



Twin Falls
County Pest
Abatement
District
Annual
Report

2019

Mission Statement: To protect the health and socio-economic well being of the citizens of Twin Falls County from harmful vectors and pests, employing environmentally sound abatement practices.

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Cover Photo: Snake River corridor provides habitat for both mosquitoes and black flies (shallow standing water along the banks and moving streams and tributaries).

Mosquito Habitat along the banks of the river.

Black Fly habitat in the moving water of the falls and river section.



Contact Information:

Mail:

PO Box AC
Twin Falls Idaho, 83303-0094

Office location:

507 Grandview Drive South, Suite A
Twin Falls, Idaho 83301

Phone/Email/Website:

Office 208-733-2338
tfcpad@qwestoffice.net
www.tfcpad.org

2019 Year End Report

Twin Falls County Pest Abatement District

Report Prepared by District Manager Brian Simper

Report to Twin Falls County Pest Abatement District Board of Trustees

*How to read this report: Much background information is contained in this report and is similar from year to year, new or updated information is marked with an * in order to streamline reading for repeat readers of this report.*

Introduction

The Twin Falls County Pest Abatement District (TFCPAD) was created by public vote in 2008 and started work in spring of 2009

*This season noted a transition in managers from Kirk Tubbs, who served ten years as the TFCPAD manager from its inception in 2009 until January 2019, to Brian Simper. The transitional training for the incoming manager was well prepared for by the board, as Kirk was able to work part time for six months, mentoring Brian in his new role. The staff consisted of one full-time manager, a full-time technician and during the summer, the equivalent of four full-time seasonals (one was a summer intern from CSI). A part-time office administrator assists with recording minutes during board meetings.

Geographic Area

The TFCPAD primarily conducts work inside Twin Falls County. The county contains approximately 1,232,000 acres. Twin Falls County has a population of 77,230 (2010 Census). Work is targeted to the areas that will produce the best results for the time and money spent.

Surveillance and subsequent treatment areas for Black Fly control consisted of most moving waters in Twin Falls County: The Twin Falls Canal system which contains 110 miles of major canals and over 1,000 miles of laterals, the Salmon Falls Canal System which has over 300 miles of main and lateral canals, and the Roseworth Canal System which contains over 10 miles of main and lateral canals. In addition, portions of coulee drainage streams, Rock Creek, Deep Creek, Cedar Draw, Dry Creek, Salmon Falls Creek, and the Snake River received some treatment. The Milner Irrigation Canal System was also sampled; this system originates in Twin Falls County, runs through Cassia County, then returns into Twin Falls County and contains over 25 miles of canal.

Mosquito Control work was conducted mainly in the more populous areas of the county. Priority in treatments was given to residential areas, locations where historically West Nile Virus was found and recreational or high public use areas. Mosquito monitoring conducted during the season further helped to focus our work where it was most needed. In general, the Snake River was the dividing line for treatments, but a few areas in adjacent counties were treated when we treated along the Snake River due to their direct impact on Twin Falls County. Clear Lake's Homeowners Association and the area near Centennial Park are some examples.

In addition to our work inside Twin Falls County, some limited surveillance work was conducted in Jerome, and Gooding counties. This also provided some mosquito samples that were tested for West Nile Virus (WNV).

1. Collaborative Agreements

We have welcomed partnerships and the sharing of information and resources in order to fulfill our mission. All parties worked with previously continued in provide assistance. Some of the more significant collaborators are noted.

Idaho Department of Health and Welfare provided WNV testing supplies as well as money for mosquito surveillance through a grant. The state lab also provided confirmative virus testing. This money was used for additional surveillance in surrounding counties as well as additional trapping and providing a new style trap that was trialed.

The Twin Falls Canal Company, Salmon Falls Canal Company, and Milner Irrigation District, North Side Canal, Idaho Power and USGS provided canal information, water flow rates, and data and access to their waterways for treatments.

*Twin Falls Canal Company is starting the process of lining the Highline Canal south of Hansen. This project will reduce water loss by an estimated 100 cubic feet per second which in turn will greatly reduce flooded mosquito habitat. TFCPAD is helping to fund this project. TFCPAD contributed \$15,000 that will be matched with grant money toward the Smart Water Grant. Work on this project started late fall of 2019 below the Forks near the Twin Falls Canal Company Gravel Pits near Rock Creek. Just under a mile of canal lining was completed this year with projections to do four more miles in the next three to five years.

*Salmon River Canal Company has been engaged in lining sections of their canal system to help increase water use efficiencies. TFCPAD is helping to fund some of these efforts since the long-term results will be less black fly and mosquito habitat to treat and cost savings to the district. TFCPAD contributed \$5,000 that will be matched with grant money toward the Smart Water Grant. Work on this project is anticipated to begin in the Fall of 2020.

Clearlake's Homeowners Association contracted to have mosquito surveillance and control. This resulted in treatments that benefited Twin Falls County residents in adjacent area as well as the homeowner's association.

Blue Lakes Country Club contracted to have mosquito control conducted. This is directly across from Centennial Park and provided a direct benefit to the public at the park.

*Tubbs Berry Farm collaborated with the district to present an educational workshop for members of the community at their Homesteaders Fair.

Idaho Power partnered with us to promote their irrigation efficiency program. This is really a win - win. Not only does the irrigator save money on irrigation, but fewer leaks means less habitat for mosquitoes.

INEBRE intern: This was our fifth year we partnered with College of Sothern Idaho which administered the INEBRE (Idea Network of Biomedical Research Excellence) Intern program. Their goal is getting students involved with collaborative research, and gain real world experience especially in the

biology and public health fields. The Intern received pay through the grant program, training, field and lab experience from us and we got some extra help. It was a great collaboration all the way around, and we are planning on this for next year.

2. Surveillance

2.1 Black Fly (BF) adult surveillance (Also known as Biting Black Flies and Buffalo Gnats.) is conducted using some of the same traps and methods that are used for adult mosquito's surveillance. The traps are not intended to remove or catch all the BF, rather they provide a measurable comparison from year to year and from site to site.

Primary reasons for treatment of BF populations are to reduce the economic impact to livestock and reduce the potential for transmitting viral Vesicular Stomatitis virus (VSV). No VSV was detected in Idaho this year. The last outbreak of VSV was in 2015 with detection of the virus in eight states: Utah, Arizona, Colorado, Nebraska, New Mexico, South Dakota, Wyoming, and Texas (USDA).

Simulium vittatum is the predominate species found throughout the county. It generally does not bite humans; it prefers to feed on livestock and is a concern because of its potential for disease transmission and its negative effect on livestock behavior. When people notice Black Flies swarming in their face, it is generally this species.

Simulium bivittatum is a very small species of BF that has a similar lifecycle and habitat preferences to Simulium vittatum, but bites people as well as animals. They are smaller and harder to see, and are general more numerous in the west end of the county. Locals often refer to them as no-see-ums.

2.2 Black fly larval surveillance in canals primarily took place with yellow sample ropes hung in the waterways. A six-inch section of the rope was marked off and larvae found on that section were monitored. Other waterways were also monitored by pulling up vegetation and looking at it and rocks for larva presence. In fluctuating river and stream flows, the BF Larva move around a great deal in the stream searching out optimum attachment sites, rendering the rope surveys not as effective. Some waterways are surveyed year-round. Surveillance was done in order to find BF Larva, to gauge larval stage and growth so treatment could be conducted where needed and at optimum larval stage.

2.3 Mosquito surveillance for larva was conducted by dipping for larva in standing water sources such as ponds and water retention areas. Work primarily focused around the more populated parts of the county; however, any standing water encountered was sampled whenever possible.



Photo 1: Black Fly adults on the underside of leaves during the summer heat.



Photo 2: Black fly surveillance ropes used to determine timing of treatments.

***Adult mosquito** trapping was conducted on a weekly basis during the season (May 22 – Sept 24; the season was shortened this year due to cold weather). Traps used a light and CO₂ produced by dry ice or a CO₂ cylinder to attract the mosquitoes. Traps were set in the evening and retrieved the following day. A total of 222 trap nights produced a total of 2,825 female mosquito that were identified to species as a part of this surveillance. (This number excludes data where traps failed or from surrounding counties.) This trapping provided mosquitoes for West Nile Virus (WNV) testing as well as feedback on treatment results and needs. Testing of mosquitoes this year was conducted in-house with confirmation of test results conducted by the state health lab. Using data from previous years, we conducted surveillance in three ways:

Targeted surveillance of high-priority areas.

Random sampling to locate new areas in need of treatment.

Abundance trapping to provide a look at populations over time.

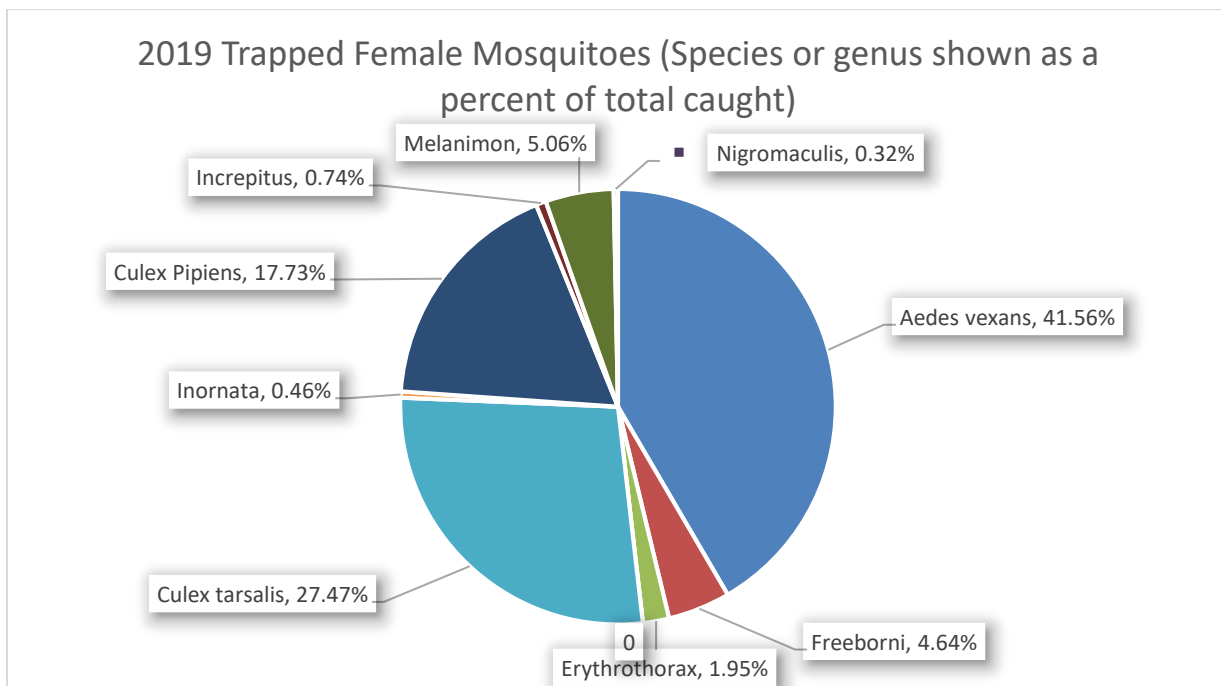


Figure 1. 2019 total by species.

Using data from previous years and state guidelines we have established a Twin Falls County specific operations guide and treatment thresholds and procedures. These guidelines were followed regarding trap counts of certain mosquito species and when a high number were caught, traps were reset to help determine if the population was rising or falling and to evaluate the effectiveness of our treatment efforts. The goal was to find potential problem areas quickly so that we could maintain key mosquito species population numbers below the threshold where disease is easily transmitted. These guidelines are reviewed and updated with the new data as needed.

2.4 West Nile Virus Testing

*West Nile Virus is considered endemic in Idaho. Our goal is to reduce the likelihood of virus transmission by limiting its primary vector in Twin Falls County: the *Culex tarsalis* & *Culex pipiens* mosquitoes. We test mosquitoes regularly as part of our surveillance. This year 163 pools of mosquitoes were tested in-house as part of routine surveillance. Each pool contains from 1 to 50 mosquitoes of the *Culex* species from one location that are tested together. TFCPAD uses a rapid immunochromatographic system for screening samples (referred to as a RAMP test). It provides quick and accurate testing of samples. In some cases, samples fall within a range where additional testing is required; when needed, the state lab provided more advanced confirmative testing.

*Results of RAMP tests:

June 26 - One trap location North of Filer near the Jerome and Twin Falls County border tested positive for WNV.

August 16 - One trap located southwest of Filer in a rural area tested positive for WNV. We are finding an increase of mosquitoes from containers, buckets, and horse troughs as well as over-irrigated pastures.

August 27 - A trap set northwest of Buhl along the river corridor tested positive for WNV.

Mosquito species identification also lets us know what type of habitat to look for, and if we were dealing with a potential vector of disease or just a nuisance mosquito. Vectors of disease generally bite, lay eggs and then feed again. These repeat feedings transmit the disease. Nuisance species bite, lay eggs and die and are not likely to spread disease. Most nuisance species are in flood water areas and most disease vectors come from more permanent standing water. Trap results can be used in planning when and where to work to reduce potential disease vectors before they become a problem.

* Figure 1. shows the population distribution of trapped female mosquitos in TFC. *Culex tarsalis* and *Culex pipiens* are the two species likely to carry WNV. *Culex* are most often found in ponds and various containers. *Culex pipiens* most often come from storm drains and small containers of water in areas where people live. A dry summer favors *Culex* species mosquitoes. Adults overwinter as pregnant females, emerging in the spring ready to lay eggs in small ponds or containers. Flooding events favor other species whose eggs lie dormant in the soil waiting for the right flood conditions to hatch. This year we experienced a cooler spring with more precipitation than average. The accumulated precipitation created numerous mosquito breeding sites. Although there was abundant moisture, there were no cutbacks in the canal irrigation. Figure 2 shows all mosquito species caught combined. In general if we keep this average below 50 per trap night at the peak we have very little public complaint and reduced WNV transmission.

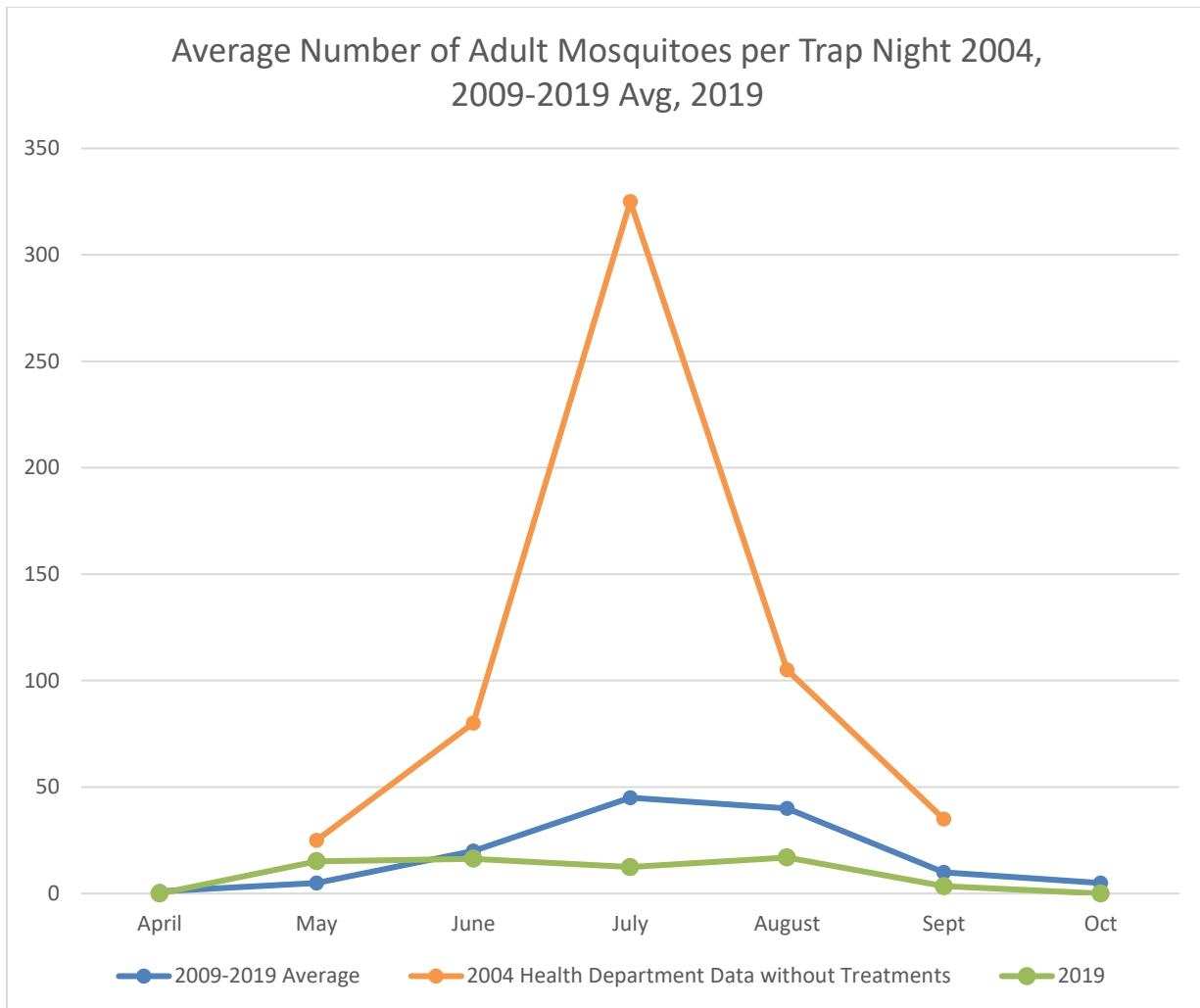


Figure 2: Includes 2004 data from health department during which no control work was conducted; remainder is TFCPAD data.

3. Mapping

*Geographic Information System (GIS) units were used to provide accurate records of treatment locations, to measure treatment areas, and to record this information for future use. The GIS units allow for field recording of data, field review of previous work and mapping of all treatments. The GIS tracks how long products are effective and changes color when it's approaching time to inspect it again. This is really a key to good county wide coverage even when we have changes in personnel, it preserves knowledge from one year to the next. The public can also view this map online by going to tfcpad.org. A transition was made from Sentinal GIS software to FieldSeeker GIS software due to the termination of software support for Sentinal GIS. Given that this is a new program, our team and FieldSeeker developers were able to work together to overcome software challenges. Additionally, our team has been able to request unique features to the program for future development that will help in mapping and recording data.

4. Source Reduction

Educational efforts to reduce potential pest habitat has been an important part of our public education campaign. This can be one on one education with homeowners, speaking to groups or working with schools. The biggest long-term impact we are having in source reduction is through educational effort. We cannot find and treat every potential breeding site, but when landowners know what to look for they help immensely by draining or flushing standing water. The species of concern for WNV are short range flyers which is why preventing mosquito production in backyards is so important.



Photo 3: Horse trough holding large amounts of mosquito larva.



Photo 4: Tires holding water along a road created excellent habitat for mosquitoes.

TFCPAD helped promote a Tire Amnesty day and conducted public education as part of this day. Southern Idaho Solid Waste offers two tire amnesty days per year across the region. TFCPAD promotes both spring and fall Tire Amnesty Days in the media as removal of discarded tires greatly reduces container habitat for certain species of mosquitoes. No direct cost for tire disposal is incurred by TFCPAD.

Educational Public Service Announcements were produced and aired during the summer months on local radio and TV stations to educate people about backyard mosquitoes. Eliminating mosquito habitat when possible is the best way to eliminate mosquitoes.

A public notification app was made available to the public this year. The app allows citizens who download it on their smart phones to view treatment areas, request service, and receive updates on West Nile Virus findings and other activities carried out by the Abatement District.

We also increased the number of mosquito traps during the month of July with the main intent of educating the public. By setting traps in new areas, we have found that the traps garner public attention and an increase in visits to the website, and Facebook. Links to both are posted on the traps and the traps are generally quite visible. The person setting them has a chance to visit with residents and it's a great way to have that more of those one on one interactions that are so good for answering questions and educating the public.

5. Larval Control

Almost all control efforts were targeted towards the larval stage of both mosquitoes and black flies. At this stage of the lifecycle they are confined to a smaller nursery and treatment is safe and effective. Studies suggest that larviciding 1,000 acres is the equivalent of adult control on 72,000 Acres. (Larvicide Logic educational publication, Valent USA 2013) With Black flies, there is no efficient way to control adults without treating large geographic areas. A mile of river with good Black fly habitat can produce over 1 billion black flies per day; hence it is best to treat the source.

Our primary larvicide is Bti (*Bacillus thuringiensis v. israelensis*) which is a product of a natural soil bacteria. When refined it produces multiple protein crystals that when consumed, react with the alkaline gut of a mosquito or black fly resulting in larval death. There is no secondary toxicity, or recycling of the product. It has little to no effect on non-target species and does not persist in the environment. Black fly Larvae were treated using Bti in a solution applied to moving water. Mosquito larvae were treated with Bti spread over still water. Larval stage, quantity and water temperature were monitored to determine treatment intervals and application rates.

5.1 Black Fly

Black fly treatments treat the volume of water. Black fly reproduction continues even during the winter. Larvae grow slowly, but have a special adaption triggered by the cold that allows them to emerge as adults and immediately lay eggs without feeding or mating during warmer winter days. Although black fly numbers can increase in overwintering habitats, the winter also provides an opportunity to get an early start on black fly management for the following season. During the winter, canals are dry and the overwintering habitat is limited, so winter treatments can greatly reduce populations. Overwintering larvae that emerge as adults during the spring disperse and colonize canals. By reducing the number of black flies that first emerge during the spring we expect to reduce the overall population for the year. During years with typical water flow rates, the winter is one of the most cost-effective times to treat.



Photo 5: Black fly treatment of VectoBac 12AS (BTi) flowing with the current into the head of the Twin Falls Dam. Currents in streams and the river help mix and carry the Bti downstream to areas of black fly larvae.

Flight range for black flies is 10-20 miles. Our treatment program targeting black flies in Twin Falls County that included winter treatments gives excellent results. However, the ability of black flies to disperse long distances complicates management efforts since adults can immigrate to our area from untreated breeding sites outside the County. Despite our best efforts we will have higher numbers of black flies late summer and fall due to immigration from untreated areas outside of the county. Black fly control is best accomplished on a regional level by targeting the larvae in canals and rivers before they hatch.

*The Snake River is one of the largest overwintering habitats in our area, and by treating the river in the winter we are able to reduce the numbers of black flies that would otherwise colonize canals, which benefits the entire region. TFCPAD samples for larvae in the canal systems and treat when appropriate. By monitoring both black fly larval stage and river flow rates we are able to time treatments to get the best control. The Snake River at Twin Falls depends a lot on what is happening upstream. In addition to irrigation flow releases, some water is released for flood control and salmon recovery. This all impacts costs to treat as well as black fly production in the region. In general there are great variations in flow that we can exploit and time treatments when it will cost us the least. At some flow levels treatment is cost prohibitive.

5.2 Mosquito

Mosquito larvae were controlled in several ways. Early in the season catch basins, storm drains, and some water retention ponds were treated using one of several slow release products. Altosid, Naturlar, and Four-Star products were all used. Products lasted from 45-180 days depending on the type of location treated. The slow release formula allows these early season treatments to last during the summer. These treatments are designed to work so that even when the water dries up the product remains ready for the next time the catch basin fills with water. This treatment is ideal for storm drains where we do not have the man power to check and treat each one at intervals during the summer. Over 1,000 storm drains were treated in Twin Falls County by TFCPAD. In addition, product is supplied to the local municipalities to use for the retreatment of drains when they are cleaned during the summer. All products used in treatments are listed on the TFCPAD website tfcpad.org.



Photo 6: Applying granular larvicide to pond using a Maruyama backpack blower.

Additional mosquito larval control was conducted by the use of *Bti* and a *Bacillus sphaericus* biological larvicide applied to standing water when mosquito larvae were found present. *Bs* works in much the same way as *Bti*, it is a natural soil bacteria that is consumed by the larvae. The difference is that it is a live bacterial that when consumed it multiplies inside the mosquito gut eventually killing the mosquito. The mosquito gut ruptures and releases the bacteria for another larva to consume. In areas of high mosquito larva this recycling of the product can make this type of treatments last longer than *Bti*.

*Mosquito larval control technology has experienced incredible gains over the last 9 years, resulting in improved product formulations, slow release, and even products that release during a flood event, dry down and re-release during the next flood event. These gains in technology have allowed us to treat an increasing number of mosquito sources (over 7,000), and find new sources each year without a similar increase in labor. We are able to pre-treat with slow release bacteria products areas that have historically been problem areas.

In some areas we use a surface film to treat for mosquitoes. The surface film is a monomolecular film that coats the surface of the water reducing surface tension, preventing pupa mosquitoes from

emerging from the water. It can also plug a mosquito larva's breathing tube and suffocate it. The film is designed to break down rapidly, it is only used where we find pupa.

5.3 Bluegill

*Stocking of bluegill for mosquito larval control was continued this year. Bluegill were collected from Dierkes Lake. Many of the locations that received fish are seasonal ponds and will need fish every year. The fish have proven to be a valuable part of our Integrated Pest Management approach. As we stock more waters and have more locations to use as sources for fish, this part of our program will expand. A number of volunteers helped with fish capture. Based on the public response, this is the public's favorite part of our program. Our ongoing monitoring has shown that while bluegill do not remove all the mosquito larvae, they remove a percentage of larvae making our other treatments more effective.

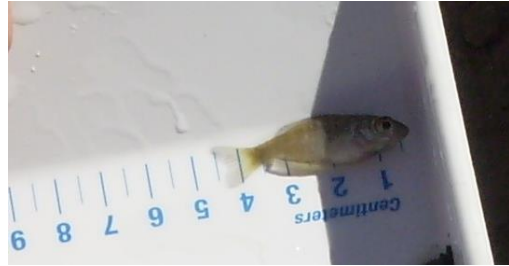


Photo 7: bluegill, 3-4 cm fish that can target mosquito larva are ideal.

5.4 Pesticide use totals

*Total quantity is total product applied, not just the active ingredient. Product information can be found on the district website.

TFPAD PESTICIDE USE TOTALS				
Product	EPA Reg. #	Quantity Used 2017	Quantity Used 2018	Quantity Used 2019
Four Star (45 day)	83362-3	287 each	38 each	3 each
Four Star (90 day)	83362-3	1,665 each	1487 each	340 each
Four Star CRG	85685-2	2,340.66 pounds	4,853.86 pounds	4839.43 pounds
4 Star (180 day)	83362-3	2,377 each	6754 each	3361 each
Agnique (surface Film)	53263-28	1.1 gallons	03 gallons	none
Agnique WSP (surface Film)	53263-3	36 pouches	43 pouches	52 pouches
CocoBear (larvicide oil)	8329-93	5.53 gallons	10.7 gallons	1.06 gallons
Altosid Briquet (180 day)	2724-421	none	1685 each	2167 each
MetaLarv S-PT	2724-448	none	none	40 pounds
Vectolex WSP (BS)	73049-20	20 pouches	27 pouches	none
Vectobac CG (Bti)	73049-19	51.85 pounds	0 pounds	0 pounds
Vectomax GF(BTi,BS)	73049-429	1,377.25 pounds	987.16 pounds	1414.2 pounds
Naturlar (180 day)	8329-84	2,537 each	940 each	161 each
Naturlar Granular (30 Day)	8329-83	567.67 pounds	458.15 pounds	172.85 pounds
Vectobac 12AS(Bti)	73049-38	4,785.26 gallons	14,948.15 gallons	11,063.82 gallons
All Pro MBG (Granular Bti)	7699-92	209.7 pounds	none	none
ATSB (adult sugar bait)	Exempt	108.93 gallons	61.64 gallons	2.9 gallons
Fourstar MBG	85685-3	none	323 lbs	382.34 pounds

TFCPAD has over 7,000 sites that are inspected and treated as need during the season. Each year new sites are added and some are removed as habitat is modified or eliminated. This number increased rapidly over the first years of our operation, but has now leveled off mostly due to the limits of time and number

of employees. Total product use can also vary greatly due to rain events and temperature. Product mix changes to prevent resistance, as new products are developed, and conditions in the field.

6. Control of Adult Mosquito Populations

Our most effective control of adult mosquitoes is accomplished by controlling the larva.

Control of adult mosquitoes through fogging was not conducted. We have an emergency aerial contract in place in the event aerial application is needed.

In some areas Attractive Targeted Sugar Bait (ATSB) was used to target adult mosquitoes. This was generally used as a buffer when mosquitoes were migrating from untreated areas into the county.

*A new barrier spray, Stop the Bites (STB) was tested this year. STB contains lemongrass oil, geraniol, castor oil, cedarwood oil, sodium lauryl sulfate, and corn oil as active ingredients. The product affects the respiratory system of mosquitoes and ticks. Our lab tests showed favorable results, but our field trial did not perform as well. More trials will be needed to draw more definitive conclusions on the value of this product.

6.1 Adult Mosquito Control Through Trapping

Remote monitoring of Traps: BG Sentinel

Traps are now currently available that record in real time the number of mosquitos entering the trap and transmit that data back where it can be viewed on the internet. These traps use mosquito attractants and carbon dioxide to lure mosquitoes near the trap. A fan then pulls them into a netted bag, and maintains the trapped mosquitoes until pickup. While these traps do not currently speciate they are able to classify insects by size. Real time data without travel is a great asset in our large county. We currently use a BG Sentinel trap to help gather real time data as well as reduce adult mosquito populations.

Gravid Traps

The emerging virus threats such as Zika are being transmitted by day active species of mosquitoes. These invasive exotic mosquito species are becoming quite common in the southern part of the country. It is also possible that their range will continue to expand with seasonal outbreaks from imported mosquitoes in areas that wouldn't normally sustain a year-round population. Our current traps and methods of monitoring adult mosquitoes could easily miss some of these mosquitoes. In order to improve our early detection and treatment we trialed a variety of traps in 2017. The best results from our trial was a gravid trap. Female mosquitoes looking for a place to lay eggs enter and are unable to leave. Based on this result, we expanded our trial this past year with the goal of having a trap that we could put out that would require no care for 30 days. The traps performed well and caught mosquitoes. No exotics were caught. Seasonal use of these traps will now be part of our standard surveillance practices.

All Weather LED EVS Traps

The majority of our trapping is done with All Weather LED EVS (Encephalitis Virus Survey) Traps. These traps use an LED light, attractants, and dry ice (carbon dioxide) to lure mosquitoes near the trap. Female mosquitoes looking for a blood meal are attracted to the carbon dioxide produced by the dry ice. A fan pulls the mosquito into the trap and maintains it in a netted bag until pickup. Traps are set in the evening and retrieved the following morning. Ten to twenty traps are set per week for surveillance data.



Photo 7: BG Counter trap.



Photo 8: Gravid mosquito trap.



Photo 9: All Weather LED EVS trap.

7. Certification

*Professional Applicator Licenses were maintained by all of our applicators. In-house training was conducted on defensive driving, water safety, ATV, equipment calibration and use, emergency procedures for spills and insect identification. The water safety portion of our training provides each employee practice in self rescues in a swift water environment. The following is a list of trainings and important meetings attended.

Feb 7th – 8th North American Black Fly Association (Twin Falls, ID)

Feb 21st – 23rd Swift Water Rescue Training (Knight's Ferry, CA)

Feb 25th – Mar 1st American Mosquito Control Association (Orlando, FL)

May 7th IMVCA spring training (Pocatello, ID)

May 10th Backyard Homesteader Fair (Twin Falls, ID)

June 5th Drone Training (Boise, ID)

June 6th Water Safety Training (Hagerman, ID)

June 18th III-A Training (Boise, ID)

Oct 8th – 10th Northwest Mosquito & Vector Control Association (Boise, ID)

Oct 16th PRIMA Risk Management Training (Meridian, ID)

8. Public Education and awareness

*The following is a list of educational events attended by TFCPAD :

Jan 31st – Feb 2nd Agri-Action

April 22nd Earth Day fair at CSI (Educational booth)

April 25th Three Creek School Mosquito/Black fly Education Day

May 13th Rock Creek Day (Educational Booth)

May 18th Careers on Wheels Day (Educational Booth)

Jul 22nd 1310 KLIX Radio Opportunity to discuss mosquitoes and black flies in Twin Falls County

Aug 24th Kids' Fest (Educational Booth)

Oct 17th Rock Creek Day (Educational Booth)

Aug – Dec CSI Pest Management Class

Dec 6th Filer Career Day (Educational Booth)

Information is also available on Facebook, YouTube and our website.

8.1 Links to TFCPAD related news stories: (click on link in blue) from KMVT and Times News

https://magicvalley.com/news/local/west-nile-virus-found-in-twin-falls/article_a3527ea3-6e44-5c47-8649-3cc58935ba34.html West Nile virus found in Twin Falls County *Posted: Jun 26, 2019*

<https://www.kmvt.com/video?vid=511902622> Mosquito carrying West Nile Virus found in Twin Falls County *Posted: Thu 11:34 AM, Jun 27, 2019*

<https://www.kmvt.com/video?vid=512065822> What residents can do to prevent the spread of mosquitoes *Posted: Mon 12:02 PM, Jul 01, 2019*

<https://www.kmvt.com/video?vid=512496282> Protecting your home from mosquitoes and black flies *Posted: Tue 4:44 PM, Jul 09, 2019*

https://magicvalley.com/news/local/pest-abatement-district-fights-mosquitoes-with-bluegill/article_57a2cfe2-8454-5f97-82c1-a68bd4fcb7d.html Pest Abatement District fights mosquitoes with bluegill *Posted: Jul 12, 2019*

<https://www.kmyt.com/video?vid=513465952> Twin Falls County Pest Abatement launches app
 Posted: Wed 3:38 PM, Jul 31, 2019

9. Other Business

9.1 Board meeting Dates

All Board meetings were announced and open to the public. The following is a list of Meeting dates in 2019.

1/7/2019 3/4/2019 5/13/2019 6/10/2019 8/6/2019 9/16/2019 11/18/2019

9.2 Budget for Twin Falls County Pest Abatement District

11/18/2019		Twin Falls County Pest Abatement District YTD Revenues & Expenses to 2018 Budget vs. Actual & 2019 Budget		
Budget Categories	Budget Items	2018 Actual	2018 Budget	2019 Budget
Revenues	1-01 Taxes	651,763	630,000	642,600
Revenues	1-02 Grants	6,000	6,000	6,000
Revenues	1-02 Foregone	-	-	-
Revenues	1-04 Carryover Money Other	-	930,000	974,000
Revenues	1-03 & 1-05 Other Income	27,960	17,800	27,000
Total Revenues		685,723	1,583,800	1,649,600
Expenses				
"A" Budget	(Salaries & Wages)	137,085	158,180	130,200
"B" Budget				
Benefits & Taxes Total		56,694	69,440	63,960
Building Expenses Total		22,749	26,885	27,430
Other Insurance Total		2,245	3,400	3,600
Vehicles Total		12,542	19,900	20,400
Travel Total		2,831	6,000	5,850
Training Total		3,321	2,520	2,770
IT and Communications Total		14,928	7,210	9,530
Emergency & Carry Over	10-01 Emergency Abatement Fund		750,000	765,000
Emergency & Carry Over	10-02 Previous Year Carry Over		132,915	115,000
Community Outreach Total		11,957	15,500	18,785
Integrated Pest Management Total		422,235	377,250	472,300
Administration Total		8,721	14,600	14,775
Total "B" Expenses		558,223	1,425,620	1,519,400
Total Expenses		695,308	1,583,800	1,649,600
Net Revenues over expenses		\$ (9,585)	\$ -	\$ -

Actual Carryover from 2017	Net Revenues 2018	Carry over to 2019
\$ 983,004	\$ (9,585)	\$ 973,419

9.3 Emergency Abatement Fund Policy

Twin Falls County Pest Abatement District
 Emergency Abatement Fund Policy Position
 January 7, 2016

The Twin Falls County Pest Abatement District is charged with protecting the health and welfare of the citizens of the county from pests and vectors which carry disease or which might have a negative impact on social and economic well-being of the citizens. The primary focus of the district's activity is to proactively abate mosquitoes and black flies in the county before they reach numbers which could cause harm.

The district must, however, also be prepared to react to threats which are currently not an issue. To those ends, the district has worked to accumulate monies into an Emergency Abatement Fund. When the District was formed, there were no monies allocated to fund emergency abatement. The financial target for the Emergency Fund is approximately one fiscal year worth of tax collections. This amount should allow a reasonable and non-excessive response to an emergency. At the time of the district's formation it was decided that money should be set aside each year from a line item on the budget and that any unspent operating money should also be added to the fund, until such time that the budget target was reached.

Due to State of Idaho statutes for taxing districts, in order to make the Emergency Fund money available for use, the money in the Emergency Fund must be shown on the annual budget. The result of this is that the annual budget for the Abatement District rose steadily and significantly each year through 2015. It was anticipated that when the fund target was reached the district budget will be approximately two (2) times the annual tax revenue collection.

Through organized budgeting and spending discipline the Emergency Fund target was reached and for fiscal 2015 it was decided by the board to use the money that had been going into the fund for a second full time district employee. This decision will reduce the risk of institutional knowledge loss and provide better continuity of activities from one season to the next. Fiscally the goal now will be to efficiently abate and educate within the district to the extent possible with the tax monies annually collected.



Photo 10. 2019 Team Left to Right: Maria Butori, Kirk Tubbs, Brian Simper, Antonio Granados, Brock Palen, Raegan Bowyer, Taylor Cobabe (not pictured: Larissa Tubbs)