

AMENDED IN SENATE MARCH 20, 2017

SENATE BILL

No. 382

Introduced by Senator Pan

February 14, 2017

An act to add ~~Article 10 (commencing with Section 6050) to Chapter 9 of Part 1 of Division 4 of the Food and Agricultural Code~~ *Chapter 2 (commencing with Section 2100) to Division 3 of the Health and Safety Code*, relating to pest control, and making an appropriation therefor.

LEGISLATIVE COUNSEL'S DIGEST

SB 382, as amended, Pan. Pest control: mosquito abatement.

Existing law, the Mosquito Abatement and Vector Control District Law, provides for the formation of mosquito abatement and vector control districts and specifies the powers and duties of the district boards. Existing law requires the State Department of Public Health to provide examinations to certify government agency employees and vector control technicians.

This bill would create the California Mosquito Surveillance and Research Program Account, to be administered by the department, to fund California-based surveillance and research on mosquitoes. The bill would appropriate \$2,000,000 from the General Fund to the account, thereby making an appropriation. The bill would require that \$1,500,000 of that money be used to fund the California Vectorborne Disease Surveillance System, known as CalSurv, to perform specified functions.

~~Existing law provides the Secretary of Food and Agriculture with various powers and duties with regard to the control and abatement of various pests, including, but not limited to, Mexican fruit flies, field rodents, and beet leafhoppers.~~

~~This bill would create the California Mosquito Surveillance and Research Program Account, as a continuously appropriated fund, in the Department of Food and Agriculture Fund, with the money to be used by the secretary for the purpose of funding California-based surveillance and research on mosquitoes, thereby making an appropriation. The bill would appropriate \$2,000,000 from the General Fund to the account, thereby making an appropriation. The bill would require that \$1,500,000 of that money be used annually to fund the California Vector-borne Disease Surveillance program, known as CalSurv, to perform specified functions. The bill would also require the secretary to appoint an advisory committee consisting of scientific experts, including, but not limited to, academic researchers, agricultural experts, public health experts, pesticide experts, and local mosquito abatement and vector control districts to make recommendations to the secretary on applicability of surveillance programs statewide and would report annually to the secretary on outcomes. Because the bill would require a higher level of service by local officials appointed to serve on the advisory committee, it would create a state-mandated local program.~~

~~The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.~~

~~This bill would provide that, if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to the statutory provisions noted above.~~

Vote: $\frac{2}{3}$. Appropriation: yes. Fiscal committee: yes.
State-mandated local program: ~~yes~~-no.

The people of the State of California do enact as follows:

1 SECTION 1. Chapter 2 (commencing with Section 2100) is
2 added to Division 3 of the Health and Safety Code, to read:

3

4

CHAPTER 2. MOSQUITO ABATEMENT

5

6 2100. The Legislature finds and declares all of the following:

7 (a) Excessive numbers of mosquitoes spread diseases and reduce
8 livestock productivity.

9 (b) From 1972 to 2008, inclusive, the state provided the
10 University of California with funding in order to perform research

1 *on mosquitoes and mosquito-borne disease. That funding was*
2 *absorbed by the University of California in 2008 and almost all*
3 *state-based mosquito research was eliminated.*

4 *(c) Climate change is a likely influence on vector-borne disease*
5 *spread, including both short-term outbreaks and shifts in long-term*
6 *disease trends.*

7 *(d) The State Department of Public Health notes three*
8 *vector-borne diseases that climate change may impact in the state:*
9 *hantavirus, Lyme disease, and West Nile virus. As the ecology of*
10 *vectors changes with climate, exposure to disease in people may*
11 *increase significantly.*

12 *(e) Mosquitoes are an increasing vector of concern, particularly*
13 *those species that have been introduced from other countries*
14 *because changes in temperature and precipitation conditions can*
15 *allow exotic species to become established in places where they*
16 *could not previously survive year-round. Once established, the*
17 *mosquitoes can reproduce in extremely small amounts of water*
18 *and are very difficult to control. As temperatures rise, mosquito*
19 *reproductive cycles are shortened, allowing more breeding cycles*
20 *each season, and viral transmission rates rise sharply. These*
21 *mosquitoes bite aggressively during the day and can spread a*
22 *variety of diseases, including chikungunya, yellow fever, and*
23 *dengue fever.*

24 *(f) The World Health Organization has stated that there is much*
25 *evidence of associations between climate conditions and infectious*
26 *diseases, noting that mosquito-borne illnesses increase fivefold in*
27 *the year after an El Niño event, like the weather patterns*
28 *experienced in California in 2016.*

29 *(g) A 2008 study published in the American Journal of*
30 *Preventive Medicine stated that adapting to the effects of climate*
31 *change will require the development and enhancement of*
32 *surveillance systems, adequate response plans, and locally*
33 *appropriate strategies to control and prevent vector-borne disease.*

34 *(h) West Nile virus was first detected in California in 2002 and*
35 *by 2004 had spread to all 58 counties in the state. This disease*
36 *can result in debilitating cases of meningitis and encephalitis and*
37 *death to humans, horses, avian species, and other wildlife.*

38 *(i) In August 2007, the Governor determined West Nile virus*
39 *activity to be an imminent threat and issued an executive order*
40 *which included \$11.5 million in emergency funding for the State*

1 *Department of Public Health and local mosquito abatement and*
2 *vector control districts to identify and treat areas with heavy West*
3 *Nile virus presence.*

4 *(j) In spite of a statewide plan to prevent West Nile virus, in*
5 *2015 West Nile virus resulted in 860 human cases and 19 equine*
6 *cases statewide. There were 53 human and five equine deaths.*

7 *(k) Mosquito control agencies, the State Department of Public*
8 *Health, and the University of California have collaborated on*
9 *efforts to control mosquitoes and prevent mosquito-borne illnesses.*
10 *Collectively, mosquito control agencies have financially sustained*
11 *prevention resources, including the Dead Bird Hotline and sentinel*
12 *chicken testing, which provide first response lab testing and*
13 *monitoring when potential avian West Nile virus activity is detected*
14 *locally. These programs have been successful in tracking infected*
15 *mosquitoes and preventing humans from acquiring the virus.*

16 *(l) In 2011, vector-borne disease specialists first detected the*
17 *spread of two nonnative, invasive mosquitoes in California, Aedes*
18 *aegypti and Aedes albopictus. These species are not detectable*
19 *through the traditional prevention methods employed by the State*
20 *Department of Public Health, including the testing of diseased*
21 *birds.*

22 *(m) Invasive mosquitoes are extremely effective transmitters of*
23 *dangerous and potentially deadly diseases, including the Zika*
24 *virus, which has garnered international alarm. In addition to Zika,*
25 *these species transmit chikungunya, yellow fever, and dengue*
26 *fever.*

27 *(n) As of January 20, 2017, there have been 472 cases of Zika*
28 *virus reported to the State Department of Public Health that were*
29 *acquired outside of the state or from contact with a traveler, and*
30 *four infants have been born with birth complications.*

31 *(o) The United States Global Change Research Program*
32 *recommends that the monitoring of vector-borne diseases in*
33 *relation to climate change requires coordinated, systematically*
34 *collected, long-term surveillance datasets to demonstrate how*
35 *climate change will determine the risk for human exposure to*
36 *vector-borne disease.*

37 *(p) The Legislature therefore recognizes all of the following:*

38 *(1) The emerging threat of West Nile virus, the Zika virus, and*
39 *other diseases is presenting greater pressure on public health and*
40 *vector control entities across the state.*

1 (2) *The management of these threats will only become more*
2 *challenging as California’s climate continues to change.*

3 (3) *Surveillance, monitoring, and mapping are the most effective*
4 *ways to control mosquitoes, and the state has no formally*
5 *recognized program to do so.*

6 (4) *The California Vectorborne Disease Surveillance System,*
7 *known as CalSurv, is managed by the Center for Vector-borne*
8 *Diseases at the University of California, Davis and is capable of*
9 *performing those predictive functions of mosquito control.*

10 2101. (a) (1) *There is hereby created the California Mosquito*
11 *Surveillance and Research Program Account, to be administered*
12 *by the State Department of Public Health for the purposes of this*
13 *chapter.*

14 (2) *The account shall consist of moneys transferred from the*
15 *General Fund and moneys made available from federal, industry,*
16 *and other sources.*

17 (b) *In the 2017–18 fiscal year, the California Vector-borne*
18 *Disease Surveillance program, known as CalSurv, shall be*
19 *allocated the sum of one million five hundred thousand dollars*
20 *(\$1,500,000) from the account to perform the following functions:*

21 (1) *Maintain an interactive Internet Web site for management*
22 *and dissemination of data on mosquito-borne virus and*
23 *surveillance control.*

24 (2) *Provide confirmation of tests done by local or state agencies.*

25 (3) *Work in conjunction with local mosquito abatement and*
26 *vector control districts to conduct research on arbovirus*
27 *surveillance, transmission of vector-borne diseases, and mosquito*
28 *ecology and control.*

29 (4) *Coordinate with the Mosquito and Vector Control*
30 *Association of California, local mosquito abatement and vector*
31 *control districts, local governments, and other affected*
32 *stakeholders to share information.*

33 (5) *Perform other duties as necessary to protect the public and*
34 *agricultural health of the state.*

35 (c) *The remaining moneys shall be used to fund grants for vector*
36 *research specific to California’s unique ecosystems. This research*
37 *shall mitigate the effects of warming climates on increasing vector*
38 *populations.*

39 SEC. 2. *The sum of two million dollars (\$2,000,000) is hereby*
40 *appropriated from the General Fund to the California Mosquito*

1 *Surveillance and Research Program Account, to be used by the*
2 *State Department of Public Health for the purposes of Chapter 2*
3 *(commencing with Section 2100) of Division 3 of the Health and*
4 *Safety Code.*

5 SECTION 1. ~~Article 10 (commencing with Section 6050) is~~
6 ~~added to Chapter 9 of Part 1 of Division 4 of the Food and~~
7 ~~Agricultural Code, to read:~~

8
9 ~~Article 10. Mosquito Abatement~~

10
11 ~~6050. The Legislature finds and declares all of the following:~~

12 ~~(a) Excessive numbers of mosquitoes spread diseases and reduce~~
13 ~~livestock productivity.~~

14 ~~(b) From 1972 to 2008, inclusive, the state provided the~~
15 ~~University of California with funding in order to perform research~~
16 ~~on mosquitoes and mosquito-borne disease. That funding was~~
17 ~~absorbed by the University of California in 2008 and almost all~~
18 ~~state-based mosquito research was eliminated.~~

19 ~~(c)~~
20 ~~West Nile virus was first detected in California in 2002 and by~~
21 ~~2004 had spread to all 58 counties in the state. This disease can~~
22 ~~result in debilitating cases of meningitis, encephalitis, and death~~
23 ~~to humans, horses, avian species, and other wildlife.~~

24 ~~(d)~~
25 ~~In August 2007, the Governor determined West Nile virus~~
26 ~~activity to be an imminent threat and issued an executive order~~
27 ~~which included \$11.5 million in emergency funding for the State~~
28 ~~Department of Public Health and local mosquito abatement and~~
29 ~~vector control districts to identify and treat areas with heavy West~~
30 ~~Nile virus presenee.~~

31 ~~(e)~~
32 ~~In spite of a statewide plan to prevent West Nile virus, in 2015~~
33 ~~West Nile virus resulted in 860 human cases and 19 equine cases~~
34 ~~statewide. There were 53 human and five equine deaths.~~

35 ~~(f)~~
36 ~~Mosquito control districts, the State Department of Public~~
37 ~~Health, and the University of California have collaborated on~~
38 ~~efforts to control mosquitoes and prevent mosquito-borne illnesses.~~
39 ~~Collectively, mosquito control districts have financially sustained~~
40 ~~prevention resourees, including the Dead Bird Hotline and sentinel~~

1 chicken testing, which provide first response lab testing and
2 monitoring when potential avian West Nile virus cases are detected
3 locally. These programs have been successful in tracking infected
4 mosquitoes and preventing humans from acquiring the virus.

5 (g)

6 -In 2011, vector-borne disease specialists first detected the
7 spread of two nonnative, invasive mosquitoes in California, *Aedes*
8 *aegypti* and *Aedes albopictus*. These species are not detectable
9 through the traditional prevention methods employed by the State
10 Department of Public Health, including the testing of diseased
11 birds.

12 (h)

13 -Invasive mosquitoes are extremely effective transmitters of
14 dangerous and potentially deadly diseases, including the Zika virus,
15 which has garnered international alarm.

16 (i)

17 -As of January 20, 2017, there have been 472 cases of Zika virus
18 reported to the State Department of Public Health that were
19 acquired outside of the state or from contact with a traveler, and
20 three infants have been born with birth complications.

21 (j) The Department of Food and Agriculture and the State
22 Department of Public Health both monitor mosquito-borne disease
23 and collaborate with local mosquito abatement and vector control
24 districts in order to prevent the spread of preventable illness and
25 disease that negatively impact human, animal, and agricultural
26 health.

27 (k)

28 -The Legislature therefore recognizes all of the following:

29 (1) The emerging threat of the Zika virus in California and its
30 potential to spread locally.

31 (2)

32 -Surveillance, monitoring, and mapping are the most effective
33 ways to control mosquitoes, and the state has no formally
34 recognized program to do so.

35 (3)

36 -The California Vector-borne Disease Surveillance program,
37 known as CalSurv, is managed by the Center for Vector-borne
38 Diseases at the University of California, Davis and is capable of
39 performing those predictive functions of mosquito control.

1 ~~6050.1. (a) (1) There is hereby created the California Mosquito~~
2 ~~Surveillance and Research Program Account in the Department~~
3 ~~of Food and Agriculture Fund.~~

4 ~~(2) The account shall consist of moneys transferred from the~~
5 ~~General Fund and moneys made available from federal, industry,~~
6 ~~and other sources.~~

7 ~~(b) The sum of two million dollars (\$2,000,000) is hereby~~
8 ~~appropriated from the General Fund to the account.~~

9 ~~(c) Notwithstanding Section 13340 of the Government Code,~~
10 ~~the moneys in the account are continuously appropriated to the~~
11 ~~secretary for the purpose of funding California-based surveillance~~
12 ~~and research on mosquitoes.~~

13 ~~(d) The California Vector-borne Disease Surveillance program,~~
14 ~~known as CalSurv, shall be allocated the sum of one million five~~
15 ~~hundred thousand dollars (\$1,500,000) annually from the account~~
16 ~~to perform the following functions:~~

17 ~~(1) Maintain an interactive Internet Web site for management~~
18 ~~and dissemination of data on mosquito-borne virus and surveillance~~
19 ~~control.~~

20 ~~(2) Provide confirmation of tests done by local or state agencies.~~

21 ~~(3) Work in conjunction with local mosquito abatement and~~
22 ~~vector control districts to conduct research on arbovirus~~
23 ~~surveillance, transmission of mosquito-borne diseases, and~~
24 ~~mosquito ecology and control.~~

25 ~~(4) Coordinate with the State Department of Public Health, the~~
26 ~~Mosquito and Vector Control Association of California, local~~
27 ~~mosquito abatement and vector control districts, and other affected~~
28 ~~stakeholders on sharing information.~~

29 ~~(5) Other duties as necessary to protect the public and~~
30 ~~agricultural health of the state.~~

31 ~~(e) The remaining moneys shall be used to fund grants for~~
32 ~~mosquito research specific to California's unique ecosystems. This~~
33 ~~research shall mitigate the effects of warming climates on~~
34 ~~increasing mosquito populations.~~

35 ~~6050.2. The secretary shall appoint an advisory committee~~
36 ~~consisting of scientific experts, including, but not limited to,~~
37 ~~academic researchers, agricultural experts, public health experts,~~
38 ~~pesticide experts, and local mosquito abatement and vector control~~
39 ~~districts as described in Chapter 1 (commencing with Section 2000)~~

1 of Division 3 of the Health and Safety Code. The task force shall
2 do all of the following:

3 (a) ~~Make recommendations to the secretary on applicability of~~
4 ~~surveillance programs statewide.~~

5 (b) ~~Report annually to the secretary on outcomes.~~

6 ~~SEC. 2. If the Commission on State Mandates determines that~~
7 ~~this act contains costs mandated by the state, reimbursement to~~
8 ~~local agencies and school districts for those costs shall be made~~
9 ~~pursuant to Part 7 (commencing with Section 17500) of Division~~
10 ~~4 of Title 2 of the Government Code.~~