ATTACHMENT G – NOTICE OF INTENT

2011-0002
WATER QUALITY ORDER NO. ~~2011-XXXX~~-DWQ
GENERAL PERMIT NO. CAG ~~XXXXXX~~ 990004

STATEWIDE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FOR 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# _____

II. DISCHARGER INFORMATION

A. Name Nevada County Community Development Agency/Mosquito Control Prog.			
B. Mailing Address 950 Maidu Avenue, Suite #170			
C. City Nevada City	D. County Nevada	E. State California	F. Zip Code 95959
G. Contact Person Wesley Nicks	H. Email address wesley.nicks@co.nevada.ca.us	I. Title Director of Env. Health	J. Phone 530-265-1464

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

A. Name Trinity Proctor			
B. Mailing Address Same as above			
C. City	D. County	E. State	F. Zip Code
G. Email address trinity.proctor@co.nevada.ca.us	H. Title Senior Accounting Assistant	I. Phone 530-265-1342	

IV. RECEIVING WATER INFORMATION

A. Pesticide residues 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: Nevada Irrigation District
Name of the conveyance system: All NID conveyances

3. Directly to river, lake, creek, stream, bay, ocean, etc.
☒ Name of water body: South and Middle Yuba Rivers, Bear River, Truckee +Little Truckee River, Deer Creek, Wolf Creek, Squirrel Creek, Clear Creek, Greenhorn Creek

* 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 and 6
(List all regions where pesticide application is proposed.)

V. PESTICIDE APPLICATION INFORMATION

A. Target Organisms: X Vector Larvae X Adult Vector
Please see program PAP for application specifics

B. Pesticides Used: List Name and Active ingredients : See attached larvicide and adulticide List

C. Period of Application: Start Date April 1 End Date October 31

D. Types of Adjuvants Added by the Discharger: NONE

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 PAP 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?
☐ Yes ☒ No

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

TENTATIVE ORDER

VIII. FEE

Have you included payment of the filing fee (for first-time enrollees only) with this submittal?

☒ 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 General Permit, including developing and implementing a monitoring program, will be complied with."

A. Printed Name: Wesley Nicks

B. Signature: [signature] **Date:** 10/13/11

C. Title: Department of Environmental Health Director

X. FOR STATE WATER BOARD USE ONLY

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

TENTATIVE ORDER

Steven L. DeCamp
Community Development Agency

Wesley Nicks, REHS
Director of Environmental Health

COUNTY OF NEVADA
COMMUNITY DEVELOPMENT AGENCY
Department of Environmental Health
Department of Agriculture

950 MAIDU AVENUE, SUITE 170, NEVADA CITY, CA 95959-8617
(530)265-1222 FAX (530) 265-9853 www.mynevadacounty.com

The Nevada County Vector Control Program is not a tax-payer funded special district. The program funding enhances three county departments that collaboratively make up a three-prong approach to mosquito control in Nevada County. The Environmental Health Department manages the program, provides dead animal surveillance and trained treatment technicians. The Agricultural Department provides trained treatment technicians, maintains treatment inventory and supplies, and the Public Health Department provides the program's human case surveillance, public education and outreach. The agency which oversees our mosquito program is the Nevada County Community Development Agency.

NEVADA COUNTY PESTICIDE APPLICATION PLAN

1. **Description of ALL target areas and adjacent areas, if different from the water body of the target area, in to 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 areas:**

   See the attached image showing the major rivers in Nevada County. The Nevada County Vector Control Program (NCVCP) does not perform aerial mosquito insecticide spraying, but may if necessary, during a public health emergency.
   The main water bodies in Nevada County are: Wolf Creek, Bear River, Deer Creek, Clear Creek, Squirrel Creek, Greenhorn Creek, South and Middle Yuba Rivers and the Truckee and Little River and all their associated tributaries.

2. **Discussion of the factors influencing the decision to select pesticide applications for mosquito control:**

   Our treatment application decisions are tiered: 1) manual manipulation of the environment to drain standing water, eliminate vegetation by correct pond designs and educating the land owner to identify and eliminate mosquito breeding sites; 2) Evaluating biological solutions by introducing mosquito fish; and 3) hand application of insecticide treatment solutions.
   We work closely with the owner of the land to educate and instruct how to eliminate standing water by shovel, back hoe, or grading and how to control plant growth in ponds and ditches. If

that is unsuccessful, where possible and biologically sound, we provide mosquito fish to permanent water bodies. We apply larvicides as a last resort to temporary or permanent (abandoned pools) water bodies that contain mosquito larvae. Hand fogging of resting adult mosquitoes is rarely performed. Adult resting areas are evaluated after receiving a landowner complaint. All fogging occurs at required distances away from the Waters of the US.

3. **Pesticides products or types 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:**

Currently, the NCVCP applies by hand the following treatments only: Vectobac G (73049-10), Vectobac-12 AS (73049-38), Altosid Pellets (2724-448), Altosid XR Briquets (2724-421), Golden Bear 1111 (8329-72) and hand fogging adulticide: Scourge (432-716).

The NCVCD does not apply adulticides over large areas or to Waters of the US. Typical adult application areas are isolated, only treating adult mosquito resting areas with a handheld ULV fogger. In a mosquito public health emergency where large-scale application may prove necessary, approved adulticides would be applied using the most effective and efficient application route necessary to reduce or eliminate the public health emergency.

The following list of products may be used by the NCVCP for larval or adult control. This list is directly from Attachment E and F within the NPDES permit for Biological and Residual pesticide Discharges to Waters of the U.S. for Vector Control Applications. All these products would be used according to label directions and may be applied by ground (hand, truck, ATV, backpack, etc.) or by air (helicopter or fixed wing aircraft) during a public health emergency.

<u>List of permitted Larvicide Products</u>

Larvicide Product Name	Registration Number
Vectolex CG Biological Larvicide	73049-20
Vectolex WDG Biological Larvicide	73049-57
Vectolex WSP Biological Larvicide	73049-20
Vectobac Technical Powder	73049-13
Vectobac-12 AS	73049-38
Aquabac 200G	62637-3
Teknar HP-D	73049-404
Vectobac-G Biological Mosquito Larvicide Granules	73049-10
Vectomax CG Biological Larvicide	73049-429
Vectomax WSP Biological Larvicide	73049-429
Vectomax G Biological Larvicide/Granules	73949-429

Larvicide Product Name	Registration Number
Zoecon Altosid Pellets	2724-448
Zoecon Altosid Briquets	2724-375
Zoecon Altosid Liquid Larvicide Mosquito Growth Regulator	2724-392
Zoecon Altosid XR Entended Residual Briquets	2724-421
Zoecon Altosid Liquid Larvicide Concentrate	2724-446
Zoecon Altosid XR-G	2724-451
Zoecon Altosid SBG Single Brood Granule	2724-489
Mosquito Larvicide GB-1111	8329-72
BVA 2 Mosquito Larvicide Oil	70589-1
BVA Spray 13	55206-2
Agnique MMF Mosquito Larvicide & Pupicide	53263-28
Agnique MMF G	53263-30
Abate 2-BG	8329-71
5% Skeeter Abate	8329-70
Natular 2EC	8329-82
Natular G	8329-80
Natular XRG	8329-83
Natular XRT	8329-84
FourStar Briquets	83362-3
FourStar SBG	85685-1
Aquabac xt	62637-1
Spheratax SPH (50 G) WSP	84268-2
Spheratax SPH (50 G)	84268-2

List of Permitted Adulticide Products

Adulticide Product Name	Registration Number
Pyrocide Mosquito Adulticiding Concentrate for ULV Fogging 7395	1021-1570
Evergreen Crop Protection EC 60-6	1021-1770
Pyrenone Crop Spray	432-1033
Prentox Pyronyl Crop Spray	655-489
Pyrocide Mosquito Adulticiding	1021-1569

Adulticide Product Name	Registration Number
Concentrate for ULV Fogging 7396	
Aquahalt Water-Based Adulticide	1021-1803
Pyrocide Mosquito Adulticide 7453	1021-1803
Pyrenone 25-5 Public Health Insecticide	432-1050
Prentox Pyronyl Oil Concentrate #525	655-471
Prentox Pyronyl Oil Concentrate or 3610A	655-501
Permanone 31-66	432-1250
Kontrol 30-30 Concentrate	73748-5
Aqualuer 20-20	769-985
Aqua-Reslin	432-796
Aqua-Kontrol Concentrate	73748-1
Kontrol 4-4	73748-4
Biomist 4+12 ULV	8329-34
Permanone RTU 4%	432-1277
Prentox Perm-X UL 4-4	655-898
Allpro Evoluer 4-4 ULV	769-982
Biomist 4+4	8329-35
Kontrol 2-2	73748-3
Scourge Insecticide with Resmethrin/Piperonyl Butoxide 18%+54% MF Formula II	432-667
Scourge Insecticide with Resmethrin/Piperonyl Butoxide 4%+12% MF Formula II	432-716
Anvil 10+10 ULV	1021-1688
AquaANVIL Water-based Adulticide	1021-1807
Duet Dual-Action Adulticide	1021-1795
Anvil 2+2 ULV	1021-1687
Zenivex E20	2724-791
Trumpet EC Insecticide	5481-481
Fyfanon ULV Mosquito	67760-34

4. **Description of all the application areas and the target areas in the system that are 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 NCVCP's preferred solution, and whenever possible the Program works with property owners to affect long-term solutions to reduce or eliminate the need for continued applications as described in Item number 2 above.

The typical sources treated by the Program include:

Larvicide treatment areas: ponds, artificial pools/spas, roadside ditches, catch basins and other stormwater BMPs, and potentially any area that holds water for more than 4 days.

Examples of Adult mosquito treatment areas we have treated in the past include sides of structures, barns, bales of hay.

5. **Other control methods used (alternatives) and their limitations:**

With any mosquito source, the NCVCP first goal is to look for ways to eliminate the source, or, if that is not possible, for ways to reduce the mosquito breeding potential. The most commonly used methods and their limitations are included in the Best Management Practices for Mosquito Control in California.

Specific methods used by the Program include:

a. Mechanical or physical methods to eliminate standing water – elimination of standing water may not be feasible when addressing sources that by design hold water such as a catch basin and other water retention structures;
b. Stocking mosquito fish (*Gambusia affinis*) – stocking of mosquito fish to control immature mosquitoes is limited to sources that can support fish and are not waters of the State;
c. Providing free mosquito service request inspections to help educate residents that mosquitoes develop in standing water and encourage them to remove sources of standing water on their property, and find long-term water management strategies that meet their needs while minimizing the need for public health pesticide applications.

6. **How much product is anticipated to be used and how this amount was determined:**

The need to apply product is determined by seasonal surveillance and available personnel. Actual use varies annually depending on the mosquito abundance. We based the below figures upon this year's 2011 summer pesticide usage reported by technician records in the Environmental Health and Agricultural Departments. Personnel complete site evaluation forms with treatment amounts for each inspected site and input this information into the program's vector software system.

100 oz Vectobac G (73049-10) 103 oz Altosid pellets (2724-448), 366 oz Altosid brix (2724-421).

7. **Representative monitoring locations and the justification for selecting these locations:**

   Please see the MVCAC 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:**

   Using Larvicides and applying the treatment by hand as opposed to truck dispersal, has the least impact on the environment and has the least impact on non-target organisms. Hand application is the safest application method in that it is able to be applied to a specific larval site with the least drift and impact to non-target organisms. Vectobac G (biological control agent) and Altosid have low impacts on the environment. We do not employ aerial insect spraying as a routine vector treatment application. This method would only be employed during a public health emergency. The little fogging we do does not occur near the Waters of the US.

   Please see the Best Management Practices for Mosquito Control in California

9. **Description of the BMPs to be implemented:**
   NCVCP's BMPs are described in Item #2 above. Specific elements have been highlighted below under a – f.

   a. **measures to prevent pesticide spill**

      Treatment applicators are trained annually on spill prevention, clean-up procedures and proper dispersal of material. Treatment storage bags are properly discarded. The treatment storage area has a spill response kit with booms and absorbent material, and brooms and pans for dry product clean up. Spill mitigation devices are placed in all vehicles.

   b. **measures to ensure that only a minimum and consistent amount is used**

      We use graded and marked measuring cups for dry material and the fogging equipment is calibrated each year as required by the Department of Pesticide Regulations (DPR) and the Cooperative Agreement with CDPH per manufacturer's specifications.
      Currently, a ULV hand fogger is the only equipment requiring calibration.

   c. **a plan to educate the Discharger's staff and pesticide applicators on any potential adverse affects to waters of the US from the pesticide application**

      This will be included in our pesticide applicators annual pesticide application and safety training, continuing education programs, and/or regional NPDES Permit training programs.

   d. **descriptions of specific BMPs for each spray mode, e.g. aerial spray, truck spray, hand spray, etc.**

The only spray mode equipment our program uses is the Ultra-low volume hand application equipment and is calibrated for output and droplet size to meet label requirements.

e. description of specific BMPs for each pesticide product used:

Please see the Best Management Practices for Mosquito Control in California for general pesticide application BMPs, and the current approved pesticide labels for application BMPs for specific products. The program uses the 5 products shown in the first paragraph of #3.

f. descriptions of specific BMPs for each type of environmental setting (agriculture, urban, and wetlands)

Please see Item #2 above and The Agency's BMPs are described in the Best Management Practices for Mosquito Control in California and the California Mosquito-borne Virus Surveillance and Response Plan. We do not treat wetlands, and have no agricultural flooding. Service requests are performed for individual property owners. We perform a county-wide educational campaign each spring with press-releases for the upcoming season.

10. **Identification of the problem**

The NCVCP staff only apply pesticides to sources of mosquitoes that 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, or local needs. Treatment thresholds are based on a combination of one or more of the following criteria:

- Mosquito stage of development
- Mosquito species present
- 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.

b. Identify target vector species to develop species-specific pest management strategies based on developmental and behavioral considerations for each species:

Please see Item #2 above

c. Identify known breeding areas for source reduction, larval control program, and habitat management:

Any site that holds water for more than 96 hours (4 days) can produce mosquitoes. Source reduction is our Program's preferred solution, and whenever possible the Program works with property owners to effect long-term solutions to reduce or eliminate the need for continued applications as described in Item #2 above and 10.e.a).

d. Analyze existing surveillance data to identify new or unidentified sources of vector problems as well as areas that have recurring vector problems.

This is provided in Item #2 above that the Program uses. The MCVCP continually collects larval mosquito surveillance data, dead birds/squirrels reports, and sentinel chicken test results from 2 flocks and monitors regional mosquito-borne disease activity detected in humans, horses, birds, and/or other animals, and uses these data to guide mosquito control activities through weekly VBDS weekly WNv updates.

e. Examination of Pesticide Use Alternatives

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**

The NCVCP uses the principles and practices of Integrated Vector Management (IVM) program as described in pages 26 and 27 of the Best Management Practices for Mosquito Control in California and as discussed in item # 2 above. The IVM program incorporates the impact to water quality, impact to non-target organisms, vector resistance, feasibility, and cost effectiveness when deciding the BMP at each site is considered:

Locations where vectors may exist are assessed, and the potential for using alternatives to 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 (96 hours) 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. Additional alternatives to using pesticides for managing mosquitoes are listed on pages 4-19 of the Best Management Practices for Mosquito Control in California.

Implementing preferred alternatives depends on a variety of factors including availability of program resources, cooperation with landowners, 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.

12. Correct Use of Pesticides

Discharger 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 Program, and is required in order to comply with the Department of Pesticide Regulation's (DPR) requirements and the terms of our California Department of Public Health (CDPH) Cooperative Agreement. All pesticide applicators receive annual training in: health and Safety, spill prevention and cleanup, and safe application and application alternatives. In addition, managers receive their regular continuing education.

13. Website for the Public:

http://www.mynevadacounty.com/westnilevirus/

Link includes information on Discharger's mosquito control program and MSDS and label specimens of all treatment materials currently used in the county.

14. Pesticide Application Log

A log is maintained for each pesticide application. The application log shall contain, at a minimum, the following information, when practical, for larvicide or adulticide applications:

a. Date of application;
b. Location of the application and target areas (e.g. address, crossroads, or map coordinates);
c. Name of applicator;
d. The names of the water bodies treated (i.e., canal, creek, lake, etc.);
e. Application details, such as application started and stopped, pesticide application rate and concentration, flow rate of the target area, surface water area, volume of water treated, pesticide(s) and adjuvants used by the Discharger, and volume or mass of each component discharged;

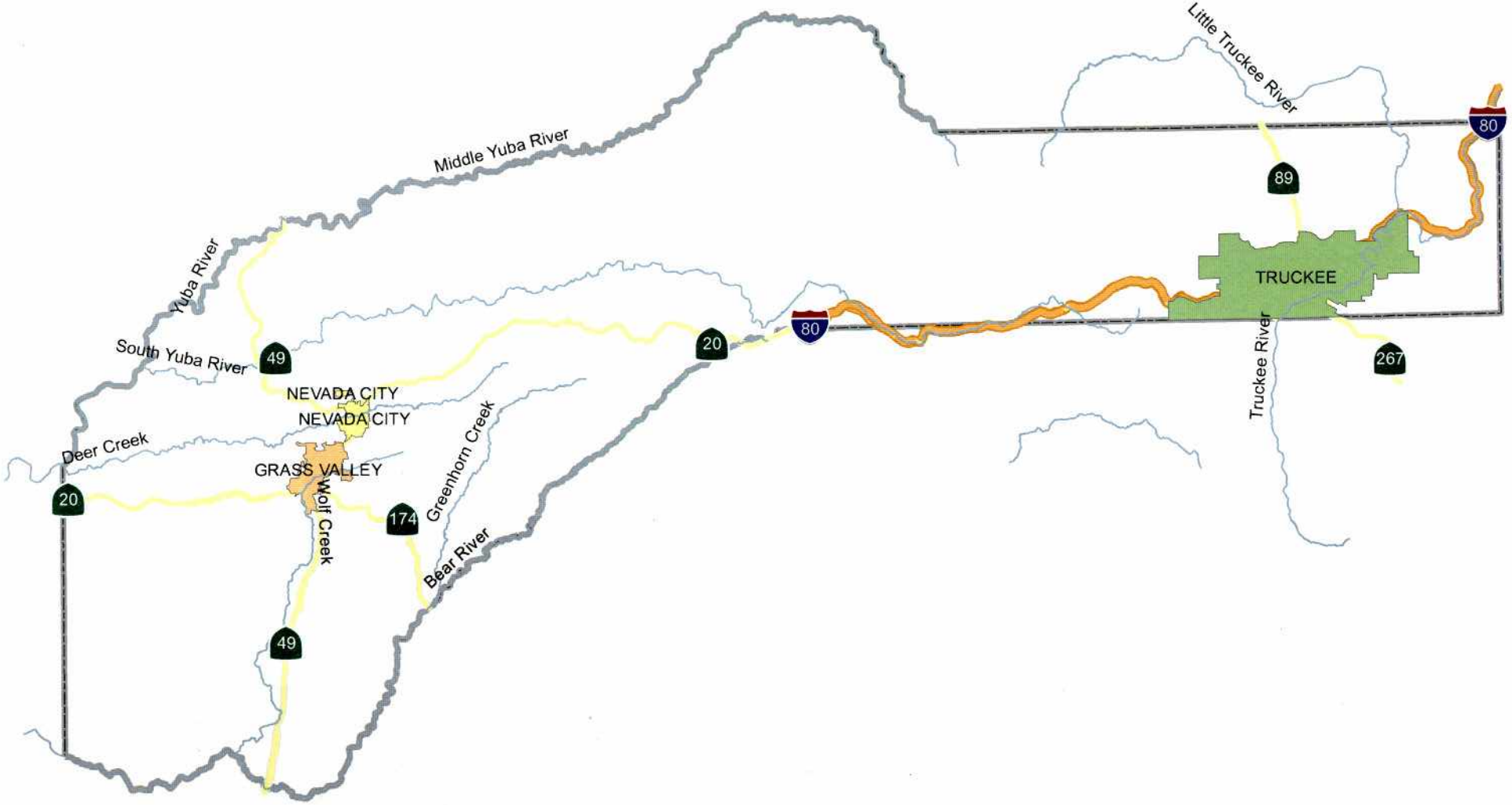
Our vector program uses Decade software called Envision which contains a vector module where all the above information is contained as required to comply with DPR regulations and our CDPH Cooperative Agreement requirements for pesticide logs.

References:

Best Management Practices for Mosquito Control in California. 2010. Available from the California Department of Public Health—Vector-Borne Disease Section, (916) 552-9730 or by download from http://www.westnile.ca.gov/resources.php under the heading Mosquito Control and Repellent Information.

California Mosquito-borne Virus Surveillance and Response Plan. 2010. [Note: this document is updated annually by CDPH]. Available from the California Department of Public Health—Vector-Borne Disease Section, (916) 552-9730 or by download from http://www.westnile.ca.gov/resources.php under the heading Mosquito Control and Repellent Information.

MVCAC NPDES Coalition Monitoring Plan.


Little Truckee River
Middle Yuba River
80
89
TRUCKEE
Yuba River
South Yuba River
49
20
80
267
NEVADA CITY
NEVADA CITY
Truckee River
Deer Creek
GRASS VALLEY
Greenhorn Creek
20
Wolf Creek
174
Bear River
49

RECEIPT

DATE 11/2/11 NO. 243107

RECEIVED FROM BAUD - DWQ

ADDRESS NEVADA COUNTY

$ 272-

FOR WARRANT #211350

ACCOUNT		
AMT. OF ACCOUNT		
AMT. PAID		
BALANCE DUE		

○ CASH

○ CHECK

○ MONEY ORDER

BY AARON