

SWRCB Received Date:
4/14/2016

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	<input checked="" type="checkbox"/> A. New Applicator	<input type="checkbox"/> B. Change of Information: WDID# _____
	<input type="checkbox"/> C. Change of ownership or responsibility: WDID# _____	
	<input type="checkbox"/> D. Enrolled under Order 2011-0002-DWQ: WDID# _____	

II. DISCHARGER INFORMATION

A. Name Department of Health and Human Services Bureau of Environmental Health Vector Control Program			
B. Mailing Address 2525 Grand Avenue			
C. City Long Beach	D. County Los Angeles	E. State CA	F. Zip Code 90815
G. Contact Person Lamar Rush	H. Email address lamar.rush@longbeach.gov	I. Title Supervisor	J. Phone 562-570-4090

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: _____
Name of the conveyance system: _____

3. Directly to river, lake, creek, stream, bay, ocean, etc.
Name of water body: _____

* 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 4
(REGION 1, 2, 3, 4, 5, 6, 7, 8, or 9): Region _____
(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

See Attachment B

C. Period of Application: Start Date January 1, 2015 End Date December 31, 2015

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?
 Yes No

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

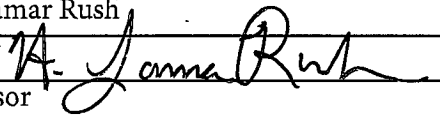
VIII. FEE

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 Order, including developing and implementing a monitoring program, will be complied with."

A. Printed Name: Lamar Rush

B. Signature:  Date: April 14, 2016

C. Title: Supervisor

X. FOR STATE WATER BOARD USE ONLY

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



CITY OF LONG BEACH

DEPARTMENT OF HEALTH AND HUMAN SERVICES
BUREAU OF ENVIRONMENTAL HEALTH



2525 GRAND AVENUE ROOM 220 • LONG BEACH, CALIFORNIA 90815 • (562) 570-4132
WWW.LONGBEACH.GOV/HEALTH/EH

April 11, 2016

Gil Vazquez
Division of Water Quality
c/o NPDES Wastewater Unit
State Water Resources Control Board
1001 I Street, 15th Floor
Sacramento, CA 95814

RE: Application for 2016 – 2021 Permit NPDES# CAG 990004

Dear Mr. Vazquez:

The attached Notice of Intent (NOI) and Pesticide Application Plan (PAP) represents the City of Long Beach Vector Control Program's (LBVCP) new NPDES Application submission for the years 2016 – 2021. Please also find attached a check for \$241 to cover the application fee.

Per Attachment B, Section V.B.4 of the General Permit:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure 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 and imprisonment for knowing violations." (40 C.F.R. § 122.22(d).)

If you have any questions regarding this application, please contact our office.

Sincerely,

A handwritten signature in black ink, appearing to read "N. Kerr", written over a horizontal line.

Nelson Kerr, REHS, MPA
Manager, Bureau of Environmental Health

City of Long Beach
Department of Health & Human Services
Vector Control Program
Pesticide Application Plan
(Revised March 2016)

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, 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 areas; see attached map

Additional target areas, other than water bodies, would include:

1. Flood control channels, basins, freeway drains, pump stations, storm drains, and any other conveyance for water runoff in an urban/ suburban area.
2. Roadside low-spots, backyard pond and pools.

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

For more than 38 years, the Long Beach Vector Control Program has actively engaged in mosquito control and surveillance in Long Beach, California. Personnel from this agency are certified by CDPH and trained to control mosquitoes safely and effectively by utilizing Integrated Pest Management (IPM) and Best Management Practices (BMPs).

Pesticides specific for controlling larvae or adults are only used by LBVCP when other alternative or preventive methods are not possible or are not successful. Our strategies for making these decisions are detailed below:

Surveillance of Mosquito Larvae and Adults:

The Long Beach Vector Control Program uses adult surveillance to identify mosquito populations in a known mosquito breeding source/habitat.

Several types of traps are used for adult surveillance since most mosquitoes are attracted to different traps depending on their species, sex and physiological condition. The most common traps use light, carbon dioxide, water for egg laying, and a resting area.

LBVCP uses light, carbon dioxide and gravid traps. Trapped adults provide information about local distribution, density and identity. The size of an adult mosquito population can be assessed by the number and distribution of service request from the public. The LBVCP use the data to help locate new sources of mosquitoes or known sources with a recurrent problem. LBVCP has 22 known sources where traps are placed weekly.

Please see attached Surveillance Map:

Control Strategies:

The Long Beach Vector Control Program has been most successful with the use of biological control agents, including native or introduced predators, and combining water management practices to control mosquitoes. See item #9 for specific details.

Providing Education Programs:

LBVCP has developed and provided educational materials to the public relating to disease transmission by mosquitoes, mosquito breeding prevention, and how to report mosquito breeding to our program. In addition, program staff attend numerous outreach activities throughout the City to provide these materials to the public. We also work with our various City Departments to distribute these materials at outdoor summer events like Concerts in the Park and Outdoor Movie nights.

Establishing Action Thresholds:

When the trap counts exceed our threshold levels, and fish and water management practices do not bring the trap count down to acceptable counts, then decisions on whether or not to use pesticides will be considered by LBVCP field, supervisor, and management staff. Only approved pesticides will be used in areas that will not adversely affect the environment and aquatic life.

Specific example: Decisions to use pesticides for control of mosquitoes are based on several factors. This includes but is not limited to, adult mosquito counts, growth stage of a mosquito, habitat that may affect efficacy of

certain pesticides, and ability to implement BMPs (such as managing vegetation routinely) in a timely fashion to prevent emergence.

Managing vegetation routinely (annual thinning of rushes and cattails and removing excess vegetative debris) enables mosquito fish and natural predators to hunt mosquito larvae more effectively in permanent wetlands. Vegetation in shallow, temporary wetlands can be mowed when dry. The Long Beach Vector Program staff are aware of environmental issues, such as "nesting season" and will proceed in a manner that does not cause any unnecessary impacts. When the emergence of adult mosquito counts and/or virus activity occurs in because areas where managing vegetation was not done in a timely fashion and/or routinely, LBVCP staff will treat the water with the larvicide Bacillus sphaericus (Vectolex CG). This Approach provides effective control with minimal impacts to the environment and local eco system.

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 Notice of Intent – Attachment B

PESTICIDE USE 2015		
Material	Pounds	Gallons
Altosid Liquid		4
Methprene 5%		5
Golden Bear-1111		30
Vectolex CG	400	
Bioist 4+12 ULV		1.5
Vectolex WDG	60	

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 LBVCP'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 2 above. All water within the contiguous boundaries of the City of Long Beach subject to periodic breeding of mosquitoes, biting midges or non-biting midges, requires either routine or occasional treatment with pesticides labeled for use to control their immature stages. The typical sources treated by this program include:

1. Any and all-navigable waters in the City Of Long Beach City that breed mosquitoes and midges.
2. Flood control channels, basins, freeway drains; pump stations, storm drains and any other conveyance for water runoff in an urban/suburban area.
3. Roadside low-spots, backyard pond and pools.

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

With any source of mosquitoes or other vectors, the LBVCP'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 agency include stocking mosquito fish (*Gambusia affinis*), educating residents regarding mosquitoes breeding in standing water and encouraging them to remove sources of standing water on their property. LBVCP staff also work with property owners to find long-term water management strategies that meet their needs while minimizing the need for public health pesticide applications. LBVCP never applies mosquito adulticides over permanent bodies of water, lakes, rivers permanent streams, natural ponds, commercial fishponds, swamps, marshes or estuaries. LBVCP always complies with application requirements as indicated on the label of the product.

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 mosquito abundance. The pesticide amounts presented below were taken from the LBVCP's 2015 PUR as an estimate of

pesticide use in 2016. Other public health pesticides in addition to those listed below may be used as part of the agency's best management practices. The amount of product anticipated for use in 2016:

Golden Bear-1111, 30 gallons
Vectolex CG, 400 lbs.
Biomist 4+12 ULV, 1.5 gallons

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:

Long Beach Vector Control has applied the following alternatives to pesticide usage:

LBVCP, in a coordinated effort with the Los Cerritos Wetlands Stewards, Inc. uses infrastructure maintenance in the Permanent Wetlands (Sims Pond and the Los Cerritos Wetlands)

Wetlands Infrastructure Maintenance Includes:

1. Periodically inspect, repair and clean water control structures of all debris, including silt and vegetation, which can impede drainage and water flow. Ensure water control structures are water tight to prevent unnecessary water flow or seepage. Regularly remove trash, slit and vegetation from water delivery ditches to allow efficient water delivery and drainage. Remove problem vegetation that inhibits water flow using periodic dredging.
2. LBVCP oversees the Vegetation Management Practices performed by Los Angeles County Department of Public Works in a five-mile area along the Los Angeles River in Long Beach. Los Angeles Public Works manages the spread and density of floating and submerged vegetation to control mosquito populations along the river.
3. LBVCP practices Biological Control in Flood Managed Wetlands from permanent water sources (Simms Pond, and De Forrest Park). These areas contain mosquito predators (e.g. mosquito eating fish, invertebrate

predators, and birds). The effectiveness of LBVCP Best Management Practices is evaluated by LBVCP's Mosquito Monitoring and Surveillance Section.

Monitoring and Surveillance Procedures Include:

LBVCP has conducted ongoing mosquito control and surveillance for over 38 years and has established 22 sites for monitoring populations. Our program conducts ongoing mosquito larvae surveillance and evaluation of larval populations on wetlands that produce mosquitoes capable of migrating into populated areas. We also collect and monitor data from mosquito traps, complaints, and reports from the public and correlate seasonal records with weather data to evaluate trends. We also monitor adult mosquito distributions throughout the City and accurately identify, map, and monitor areas that may produce mosquitoes. And finally, the LBVCP tailors control measures for each site, contingent on the species of mosquitoes that are present.

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

The LBVCP's BMPs are described in Item 2 above.

a. Measures to prevent pesticide spill;

All pesticide applicators receive annual spill prevention and response training. Agency 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 LBVCP 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. This Program does not administer or contract for aerial adulticiding treatments.

e. **Descriptions of specific BMPs for each pesticide product used; and** Please see item 2 above 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 item 2 above.

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 LBVCP 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 Program'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 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 the Program's preferred solution, and whenever possible the Program works with property owners to implement long-term solutions to reduce or eliminate the need for continued pesticide applications as described in Item 2 above.

- 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 item 2 above. The LBVCP continually collects adult and larval mosquito surveillance data, dead bird reports, and sentinel chicken test results, 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.

- 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 LBVCP 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. 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 in item 2 above. Implementing preferred alternatives depends on 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 LBVCP follows an existing IVM program, which includes practices, described in item 2 above.

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 number of vectors may pose a substantial threat to public health and quality of life. 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 Usage 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 LBVCP 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 units.

13. If applicable, specify a website where public notices, required in Section VIII.B, may be found.

http://www.longbeach.gov/health/wnv_info/default.asp

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 LBDHHSVCP at (562) 570-4090.

California Mosquito-borne Virus Surveillance and Response Plan. 2011. [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 LBDHHSVCP at (562) 570-4090.

MVCAC NPDES Coalition Monitoring Plan. 2016. [In development at the time of this draft]

Best Management Practices and Monitoring Plan For the City of Long Beach Department of Health and Human Services Vector Control Program. 2016. Copies may be requested by calling the LBDHHSVCP at (562) 570-4090.

MOSQUITO ABATEMENT YEAR 2015

Annual Report 2015 Attachment B

VECTOR SPECIALIST	DATE	SOURCE NAME / SITE ADDRESS	HABITAT / AREA TREATED	CHEMICAL USED	EQUIPMENT USED	LATITUDE	LONGITUDE
Eddie G.	2/12/2015	Cal Bowl	drain	Vectorex G 40 lbs	Back Pack		
Eddie G.	2/12/2015	Hamilton Bowl	drain	Vectorex G 20 lbs	Back Pack	33.793333	-118.171944000
Eddie G.	2/17/2015	Sims Pond	wet lands	Vectorex G 40 lbs	Back Pack	33.767222	-118.120556000
Alvin B.	2/19/2015	SERRF	drain, standing water	GB1111 1 gal.	B&G	33.758476	118.240900000
David G.	2/19/2015	Jackson Creek (Park)	drains, channels	GB1111 0.15 oz	B&G	33.834444	118.196944000
David G.	2/19/2015	Scherer Park	drain, standing water, pond	GB1111 1 gal.	B&G	33.5059926	118.186501000
David G.	2/20/2015	Pump Station #11, #12 & #13	drain	GB1111 12 oz	B&G		
Eddie G.	2/23/2015	Colorado Lagoon	drain	GB111113 3 oz	B&G	33.759444	-118.106111000
David G., Alvin B.	2/23/2015	Deforest Park & Nature Walk	catch basin	Vectorex 1 lb, GB1111 1 gal	Back Pack & B&G	33.863611	-118.194167000
Eddie G.	2/23/2015	Sims Pond	Pond	Vrctorex G 60lbs		33.767222	-118.120556000
David G.	2/24/2015	San Antonio Golf Course	ponds, drain, standing water	GB111113 3 oz	B&G		
David G.	2/24/2015	Los Cerritos Park	drain, ditch	GB1111 3 oz	B&G	33.845833	-118.203611000
David G.	2/25/2015	North LB drain	drain	GB1111 1 gal.	B&G	33.842119	118.196712000
David G.	3/3/2015	Jackson Creek & Park, Scherer Park	ponds, standing water, drains standing water, channel,	GB1111.1 gal	B&G	33.83444	118.196940000
David G.	3/4/2015	North LB drain/channel	catch basin	Vectorex 2 lbs	Back Pack	33.842119	118.196712000
David G.	3/10/2015	Deforest Nature Walk & Park	catch basin	GB1111 12 oz	B&G	33.863611	-118.194167000
David G.	3/11/2015	Scherer Park	channel	GB1111 3 oz	B&G	33.5059926	118.186501000
David G.	3/11/2015	Jackson Park & Creek	channel	GB1111 6 oz	B&G	33.834444	118.196944000
David G.	3/12/2015	North LB drain	channel	GB1111 10 oz	B&G	33.842119	118.196712000
Alvin B.	3/12/2015	SERRF	SERRF	GB1111 1 gal	B&G	33.758476	118.240900000
David G.	3/16/2015	Deforest Park & RV	catch basin	GB1111 12 oz	B&G	33.863611	-118.194167000
David G.	3/17/2015	Pump Station #11, #12 & #13	standing water	GB1111 9 oz	B&G		
Eddie G./Alvin B.	3/19/2015	Sims Pond	pond	Vectorex G 60 lbs	Back Pack	33.767222	-118.120556000
David G.	3/24/2015	Deforest Park	catch basin	Vectorex 0.5 lbs	Back Pack	33.863611	-118.194167000
David G.	4/21/2015	47th & Virginia St.	channel	GB1111 1 gal.	B&G		
Eddie G.	4/22/2015	Sims Pond area	streets	Vectorex G 20 lbs	Back Pack	33.767222	-118.120556000

MOSQUITO ABATEMENT YEAR 2015

David G.	4/23/2015	Jackson Park	channel	GB1111 0.5 gal	B&G	33.834444	118.196944000
Eddie G./Lamar R.	4/30/2015	Community Hospital area	streets	Vectorex WDG 10 gal. dilluted	Truck Sprayer		
Eddie G./Lamar R.	4/30/2015	Sims Pond	Pond, mosquitoes	Vectorex WDG - 10 gal. dilluted	Truck Sprayer	33.767222	-118.120556000
Eddie G./Lamar R.	4/30/2015	Sims Pond	Pond, mosquitoes	Vectorex G - 20 lbs	Back Pack	33.767222	-118.120556000
Eddie G./Lamar R.	4/30/2015	Wrigley area	streets	GB1111 8 oz	B&G		
Alvin B.	5/8/2015	SERRF	Catch Basin	Goldenbear	B&G	33.758476	118.240900000
Eddie G.	5/19/2015	Hamilton Bowl	Drain	Vectorex G 10 lbs	Backpack	33.793333	-118.171944000
Eddie G.	5/20/2015	Sims Pond Area	Pond	Vectorex WDG 10 gal. dilluted	Truck Sprayer	33.767222	-118.120556000
Alvin B.	5/27/2015	SERRF	Catch Basin	Goldenbear	B&G	33.758476	118.240900000
David G.	6/2/2015	Deforest Park & Nature Walk	Channels	GB1111 1 Gal	B&G	33.863611	-118.194167000
Alvin B.	6/6/2015	300 Ocean	streets	GB1111	B&G		
David G.	6/9/2015	Jackson Park	Drains / Creeks	GB1111 6oz	B&G	33.834444	118.196940000
Eddie G.	6/12/2015	750 Temple	Drains	GB1111 2oz	B&G		
Eddie G.	6/15/2015	234 Euclid	Drains	GB1111 2oz	B&G		
Eddie G.	6/17/2015	Sims Pond	Pond	Vectorex G 20 lbs	Back Pack	33.767222	-118.120556000
Eddie G.	6/23/2015	Community Hospital area	streets	GB1111 8oz	B&G		
Eddie G.	6/25/2015	Sims Pond Area	streets	Vectorex WDG 16oz	Spray Truck	33.767222	-118.120556000
Alvin B.	6/27/2015	3739 California Ave	streets	Vectorex WDG 16oz	Spray Truck		
David G.	6/30/2015	Deforest Park & Nature Walk	Ponds / Drains	GB1111 4oz	B&G	33.863611	-118.194167000
Alvin B.	7/1/2015	2665 Pler S Lane	Vault	GB1111 1/2 gal	B&G		
Alvin B.	7/6/2015	2665 Seaside Blvd	Sewers	GB1111 1/2 gal	B&G		
Alvin B.	7/8/2015	2665 Seaside Blvd	Sewers		Back Pack		
Alvin B.	7/13/2015	2395 Eucalyptus Ave	Streets	GB1111 1/2 gal	B&G		
Eddie G.	7/13/2015	Hamilton Bowl	Streets	Vectorex WDG 20 gal	Spray Truck	33.793333	-118.171944000
Eddie G.	7/16/2015	Belmont Shore/Broadway	Streets	Vectorex WDG 8oz	Spray Truck		
Eddie G.	7/16/2015	Sims Pond	Pond	Vectorex G. 20lbs	Back Pack	33.767222	-118.120556000
Alvin B.	7/24/2015	2395 Eucalyptus Ave	Streets	Goldenbear	B&G		
Alvin B.	7/24/2015	2230 Eucalyptus	streets	Goldenbear	B&G		
Alvin B.	7/29/2015	1101 E. 46th Street	Sidewalk/ Curbs	GB1111 4oz	B&G		
David G.	8/3/2015	Derforest Park & Nature Walk	Channel / Drains	GB1111 8oz	B&G	33.863611	-118.194167000

MOSQUITO ABATEMENT YEAR 2015

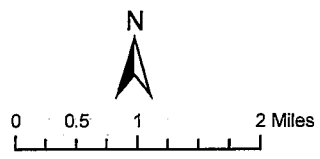
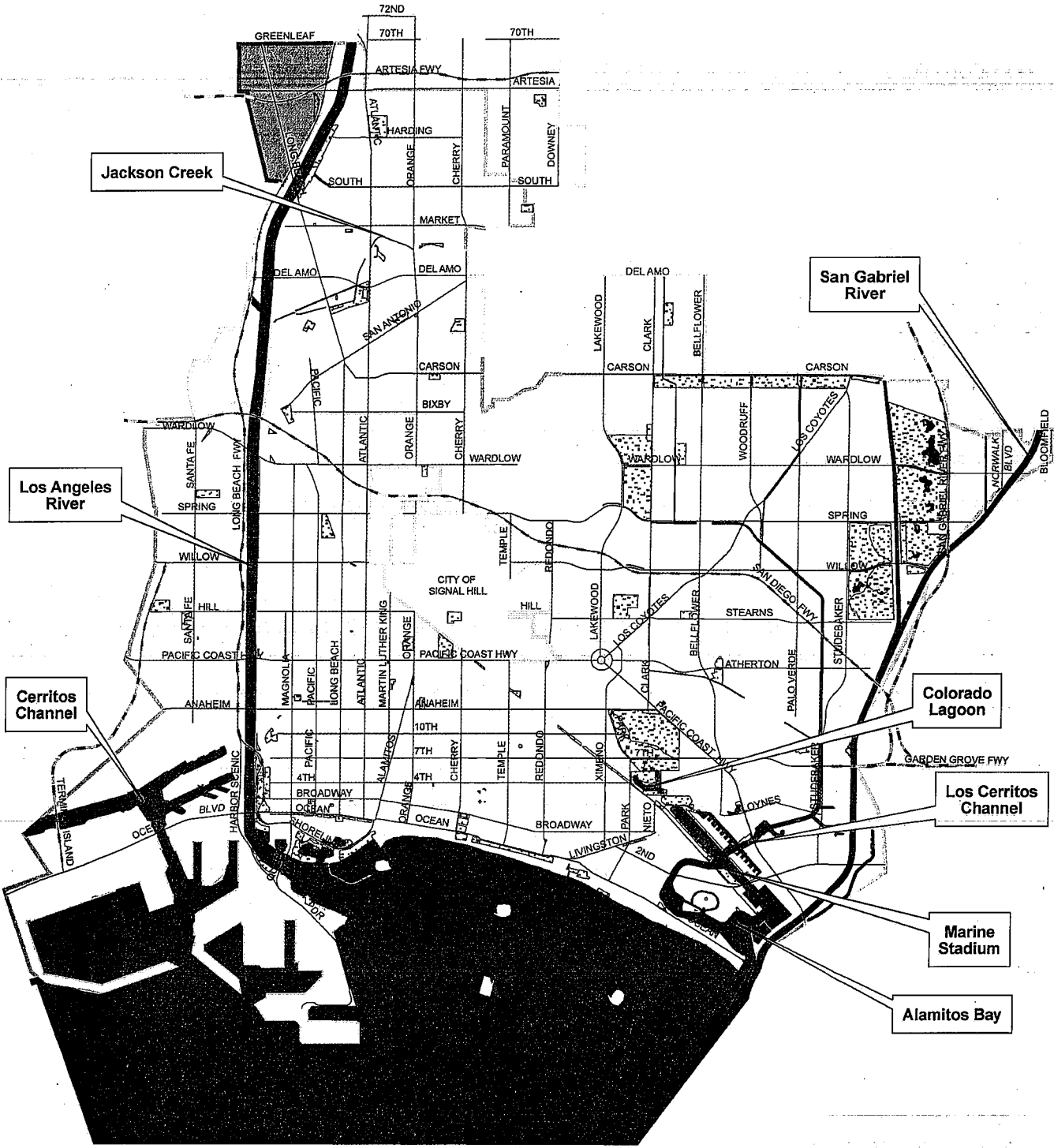
Eddie G.	8/10/2015	Lime Ave 5th -7th Street	Streets	GB1111 4oz	B&G	
Eddie G.	8/11/2015	300 E. Ocean Blvd.	Streets	GB.1111.4oz	B&G	
Lamar Rush	8/11/2015	Bixby & Pacific, 21st & Eucalyptus	Sidewalk/ Gutter	Goldenbear 1/2 gallon	B&G	
David	8/12/2015	Jackson Park	Channel	GB1111- 1/2 gallon	B&G	
David	8/19/2015	Deforest Park RV & Nature	Storm Drains	GB1111- 1 gallon	B&G	33.863611
Eddie G.	8/21/2015	300 Gladys	Streets	B&G Sprayer	B&G	
David G.	8/24/2015	Cherer Park	Ponds / Fountains	Altosid Pellet 1 lb	By hand	
David G.	8/25/2015	Streets & Drains 47th & LB Blvd, 47th - Virginia	NLB Drain	Altosid Briquets 1lbs	By hand	
David G.	8/31/2015	Jackson Park & Creek	Channels & Drains	GB1111- 1 Gallon	B & G Sprayer	
David G.	8/31/2015	Deforest Park & RV	Channels & Standing Water	GB1111- 1 gallon	B & G	33.863611
David G.	9/2/2015	North Long Beach Drain & Channel	Channels	Altosid Pellet- 1 lb	Blower (Back Pack)	
Eddie G.	9/2/2015	250 W. 5th Street	Streets		B & G Sprayer	
David G.	9/2/2015	SD 6, 11, 14	SD 6, 11, 14	Altosid Pellet- 28 oz	Blower (Back Pack)	
Alvin B.	9/16/2015	1410 E. 9th St.	Curbside	GP1111	B & G	
Eddie G	9/16/2015	Dana Place and Ocean	Streets	GB1111 4oz	B & G Sprayer	
Alvin B.	9/16/2015	1410 E. 9th St.	9th St. Curbside	GB1111	B & G	
Alvin B.	9/16/2015	John Ave to 59th St.	Curbside Stagnant Water	GB1111 1.2 Oz	B & G	
David	9/23/2015	192 E. Louise St.	Street and Water Meter	GB1111 1 Gallon	B & G Sprayer	
David	9/28/2015	47th - Pacific Ave & 49th-Dairy	Streets	GB1111- 1 Gallon	B & G Sprayer	
David	9/29/2015	N.L.B Drain (47th St)	Channel	Altoside Pellets 2lbs	Gas Blower	
David	9/28/2015	Treated Streets 47-Pacific and 49th St-Dairy	Streets	GB1111- 1 Gallon	B&G Sprayer	
David	9/29/2015	N.L.B Drain (47th St)	Channel	Altoside Pellets 2lbs	Gas Blower	
Eddie G.	10/2/2015	6000 Appian Way	Streets	GB1111-3oz	B&G Sprayer	
David	10/7/2015	Scherer Park	Pond & Fountain	Altosid pellets- 1lbs	Power Backpack	33.5059926
David/ Alvin	10/8/2015	Dorest Nature Walk & Park	Mosquito Control	B & G GB1111 / 3lbs Vectolex	Backpack	33.863611
David	10/12/2015	Scherer Park	Fountain & ponds	Altosid pellets - 2lbs	Power Backpack	33.5059926
David	10/13/2015	Deforest Park & Nature Walk	catch basin	Vectolex Gr 3lbs	Power Backpack	33.863611
David	10/13/2015	4630 Gundry	Streets	GB1111 1 gal	B&G	
David	10/15/2015	300 E. Arbor St.	Streets	GB1111 16oz	B&G	
Alvin B.	10/21/2015	2556 Fashion Ave	curbside	GB1111-2 ounces	B&G Sprayer	
David	10/22/2015	Deforest Park Nature	Storm Drains	G1111- 1 gal	B&G Sprayer	33.863611
Alvin B.	10/28/2015	SERRF	Sewers	GB1111- 3 ounces	B&G Sprayer	33.758476
Alvin B.	11/3/2015	3122 E. 8th St.	street curbside	GB1111- 1.2 oz	B&G Sprayer	
Alvin B.	11/3/2015	2032 Chestnut Ave (Public Works)	street curbside	GB1111- 1.2 oz	B&G Sprayer	
Alvin B.	11/4/2015	1083 Gladys (Public Works)	street curbside	GB1111- 2 oz	B&G Sprayer	
David G	11/10/2015	Jackson Creek (Park)	Chanel	GB1111 1 gal.	B&G Sprayer	33.834444
David G	11/12/2015	Deforest Park & Nature Walk	catch basin	GB1111 1 gal.	B&G Sprayer	33.863611
David G	11/17/2015	Scherer Park	ponds	Vectolex(G. 1lbs	LAX	33.5059926
Alvin B.	11/18/2015	2032 Chestnut Ave	Curbside along water	Golden Bear 2 oz	B&G Sprayer	118.186501000

MOSQUITO ABATEMENT YEAR 2015

David G.	12/2/2015	Deforest Park Nature Walk	Chanel	GB1111 1 gal.	B&G Sprayer	33.863611	-118.194167000
David G.	12/3/2015	Scherer Park (chanel)	Chanel	GB1111 1 gal.	B&G Sprayer	33.5059926	118.186501000
Alvin B.	12/21/2015	1065 Belmont Ave	street curb	GB1111 1/2 gal	B&G Sprayer		



**City of Long Beach
 Department of Health and Human Services
 Bureau of Environmental Health
 Vector Control Program 2016**



- LEGEND**
- PARKS
 - WATERWAYS
 - COMPTON MOSQUITO ABATEMENT DISTRICT
 - GREATER LOS ANGELES COUNTY VECTOR CONTROL DISTRICT
 - LONG BEACH HEALTH DEPT-VECTOR CONTROL PROGRAM