



Cass County Vector Control

Cass County North Dakota Vector Control Board

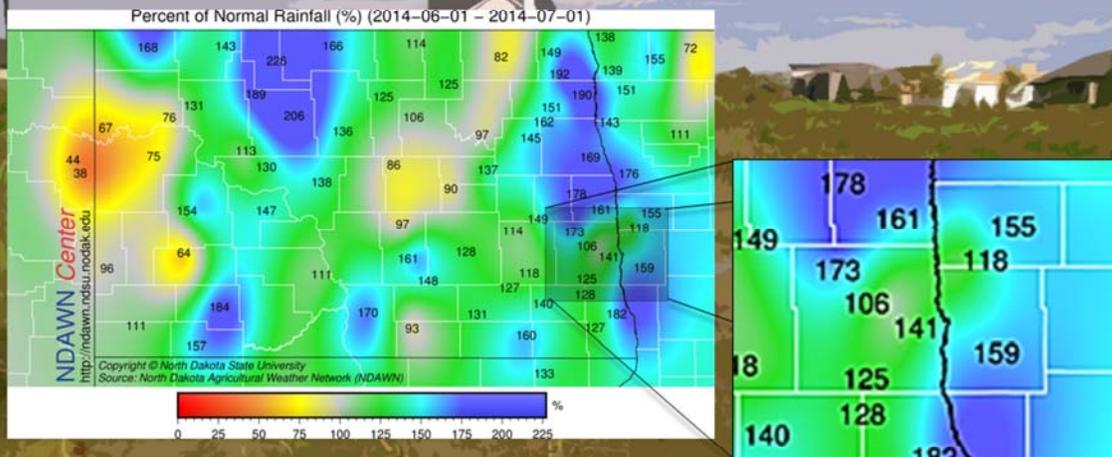
Wednesday March 28th 2014

1 pm
Valley Room
Fargo City Hall
200 North Third Street
Fargo, ND 58102

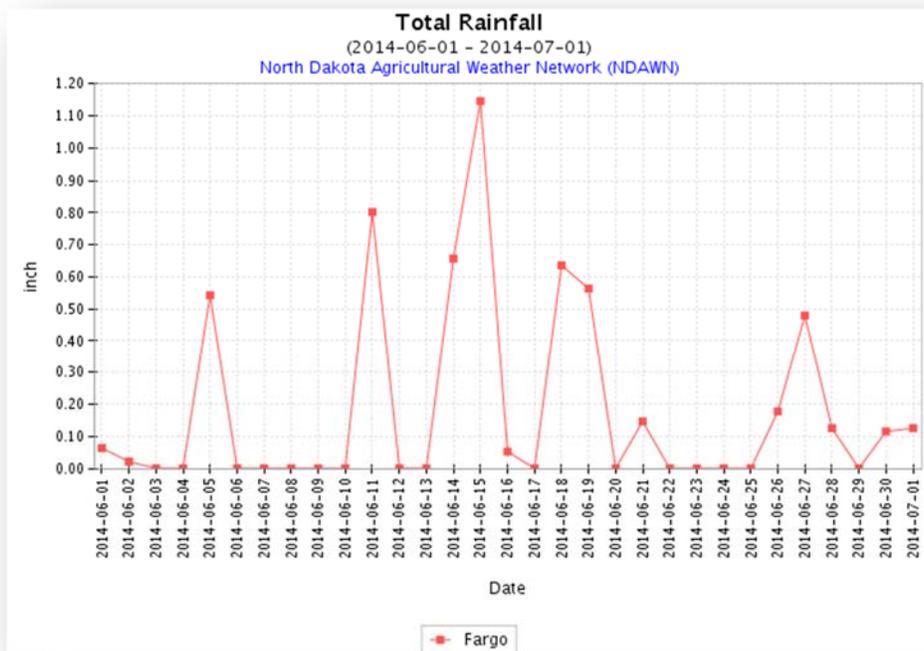
Agenda :

1. Jurisdictional Contracts for 2015
 - Moorhead, West Fargo, Fargo, & Others
2. Review of 2014
 - September Aerial Application
3. Comments and Discussion

2014:

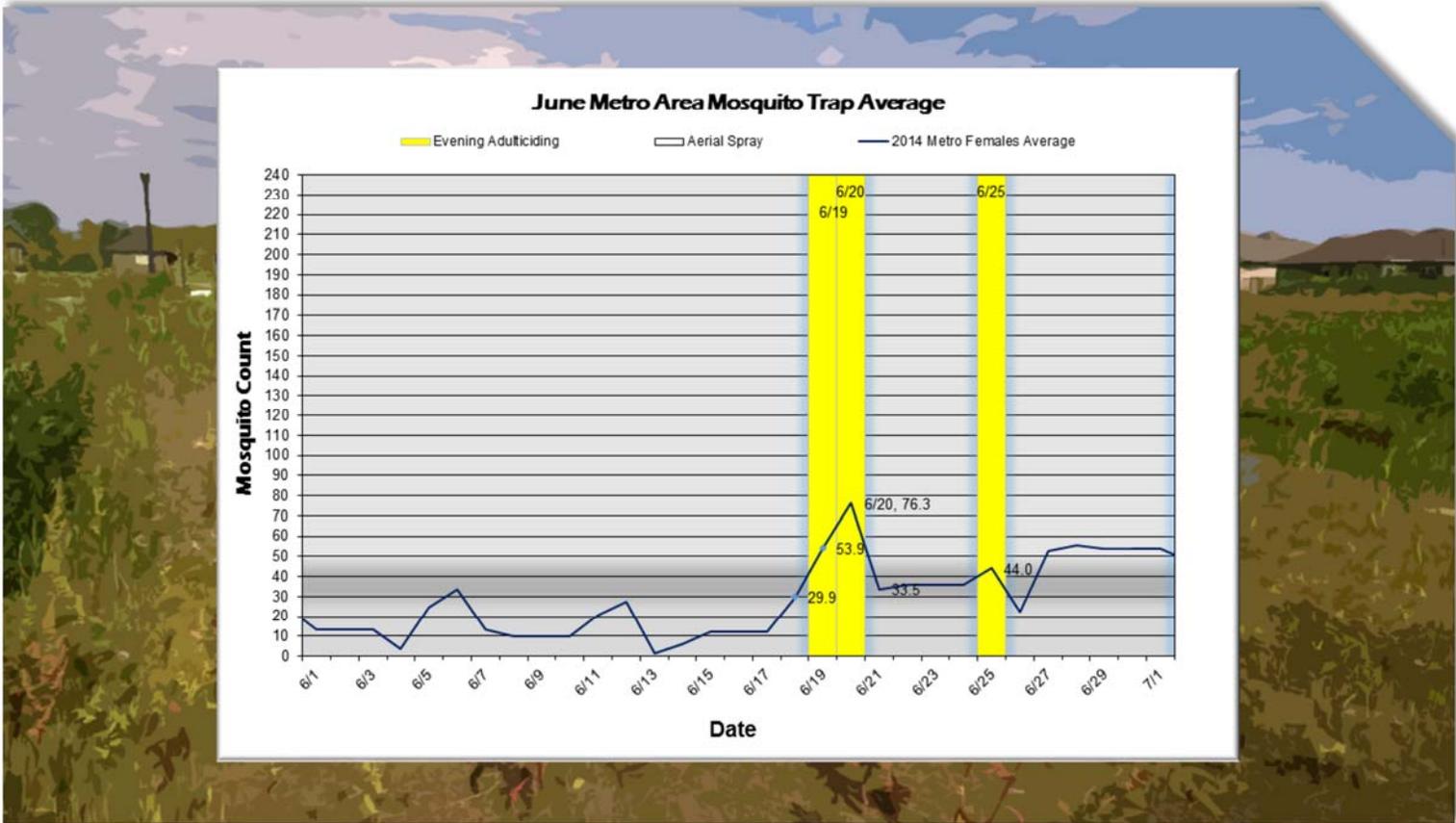


After a cool and somewhat dry May, precipitation was considerable and frequent in June.



Early efforts focused on continuous site visits and frequent larval control pesticide applications. In response to the frequent rain, additional residual (long lasting) larvicides were deployed in attempt to counter the frequent “flushing” of breeding sites.

Adult mosquitoes did eventually emerge. Corrective action was anticipated especially through the second half of the month and into July.



Given the likely event of trap counts exceeding threshold for adult mosquito nuisance, plans were made to conduct ground fogging during the week of 6/16-6/20. June 18th was scheduled for the first truck mounted adulticiding application in the metro for the season. Moorhead, West Fargo and Fargo all were scheduled for ground fogging applications.

The morning of Wednesday June 18th saw traps rise to 54 mosquitoes in traps in Fargo and West Fargo. Per usual, the collection period for that day's tally occurred the previous evening starting at 6pm on the 17th and running through the morning of the 18th until 6am.

Unfortunately, weather conditions were less than nominal for the application to be completed. Wind gusts above acceptable levels began around 10 pm caused a cancellation after approximately 90 minutes of work was completed. The spray was rescheduled for the following evening.

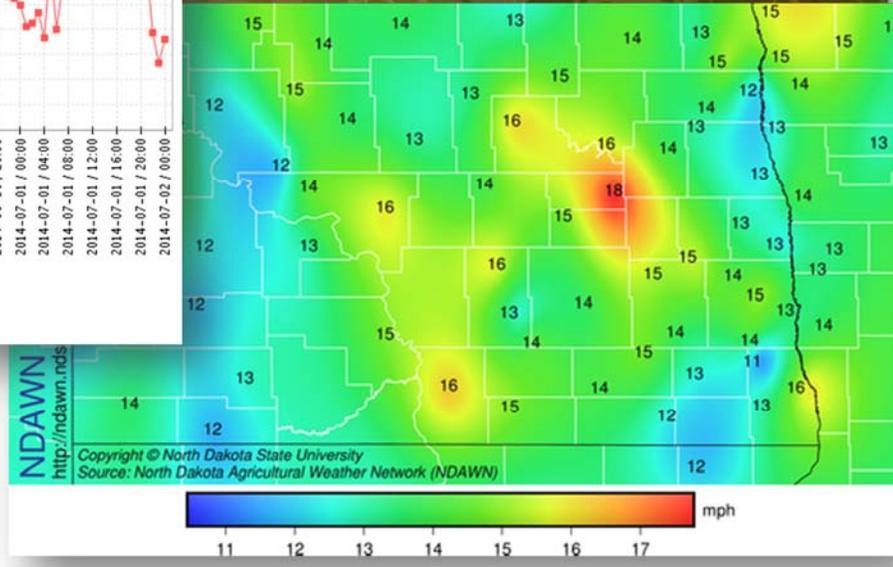
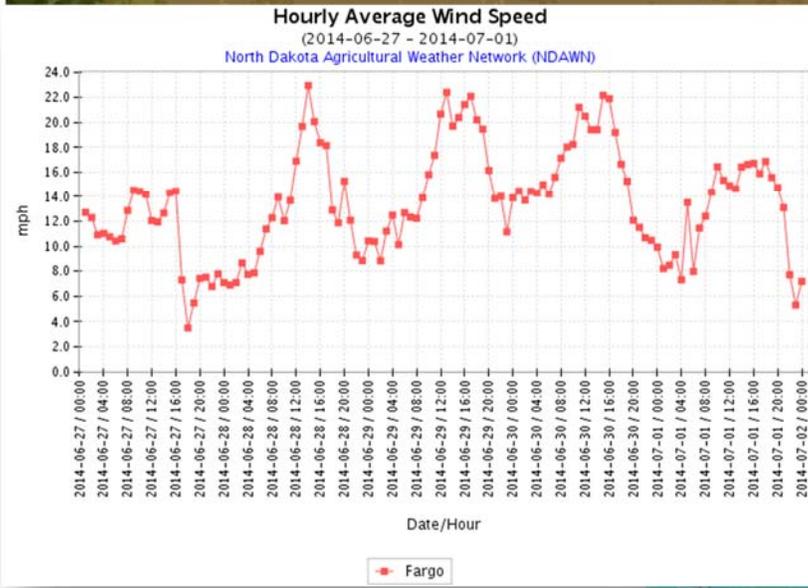
Thursday June 19th's application proceeded with adequate wind conditions and complete coverage was achieved.

Nuisance conditions were generally improved but were still not ideal. Trap collections hovered just around the threshold of 35 female mosquitoes. An additional truck mounted application was scheduled for Tuesday June 24th.

Nuisance conditions persisted after the second round of truck mounted applications. As the 4th of July Holiday loomed, aerial spraying preparations were underway.

Forecasted Winds for the 7 Days Prior to Friday 7/4

	Fri, 27 Jun							Sat, 28 Jun							Sun, 29 Jun							Mon, 30 Jun							Tue, 1 Jul							Wed, 2 Jul							Thu, 3 Jul													
Hour	0	3	6	9	12	15	18	21	0	3	6	9	12	15	18	21	0	3	6	9	12	15	18	21	0	3	6	9	12	15	18	21	0	3	6	9	12	15	18	21	0	3	6	9	12	15	18	21	0	3	6	9	12	15	18	21
Wind (kts)	15	18	18	15	11	12	12	10	9	10	11	11	9	7	7	9	12	15	13	12	10	9	10	11	15	18	17	17	12	9	10	11	11	11	11	9	6	5	4	4	3	2	2	0	2	4	5	6	6	7	8	7	7			
Gust	25	25	24	21	19	25	25	20	14	16	17	16	16	13	9	13	19	21	19	18	14	10	12	16	23	26	26	27	24	21	22	24	21	19	18	17	13	8	6	5	4	3	3	3	4	7	7	9	10	11	12	14	14			
Sky																																																								



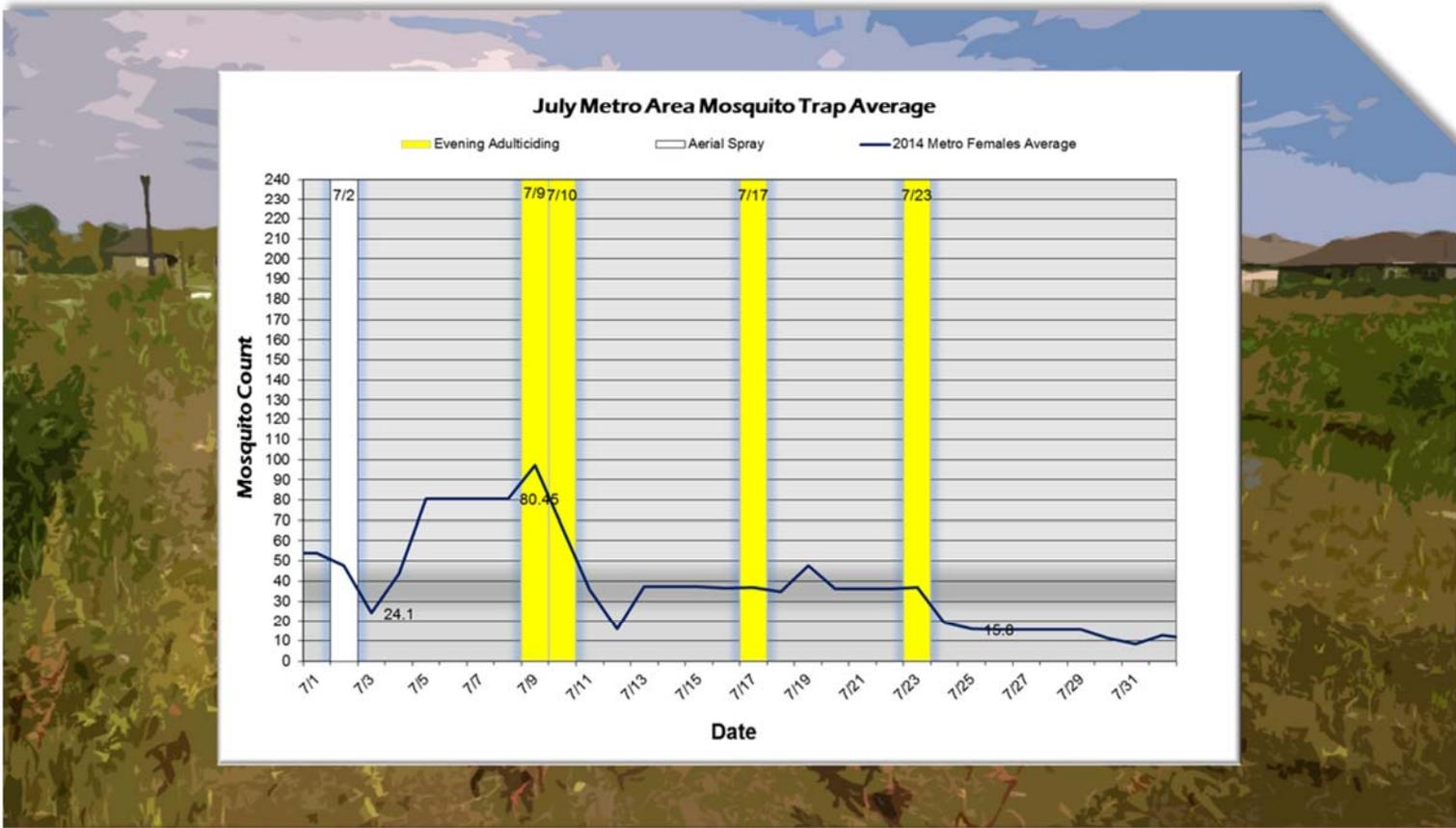
Average Wind Speed 6/27 - 7/1

By June 26th with traps above threshold and rising, the decision was made to schedule an aerial application for the metro area and surrounding subdivisions the following week.

The days leading up to the holiday were less than ideal for aerial spraying. Forecasted winds were well outside of the acceptable range for almost the entire period. Nonetheless, the consensus on June 27th was to schedule the application on July 1st.

In the days following the decision to aerial spray, it became clear that the July 1st option would not provide sufficient weather conditions. Specifically, the daytime maximum air temp for July 1st was 58 degrees and wind speeds at 8pm averaged 13 mph.

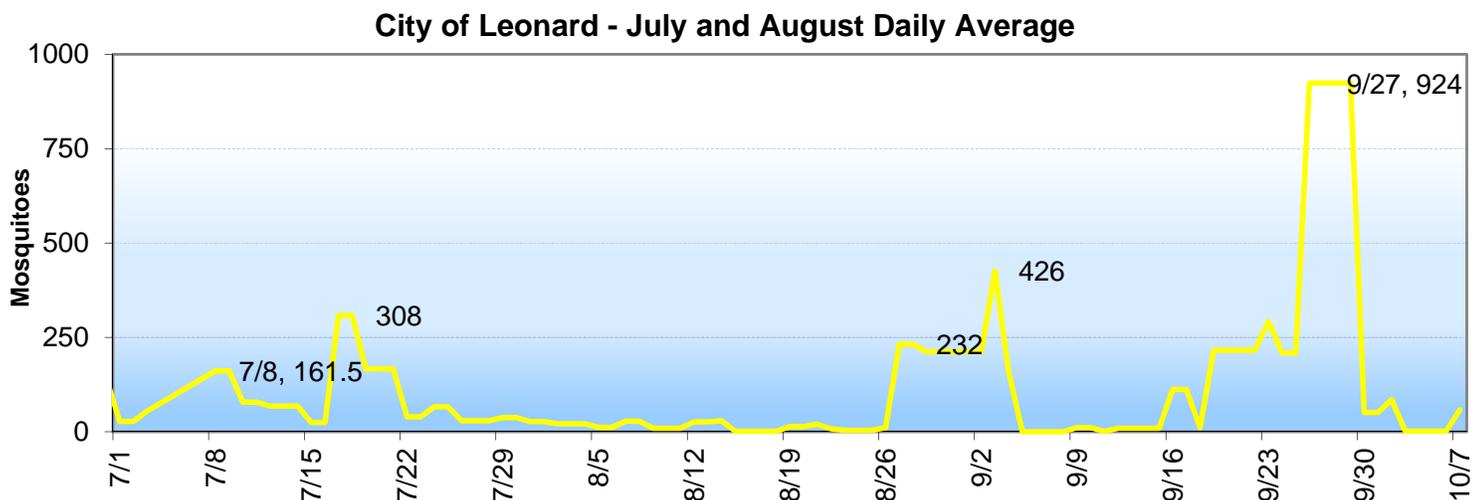
Ultimately the application proceeded on Wednesday July 2nd.



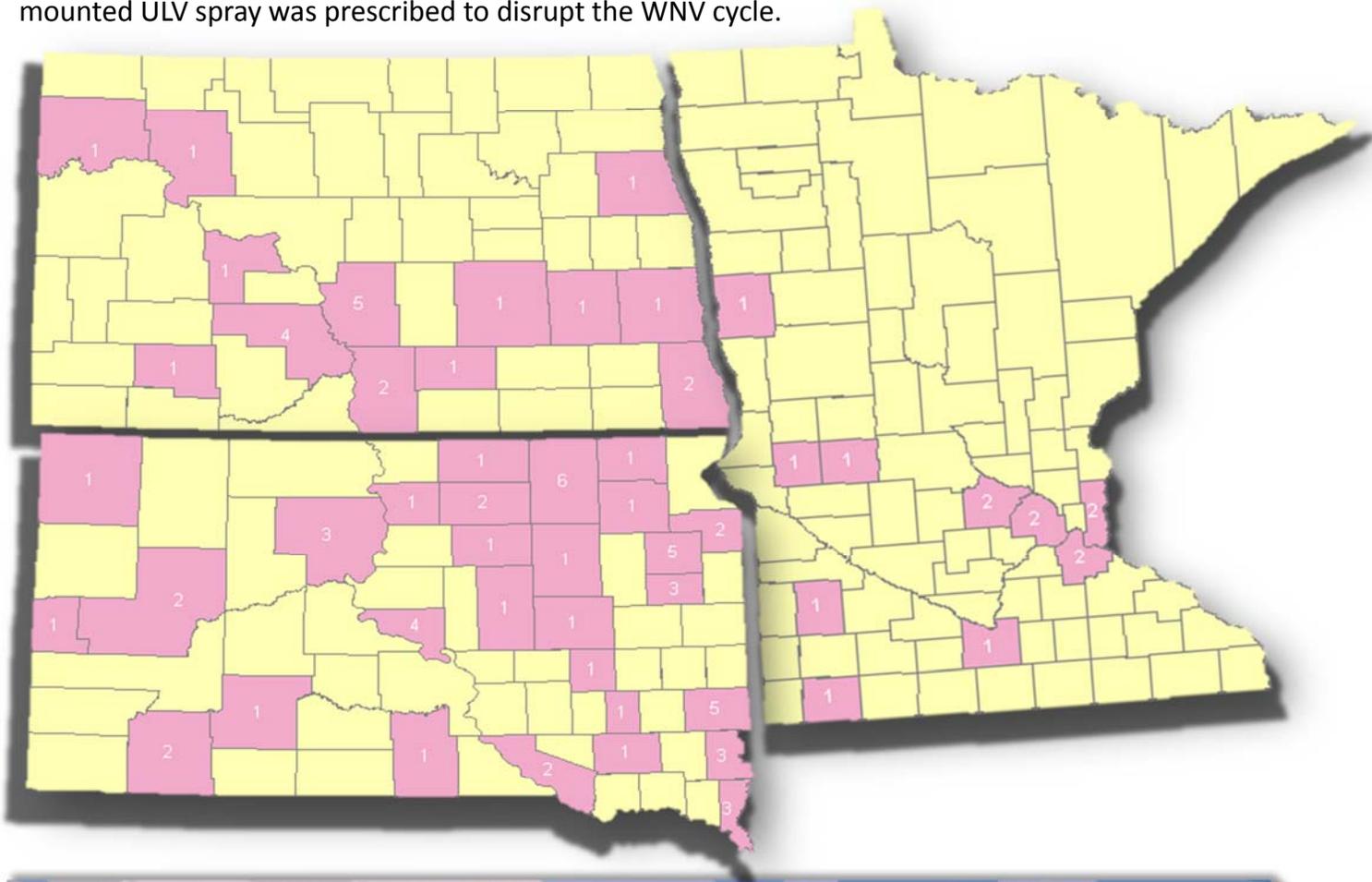
In conjunction with metro-wide aerial spraying, all 21 truck mounted ground units were deployed to cities and subdivisions to assist rural communities' nuisance mosquito conditions. Weather conditions improved somewhat on 7/2 with highs in the low 70's and a light north wind just above 1 mph.

After the long holiday weekend, trap collection data indicated yet another rebound in adult mosquito counts. Back to back nights for truck mounted spraying were scheduled. That back to back application occurred in Fargo and West Fargo occurred on 7/9 and /710. Above threshold nuisance conditions persisted until the 23rd of July and required two additional truck mounted applications before counts were back to comfortable ranges.

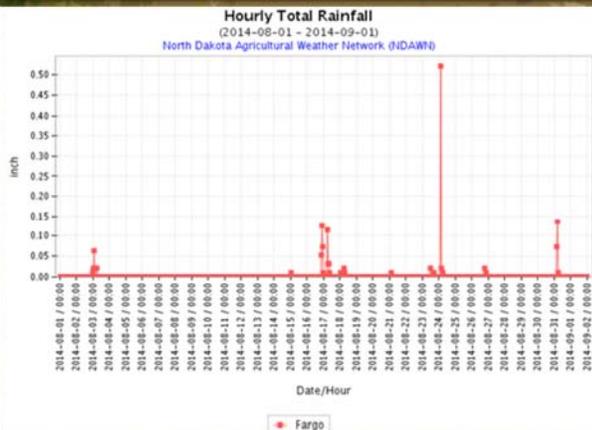
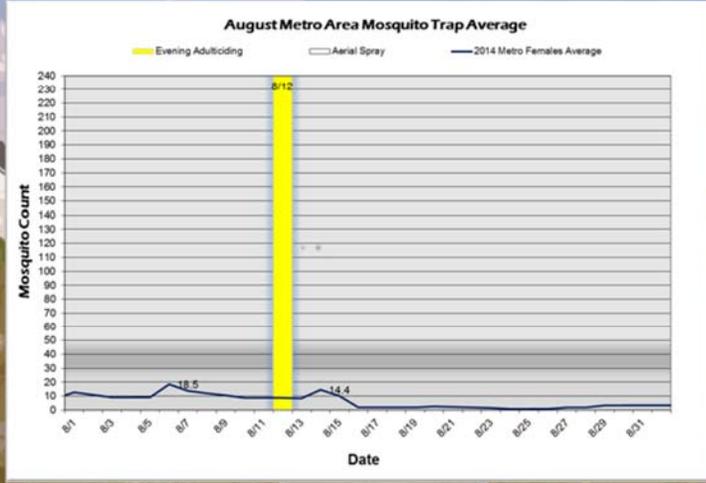
Fortunately for metro, precipitation slowed to below normal amounts through August. Rural areas however continued to see significant rain. Particularly on the southern border of Cass County, Cities like Kindred and Leonard saw truly horrific New Jersey Trap collections as the season bore on.



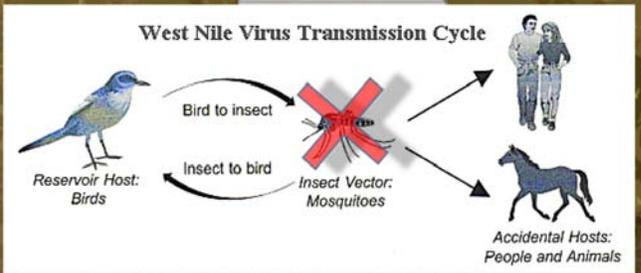
August is traditionally the high point for West Nile Virus infections. 2014 to date has seen only one human case of WNV in Cass and one human case in Clay County. We had no positive pools of mosquitoes. Temperatures were generally a bit cool for much WNV amplification. However, one precautionary truck mounted ULV spray was prescribed to disrupt the WNV cycle.



- August conditions were fairly calm for both weather and mosquitoes
- WNV threat was minimal
 - Over 100 mosquitoes pools through RAMP testing – All Negative



It was beautiful.



The lull of the previous two months was disrupted early into September. A significant rainfall occurred on 9/5. This rainfall event would set the stage for the end of the season. Plans for aerial spraying were formulated in early September due to the anticipation of a large disruptive nuisance brood.

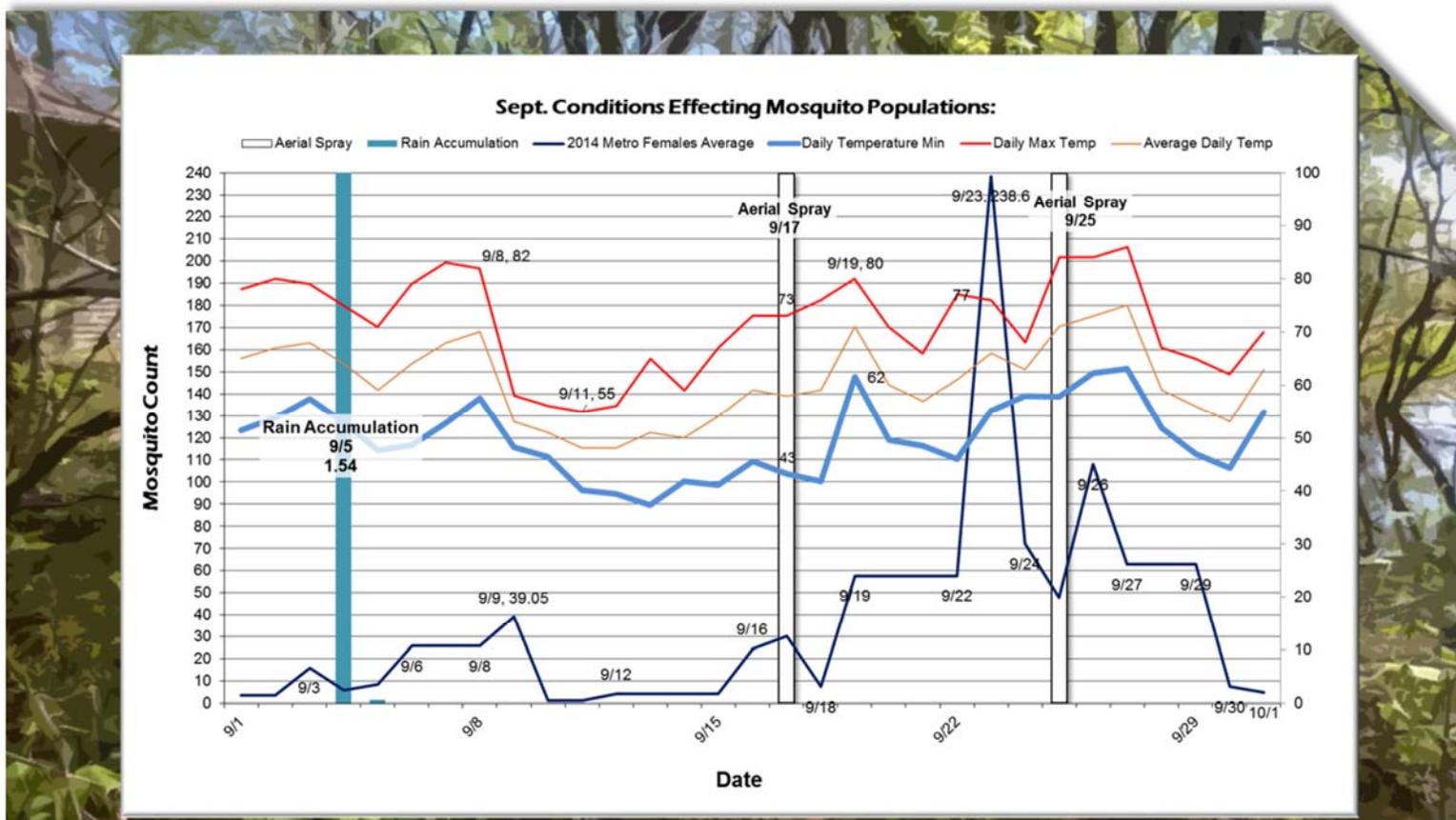
As experienced in past seasons- late September can present intense biting pressures and pose severe challenges to gain control. 2014 was no different. In particular - temperatures varied greatly after the primary rain event yet never reached a frost or freeze. As the forecast started to call for a warming trend around the mid point of the month and as the chance for a solid frost diminished, aerial spray planning began in earnest.

In the days leading up to the 9/17 aerial application, numerous resident calls were received with severe complaints of daytime biting nuisance in air temperatures under 60 degrees. On-site landing counts conducted by Vector Control staff exceeded 5 mosquitoes per minute. Breeding site inspections indicated that the brood had emerged and was no longer in larval development process.

Ultimately, the decision was made to fly an aerial application.

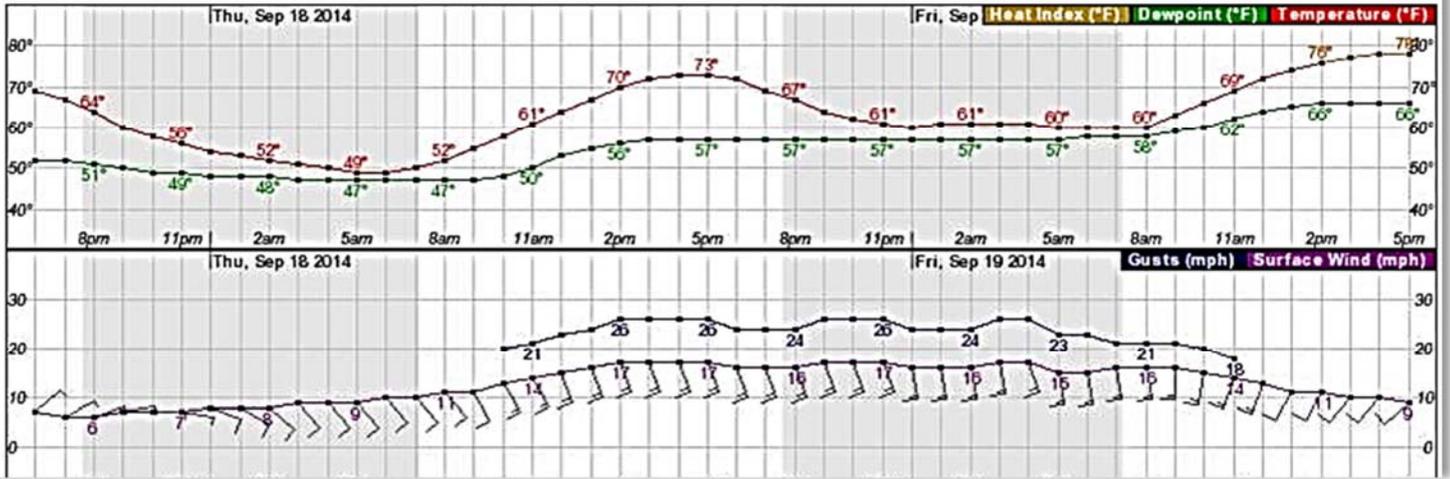
Many challenges are presented in late season applications when determining “Go/Don’t Go” for aerial spraying. Some of the questions that need to be answered are:

- Is there a frost/freeze forecast?
- What will be the length of time that an application will be beneficial, days? weeks?
- What is the duration and intensity of biting activity? (This challenge is especially difficult with temperatures in the bottom of the temperature/mosquito activity window)
- Will wind speeds and air temperature provide an adequate window to complete the application?
- Should the application occur in full daylight?
- Do any budgetary constraints exist?



Hourly Weather Forecast Graph

48-Hour Period Starting:

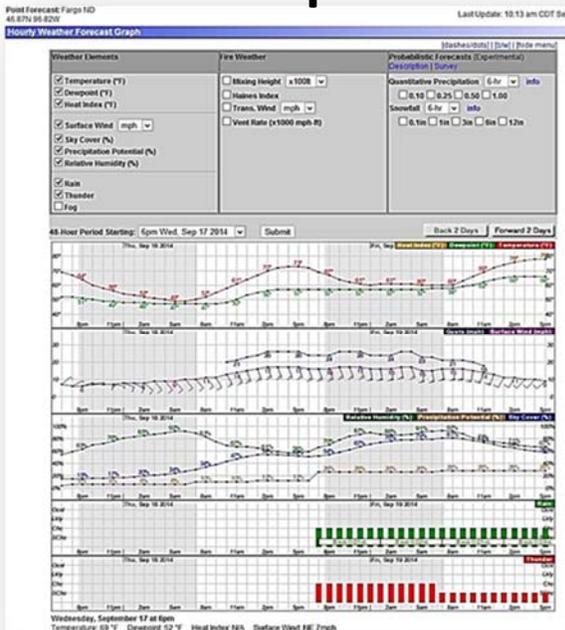


Wednesday, September 17 at 6pm
Temperature: 69 °F Dewpoint: 52 °F Heat Index: N/A Surface Wind: NE 7mph
Precipitation: 0.00" Relative Humidity: 75% Clouds: 100% Visibility: 10.00 mi

The decision to formally task the aerial applicator was made on Tues Sept 16. The application took place the following evening – Wednesday Sept 17th. This date was selected for a number of reasons.

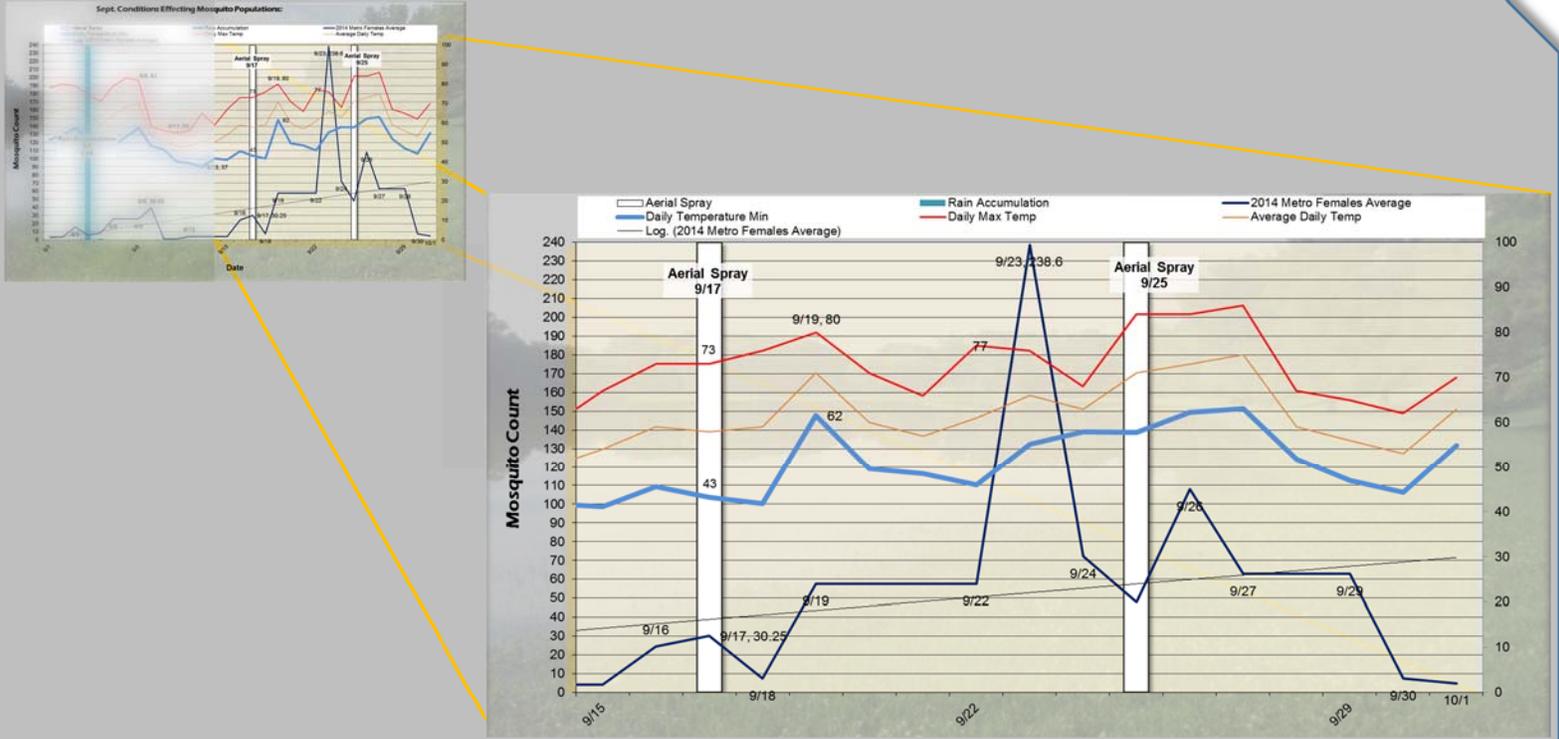
First, the traps began to rise along with temperatures and thusly the daily high temp for 9/17 was above 70 degrees and winds were forecast to be within range and from a Northeast or East direction at almost ideal speeds throughout the scheduled application.

Weather Forecasts For Tuesday September 16th 2014



Secondly, the long range forecast showed potential for above average temperatures for the following weeks (See Previous Page). Frost was not in the forecast for at least 10 days post application. Ultimately the goal was to provide control for the longest duration possible; in essence to get the largest and longest “bang for the buck”.

The aerial application proceeded on 9/17/2014 and concluded before midnight.



Sept. 15th thru Oct. 1st

Surveillance results the day following the aerial application did see a reduction in trap counts. However this trend was short lived. Counts rose dramatically above expectations over the weekend and early on in the following week. The overall trap average on Sept 23rd was the highest in calendar year 2014 and compares to other “high water marks” typically seen during June or July.

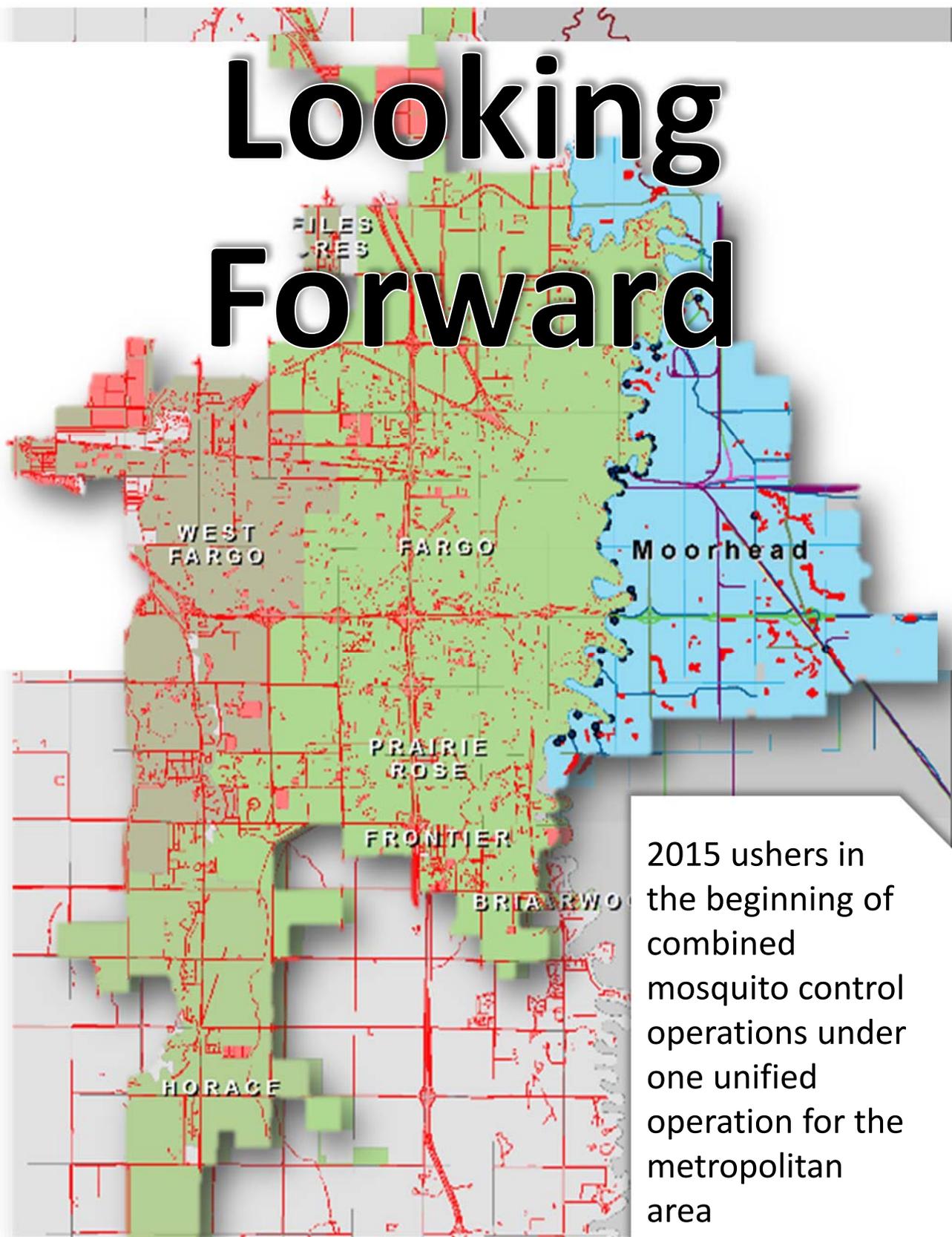
Clearly another aerial application was needed and was scheduled. Given the conditions, a change in tactics was reasonable if not necessary. This application would be attempted over two early evenings and would be flown “east/west”. These changes were to make best use of both warm temperatures and atmospheric wind conditions ie drift.

The first night of the planned application on Sept 24th was unfortunately scrubbed due to lower than forecasted temperatures and poor wind. The night of Thursday Sept 25th appeared to be more ideal and would still allow for Metrowide coverage, therefore the application was moved.

The days following the 24th application saw above average temps and an overall reduction of the adult mosquito population. However, below threshold numbers were not observed again until temperatures fell to seasonal averages.

Clearly there is no magic bullet and no such thing as perfect conditions. The tasks given this year to the aerial applicator were extremely challenging and near the limit of possibility. Cass County Vector Control is greatly appreciative of the service provided by our aerial applicator crew.

Looking Forward



2015 ushers in the beginning of combined mosquito control operations under one unified operation for the metropolitan area

For many years a joint mosquito control program for Cass County North Dakota and Clay County Minnesota has been desired by community leaders and those directly involved in the control of mosquitoes. Specifically, in 1987 the Fargo-Moorhead Metropolitan Council of Government composed a Metropolitan Mosquito Abatement Plan. The plan outlaid a number of ambitious goals which are just now coming to fruition.

Specifically the 1987 MetroCOG report identified the following objectives for mosquito abatement:

1. Joint Surveillance and Monitoring
2. Centralized Mosquito Data Center
3. Public Education and Information
4. Enlistment of Homeowner Cooperation in Mosquito Control
- 5. Inter-local Service Delivery Agreements**
6. Coordination of Abatement Efforts

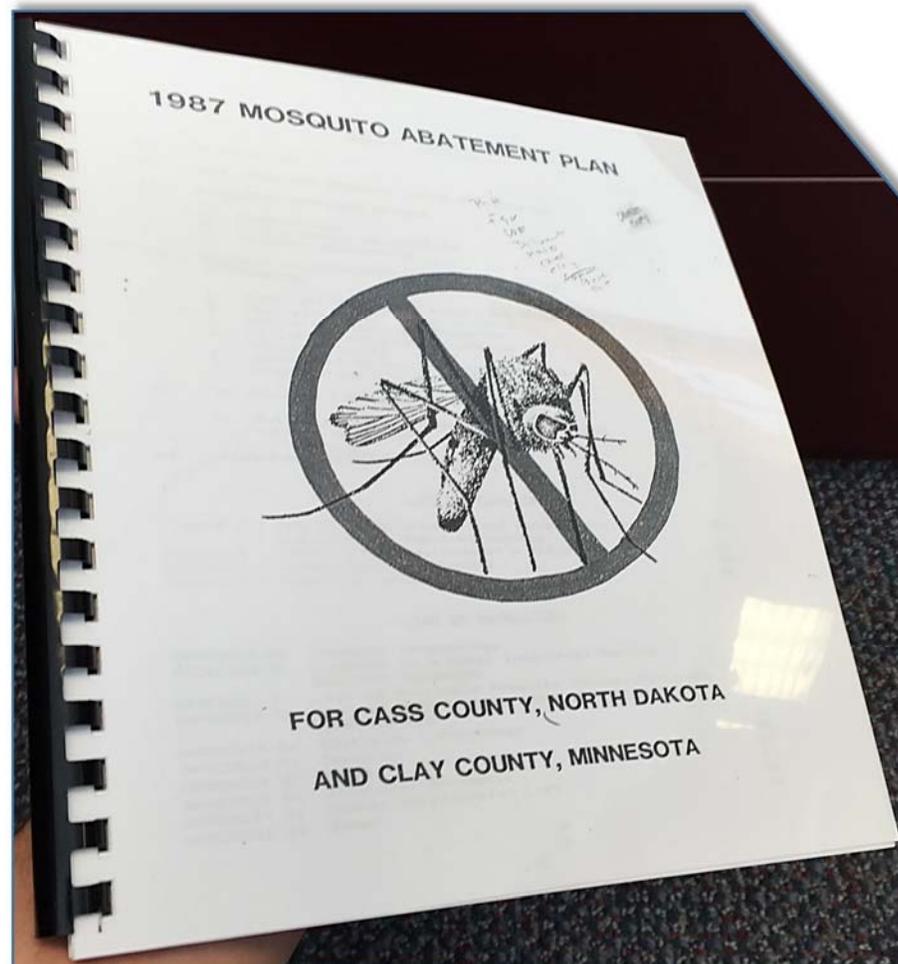
To date, many of the above objectives have been realized. The most illustrative being the coordination of abatement efforts seen specifically when organizing aerial adult control applications. Another example would be the joint surveillance agreements enacted in 2014.

The final missing piece of the plan, Inter-local Service Delivery agreements, will materialize in full for the 2015 season.

Within the service delivery agreements section of the 1987 plan the following advantages are outlined.

- A mosquito control program, which is needed in neighboring jurisdictions, can be coordinated and uniformly administered.
- Duplication of mosquito control efforts will be eliminated.
- Expensive equipment and technical expertise can be shared.

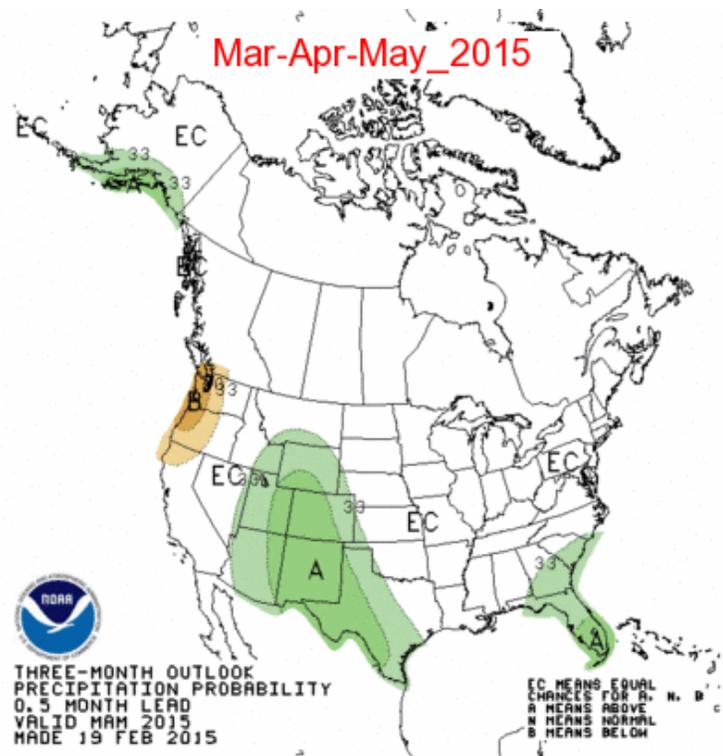
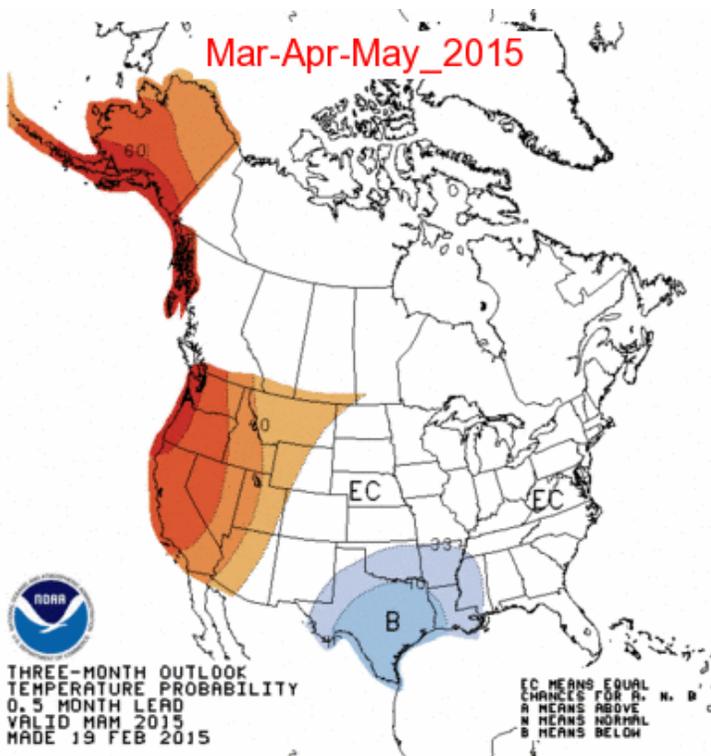
Cass County Vector Control looks forward to continued success of joint operations in the coming years while remaining mindful of the challenges that inevitably lay ahead.



2015 Contract Revenue

Contract Revenue	Fargo	Moorhead	West Fargo	Horace	Larval OTHERS	Clay PH	Rural Cities	Subtotal	Total
Larval Control	\$ 290,000	\$ 56,500	\$ 56,000	\$ 10,000	\$ 6,000			\$ 346,000	
Admin		\$ 20,000				\$ 1,000		\$ 21,000	
Evening Fogging	\$ 12,000	\$ 7,500	\$ 4,000	\$ 600			\$ 7,500	\$ 31,600	
Lab Services						\$ 1,500			
Totals	\$ 302,000	\$ 84,000	\$ 60,000	\$ 10,600	\$ 6,000	\$ 2,500	\$ 7,500		\$ 465,100.00

As of this writing, the spring is still too distant to make any concrete statements on “how the season will be”. However a few indicators are present- The National Drought Monitor is showing abnormal dryness in the region and the 90 forecast is showing equal chances of precipitation and temperature. Regardless of how the weather does eventual turn out; contract mechanisms are in place to best deal with both very rainy conditions and at the other end of the spectrum- very dry conditions.



2015 MOSQUITO CONTROL AGREEMENT
CITY OF FARGO AND CASS COUNTY GOVERNMENT

This is an agreement to formalize the partnership for mosquito control between the City of Fargo and Cass County Government during the 2015 mosquito control season. The agreement is made between the City of Fargo, whose office is located at 200 North 3rd Street, Fargo, North Dakota 58102, hereinafter CITY, and Cass County Government whose office is 211 Ninth Street, Fargo, ND 58018 hereinafter COUNTY.

THE PARTIES STIPULATE AND AGREE AS FOLLOWS:

1. COUNTY agrees to provide mosquito control activities throughout the Vector Control District commensurate with the funding available. For the 2015 season, approximately \$573,000 in Vector Control Mill funds has been designated for the Countywide Vector Program. COUNTY funds will be used within the CITY and in surrounding areas with the objective being to distribute products and services commensurate with the source of revenue.
2. In addition to service provided in paragraph 1, COUNTY will provide services within the CITY and adjacent area for various mosquito control activities such as but not limited to: making applications of pesticides using off-highway vehicles, spraying mosquitoes in and surrounding Fargo including parks and schools, inspection of public and private property, collection of mosquito traps for population monitoring. The COUNTY Vector Director will provide technical direction and coordination of these activities. The Vector Director will also work in cooperation with CITY officials to provide other technical and administrative assistance as necessary.
3. CITY agrees to provide funding to support the activities referred to in paragraph 2. The total cost for these activities is \$290,000. Estimated start date and end dates for activities is April 15th to October 1st respectively.
4. COUNTY will provide monthly statements to CITY of time and materials, and invoice CITY monthly.
5. CITY agrees to fund the cost of city-wide adult mosquito spraying at \$3,000 per full application. Estimate between 5 and 10 applications per season dependent upon conditions. Adult mosquito spraying will be invoiced monthly.
6. If funding needed to maintain activities in paragraph 2 is forecasted to exceed \$302,000 COUNTY must provide CITY with written notice requesting contract adjustment 14 days prior to contract funding shortfall. All COUNTY contract adjustments will receive acceptance or rejection through written notice by CITY within 10 days of request. Failure by CITY to respond to COUNTY within 10 days of request will constitute CITY acceptance of contract adjustments.

All requests for contract adjustments shall be submitted to:

Fargo Public Works
402 23rd Street N.
Fargo, ND 58102

7. If COUNTY fails to comply with paragraph 6, all costs associated with activities outlined in paragraph 2 exceeding contracted dollar amounts will be the sole responsibility of COUNTY to fund.

8. COUNTY will fund up to \$73,000 for one (1) aerial spray application or comparable partial applications within the metro area including within CITY limits and surrounding area when determined necessary.
9. CITY agrees to fund any additional costs for aerial spraying above or beyond paragraph 8 when CITY requests the contracted services of an aerial applicator. COUNTY will coordinate the aerial spray operation upon the CITY's approval or after expressed written permission is given by the CITY authorizing the Vector Control Director as its agent to make the determination.
10. COUNTY agrees to assume all liability and agrees to indemnify and defend the CITY from all direct and indirect, present and future claims or causes of action, which in any way result from the activities of the COUNTY in completion of the tasks stated herein or may result from the decisions, recommendations, actions, omissions of actions or other errors on the part of COUNTY, its employees or contractors and any party from which COUNTY may obtain information or services for the completion of the same. This assumption of liability and agreement to hold harmless is intended to cover any present or future activities undertaken by COUNTY in furtherance of this agreement.
11. CITY agrees to assume all liability and agrees to indemnify and defend the COUNTY from all direct and indirect, present and future claims or causes of action, which in any way result from the activities of the City in completion of the tasks stated herein or may result from the decisions, recommendations, actions, omissions of actions or other errors on the part of CITY, its employees or contractors and any part from which CITY may obtain information or services for the completion of the same. This assumption of liability and agreement to hold harmless is intended to cover any present or future activities undertaken by CITY in furtherance of this agreement.

Chair, Cass County Commission

Date

Mayor, City of Fargo

Date

2015 MOSQUITO CONTROL AGREEMENT
CITY OF WEST FARGO AND CASS COUNTY GOVERNMENT

This is an agreement to formalize the partnership for mosquito control between the City of West Fargo and Cass County Government during the 2015 mosquito control season. The agreement is made between the City of West Fargo, whose office is located at 800 4 Ave East, West Fargo, ND 58078, hereinafter CITY, and Cass County Government, whose office is 211 Ninth Street South, Fargo, ND 58108, hereinafter COUNTY.

THE PARTIES STIPULATE AND AGREE AS FOLLOWS:

1. COUNTY agrees to provide mosquito control activities throughout the Vector Control District commensurate with the funding available. For the 2015 season, approximately \$573,000 in Vector Control Mill funds has been designated for the Countywide Vector Program. County funds will be used within the City of West Fargo and in surrounding areas with the objective being to distribute funds commensurate with the source of revenue.
2. In addition to service provided in paragraph 1, COUNTY will provide services within the City of West Fargo and adjacent area for various mosquito control activities such as but not limited to: making applications of pesticides using off-highway vehicles, spraying mosquitoes in and around West Fargo parks and schools, inspection of public and private property, collection of mosquito traps for population monitoring. The County Vector Director will provide technical direction and coordination of these activities. The Vector Director will also work in cooperation with CITY officials to provide other technical assistance as necessary.
3. CITY agrees to provide funding to support the activities referred to in paragraph 2. Total estimated cost for these activities is \$56,000. Estimated start date and end dates for activities is April 15th to October 1st respectively.
4. COUNTY will provide monthly statements to CITY of time and materials, and invoice CITY monthly.
5. CITY agrees to fund the cost of City wide adult mosquito spraying at \$1,000 per application. Estimate between 5 and 10 applications per season dependent upon conditions. Adult mosquito spraying will be invoiced monthly.
6. If COUNTY costs significantly exceed any line items, COUNTY may request an additional funding to maintain activities in LINE 2. If at any time the amount charged to CITY exceeds funds available; the CITY can request a stoppage in service.
7. If at any time total charges to CITY exceeds \$60,000; the CITY can request a stoppage in service.
8. To request a stoppage in service, CITY must provide COUNTY written notice 14 days in advance of requested termination to Cass County Vector Control at the following address:
 - a. 1201 Main Ave West
West Fargo, ND 58078
9. CITY agrees to fund contract costs for aerial spraying when CITY requests the services of an aerial applicator. COUNTY will coordinate the aerial spray operation upon the CITY's approval.

10. COUNTY will fund all contract costs for aerial spraying in unincorporated areas and all other areas within the district when determined necessary.
11. COUNTY agrees to assume all liability and agrees to indemnify and defend the CITY from all direct and indirect, present and future claims or causes of action, which in any way result from the activities of the COUNTY in completion of the tasks stated herein or may result from the decisions, recommendations, actions, omissions of actions or other errors on the part of COUNTY, its employees or contractors and any party from which COUNTY may obtain information or services for the completion of the same. This assumption of liability and agreement to hold harmless is intended to cover any present or future activities undertaken by COUNTY in furtherance of this agreement.
12. CITY agrees to assume all liability and agrees to indemnify and defend the COUNTY from all direct and indirect, present and future claims or causes of action, which in any way result from the activities of the City in completion of the tasks stated herein or may result from the decisions, recommendations, actions, omissions of actions or other errors on the part of CITY, its employees or contractors and any part from which CITY may obtain information or services for the completion of the same. This assumption of liability and agreement to hold harmless is intended to cover any present or future activities undertaken by CITY in furtherance of this agreement.

Chair, Cass County Commission

Date

Mayor, City of West Fargo

Date

City of Moorhead
2015 MOSQUITO CONTROL AGREEMENT
BETWEEN THE CITY OF MOORHEAD AND CASS COUNTY
GOVERNMENT

This agreement for mosquito control services is made between the City of Moorhead whose office is at Po Box 779, 500 Center Ave Moorhead, MN 56561 hereinafter CITY, and the Cass County Commission, whose office is at 211 Ninth Street, Fargo, North Dakota 58108. Mailing address is Box 2806 Fargo, ND 58108 hereinafter CASS COUNTY.

WHEREAS, pursuant to Chapter 54-40.3, N.D.C.C. and Minnesota Statutes Section 471.59, the above-named governmental units have the legal authority to enter into an agreement, through action of their respective governing bodies, to jointly or cooperatively exercise any power common to the contracting powers or any similar powers, including those which are the same except for territorial limits within which they may be exercised.

THE PARTIES STIPULATE AND AGREE AS FOLLOWS:

- 1) The purpose of this agreement is to collaborate under a single unit for the control of mosquitoes and related pests in the joint jurisdictions. CASS COUNTY agrees to provide mosquito control activities throughout the CITY commensurate with available funding and resources.
- 2) All activities herein are to be funded by the CITY. These activities include but are not limited to: collection of adult mosquito traps, specimen identification, data reporting, pesticide applications on public and private lands, inspection of public and private property, as well as applications for the control of adult mosquitoes.
- 3) CITY agrees to provide full funding for all labor, supplies, and additional cost of any and all activities within and adjacent to CITY as designated by CITY.
- 4) Estimated annual cost for items in paragraph 2 is \$56,500. Estimated start and end dates for the above activities is May 15th to Sept. 15th respectively.
- 5) CITY agrees to fund the cost of City-wide adult mosquito spraying at \$1,500 per application. Estimate between 5 and 10 applications per season dependent upon conditions. Adult mosquito spraying will be invoiced monthly.
- 6) CASS COUNTY will provide 4 statements of time and materials referred to in paragraphs 2 and 3 covering the following date ranges: April through June 15, June 16 to July 15, July 16 to Aug 15, Aug 16 to Season End.
- 7) The Cass County Director of Vector Control and other fulltime CASS COUNTY staff will provide technical direction, coordination of activities, public relations, and any other miscellaneous activities as requested. The Vector Director will also work in cooperation with CITY officials to provide other technical and administrative assistance as necessary.
- 8) CASS COUNTY will provide the following goods and services: Administration, mapping, training, operational supplies (PPE), field supervision, data management, and product procurement. The CITY agrees to provide funding to support the activities referred to in this paragraph. The estimated total cost for these activities is \$20,000 annually. This will appear as a \$5,000 "Administration Charge" on each statement.

- 7) If at any time total charges to CITY exceeds \$84,000; the CITY can request a stoppage in service. To request a stoppage in service, CITY must provide CASS COUNTY written notice 14 days in advance of requested termination to Cass County Vector Control at the following address:
CASS COUNTY
VECTOR CONTROL
1201 Main Ave West
West Fargo, ND 58078
- 8) CITY acknowledges and maintains “Decision Maker” and “Operator” rolls as specified by all applicable Local, State and Federal laws regarding pesticide applications.
- 9) CITY agrees to provide the use of 2 pickup trucks and 2 truck mounted ULV sprayers. CITY Agrees to provide the use of any surplus materials and equipment designated for the previous seasons mosquito control program as requested.
- 10) CITY agrees to provide authority under Moorhead Council Policy in acceptance of this contract for CASS COUNTY employees, appointees, or other designated party to enter upon any land, public or private, within the CITY and extraterritorial space at any reasonable time to inspect for or to control public health vectors and their breeding places.
- 11) CITY agrees to fund any additional costs for aerial spraying when CITY requests the contracted services of an aerial applicator. CASS COUNTY will coordinate the aerial spray operation upon the CITY’s approval or after expressed written permission is given by the CITY authorizing the Vector Control Director as its agent to make the determination to engage the service.
- 12) CITY agrees to provide assistance in matters of permitting, licensing, and any other state of Minnesota statutory legal obligations in result of this agreement.
- 13) CASS COUNTY agrees to assume all liability and agrees to indemnify and defend the CITY from all direct and indirect, present and future claims or causes of action, which in any way result from the activities of CASS COUNTY in completion of the tasks stated herein or may result from the decisions, recommendations, actions, omissions of actions or other errors on the part of CASS COUNTY, its employees or contractors and any party from which CASS COUNTY may obtain information or services for the completion of the same. This assumption of liability and agreement to hold harmless is intended to cover any present or future activities undertaken by CASS COUNTY in furtherance of this agreement.
- 14) CITY agrees to assume all liability and agrees to indemnify and defend the CASS COUNTY from all direct and indirect, present and future claims or causes of action, which in any way result from the activities of the CITY in completion of the tasks stated herein or may result from the decisions, recommendations, actions, omissions of actions or other errors on the part of CITY, its employees or contractors and any party from which CITY may obtain information or services for the completion of the same. This assumption of liability and agreement to hold harmless is intended to cover any present or future activities undertaken by CITY in furtherance of this agreement.

Dated this _____ day of _____, 2015.

Chairman, Cass County Board of Commissioners _____

Authorized Official _____

Point of Contact for Mosquito Control (please print name) _____

Phone number(s) _____

DRAFT

Clay County Environmental Health
2015 ADULT MOSQUITO SURVEILLANCE AGREEMENT

This agreement for adult mosquito surveillance is made between the Clay County Environmental Health whose office is at 715 11th St North, Suite 311 Moorhead, MN 56560 hereinafter CITY, and the Cass County Commission, whose office is at 211 Ninth Street, Fargo, North Dakota 58108. Mailing address is Box 2806 Fargo, ND 58108 hereinafter COUNTY.

THE PARTIES STIPULATE AND AGREE AS FOLLOWS:

- 1) COUNTY agrees to provide adult mosquito surveillance activities to CITY commensurate with the COUNTY resources available. These activities include: collection of adult mosquito traps, specimen identification and data reporting.
- 2) CITY agrees to provide full funding for all labor, supplies, and additional cost of any and all activities within and adjacent to CITY as requested by CITY.
- 3) Estimated annual cost for items in paragraph 1 is \$1,500. Estimated start and end dates for the above activities is May 15th to Sept. 15th respectively.
- 4) COUNTY will provide monthly statements to CITY of labor hours and materials, and invoice CITY monthly. Payments for services are to be made within 30 days.
- 5) The County Vector Director and other fulltime COUNTY staff will provide technical direction, coordination of activities, public relations, and any other miscellaneous activities as requested. The Vector Director will also work in cooperation with CITY officials to provide other technical and administrative assistance as necessary.
- 6) CITY agrees to provide funding for a fixed fee not to exceed \$1,000 for services rendered in paragraph 5 as well as fuel, insurance, and other miscellaneous costs occurred. This will appear as a \$250 administration charge on each monthly statement.
- 7) If at any time total charges to CONTRACT HOLDER exceeds \$2500 the CITY can request a stoppage in service.

To request a stoppage in service, CITY must provide COUNTY written notice 14 days in advance of requested termination to Cass County Vector Control at the following address:

1201 Main Ave West
West Fargo, ND 58078

- 8) CITY acknowledges and maintains “Decision Maker” and “Operator” rolls as specified by all applicable Local, State and Federal laws regarding pesticide applications.
- 9) COUNTY agrees to assume all liability and agrees to indemnify and defend the CITY from all direct and indirect, present and future claims or causes of action, which in any way result from the activities of the COUNTY in completion of the tasks stated herein or may result from the decisions, recommendations, actions, omissions of actions or other errors on the part of COUNTY, its employees or contractors and any party from which COUNTY may obtain information or services for the completion of the same. This assumption of liability and agreement to hold harmless is intended to cover any present or future activities undertaken by COUNTY in furtherance of this agreement.
- 10) CITY agrees to assume all liability and agrees to indemnify and defend the COUNTY from all direct and indirect, present and future claims or causes of action, which in any way result from the activities of the CITY in completion of the tasks stated herein or may result from the decisions, recommendations, actions, omissions of actions or other errors on the part of CITY, its employees or contractors and any party from which CITY may obtain information or services for the completion of the same. This assumption of liability and agreement to hold harmless is intended to cover any present or future activities undertaken by CITY in furtherance of this agreement.

Dated this _____ day of _____, 2015.

Chairman, Cass County Board of Commissioners _____

Authorized Official _____

Point of Contact for Mosquito Control (please print name) _____

Phone number(s) _____