TEHAMA COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT
PO BOX 1005
RED BLUFF, CALIFORNIA 96080
(530) 527-1676 dacox@cwnet.com

RECEIVED
JUN 27 2011
DIVISION OF WATER QUALITY

June 23, 2011

State Water Resources Control Board
Division of Water Quality
PO Box 100
Sacramento, CA 95812-0100

Re: Water Quality order NO.2011-0002DWQ, General Permit NO. CAG 990004

Dear Board:

Enclosed please find Tehama County Mosquito and Vector Control District's Notice of Intent, PAP, payment and sample letter with list of government agencies contacted.

It is my understanding that this permit will become effective after the current Federal Stay has expired and a notice from your agency stating we have a permit.

If you need further information or documents please contact me.

Sincerely,

D. Andrew Cox
Manager

Enclosure

ATTACHMENT G – NOTICE OF INTENT

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

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# _____

II. DISCHARGER INFORMATION

A. Name: Tehama County Mosquito and Vector Control District			
B. Mailing Address: P. O. Box 1005			
C. City: Red Bluff	D. County: Tehama	E. State: CA	F. Zip Code: 96080
G. Contact Person: D. Andrew Cox	H. Email address: tcmvcd@clearwire.net	I. Title: Manager	J. Phone: 530-527-1676

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

A. Name: Same as Section II			
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: Many - See maps
Name of the conveyance system: _____

3. Directly to river, lake, creek, stream, bay, ocean, etc.
☒ Name of water body: Many - See maps

* 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: X Vector Larvae X Adult Vector

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

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

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.

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: D. Andrew Cox

B. Signature: [signature] **Date:** 6-23-11

C. Title: Manager

X. FOR STATE WATER BOARD USE ONLY

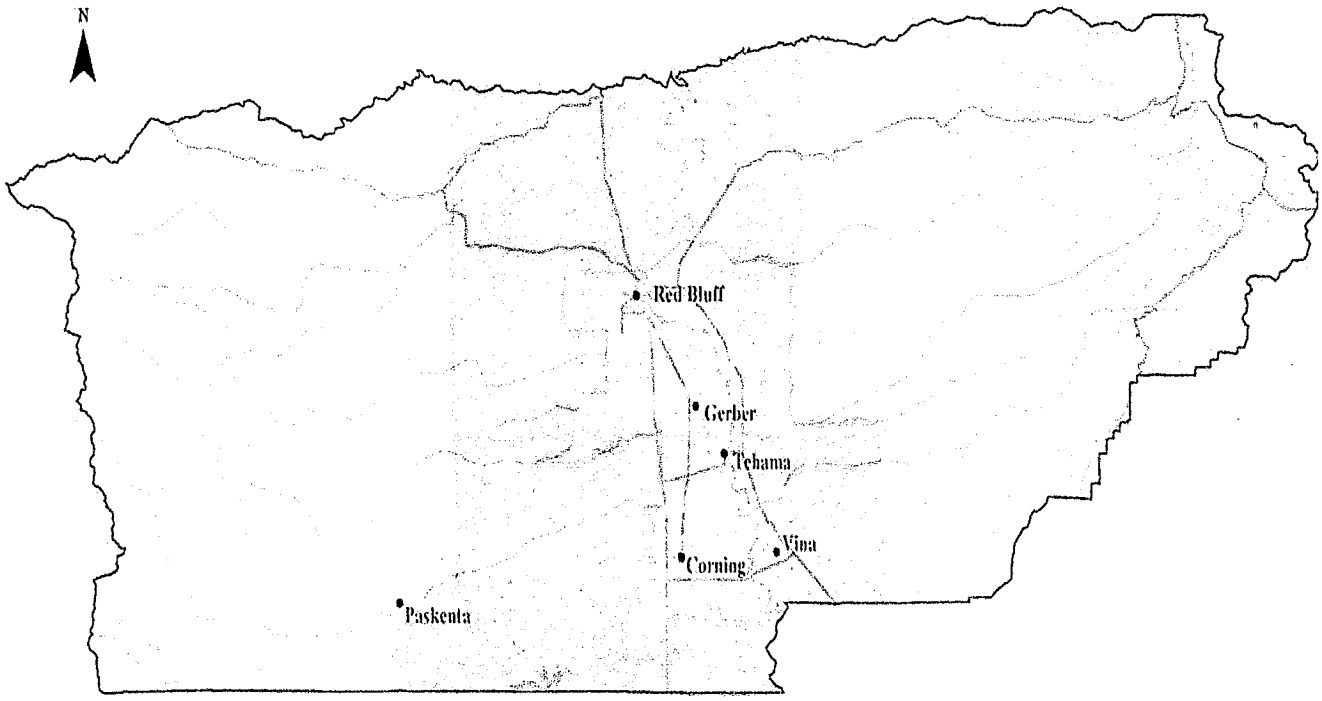
WDID:	**Date NOI Received:**	**Date NOI Processed:**
Case Handler's Initial:	**Fee Amount Received:** $	**Check #:**

Tehama County Mosquito and Vector Control District Pesticide Application Plan

Water Quality Order NO. 2011-0002DWQ
General Permit NO. CAG 990004

1. **Description of ALL target 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;**
   The District boundaries are County wide. Our service area is not County wide and the area for applications can be seen on map below. The district may apply public health pesticides to control immature mosquitoes to areas that holds water longer than 96 hours, and may apply adulticides to any locations where adult mosquitoes meet treatment thresholds.

TEHAMA COUNTY MVCD BOUNDRY MAP AND SERVICE AREA



Map of Tehama County and District
Yellow and Gray shaded areas are the District control operation areas
Major Hydrology within County and District control operation areas

2. **Discussion of the factors influencing the decision to select pesticide applications for mosquito control;**
   Please see the Best Management Practices for Mosquito Control in California.

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 adjuvents and surfactants used;**
   Please see Attachments E and F within NPDES Permit for Biological and Residual Pesticide Discharges to Waters of the U.S. for Vector Control Applications. Products may be applied by hand, truck, backpack, hand can or airplane according to label directions. No adjuvants or surfactants will be used.

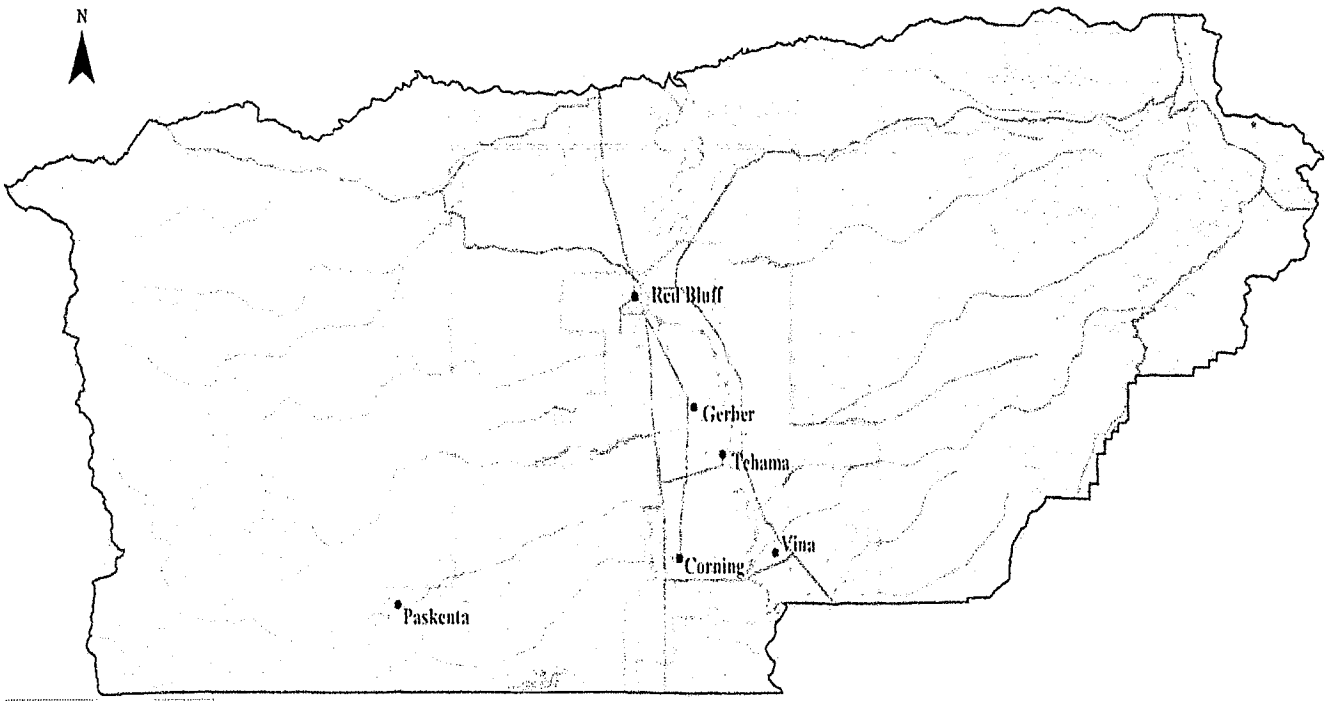
4. **Description of ALL the application areas* and the target areas in the system that are being planned to applied or may be applied. Provide a map showing these areas;**

Any site that holds water for more than 96 hours (4 days) can produce mosquitoes. Source reduction is the District's preferred solution, and whenever possible the District works with property owners to affect long-term solutions to reduce or eliminate the need for continued applications as described in Best Management Practices for Mosquito Control in California. The typical sources treated include:

Rural/ Agricultural	**Urban/ Suburban**
Irrigated pasture	Swimming pools
Irrigated Crops	Catch Basins
Rice fields	Drain inlets
Managed wetlands	Sumps and drains
Roadside ditches	Detention ponds
Drainage ditches	Ornamental ponds
Sewage lagoons	Fountains/birdbaths
Ponds	Flood channels
Horse troughs	Man made containers
Rock pits	Potentially any aquatic site that has water standing for 96 hours or more
Flood areas	
Wildlife areas	
Potentially any aquatic site that has water standing for 96 hours or more	

See Map on next page with potential areas where Mosquitoes may be controlled

TEHAMA COUNTY MVCD BOUNDRY MAP AND SERVICE AREA



Yellow and Gray shaded areas that could potentially be sprayed for control of mosquitoes

5. **Other control methods used (alternatives) and their limitations;**
   With any source of mosquitoes or other vectors, the 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. Specific methods used by District includes distributing Gambusia affinis to rice fields, wetlands, irrigation drains and neglected swimming pools on a yearly basis. The District identifies mosquito breeding sites throughout the District and works with property owners and land managers to incorporate BMPs to reduce or eliminate mosquito breeding habitat to find long term water management strategies that meet their needs while minimizing the need for public health pesticides. Also educating the public that mosquitoes develop in standing water and encouraging them to remove any potential mosquito sources.

6. **How much product is needed and how this amounts was determined;**
   The need to apply product is determined by surveillance. Actual use varies annually depending on the mosquito activity. The pesticide amounts presented below were taken from the Tehama County Mosquito and Vector Control District's 2010 PUR as an estimate of pesticide use in 2011. Other public health pesticides in addition to those listed below may be used as part of the District's best management practices.

Material	Pounds	Gallons
Clarke Golden Bear 1111		555.00
Valent Biosciences Vectobac 12-AS		50.00
Valent Biosciences Vectolex CG	5.7	45.95
Valent Biosciences Vectolex WDG	219.00	
Bactimos Granules	1.0	
Zoecon Altosid Pellets	257.80	
Zoecon Altosid WSP	13.0	
Zoecon Altosid Briquets	1.9	
Zoecon Altosid XRG	.5	
Clarke Spinosad	.2	
Clarke Anvil 10-10 ULV		56.7
Clarke Biomist 4-12 ULV		18.5
MGK Pyrocide Adulticiding Concentrate 7396		56.6
Univar Masterline Kontrol 4-4		304.6
Prentox Pyronyl Crop spray		.50
Wellmark Zenivex –E20		13.3

7. **Representative monitoring locations* and the justification for selecting these monitoring 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; and**
   Please see the Best Management Practices for Mosquito Control in California

9. **Description of the BMPs to be implemented. The BMPs shall include at a minimum:**
   The District's BMPs are described in the Best Management Practices for Mosquito Control in California and in the California Mosquito-borne Virus Surveillance and Response Plan. Specific elements have been highlighted below under items a-f.
   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 are placed in all vehicles and pesticide storage areas.

   b. **measures to ensure that only a minimum and consistent amount is used**
      Application equipment is calibrated at least annually as required by the Department of Pesticide Regulations (DPR) and the terms of a cooperative agreement with the California Department of Public Health (CDPH).

c. **a plan to educate Coalition's or Discharger's staff and pesticide applicator on any potential adverse effects to waters of the U.S. 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 application mode, e.g. aerial, truck, hand, etc.;**
The Tehama County Mosquito and Vector Control District calibrates truck-mounted and handheld 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 larviciding equipment is calibrated by the Contractor. Aerial adulticide equipment is calibrated regularly and droplet size will be monitored by the District to ensure droplets meet label requirements. Airplanes used in urban ULV applications and the primary airplane used for rural ULV application is equipped with advanced guidance and drift management equipment to ensure the best available technology is being used to place product in the intended area. If a secondary airplane is used in rural ULV applications it will be equipped with an advanced guidance system.

e. **descriptions of specific BMPs for each pesticide product used; and**
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.

f. **descriptions of specific BMPs for each type of environmental setting (agricultural, urban, and wetland).**
Please see the Best Management Practices for Mosquito Control in California.

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 US, 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 each 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 Tehama County Mosquito and Vector Control District staff only applies 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 District's resources,

disease activity, 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 developmental and behavioral considerations for each species;** Please see the Best Management Practices for Mosquito Control in California and the California Mosquito-borne Virus Surveillance and Response Plan.

c. **Identify known breeding areas for source reduction, larval control program, and habitat management; and**
Any site that holds water for more than 96 hours (4 days) can produce mosquitoes. Source reduction is the District's preferred solution, and whenever possible the District works with property owners to implement long-term solutions to reduce or eliminate the need for continued applications as described in Best Management Practices for Mosquito Control in California.

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 included in the Best Management Practices for Mosquito Control in California and the California Mosquito-borne Virus Surveillance and Response Plan that the Districts uses. The District continually collects adult and larval mosquito surveillance data, dead bird reports, and sentinel chicken test results and uses these 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 Tehama County Mosquito and Vector Control District uses the principles and practices of integrated vector management (IVM) as described on pages 26 and 27 of Best Management Practices for Mosquito Control in California. As stated in item #10 above, 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 a variety of factors including availability of agency resources, cooperation with stakeholders, coordination with other regulatory agencies, and the 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 Tehama County Mosquito and Vector Control District follows an existing integrated vector management (IVM) program which includes practices described in the California Mosquito-borne Virus Surveillance and Response Plan and Best Management Practices for Mosquito Control in California.

A "nuisance" is specifically defined in California Health and Safety Code (HSC) §2002(j). This definition allows vector control agencies to address situations where even a low level of vectors may pose a substantial threat to public health. 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 that risk in the context of our IVM program.

12. **Correct Use of Pesticides**
    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 Tehama County Mosquito and Vector Control District, and is required 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 safety and spill training in addition to their regular continuing education.

13. **If applicable, specify a website where public notices, required in Section VIII.B, may be found.**
    Tehama County Mosquito and Vector Control District posts all notices at the District office located at 11861 Highway 99W, Red Bluff, CA 96080. The District does not have a website.

References:

Best Management Practices for Mosquito Control in California. 2010. Available by download from the California Department of Public Health—Vector-Borne Disease Section at http://www.westnile.ca.gov/resources.php under the heading Mosquito Control and Repellent Information. Copies may be also requested by calling the California Department of Public Health—Vector-Borne Disease Section at (916) 552-9730 or the Tehama County Mosquito and Vector Control District at (530) 527-1676

California Mosquito-borne Virus Surveillance and Response Plan. 2010. [Note: this document is updated annually by CDPH]. . Available by download from the California Department of Public Health—Vector-Borne Disease Section at http://www.westnile.ca.gov/resources.php under the heading Response Plans and Guidelines. Copies may be also requested by calling the California Department of Public Health—Vector-Borne Disease Section at (916) 552-9730 or the Tehama County Mosquito and Vector Control District at (530) 527-1676

MVCAC NPDES Coalition Monitoring Plan. 2011. [In development at the time of this draft]

TEHAMA COUNTY MOSQUITO AND VECTOR CONTROL DISTRICT
PO BOX 1005 11861 Highway 99W
RED BLUFF, CALIFORNIA 96080
(530) 527-1676 tcmvcd@clearwire.net

January 11, 2011

Agency Name
Agency Address
Agency City, CA, Zip Code

RE: Public Health Pesticide Application Notification

Dear Agency,

The Tehama County Mosquito and Vector Control District (District) may be making public health pesticide applications to waters of the U.S. under your jurisdiction for mosquito and mosquito-borne disease reduction or prevention. The District will be using larvicides and adulticides listed in the National Pollutant Discharge Elimination System (NPDES) Permit for Biological and Pesticide Discharges to Waters of the United States for Vector Control Operations, General Permit NO. CAG990004. Your Agency may expect to see applications between January 1 and December 31 of this year. The District is required to notify all Government Agencies that may be affected by these applications under the requirements of the General NPDES Permit for Biological and Residual Pesticide Discharges from Vector Control Applications. Please contact D. Andrew Cox at 530-527-1676 if you additional questions.

Respectfully,

D. Andrew Cox
Manager

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City of Red Bluff 555 Washington Street, Red Bluff, CA 96080	530-527-2605
County of Tehama – Environmental Health 633 Washington St; Rm 36, Red Bluff, CA 96080	530-527-8020
City of Tehama 250 Cavalier Drive, Tehama, CA 96090	530-384-1501
BLM Redding Field Office 355 Hemsted Dr. Redding, CA 96002	530-266-2500
Los Molinos Water CSD 25162 Josephine Street – P.O. Box 211 Los Molinos, CA 96055	530-384-2737
Proberta Water District P.O. Box 134, Porberta, CA 96078	530-527-4185
El Camino Irrigation District 8451 State Highway 99W Gerber, CA 96035-9663	530-385-1559
ACID 2810 Silver Street, Anderson, CA 96007	530-365-7329
Corning Water District P.O. Box 738, Corning, CA 96021	530-824-2914
Deer Creek Irrigation District P.O. Box 3, Vina, CA 96092	530-839-2365
Elder Creek Irrigation District 21430 Gyle Road, Corning, CA 96021	530-385-1381
Gerber – Los Flores CSD 331 San Benito Ave. Gerber, CA 96035	530-385-1904
Paskenta CSD P.O. Box 182, Paskenta, CA 96074	530-833-5376
Richfield Irrigation District 13790 Crestview Dr. Red Bluff, CA 96080	530-527-6117
Thomes Creek Water District 22240 Gallagher Rd. Corning, CA 96021	530-824-3342
Rio Alto Water District P.O. Box 5068, Cottonwood, CA 96022	530-347-3835
Stanford-Vina Irrigation District P.O. Box 248, Vina, CA 96092	530-839-2326
Antelope School District 22630 Antelope Blvd. Red Bluff, CA 96080	530-527-1272
Bend Elementary School 22270 Bend Ferry Rd, Red Bluff, CA 96080	530-527-4648
Corning Union Elementary School District 1590 South Street, Corning, CA 96021	530-824-7700

Corning Union High School District 643 Blackburn Ave. Corning, CA 96021	530-824-8000
Elkins Elementary School P.O. Box 407, Paskenta, CA 96074	530-833-5582
Evergreen Union School District 19500 Learning Way, Cottonwood, CA 96022	530-347-3411
Flournoy Elementary School P.O. Box 2260, Flournoy, CA 96029	530-833-5331
Gerber Union Elementary School District 23014 Chard Ave, Gerber, CA 96035	530-385-1041
Kirkwood Elementary School 2049 Kirkwood Rd, Corning, CA 96021	530-824-7773
Lassen View Elementary School 10818 Hwy 99E, Los Molinos, CA 96055	530-527-5162
Los Molinos Unified School District 7851 Hwy 99E, Los Molinos, CA 96055	530-384-7826
Red Bluff High School Union Street, Red Bluff, CA 96080	530-529-8710
Red Bluff Union Elementary School District 1755 Airport Blvd. Red Bluff, CA 96080	530-529-9308
Reeds Creek School 18335 Johnson Road, Red Bluff, CA 96080	530-527-6006
Richfield School 23875 River Road, Corning, CA 96021	530-824-0569
Capay Joint Union Elementary School 7504 Cutting Ave. Orland, CA 95963	530-865-1222
Capay Fire Protection District P.O. Box 6, Oland, CA 95606	530-796-3300
California Department of Transportation 1657 Riverside Drive, Redding, CA 96001	530-225-3426
Corning Cemetery District 4470 Oren Avenue, Corning, CA 96021	530-824-2255
Red Bluff Cemetery District 735 Cemetery Lane, Red Bluff, CA 96080	530-527-4417
City of Corning 794 Third Street, Corning, CA 96021	530-824-7029