RECEIVED
APR 26 2016
DIVISION OF WATER QUALITY

ATTACHMENT E – NOTICE OF INTENT

WATER QUALITY ORDER 2016-0039-DWQ
GENERAL PERMIT CAG990004

STATEWIDE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FOR BIOLOGICAL AND RESIDUAL PESTICIDE DISCHARGES TO WATERS OF THE UNITED STATES FROM VECTOR CONTROL APPLICATIONS

I. NOTICE OF INTENT STATUS (see Instructions)

Mark only one item ☐ A. New Applicator ☐ B. Change of Information: WDID# _____

☐ C. Change of ownership or responsibility: WDID# _____

● D. Enrolled under Order 2011-0002-DWQ: WDID# 5D10AP00005

II. DISCHARGER INFORMATION

A. Name Kern Mosquito & Vector Control District			
B. Mailing Address 4705 Allen Road			
C. City Bakersfield	D. County Kern	E. State CA	F. Zip Code 93314
G. Contact Person Rob Quiring	H. Email address robquiring@sbcglobal.net	I. Title Manager	J. Phone 661-589-2744

III. BILLING ADDRESS (Enter Information *only* if different from Section II above)

A. Name			
B. Mailing Address			
C. City	D. County	E. State	F. Zip Code
G. Email address	H. Title	I. Phone	

IV. RECEIVING WATER INFORMATION

A. Biological and residual pesticides discharge to (check all that apply)*:

☐ 1. Canals, ditches, or other constructed conveyance facilities owned and controlled by Discharger.
Name of the conveyance system: _____

■ 2. Canals, ditches, or other constructed conveyance facilities owned and controlled by an entity other than the Discharger.
Owner's name: Please see pages 4 and 10.
Name of the conveyance system: _____

■ 3. Directly to river, lake, creek, stream, bay, ocean, etc.
Name of water body: Please see pages: 4, 6, 7, 8, 9.

* A map showing the affected areas for items 1 to 3 above may be included.

B. Regional Water Quality Control Board(s) where application areas are located
(REGION 1, 2, 3, 4, 5, 6, 7, 8, or 9): Region 5
(List all regions where pesticide application is proposed.)

A map showing the locations of A1-A3 in each Regional Water Board shall be included.

V. PESTICIDE APPLICATION INFORMATION

A. Target Organisms: ■ Vector Larvae ■ Adult Vector

B. Pesticides Used: List name, active ingredients and, if known, degradation by-products

Please see page 4.

C. Period of Application: Start Date January 1 End Date December 31

D. Types of Adjuvants Added by the Discharger:

VI. PESTICIDES APPLICATION PLAN

A. Has a Pesticides Application Plan been prepared?*
■ Yes ☐ No

If not, when will it be prepared? _____

* A copy of the Pesticides Application Plan shall be included with the NOI.

B. Is the applicator familiar with its contents?

■ Yes ☐ No

VII. NOTIFICATION

Have potentially affected governmental agencies been notified? Please see pages: 23 - 31
■ Yes ☐ No

* If yes, a copy of the notifications shall be attached to the NOI.

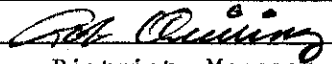
VIII. FEE

Have you included payment of the filing fee (for first-time enrollees only) with this submittal? Check # 5591.
■ Yes ☐ NO ☐ NA

IX. CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment. Additionally, I certify that the provisions of the Order, including developing and implementing a monitoring program, will be complied with."

A. Printed Name: Rob Quiring

B. Signature:  **Date:** April 19, 2016

C. Title: District Manager

X. FOR STATE WATER BOARD USE ONLY

WDID:	**Date NOI Received:**	**Date NOI Processed:**
Case Handler's Initial:	**Fee Amount Received:** $	**Check #:**

ATTACHMENT "E" - NOTICE OF INTENT

IV. Receiving Water Information

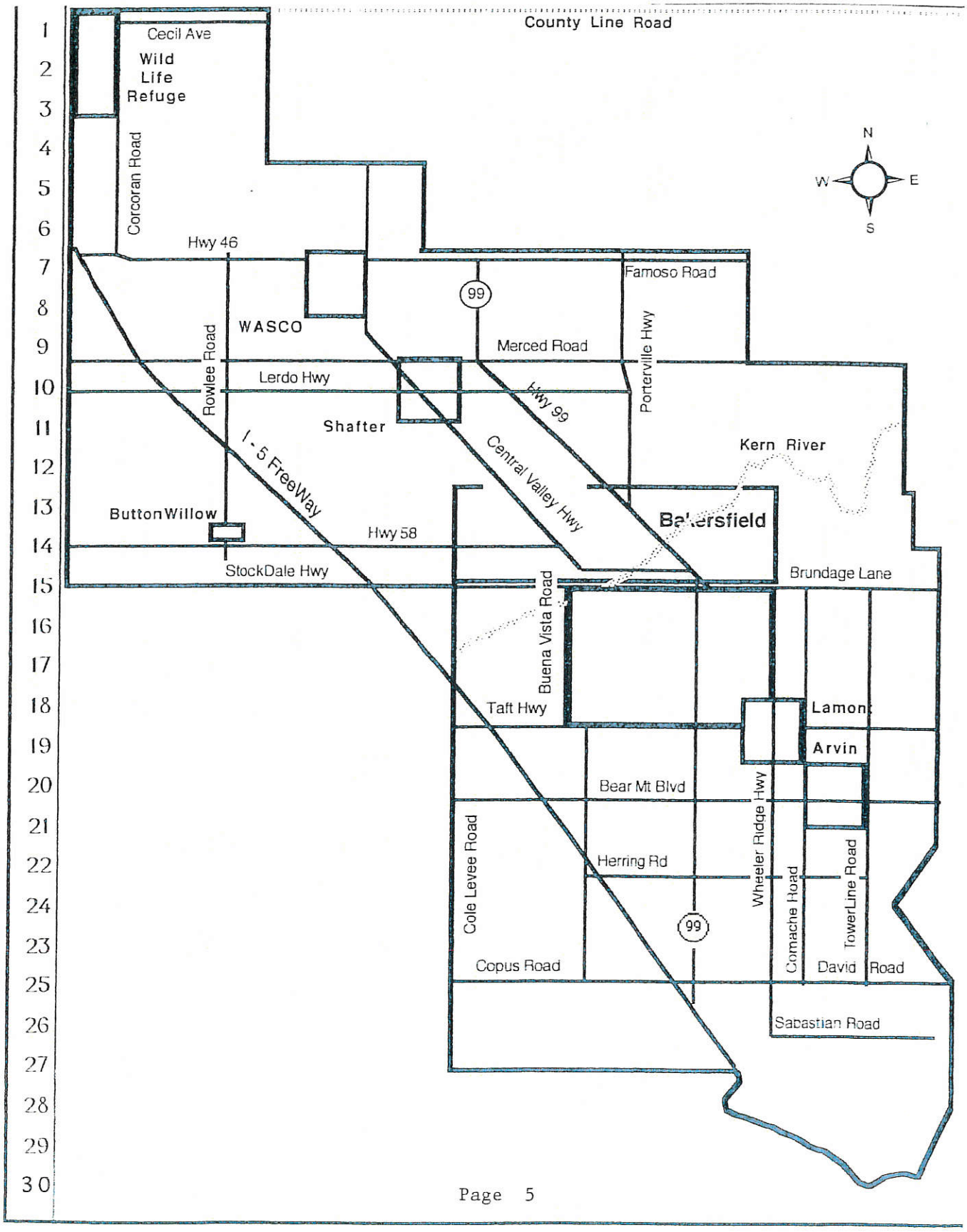
2. Canals, ditches, or other constructed conveyance facilities owned and controlled by an entity other than the Discharger:

Name of Conveyance	Name of Owner/Operator	Map No.
Arvin/Edison Canal	Arvin-Edison Water Storage District	B-1
Beardsley Canal	North Kern Water Storage District	B-1
Buena Vista Canal	Kern Delta Water Storage District	B-1
Calloway Canal	North Kern Water Storage District	B-1
Carrier Canal	City of Bakersfield	B-1
East Side Canal	Kern Delta Water Storage District	B-1
Farmer's Canal	Kern Delta Water Storage District	B-1
Goose Lake Slough	Buena Vista Water Storage District	B-1
Kern Island Canal	Kern Delta Water Storage District	B-1
Lerdo Canal	North Kern Water Storage District	B-1
Stine Canal	Kern Delta Water Storage District	B-1

3. Directly to river, lake, creek, stream, bay, ocean, etc. :

Name of Water Body:	Map No.
Kern River	(Map A-1)
Kern River Flood Control Channel	(Map A-2)
City of Bakersfield's "2800" acre ground water recharge area	(Map A-3)
Kern County Water Agency's ground water recharge area	(Map A-3)
Kern Water Bank Authority's ground water recharge area	(Map A-3)
Kern National Wildlife Refuge	(Map A-4)
Poso Creek	(Map A-4)

KMVCD DISTRICT BOUNDARIES



Kern River

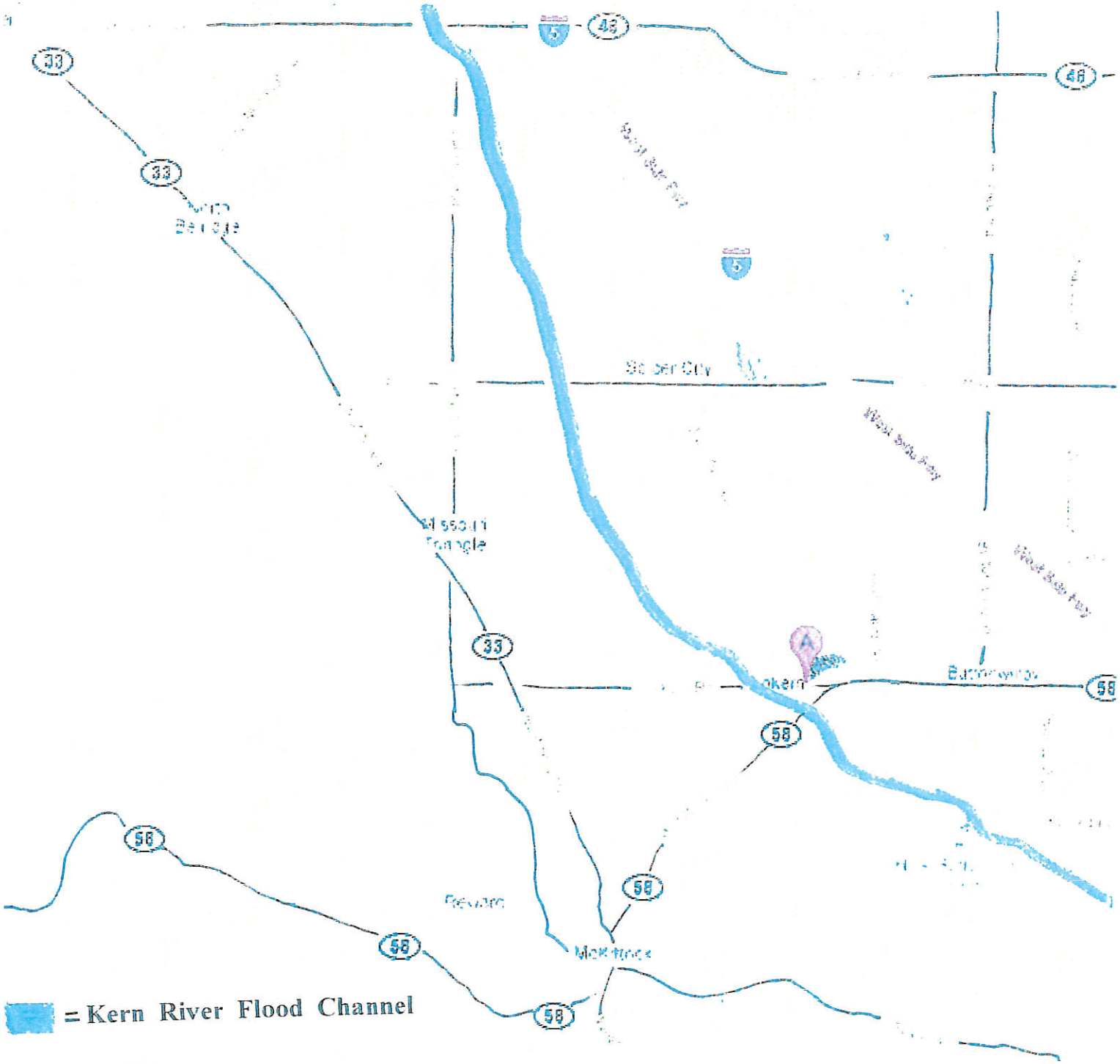
Located between Enos Lane & Rancheria Road

Map "A-1"

Kern River Flood Control Channel

Located between the I-5 Freeway and Highway 33

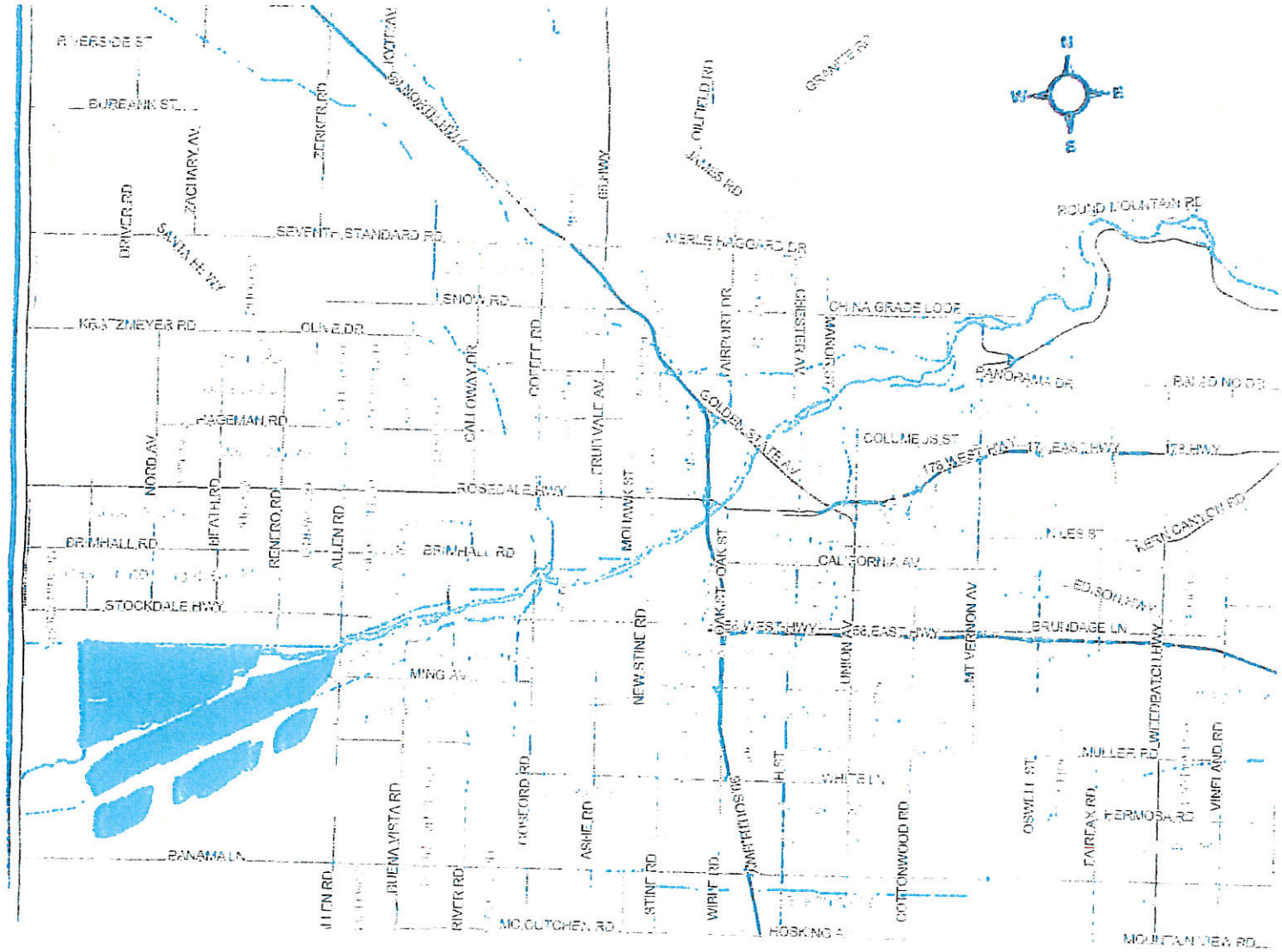
Map "A-2"



Ground Water Recharge Areas

West of Allen Road and South of Stockdale Highway, Bakersfield, CA
Township 30S, Range 26E
***City of Bakersfield's 2800 acre recharge area**
***Kern County Water Agency recharge area**
***Kern Waterbank Authority recharge area**

Map "A-3"

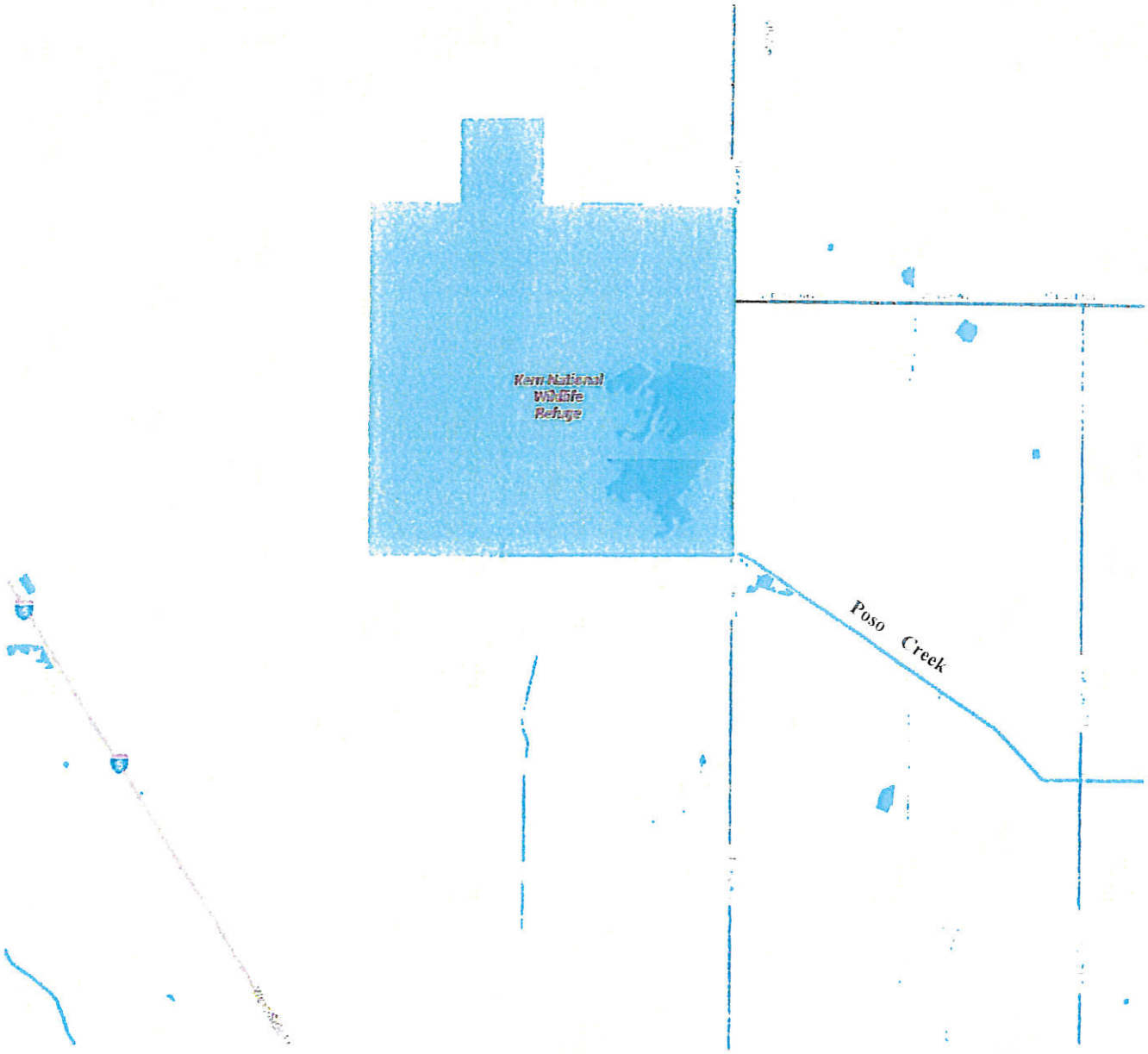


= Ground Water Recharge Areas

Kern National Wildlife Refuge

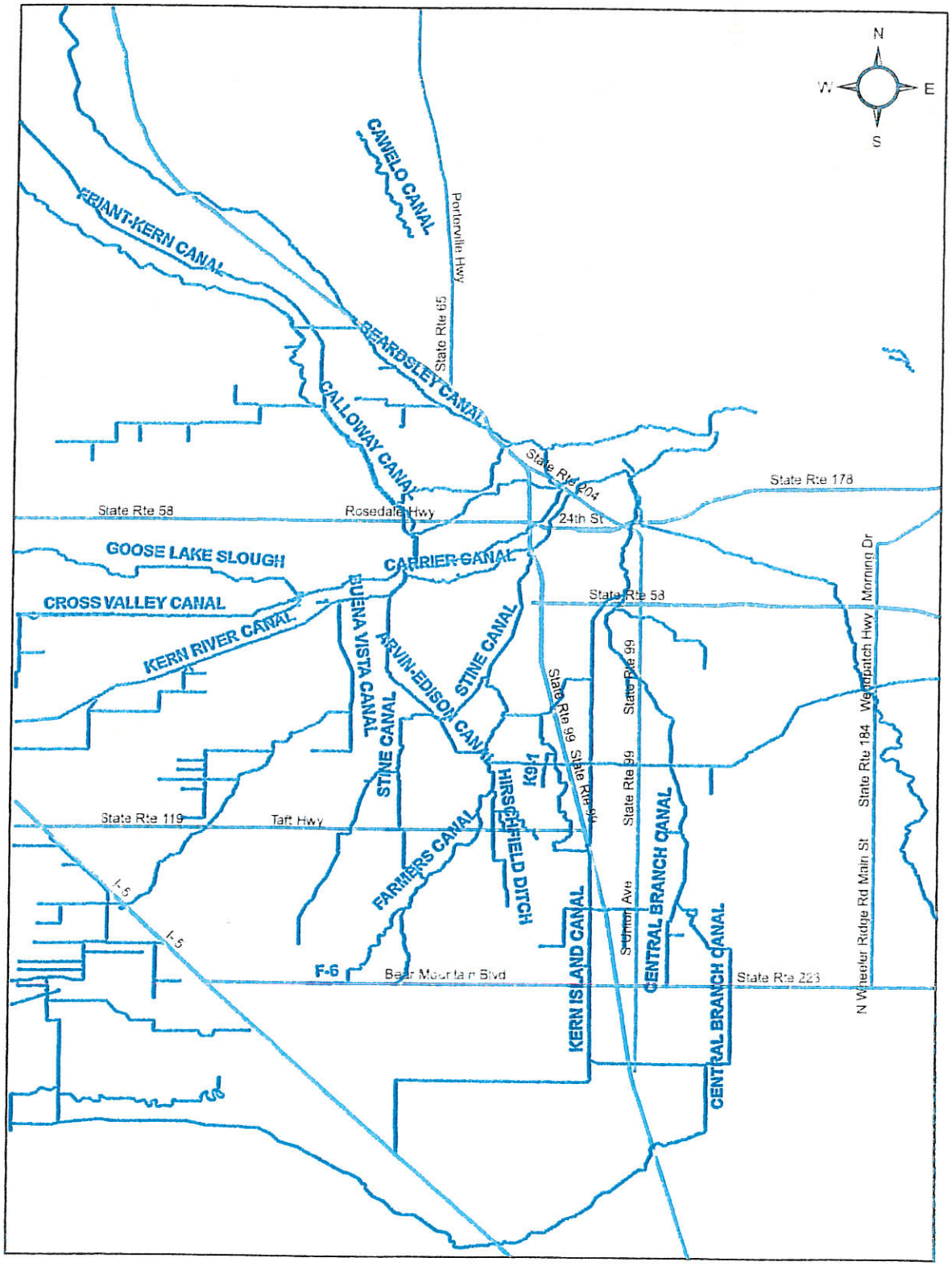
Intersection of Corcoran Road and Garces Highway
Township 25S, Range 22E

Map A-4



Canals in the Bakersfield Metropolitan Area that have required "spot" treatments in the past.

Map "B-1"



ATTACHMENT "E" - NOTICE OF INTENT

V. Pesticide Application Information:

B. List of Active Ingredients that may be used under the NPDES Permit:

Active Ingredient
Bacillus thuringienses var. israelensis
Bacillus sphaericus (Lysinibacillus sphaericus)
Deltamethrin
Etofenprox
Lambda-Cyhalothrin
Malathion
Methoprene
Monomolecular Films
Naled
N-octyl Bicycloheptene Dicarboximide (MGK-264)
Petroleum Distillates
Permethrin
Piperonyl butoxide
Prallethrin
Pyrethrin
Resmethrin
Spinosad
Sumithrin
Temephos
Any "minimum risk category" pesticides that are FIFRA exempt and registered for use in California and used in a manner specified in 40 C.F.R. section 152.25.

PESTICIDE ACTION PLAN

1. **Description of ALL target areas, if different from the water body of the target area, into which larvicides and adulticides are being planned to be applied or may be applied to control vectors. The description shall include adjacent areas, if different from the water body of the target area.**

Several maps of water bodies the District could discharge to have been included with this permit application. A map of the District's boundaries has, also, been included. Surface waters and waters of the U.S. within the boundaries of the Kern Mosquito & Vector Control District are listed below.

In prior years, the District has applied larvicides and/or adulticides directly to or in the vicinity of the following water bodies:

Name of Water Body:	Map No.
Kern River	(Map A-1)
Kern River Flood Control Channel	(Map A-2)
City of Bakersfield's "2800" acre ground water recharge area	(Map A-3)
Kern County Water Agency's ground water recharge area	(Map A-3)
Kern Water Bank Authority's ground water recharge area	(Map A-3)
Kern National Wildlife Refuge	(Map A-4)
Poso Creek	(Map A-4)

In prior years, the District has applied larvicides and/or adulticides directly to or in the vicinity of canals, ditches or other conveyance facilities owned or controlled by:

Name of Conveyance	Name of Owner/Operator	Map No.
Arvin/Edison Canal	Arvin-Edison Water Storage District	B-1
Beardsley Canal	North Kern Water Storage District	B-1
Buena Vista Canal	Kern Delta Water Storage District	B-1
Calloway Canal	North Kern Water Storage District	B-1
Carrier Canal	City of Bakersfield	B-1
East Side Canal	Kern Delta Water Storage District	B-1
Farmer's Canal	Kern Delta Water Storage District	B-1
Goose Lake Slough	Buena Vista Water Storage District	B-1
Kern Island Canal	Kern Delta Water Storage District	B-1
Lerdo Canal	North Kern Water Storage District	B-1
Stine Canal	Kern Delta Water Storage District	B-1

During some years, no applications are made to these areas due to lack of water.

Pesticide Action Plan continued:

2. Discussion of the factors influencing the decision to select pesticide applications for vector control. Please see the *Best Management Practices for Mosquito Control in California* (www.westnile.ca.gov/resources.php) specifically pages 26 through 34. In regard to mosquito control, each property is unique whether it is located in a residential or a rural area and therefore, each area can have its own unique mosquito-breeding situations. As with any source of mosquito breeding, the Kern Mosquito & Vector Control District's first goal is to look for ways to eliminate the source, or if that is not possible, for ways to reduce the potential for mosquito emergence. If other control methods are not feasible, than pesticides will be used to control mosquitoes in the larval or adult stage. When pesticides must be used, the District relies upon larvicides for the vast majority of its applications.

While the District does consider and evaluate the use of other methods to control mosquitoes rather than apply pesticides, some methods have distinct limitations in their effectiveness. For example, mosquito fish (Gambusia affinis) cannot control mosquitoes in locations where thick vegetation or shallow water prevents them from preying upon mosquito larvae. Mosquito fish cannot survive in polluted water and, so, they cannot be used in types of situations such as some sewage treatment facilities. Mosquito fish are useful in permanent or semi-permanent water bodies, but in places where the water is only temporary, fish will have to be continually reintroduced which reduces their effectiveness. In the early spring when the temperatures are cool, Gambusia reproduction is at a minimum, so the number of fish available is limited. In seasons of above-normal rainfall or snow pack, there are not sufficient numbers of Gambusia available for every situation. The District does not have the financial resources to raise large numbers of mosquito fish, so the District must capture Gambusia from local sources and transfer them to areas that require attention. In years of below-normal precipitation, Gambusia-breeding sources are few, so the number of fish available for stocking is limited.

Another method used to control mosquitoes besides the application of pesticides involves physical control such as vegetation control and/or removal of soil in order to make an area deeper which impedes vegetation growth and enables mosquito fish and other predators of mosquitoes to flourish. Unfortunately, physical control cannot be utilized in some areas because of the presence of endangered species. In other situations, physical control will not completely control mosquito breeding to a sufficient level, so pesticide applications must be used for effective results.

Pesticide Action Plan continued:

3. Pesticide products or types expected to be used and if known, their degradation by-products, the method in which they are applied, and if applicable, the adjuvants and surfactants used. The NPDES Permit for Biological and Residual Pesticide Discharges to Waters of the U.S. from Vector Control Applications was amended to list the approved active ingredients rather than having specific products named. All pesticide label restrictions and instructions will be followed for pesticides which contain the active ingredients listed below. In addition, pesticides which fall under the "minimum risk" category may be used. The minimum risk pesticides have been exempted from FIFRA requirements. Products will be applied by truck, backpack, hand can and airplane.

Active Ingredient
Bacillus thuringienses var. israelensis
Bacillus sphaericus (Lysinibacillus sphaericus)
Deltamethrin
Etofenprox
Lambda-Cyhalothrin
Malathion
Methoprene
Monomolecular Films
Naled
N-octyl Bicycloheptene Dicarboximide (MGK-264)
Petroleum Distillates
Permethrin
Piperonyl butoxide
Prallethrin
Pyrethrin
Resmethrin
Spinosad
Sumithrin
Temephos
Any "minimum risk category" pesticides that are FIFRA exempt and registered for use in California and used in a manner specified in 40 C.F.R. section 152.25.

Pesticide Action Plan continued:

4. Description of ALL the application areas and the target areas in the system that are being planned to be applied or may be applied. Provide a map showing these areas. Any site that holds water for more than 96 hours (4 days) can produce mosquitoes. Source reduction is the KMVCD's preferred solution, and whenever possible the District works with property owners to effect long term solutions to reduce or eliminate the need for continued applications as described in Best Management Practices for Mosquito Control in California, especially pages 4 through 19 (www.westnile.ca.gov/resources.php). The typical sources treated by this agency include: (seasonal) duck clubs, residential storm drain basins, agricultural sumps and ditches, non-maintained swimming pools, pastures, irrigated crops, livestock watering troughs and "standing" curb water. During years of above-average rainfall (about every 4 or 5 years in Kern County), certain water bodies such as the Kern River, Poso Creek, Goose Lake Slough and certain water conveyances will have variable amounts of water flow. These water bodies are heavily vegetated and can breed mosquitoes in certain areas. Please see various maps on pages 16 through 20.

5. Other control methods used (alternatives) and their limitations. With any source of mosquitoes or other vectors, the Kern Mosquito and Vector Control District's first goal is to look for ways to eliminate the source, or if that is not possible, for ways to reduce the potential for vectors. The most commonly used methods and their limitations are included in the Best Management Practices for Mosquito Control in California. (www.westnile.ca.gov/resources.php). Specific methods used by this agency include stocking permanent or semi-permanent water sources with mosquito fish, educating residents that mosquitoes can develop in standing water and encouraging them to remove sources of standing water on their property. The District employs a Source Reduction Specialist (Please see job description on page) whose job is to work with property owners to find long-term water management strategies that meet their needs while minimizing the need for public health pesticide applications. These long-term strategies can involve regular weed management procedures, efficient rotation of irrigation water and the timely drainage of water impoundments before they produce mosquito-breeding.

6. How much product is needed and how this amount was determined. The need to apply material is determined by surveillance. Actual use varies annually depending upon mosquito abundance, encephalitis virus activity, and the amount of rainfall or snow pack received during the winter. The following list represents the types and amounts of pesticides applied to Waters of the U.S. during 2015.

Pesticide Action Plan continued:

Material	Pounds	Ounces
Bacillus thuringiensis		752
Spinosad liquid		12.5

7. Representative monitoring locations and the justification for selecting these locations. Please see the MVCAC's NPDES Coalition Monitoring Plan.

8. Evaluation of available BMPs to determine if there are feasible alternatives to the selected pesticide application project that could reduce potential water quality impacts. The District does not take the application of pesticides lightly. Besides having potential environmental impacts, pesticide applications are expensive and time consuming. Factors noted in "Item Number 2" help evaluate feasible alternatives to pesticide applications in order to reduce potential water quality impacts. Upon locating a mosquito-breeding source, District technicians evaluate whether the source is substantial enough to require treatment. The evaluation takes into consideration: the number of larvae or adult mosquitoes present; physical size of the breeding source (e.g. bucket or 10 acre basin); the Genus and species of mosquito present (some mosquito types are more efficient vectors of disease); the amount of virus activity present and the proximity to populated areas.

The District's Source Reduction Specialist evaluates available BMPs in order to determine if there are feasible alternatives to selected pesticide application projects The removal of vegetation from ditches and impoundments allows for easier inspections and enables natural predators to control mosquito larvae. The removal of vegetation, also, makes applications more effective when they are required. The regular rotation of irrigation water can minimize the size and number of areas of "ponding" water in crops, orchards and other locations. (Also see: pages 5 through 20 of the Best Management Practices for Mosquito Control in California - www.westnile.ca.gov/resources.php).

Pesticide Action Plan continued:

9. Description of the BMPs to be implemented. The BMPs shall include at the minimum:

a) Measures to prevent pesticide spill. All pesticide applicators receive annual spill prevention and response training. District employees ensure daily that application equipment is in proper working order. Spill mitigation devices, materials and products are available in order to respond to spills in storage areas or from vehicles.

b) Measures to ensure that only a minimum and consistent amount is used. Application equipment is calibrated at least annually as required by the California Department of Pesticide Regulation (CDPR) and the terms of the Cooperative Agreement with the California Department of Public Health (CDPH). The pesticide label and associated registration by the USEPA and CDPR stipulate how much product can be legally applied to control the targeted pest.

c. A plan to educate the Coalition's or Discharger's staff and pesticide applicators on any potential adverse effects to Waters of the U. S. from pesticide applications. Applicators are required to complete pesticide training on an annual basis. Records are kept of these training sessions for review by the local agricultural commissioner and/or CDPH. District employees certified by CDPH must perform at least 20 hours of Continuing Education units to maintain their certification.

d. Descriptions of specific BMPs for each application mode, e.g. aerial, truck, hand, etc. The Kern Mosquito and Vector Control District calibrates truck-mounted and hand-held larviciding equipment each year to meet application specifications. Supervisors review application records daily to ensure appropriate amounts of material are being used. Ultra-low volume (ULV) application equipment is calibrated for output and droplet size to meet label requirements. Aerial adulticide equipment is calibrated regularly and droplet size will be monitored by the agency to ensure droplets meet label requirements. Airplanes used in urban ULV applications are calibrated by the Contractor who, also, makes sure the equipment is calibrated regularly and droplet size is appropriate. These airplanes are equipped with advanced guidance and drift management equipment to ensure the best available technology is being used to place the pesticide material within the intended area.

e. Descriptions of specific BMPs for each pesticide product used. Please see the Best Management Practices for Mosquito Control in California (www.westnile.ca.gov/resources.php.) for general pesticide application BMPs, and the current approved pesticide labels for application BMPs for specific products.

Pesticide Action Plan continued:

f. Descriptions of specific BMPs for each type of environmental setting (agricultural, urban and wetlands. Please see the Best Management Practices for Mosquito Control in California - especially pages 5-14. (www.westnile.ca.gov/resources.php).

10. Identification of the problem. Prior to first pesticide application covered under this General Permit that will result in a discharge of biological and residual pesticides to Waters of the U.S., and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, the Discharger must do the following for vector management area:

a. If applicable, establish densities for larval and adult vector populations to serve as action threshold(s) for implementing pest management strategies. The Kern Mosquito & Vector Control District's staff only apply pesticides to sources of mosquitoes that may represent imminent threats to public health or quality of life. The presence of any mosquito may necessitate treatment; however, higher thresholds may be applied depending on the agency's resources, disease activity, surveillance data or local needs. Treatment thresholds are based on a combination of one or more of the following criteria:

> Mosquito species present
> Mosquito stage of development
> Pest, nuisance, or disease potential
> Disease activity
> Mosquito abundance
> Flight range
> Proximity to populated areas
> Size of source
> Presence/absence of natural enemies or predators
> Presence of sensitive/endangered species or habitats

b. Identify target vector species to develop species-specific pest management strategies based on development and behavioral considerations for each species. The lower elevations of Kern County are endemic to West Nile virus (WNV). This District has had human cases of WNV since 2004 - which includes fatalities. In 2007, Kern County led the State with 141 human cases of WNV with four fatalities. Obviously, the Kern MVCD considers WNV a serious public health threat and will, therefore, make applications of pesticides in a responsible manner in order to protect residents from this disease.

Pesticide Action Plan continued:

Culex tarsalis and Culex quinquefaciatus mosquitoes are the major disease-carrying mosquitoes within District boundaries. Culex tarsalis mosquitoes are found mainly in rural, ag-related locations while quinquefaciatus are normally associated with urban locations. Aedes nigromaculis, Aedes melanimon and Aedes aegypti are species of mosquitoes that are active day-biters (bite during daylight hours) and can be such a nuisance that residents must seek shelter indoors or apply repellent. Seeking shelter indoors is not a solution for individuals who must work outdoors. Aegypti are invasive tropical mosquitoes that can carry dengue, chickungunya and Zika viruses.

The District uses several criteria to determine when applications of pesticides are necessary. The District sets out and collects adult mosquito abundance traps (around 120) on a weekly basis. The District utilizes four different types of traps: carbon dioxide-baited (CO2), BG Sentinel, Autocidal Gravid Oviposition (AGO), and Reiter Gravid traps. The decision to make a pesticide application is based upon: mosquito abundance numbers, density of mosquito larvae, resident complaints, proximity of breeding source to residential (populated) areas, size of breeding source and the level of encephalitis virus activity. A trap collection consisting of a high number of Culex tarsalis from a remote location 30 miles from the nearest residential area would not receive the attention that a "high" count from a trap site one mile from a residential area would receive.

Since West Nile virus is endemic to Kern County, the District will generally implement adult mosquito control operations when populations of Culex tarsalis or Cules quinquefaciatus adult mosquitoes exceed 10 females per trap night. The District will generally initiate larvicide applications when the immature mosquito population reaches 0.1 larvae per dip. The District relies upon the application of target-specific larvicides (methoprene, Bacillus thuringiensis, Bacillus sphaericus, and Spinosad) in its mosquito control program. Applications of material to control adult mosquitoes are only conducted in situations where other control strategies have not been effective or in emergency situations where WNV activity is extremely high.

Please see the Best Management Practices for Mosquito Control in California, pages 42 through 45 (www.westnile.ca.gov/resources.php) and the California Mosquito-borne Virus Surveillance and Response Plan, pages 3 through 17 (www.westnile.ca.gov/resoures.php).

c. Identify known breeding areas for source reduction, larval control program, and habitat management. Any site that holds water for more than 96 hours (four days) can produce mosquitoes. Source Reduction is an agency's preferred solution, and whenever possible the District works with property owner/operators to implement long-term solutions to reduce or eliminate the need for continued pesticide applications as described in the Best Management Practices for Mosquito Control in California.

Pesticide Action Plan continued:

d. Analyze existing surveillance data to identify new or unidentified sources of vector problems as well as areas that have recurring vector problems. This type of information is included in the Best Management for Mosquito Control in California and the California Mosquito-borne Virus Surveillance and Response Plan that this agency uses as resources. The Kern Mosquito and Vector Control District continually collects adult and larval surveillance data, dead bird reports and, also, monitors regional mosquito-borne disease activity detected in humans, horses, birds, and/or other animals and uses this data to guide mosquito control activities.

11. Examination of Alternatives. Dischargers shall continue to examine alternatives to pesticide use in order to reduce the need for applying larvicides that contain temephos and for spraying adulticides. Such methods include:

a. Evaluating the following management options, in which the impact to water quality, impact to non-target organisms, vector resistance, feasibility, and cost effectiveness should be considered:

> No action
> Prevention
> Mechanical or physical methods
> Cultural methods
>Biological control agents
> Pesticides

If there are no alternatives to pesticides, dischargers shall use the least amount of pesticide necessary to effectively control the target pest. The Kern Mosquito and Vector Control District does not apply larvicides that contain temephos. Applying adulticides is not the District's control method of choice. As has been previously stated, the District relies upon the use of target-specific larvicides in its mosquito control program. Controlling mosquitoes in the immature (larval) stages involves treating a smaller area because adult mosquitoes have not dispersed to infest a wider area. Public health pesticides are expensive - public health agencies in California do not make applications just for the fun of it.

The Kern MVCD uses the principles and practices of Integrated Vector Management (IVM) as described on pages 26 and 27 of the Best Management Practices for Mosquito Control in California. IVM combines biological, chemical, legal abatement, natural and physical control methods in a manner that minimizes environmental risks. As stated in Item Number 10 on page 27, locations where vectors may exist are assessed, and the potential for using alternatives to

Pesticide Action Plan continued

pesticides is determined on a case-by-case basis. Commonly considered alternatives include: 1) Eliminate artificial sources of standing water; 2) Ensure temporary sources of surface water drain within four days to prevent adult mosquitoes from developing; 3) Control plant growth in ponds, ditches, and shallow wetlands; 4) Design facilities and water conveyance and/or holding structures to minimize the potential for producing mosquitoes; and 5) Use appropriate biological control methods that are available. The District has a Source Reduction Specialist on staff whose job duties include providing consultation to property owners on effective land and water management in order to reduce or eliminate mosquito producing sources.

Implementing preferred alternatives depends upon a variety of factors including availability of agency resources, cooperation with stakeholders, coordination with other regulatory agencies and the anticipated efficacy of the alternative. If a pesticide-free alternative does not sufficiently reduce the risk to public health, pesticides are considered, beginning with the least amount necessary to effectively control the target vector.

b. Applying pesticides only when vectors are present at a level that will constitute a nuisance. The Kern Mosquito and Vector Control District follows an Integrated Vector Management program. A "nuisance" is specifically defined in the California Health and Safety Code (HSC) - 2002(j). This definition allows vector control agencies to address situations where even a low number of vectors may pose a substantial threat to public health and quality of life.

West Nile virus is now "endemic" to Kern County. Kern County has had human cases of West Nile virus since 2004 which includes fatalities. It only takes one bite of a WNV-infected mosquito to transfer the virus to a human. In practice, the definition of a "nuisance" is generally only part of a decision to apply pesticides to areas covered under this permit. As summarized in the California Mosquito-borne Virus Surveillance and Response Plan, the overall risk to the public when vectors and/or vector-borne disease are present is used to select an available and appropriate material, rate, and application method to address the risk in the context of the District's IVM program.

12. Correct Use of Pesticides: The Coalition's or Discharger's use of pesticides must ensure that all reasonable precautions are taken to minimize the impacts caused by pesticide applications. Reasonable precautions include using the right spraying techniques and equipment, taking account of weather conditions and the need to protect the environment. This is an existing practice of the Kern Mosquito and Vector Control District, and is required to comply with the Department of Pesticide Regulation's requirements and the terms of our California Department of Public Health Cooperative Agreement. All pesticide

Pesticide Action Plan continued:

applicators receive annual safety and spill training in addition to their regular continuing education.

13. Website for Public Notice.
www.kernmosquito.com

VII. Notification

Listing of governmental agencies that might be potentially affected by this NPDES Permit and were therefore notified:

Mr. John Nilon, County Administrative Officer	County of Kern
Mr. Alan Tandy, City Manager	City of Bakersfield
Mr. Nick Stanley, Project Manager	Kern National Wildlife Manager

KERN
MOSQUITO AND VECTOR CONTROL DISTRICT
DISTRICT OFFICE
4705 ALLEN RD. BAKERSFIELD, CALIFORNIA 93314
PH: (661) 589-2744 FAX: (661) 589-4913 E MAIL: kmvcd@sbcglobal.net

February 17, 2016

Mr. Nick Stanley, Project Leader
Kern National Wildlife Refuge
P. O. Box 670
Delano, California 93216

Re: Annual Notice of Intent to Apply Public Health Pesticides for Mosquito Control Purposes to Surface Waters and Waters of the U.S. (WOTUS).

Nick :

Because of a ruling by the U.S. Sixth Circuit Court of Appeals in 2009, agencies (who make pesticide applications to aquatic sites that might be considered "waters of the U.S.") must notify government agencies who may be affected by these applications. Since the District makes seasonal applications of pesticides to areas within the City's jurisdiction that might be considered "waters of the United States", the District is required to give you formal, written notice on an annual basis.

The District makes applications of either Bacillus thuringiensis israelensis, Bacillus sphaericus, Spinosad or Methoprene to control the aquatic stage of mosquitoes. These products are target specific to mosquito larvae and do not harm beneficial insects, fish or mammals. On occasion, a larvicidal oil or monomolecular film may be used to suffocate mosquito larvae and/or pupae in mosquito-breeding sources that contain a high amount of organic matter since organic matter will neutralize the action of Bacillus thuringiensis, Bacillus sphaericus and Spinosad.

The National Pollutant Discharge Elimination System (NPDES) Permit requirements for listing of the Public Health Pesticides anticipated to be used were modified from the previous permit, to the new permit which will be issued in 2016. The newer requirements specify that any pesticide product can be used that contains approved active ingredients, provided all pesticide label restrictions and instructions are followed. In addition, pesticides which fall under the "minimum risk" category can be used. The minimum risk pesticides have been exempted from FIFRA requirements. The following tables list the active ingredients approved for the FIFRA-regulated pesticides.

Active Ingredients for larval mosquito control:

Bacillus thuringiensis subsp. *israelensis (Bti)*
Bacillus sphaericus (Bs)
Methoprene
Monomolecular Films
Petroleum Distillates
Spinosad
Temephos

Active Ingredients for adult mosquito control:

Deltamethrin
Etofenprox
Lambda-Cyhalothrin
Malathion
Naled
N-octyl bicycloheptene dicarboximide (MGK-264)
Piperonyl butoxide (PBO)
Permethrin
Prallethrin
Pyrethrin
Resmethrin
Sumithrin

The purpose of the use of larvicide and adulticide pesticides containing these active ingredients is for the control of larval and adult mosquitoes to minimize the threat of mosquito-borne diseases and biting annoyances.

The general time period for the application of the pesticides is March through October, 2016. Locations of expected use will be constructed conveyances, surface waters and other waters of the U. S. located within District boundaries.

There are no known water use restrictions or precautions during treatment. .

Interested persons may contact the District at 1-661-589-2744 for additional information.

Rob Quiring, District Manager
Kern Mosquito & Vector Control District

MANAGER
ROBERT A. QUIRING

SUPERINTENDENT
GENE ABBOTT

KERN
MOSQUITO AND VECTOR CONTROL DISTRICT

DISTRICT OFFICE

4705 ALLEN RD. BAKERSFIELD, CALIFORNIA 93314
PH: (661) 589-2744 FAX: (661) 589-4913 E MAIL: kmvcd@sbcglobal.net

February 17, 2016

Mr. Alan Tandy, City Manager
City Hall North
1600 Truxtun Avenue, 5th Floor
Bakersfield, California 93301

Re: Annual Notice of Intent to Apply Public Health Pesticides for Mosquito Control Purposes to Surface Waters and Waters of the U.S. (WOTUS).

Mr. Alan Tandy :

Because of a ruling by the U.S. Sixth Circuit Court of Appeals in 2009, agencies (who make pesticide applications to aquatic sites that might be considered "waters of the U.S.") must notify government agencies who may be affected by these applications. Since the District makes seasonal applications of pesticides to areas within the City's jurisdiction that might be considered "waters of the United States", the District is required to give you formal, written notice on an annual basis.

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Pyrethrin
Resmethrin
Sumithrin

The purpose of the use of larvicide and adulticide pesticides containing these active ingredients is for the control of larval and adult mosquitoes to minimize the threat of mosquito-borne diseases and biting annoyances.

The general time period for the application of the pesticides is March through October, 2016. Locations of expected use will be constructed conveyances, surface waters and other waters of the U. S. located within District boundaries.

There are no known water use restrictions or precautions during treatment.

Interested persons may contact the District at 1-661-589-2744 for additional information.

Rob Quiring

Rob Quiring, District Manager
Kern Mosquito & Vector Control District

MANAGER
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February 17, 2016

Mr. John Nilon, Administrative Officer
County of Kern Administrative Office
1115 Truxtun Avenue, 5th Floor
Bakersfield, California 93301

Re: Annual Notice of Intent to Apply Public Health Pesticides for Mosquito Control Purposes to Surface Waters and Waters of the U.S. (WOTUS).

Mr. John Nilon :

Because of a ruling by the U.S. Sixth Circuit Court of Appeals in 2009, agencies (who make pesticide applications to aquatic sites that might be considered "waters of the U.S.") must notify government agencies who may be affected by these applications. Since the District makes seasonal applications of pesticides to areas within the City's jurisdiction that might be considered "waters of the United States", the District is required to give you formal, written notice on an annual basis.

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Permethrin
Prallethrin
Pyrethrin
Resmethrin
Sumithrin

The purpose of the use of larvicide and adulticide pesticides containing these active ingredients is for the control of larval and adult mosquitoes to minimize the threat of mosquito-borne diseases and biting annoyances.

The general time period for the application of the pesticides is March through October, 2016. Locations of expected use will be constructed conveyances, surface waters and other waters of the U. S. located within District boundaries.

There are no known water use restrictions or precautions during treatment.

Interested persons may contact the District at 1-661-589-2744 for additional information.

Rob Quiring, District Manager
Kern Mosquito & Vector Control District

MANAGER
ROBERT A. QUIRING

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MOSQUITO AND VECTOR CONTROL DISTRICT

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PH: (661) 589-2744 FAX: (661) 589-4913 E MAIL: kmvcd@sbcglobal.net

General Notice of Intent to Apply Pesticides

Re: Notice of Intent to Apply Public Health Pesticides for Vector Control Purposes to Surface Waters and Waters of the U. S. Within District Boundaries.

> The Kern Mosquito and Vector Control District intends to make public health pesticide applications to, over and adjacent to constructed conveyances, surface waters and other waters of the U. S. - owned and controlled by an entity other than the District for vector control purposes per the requirements of the General NPDES Permit for Biological and Residual Pesticide Discharges for Vector Control Applications.

> The NPDES Permit requirements for listing of the Public Health Pesticides anticipated to be used were modified from the previous permit to the new permit which will be issued in 2016. The newer requirements specify that any pesticide product can be used that contain approved active ingredients, provided all pesticide label restrictions and instructions are followed. In addition, pesticides which fall under the "minimum risk" category can be used. The minimum risk pesticides have been exempted from FIFRA requirements. The following tables list the ingredients approved for the FIFRA regulated pesticides.

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Naled
N-octyl bicycloheptene dicarboximide (MGK-264)
Piperonyl butoxide (PBO)
Permethrin
Prallethrin
Pyrethrin
Resmethrin
Sumithrin

> The purpose of the use of larvicide and adulticide pesticides containing these active ingredients is for the control of larval and adult mosquitoes to minimize the threat of mosquito-borne diseases and biting annoyances.

> The general time period for the application of the pesticides is January through December, 2016. Locations of expected use will be constructed conveyances, surface waters and other waters of the U. S. located within the boundaries of the Kern Mosquito & Vector Control District which includes the towns and cities of: Arvin, Bakersfield, Buttonwillow, Lamont, Shafter and Wasco.

> There are no known water use restrictions or precautions during treatment.

> Interested persons may contact the District at 1-661-589-2744 for additional information.

Rob Quiring
Kern Mosquito & Vector Control District
4705 Allen Road
Bakersfield, CA 93314

References:

Best Management Practices for Mosquito Control in California;
www.westnile.ca.gov/resources.php

California Mosquito-borne Virus Surveillance and Response Plan;
www.westnile.ca.gov/resources.php

Mosquito & Vector Control Association of California's
NPDES Coalition Monitoring Plan