

California State Parks LWCF Service Area Report

Project ID: 1286
Date Created: 03/31/2014
Coordinates: 40.717, -122.207

This is your LWCF Service Area report for the project you have defined.
Please refer to your Project ID in any future communications about this project.

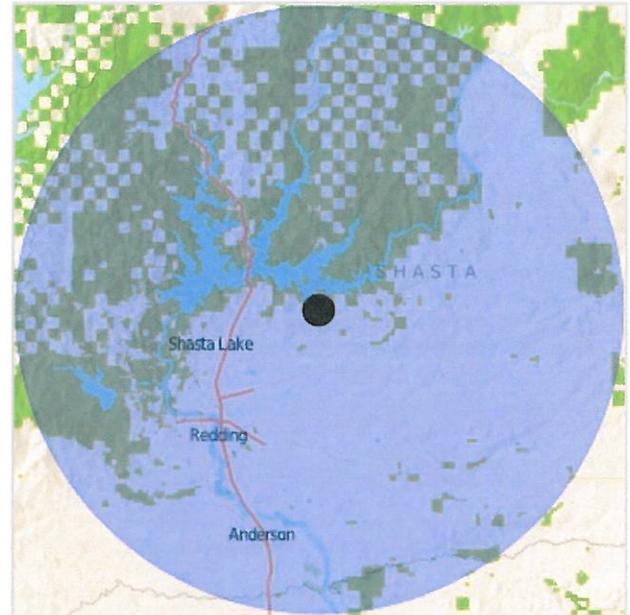
Project Area Statistics

County:	Shasta
City:	Unincorporated
Total Population:	165,265
Margin of Error:	(+/- 3,804)
Per Capita Income:	\$ 26,474
Margin of Error:	(see table next page)
# People Below Poverty:	28,085
Park Acres in Area:	387,671.28
Park Acres / 1,000 Population:	2,345.75

Data Sources:

American Community Survey (ACS) 5-year estimates
Parks data from Calif. Protected Areas Database 2013b (Sept. 2013) -
www.CALands.org

Project Area Map



Report Background

The project area statistics have been calculated based on the selected radius (in miles) from the point location of your project. The buffer is referred to as the project service area.

Population and people in poverty are calculated by determining the percent of any block groups that intersect with the service area. The service area is then assigned the sum of all the block group portions. An equal distribution in block groups is assumed.

Per capita income is calculated as a weighted average of the block group values that fall within the service area.

More information on the calculations, and a detailed description of the margin of error are available at:

http://www.mapsportal.org/lwcf/LWCF_Calculation_Documentation.pdf

Parks and park acres are based on best available source information but may not always contain exact boundaries or all parks in specific locations. Parks acreage does not include major lakes or ocean, and may not include recreation facilities where those occupy most of a site. Users can send update information on parks data to:
parkupdates@parks.ca.gov



LWCF Service Area Calculator
is a service of the
California Department of Parks and Recreation
www.parks.ca.gov

LWCF Service Area Calculator
created by GreenInfo Network
www.greeninfo.org



TABLE OF PER CAPITA INCOME FOR PROJECT AREA

ID	Acres	Acres in SA	PCI	PCI MOE
060890126031	136,052	10,575	\$ 21,462	\$ 8,745
060890127011	242,731	1,947	\$ 19,964	\$ 3,652
060890126041	116,004	50,050	\$ 22,770	\$ 4,919
061030001001	332,266	19,834	\$ 21,657	\$ 4,426
060890119003	1,544	1,543	\$ 38,930	\$ 8,956
060890119004	2,594	2,592	\$ 31,459	\$ 9,775
060890122001	6,593	6,589	\$ 20,694	\$ 3,852
060890126011	300,241	210,005	\$ 23,477	\$ 7,321
060890126012	174,542	133,484	\$ 20,618	\$ 3,305
060890126013	103,852	100,557	\$ 29,974	\$ 5,198
060890126032	8,544	7,797	\$ 25,521	\$ 6,238
060890126033	7,223	5,547	\$ 27,330	\$ 7,416
060890126034	46,340	46,310	\$ 32,920	\$ 11,088
060890126042	62,037	61,997	\$ 24,667	\$ 3,197
061030002001	21,997	80	\$ 17,451	\$ 5,937
061030002002	17,934	1,180	\$ 38,764	\$ 14,861
061030002003	21,554	5,470	\$ 20,838	\$ 2,510
061050001011	206,072	2,974	\$ 18,530	\$ 5,182
060890101001	201	201	\$ 21,568	\$ 20,038
060890101002	138	138	\$ 23,064	\$ 11,310
060890102001	741	740	\$ 25,785	\$ 4,491
060890103001	769	768	\$ 21,130	\$ 4,401
060890103002	459	459	\$ 21,304	\$ 4,089
060890104001	178	178	\$ 11,643	\$ 2,469
060890104002	587	586	\$ 26,664	\$ 7,974
060890104003	408	407	\$ 13,332	\$ 6,008
060890104004	389	389	\$ 28,683	\$ 6,733
060890105001	157	156	\$ 15,160	\$ 3,210
060890105002	591	590	\$ 23,532	\$ 3,804
060890105003	302	302	\$ 15,681	\$ 3,753
060890106011	931	931	\$ 38,865	\$ 7,749
060890106012	371	370	\$ 33,906	\$ 11,689
060890106021	349	349	\$ 20,245	\$ 5,899
060890106022	528	527	\$ 30,138	\$ 9,819
060890106023	431	431	\$ 38,023	\$ 11,712
060890106024	465	465	\$ 32,677	\$ 5,872
060890106031	2,905	2,903	\$ 21,424	\$ 6,226
060890106032	2,462	2,460	\$ 40,560	\$ 8,956
060890107021	1,161	1,160	\$ 24,612	\$ 5,397
060890107022	1,918	1,917	\$ 31,801	\$ 4,051
060890107031	306	305	\$ 20,173	\$ 11,110
060890107032	574	573	\$ 18,734	\$ 3,662
060890107041	209	209	\$ 20,615	\$ 5,554
060890107042	194	194	\$ 24,328	\$ 5,076
060890107043	738	738	\$ 17,883	\$ 8,298
060890108031	345	345	\$ 21,659	\$ 4,472
060890108032	107	107	\$ 24,228	\$ 10,491
060890108033	793	793	\$ 31,611	\$ 4,815
060890108041	1,427	1,426	\$ 23,262	\$ 6,238
060890108042	594	593	\$ 36,502	\$ 6,630



TABLE OF PER CAPITA INCOME FOR PROJECT AREA

ID	Acres	Acres in SA	PCI	PCI MOE
060890108051	1,257	1,257	\$ 26,437	\$ 7,519
060890108052	1,005	1,005	\$ 22,188	\$ 3,457
060890108061	2,685	2,683	\$ 21,847	\$ 9,321
060890108062	303	303	\$ 17,897	\$ 4,446
060890108071	2,721	2,719	\$ 26,195	\$ 4,432
060890108072	1,614	1,613	\$ 23,090	\$ 3,361
060890109001	418	417	\$ 14,864	\$ 2,591
060890109002	794	793	\$ 21,967	\$ 4,593
060890110011	1,901	1,900	\$ 31,721	\$ 5,917
060890110012	9,366	9,359	\$ 45,048	\$ 9,549
060890110021	706	705	\$ 27,139	\$ 5,546
060890110022	433	433	\$ 31,552	\$ 7,411
060890110023	625	625	\$ 21,062	\$ 4,292
060890110024	868	867	\$ 17,909	\$ 3,896
060890111001	680	679	\$ 26,770	\$ 4,629
060890111002	665	665	\$ 25,563	\$ 5,546
060890112091	189	189	\$ 15,045	\$ 3,855
060890112092	213	213	\$ 13,037	\$ 4,677
060890112093	367	367	\$ 15,228	\$ 4,136
060890112094	132	132	\$ 10,937	\$ 2,826
060890113001	247	247	\$ 19,633	\$ 3,372
060890113002	141	140	\$ 17,082	\$ 4,618
060890113003	227	227	\$ 26,202	\$ 6,642
060890113004	219	219	\$ 17,822	\$ 3,306
060890114011	189	189	\$ 21,101	\$ 4,490
060890114012	218	218	\$ 28,974	\$ 12,776
060890114013	274	273	\$ 25,306	\$ 4,303
060890114021	376	376	\$ 44,017	\$ 6,573
060890114022	227	227	\$ 23,501	\$ 4,555
060890114031	1,685	1,684	\$ 24,778	\$ 4,996
060890114032	310	310	\$ 23,291	\$ 8,889
060890115001	1,813	1,811	\$ 19,533	\$ 6,886
060890115002	3,394	3,392	\$ 28,543	\$ 11,049
060890115003	1,758	1,757	\$ 23,128	\$ 4,024
060890115004	3,628	3,625	\$ 22,752	\$ 5,842
060890116001	2,947	2,945	\$ 21,100	\$ 5,569
060890116002	8,811	8,804	\$ 17,404	\$ 4,119
060890116003	944	943	\$ 12,523	\$ 5,618
060890117011	538	537	\$ 16,865	\$ 7,562
060890117012	566	565	\$ 26,904	\$ 5,174
060890117021	154	154	\$ 15,540	\$ 5,918
060890117022	886	885	\$ 17,926	\$ 6,356
060890117023	179	179	\$ 21,369	\$ 6,189
060890117031	617	617	\$ 19,970	\$ 5,081
060890117032	276	276	\$ 17,000	\$ 3,396
060890117033	1,489	1,488	\$ 17,620	\$ 3,279
060890118011	5,100	5,097	\$ 33,768	\$ 11,686
060890118012	3,568	3,566	\$ 21,272	\$ 4,215
060890118021	2,864	2,862	\$ 50,727	\$ 11,459
060890118022	8,213	8,207	\$ 22,938	\$ 3,558



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ID	Acres	Acres in SA	PCI	PCI MOE
060890118031	11,658	11,650	\$ 31,259	\$ 14,380
060890118032	2,561	2,559	\$ 44,889	\$ 11,852
060890118033	7,934	7,928	\$ 10,862	\$ 3,790
060890119001	8,982	8,975	\$ 30,940	\$ 5,118
060890119002	3,335	3,333	\$ 24,448	\$ 5,541
060890120001	677	676	\$ 19,133	\$ 5,764
060890120002	198	198	\$ 16,329	\$ 2,574
060890120003	206	206	\$ 9,019	\$ 3,059
060890120004	1,604	1,603	\$ 23,807	\$ 3,437
060890121011	147	147	\$ 20,161	\$ 5,386
060890121012	272	272	\$ 14,236	\$ 4,011
060890121013	1,030	1,029	\$ 19,355	\$ 2,969
060890121021	1,567	1,566	\$ 27,633	\$ 7,527
060890121022	1,123	1,122	\$ 16,213	\$ 3,449
060890122002	5,223	5,219	\$ 35,544	\$ 20,088
060890122003	550	550	\$ 15,771	\$ 3,128
060890122004	505	505	\$ 18,908	\$ 3,522
060890123011	2,235	2,233	\$ 17,526	\$ 2,486
060890123012	2,068	2,066	\$ 21,509	\$ 4,564
060890123021	5,637	5,633	\$ 23,383	\$ 3,343
060890123022	2,189	2,187	\$ 21,123	\$ 3,182
060890123023	3,540	3,537	\$ 23,603	\$ 6,180
060890123024	12,023	11,805	\$ 22,307	\$ 4,201
060890123031	8,175	6,727	\$ 27,597	\$ 6,919
060890123032	10,076	10,069	\$ 27,727	\$ 6,330
060890124001	162,250	142,415	\$ 24,860	\$ 3,859
060890124002	158,597	8,190	\$ 33,162	\$ 21,133
060890124003	70,137	21,314	\$ 35,479	\$ 5,345
060890125001	238,381	119,750	\$ 28,627	\$ 9,496
060890125002	62,671	61,634	\$ 43,423	\$ 10,021



Les Baugh
County Member

Irwin Fust
Special District Alternate

Rick Bosetti
City Member

Dick Fyten
Public Member

Larry Farr
City Member Alternate

Pam Giacomini
County Member Alternate

David Kehoe
County Member

Bob Richardson
Public Member Alternate

James Yarbrough
City Member

Brenda Haynes
Special District Member

Stephen Morgan
Special District Member

Jan Lopez
Executive Officer



NOTICE OF INTENT TO ADOPT – STATUTORY EXEMPTION

Date: 3/25/2014

To: Affected and Interested Agencies and Persons

From: Shasta LAFCO, Local Agency Formation Commission

Project Title: Shasta Mosquito and Vector Control District

Project Location-Specific: Anderson, Clear Creek, Cottonwood, Shasta County, see attached map

Project Location: Unincorporated

Project County: Shasta

Description of nature, purpose and beneficiaries of project: Establish Municipal Service Review and Sphere of Influence boundary update pursuant to G.C. 56425. This project does not include any boundary changes. Please see Exhibit A, Map of Sphere of Influence Update attached herewith and incorporated by reference.

Name of Public Agency Approving Project: SHASTA LAFCO

Name of Person or Agency Carrying out the project: SHASTA LAFCO

Exempt Status (check one)

- Ministerial (Section 21080(b)(1); 15268);
- Declared Emergency (Section 21080(b)(3); 15269(a));
- Emergency Project (Section 21080(b)(4); 15269(b)(c));
- Categorical Exemption. *State type and section number.* Click here to enter text.
- Statutory Exemption. *State code number.* Other Guidelines Section 15262 – Feasibilities & Planning Studies (Section 21083, Public Resources Code)

Reasons why project is exempt: Project comprised of studies and evaluations and establishment of planning boundary for future growth pursuant to the requirements of G.C. 56425. There is no material effect on lands within the study area.

Lead Agency

Contact Person: Jan Lopez

Phone: 530-242-1112

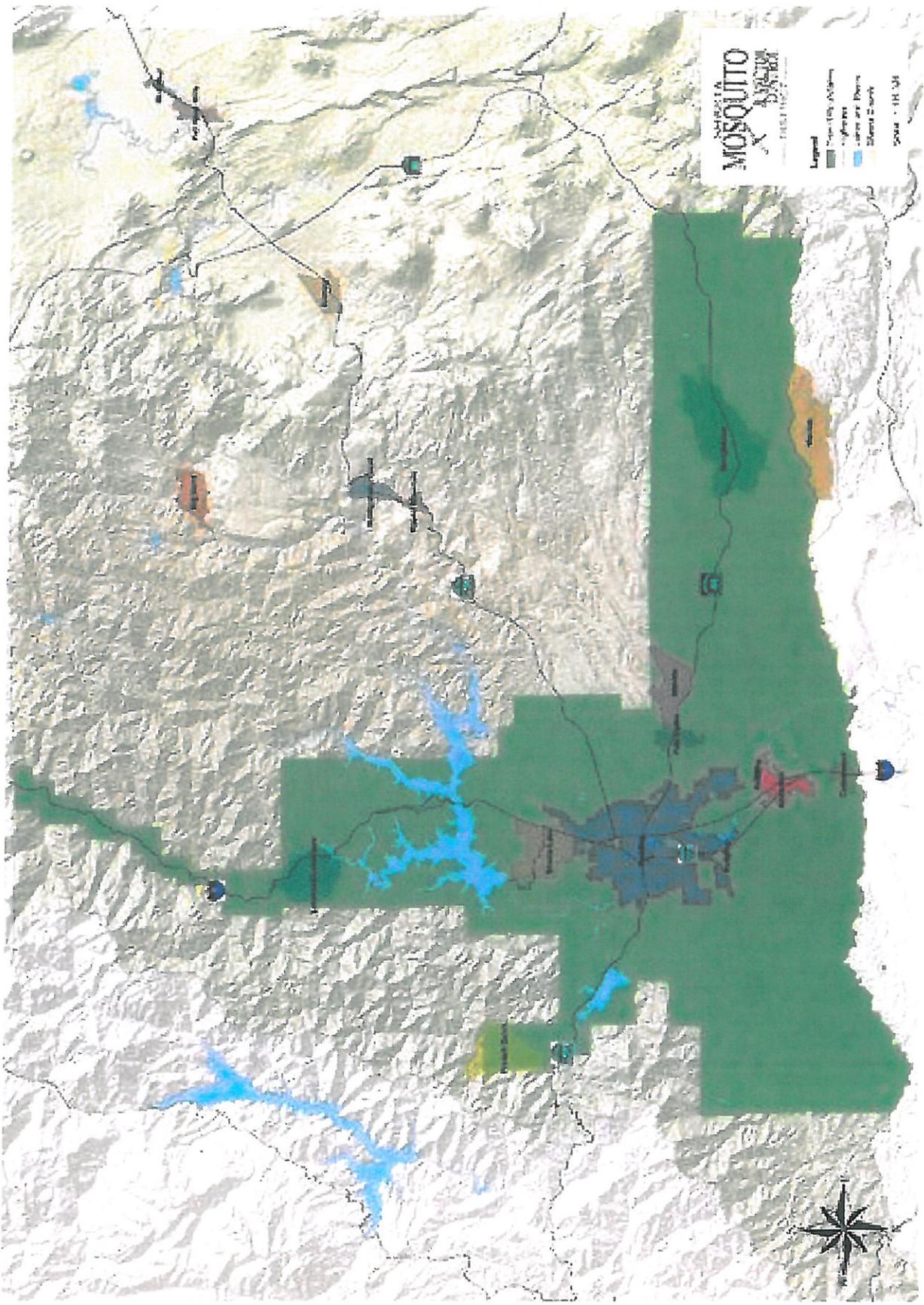
Title: Executive Officer

E-mail: exec@shasta.lafco.ca.gov

Signature: _____

Date: _____

3-25-2014



MOSQUITO MOUNTAINS

- Legend**
- Town City Villages
 - Highways
 - Water and Rivers
 - Mountains

Scale - 1:10,000



State of California - Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Region 1 - Northern
601 Locust Street
Redding, CA 96001
<http://www.wildlife.ca.gov>

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director



CEQA Filing Fee No Effect Determination

Applicant Name and Address:

Shasta Local Agency Formation Commission
2516 Goodwater Avenue, Suite A
Redding, CA 96002

CEQA Lead Agency: Shasta Local Agency Formation Commission

Project Name: Shasta Mosquito and Vector Control District – MSR & SOI Update 2014

CEQA Document Type: Statutory Exemption, Section 15262 – Feasibility & Planning Studies

State Clearing House Number and/or local agency ID number: N/A

Project Location: Shasta County

Brief Project Description: This mandated update establishes baseline information for this special district's services and sphere of influence boundaries. The District includes Anderson, Clear Creek, Cottonwood & Shasta County, totaling 1,100 square miles and accommodates the establishment of local mosquito zones where needed or desired in local communities. Zones are established by the district, without LAFCO review. All boundary lines are coterminous with current boundary districts.

Determination: Based on a review of the project as proposed, the Department of Fish and Wildlife has determined that for purposes of the assessment of CEQA filing fees (Fish and G. Code § 711.4(c)) the project has no effect on fish, wildlife or their habitat and the project as described does not require payment of a CEQA filing fee. This determination does not in any way imply that the project is exempt from CEQA and does not determine the significance of any potential project effects evaluated pursuant to CEQA.

Please retain this original determination for your records. Local lead agencies are required to file two copies of this determination with the county clerk at time of filing of the Notice of Determination (NOD) after the project is approved. State lead agencies are required to file two copies of this determination with the Governor's Office of Planning and Research (State Clearinghouse) at the time of filing the NOD. If you do not file a copy of this determination as appropriate with the county clerk or State Clearinghouse at the time of filing of the NOD, the appropriate CEQA filing fee will be due and payable.

Without a valid CEQA Filing Fee No Effect Determination form or proof of fee payment, the project will not be operative, vested, or final and any local permits issued for the project will be invalid, pursuant to FGC Section 711.4(c)(3).

CDFW Approved By:  Date: March 27, 2014

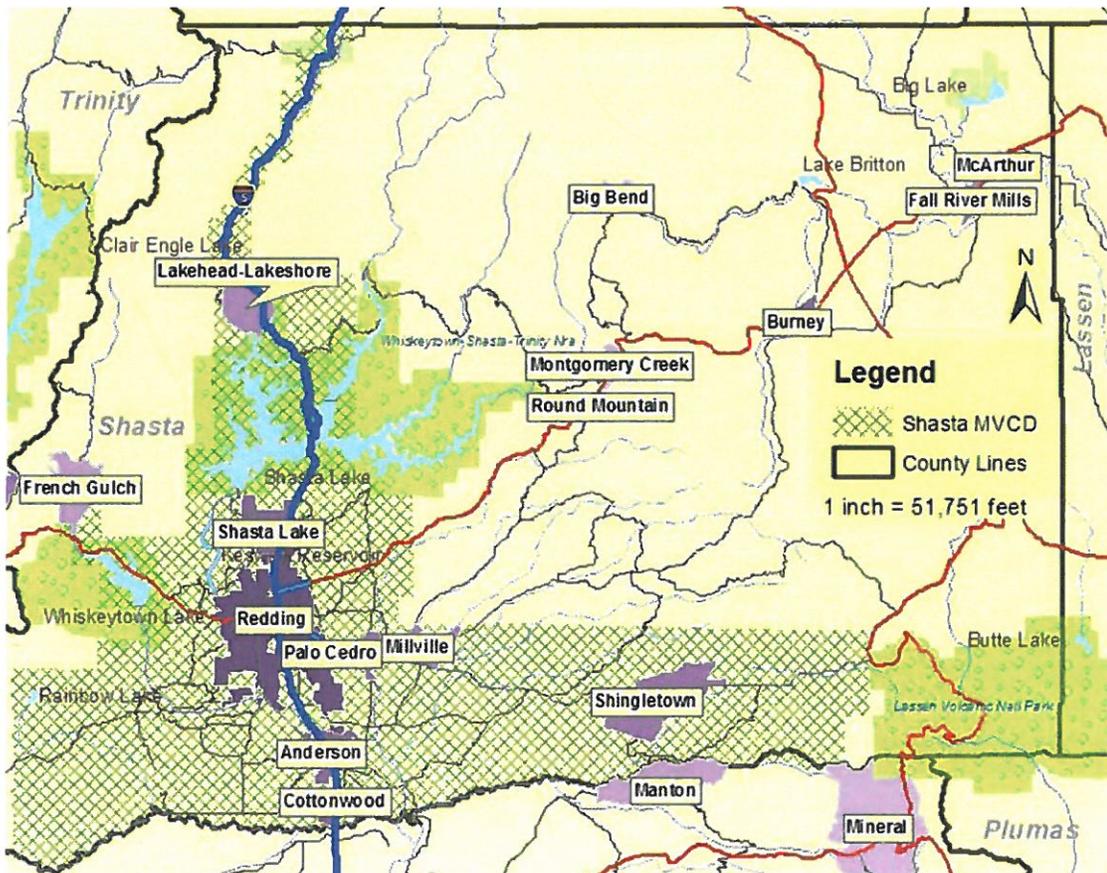
Title: Interior Conservation Program Supervisor



Shasta Mosquito and Vector Control Pesticide Application Plan

The Discharger shall develop a Pesticides Application Plan (PAP) that contains the following elements:

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 extend from Castella on the north to Cottonwood Creek on the south and from the town of French Gulch on the west to Viola on the east.

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 adjuvants 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, helicopter, or airplane according to label directions.

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 by this District include:

Agricultural

Pastures:

Irrigated and non-irrigated fields used for the purpose of raising livestock.

Stock Ponds:

Artificially constructed ponds to catch and hold runoff water used for stock watering or irrigation.

Agricultural drains:

Ditches used for draining excess water from agricultural operations.

Return Sumps:

Holding ponds used to collect excess agricultural water for return to fields or disposal to another source.

Watering troughs:

Tanks, troughs, or other containers used for watering stock.

Tail Water:

* Asterisks indicate terms that are defined in Attachment A of the NPDES Permit for Vector Control

Water left in low portions of an agricultural field from irrigation.

Natural

Creeks:

Natural, or slightly modified main channels of creeks.

Creek Isolations:

Isolations holding water that are separated from the main creek channel.

Marshes:

Shallow marshy areas, artificial or natural with emergent vegetation.

Lakes (20 acres+):

Natural or artificial bodies of water, usually deeper than 20 feet.

Ponds (less than 20 acres):

Natural or artificial bodies of water, usually shallower than 20 feet.

Treeholes:

Rot cavities or cavities caused by tree growth.

Temporary pools (Storm water):

Areas that collect rain water or in domestic areas occasionally collect irrigation water.

Temporary pools (Vernal Pools):

Seasonal depression wetlands. They are covered by shallow water for variable periods from winter to spring, but may be completely dry for most of the summer and fall.

Domestic

Stock Ponds:

Artificially constructed ponds to catch and hold runoff water used for stock watering or irrigation.

Fish Ponds:

Artificially constructed landscape ponds for fish or accent.

Septic tanks:

Underground storage and processing tanks for sewage.

Wells: Drilled or dug wells for water, usually old and no longer used.

Swimming Pools/Hot Tubs: In ground or above ground neglected swimming pools

Bird Baths: Small pools or ornamental structures for bird bathing.

Cesspools: Open collection ponds for sewage (not legal)

Domestic Container: Any container-bucket, tub, boat, barrel, wheelbarrow, etc. found in a yard and containing water.

Commercial

Catch basins, gutters: Basins or gutters used to collect and direct runoff water. Found in streets, parking lots, loading docks or private driveways.

Storm drains: Underground structures for carrying runoff water.

Gravel pits: Pond or pit created to mine gravel.

Borrow pit: Pits or depressions created to obtain soil for construction. Usually found along railroad tracks, or occasionally buildings.

Sewer ponds/treatment plants: Ponds and water holding structures used for sewage treatment.

Utility vaults: Underground structures for utilities; PG&E, water departments, telephone, REU or private.

Cemetery urns: Containers provided for flowers at grave sites.

Sumps: Holding ponds or structures for collecting industrial waste water or runoff.

Sewer lines: Underground structures for collecting and carrying sewage.

Log Mill Ponds: Ponds/Ditches created by sprinklers being utilized over the log decks to keep the lumber from drying out.

Channel (lined): Channels lined with rock or concrete used for flood control or to collect runoff.

Channel (unlined): Channels with soil bottoms and sides used for flood control or to collect runoff.

Waste water marsh: Marsh constructed to hold or treat waste water, usually sewage.

Tires: Stored or discarded tires.

Broken or Leaking pipes: Water sources created by broken or leaking pipes.

Seepage: Water sources created by seepage from natural or unknown sources.

See map above for potential treatment areas (section 1)

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 the District include stocking mosquito fish (*Gambusia affinis*), educating residents that mosquitoes develop in standing water and encouraging them to remove sources of standing water on their property, and working with property owners to find long-term water management strategies that meet their needs while minimizing the need for public health pesticide applications.

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 SMVCD’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.

Registration Number	Product Name	Amount
2724-448	Zoecon Altosid Pellets	4000 lbs
2724-375	Zoecon Altosid Briquets	400 briquets
2724-421	Zoecon Altosid XR Extended Release Briquets	1500 briquets
2724-392	Zoeson Altosid Liquid Larvicide	4 gallons
8329-72	Mosquito Larvicide GB-1111	100 gallons
73049-10	Vectobac G	350 lbs
73049-57	Vectolex WDG	35 lbs
73049-429	VectoMax CG	3000 lbs
73049-38	Vectobac 12AS	15 gallons
70589-1	BVA 2 Mosquito Larvicide Oil	100 gallons
73049-20	Vectolex CG	600 lbs
8329-70	5% Skeeter Abate	250 lbs
1021-1688	Anvil 10 + 10 ULV	700 gallons
1021-1795	Duet Dual-Action Adulticide	250 gallons
67760-34	Fyfanon ULV Mosquito	25 gallons
432-1050	Pyrenone 25-5 Public Health Insecticide	10 gallons

2724-791	Zenivex E20	100 gallons
8329-80	Natular G	600lbs
8329-84	Natular XRT	1000 tablets
83362-3	Fourstar Briquets	2000 briquets

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 SMVCD 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 SMVCD 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 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 SMVCD 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 depend on 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 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 SMVCD, 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.

www.shastamosquito.org

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 SMVCD at (530)365-3768.

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 SMVCD at (530) 365-3768.

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