

2019 RDOS Mosquito Control

New to 2019 season:

1. Earlier start date
2. Sampling mosquito larvae
3. Treating on early morning ice
4. New mosquito truck
5. Evolving data gathering



New: Started March 11

- Residual groundwater water levels(2018 flooding)combined with record-breaking temperatures in March triggered early snow-melt and the simultaneous hatching of millions of flood water mosquito larvae.



New: Sampling Mosquito Larvae

- Mosquito Larvae are collected, mixed with isopropyl alcohol, then shipped to an entomologist in Victoria for species identification.



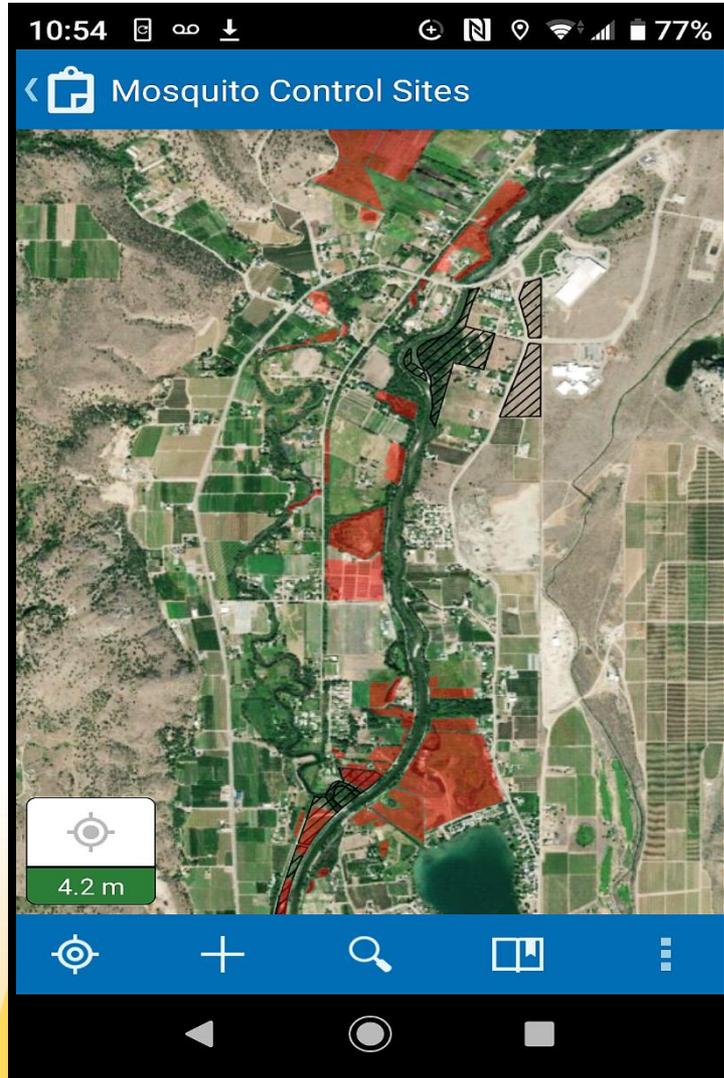
New: Mosquito Control Truck

- In previous years the second MCP vehicle has been a rental. This season a second truck was purchased.
- LED strobe lights were installed on the roof of both mosquito control vehicles.



New: Evolving Data Gathering

- The program is continuously upgrading the ability to access, input and edit data in the field, using ArcGis and annual mapping captures to show changes year upon year



Treatment - Aerial



- Average yearly flights: **3-4**
- 2018 helicopter flights: **5**
(should have used 6)
- 2019 helicopter flights: **2**
- Shallow snowpack resulted in lower spring flood levels; therefore, less flights were required

Treatment Terrestrial - Site Access

- Multiple property owners maintain access paths for mosquito crew members; this allows a more thorough/effective treatment to be applied to the area.



Seasonal Changes Mid-August

- Although sites appear dry, high larval counts continue where water remains.



Preventative measures

- Summer mosquitos can lay in any available water source. For example, there were no larvae found in the pond; however, the boat containing stagnant water had dips of up to 100+.



Challenges

- Similar to previous seasons site access and safety continue to be leading issues.



Challenges

- Crews launched BTI pucks through thick brush in hard to access locations.
- Working in and amongst noxious and nasty invasive plants and avoiding transporting them offsite.

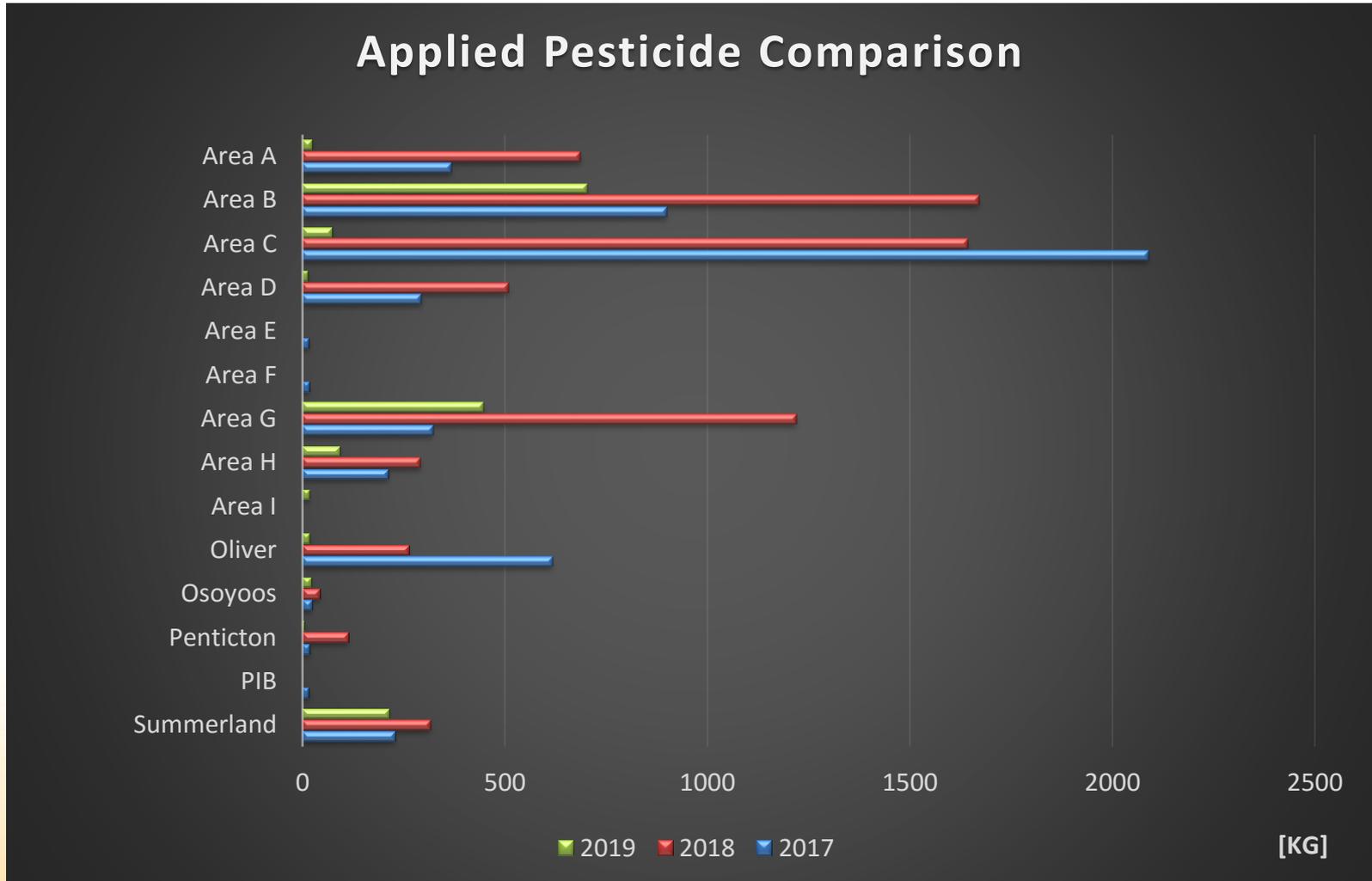


Risk Management

- Crews must remain vigilant and be continually aware of their environment.



Pesticide Usage Comparison



Illustrates dramatic changes in treatment requirements from season to season

Climate Change

- mosquito habitats continues to expand, their associated diseases and the extension of our mosquito season.
- Our response is to meet these challenges with expanded surveillance, backed by appropriate treatment.



Conclusion

- The RDOS Mosquito Crew: Cindy Boehm (5 years) and Shad Collins (2 years) have been outstanding employees and ambassadors for the RDOS
- They wish to remain with the program, and keep this a model program for other regions



Conclusion

Eclipse Helicopters (*pilot Derek Robinson*) always goes above and beyond for the mosquito control program

