, we will have the possibility to test three viruses at the same time (West Nile virus, Western Equine Encephalitis and St. Louis Encephalitis) and test birds if we desire. Even though this seems interesting, we still need a new trailer where a new lab could be set up to run the PCR and train our employees on this technology.