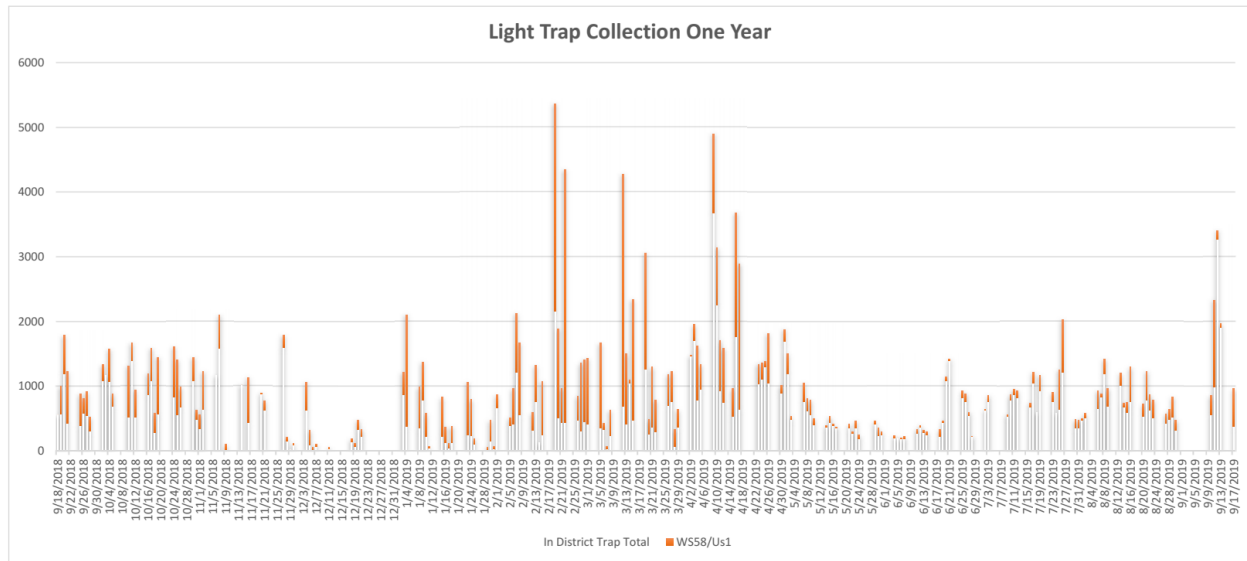


Week of 9/9/2019 Operations Update

This week's operations were mainly in response to floodwaters from Hurricane Dorian that skirted Flagler County on Wednesday 9/4/19. Typical of flood events, seven days post storm gave rise to an irruptive growth in mosquito population. The stacked-bar graph below shows the total mosquitoes from all traps in the District in white. The red is the sole trap we keep on the West-side of US-1 to monitor outside the District.



The populations of various species of floodwater species surged on exactly the seventh day post-storm event. The entire Western perimeter of the District was treated either by helicopter or truck in response to the surge of floodwater mosquitoes produced in the flooded areas West of US1. I have included the most recent trap data in the chart above to show the full effect of the treatments.

Overall, the level of rain received from the passing hurricane was not significantly more than what would be received in a week of heavy rain fall. No extraordinary measures were required in order to suppress the outbreak of adult mosquitoes.

Operationally, a single large rain event can be beneficial in controlling *Culex spp.* These permanent-water species of mosquitoes are susceptible to the flushing of eggs, larvae and pupae out of isolated areas without natural aquatic predators. Adding to this, large scale adulticide operations which the District mounts in response to irruptive population growth of floodwater species, and the result can be a significant and sustained decrease in these perennial permanent water species by effecting reduction in all life stages. Unlike their ephemeral floodwater cousins, permanent water mosquitoes are usually present to some degree no matter the environmental factors.

Zones in yellow were sprayed by truck, blocks in blue were sprayed by helicopter.

