



CALIFORNIA CITIES STRUGGLING WITH SEVERE
RAT INFESTATION

Without Immediate Action, Public Health Crisis Likely



RC

REFORM
CALIFORNIA

“We have never seen a rat infestation this severe in our lifetimes and the risk of a public health epidemic soon is high.”

DEAR CALIFORNIA RESIDENT:

California is being overrun by rodents. Without immediate emergency action by state and local government, we face significant economic costs and risk a public health crisis.

Over the past six months, there have been numerous, shocking accounts of city workers being bitten by rodents, police officers diagnosed with Typhus, and even a rat falling from the ceiling of a restaurant onto the menu of a patron. These incidents all signaled an undeniable problem with the population of rodents in our state.

As a result of these incidents, Reform California commissioned this study, assembled a study team, and surveyed pest control professionals, city workers, and public health experts.

The results are quite concerning. Both in terms of measurement and observation, it is clear that California's rodent population is exploding.

Worse, as this crisis is just now coming to public light, California politicians are poised to do the worst possible thing: pass a law (AB 1788) to ban the most effective rodent control tools we have!

Without these proven rodent control tools in our arsenal, we may see rodent infestations spread.

While the economic costs to Californians of widespread rodent infestations is significant, the public health risk is even worse.

It is time for state and local government officials to acknowledge this problem and take immediate action to control on the rodent population. Failure to do so will result in severe consequences to residents of our state.

Sincerely,

Carl DeMaio
Chairman
Reform California

SUMMARY OF KEY FINDINGS

- California is experiencing a massive spike in its rodent population that is both measured by available data sets and observed by field personnel
- Pest control professionals and sanitation workers have observed an alarming increase in Norway rats moving around during the day which is highly abnormal behavior for these species of rodents
- Increase in California's rodent population is not explained by environmental factors – but is directly related to the elimination of effective rodent control methods and a spike in the homeless population
- Rodent infestations will impose a massive economic cost on California homeowners, businesses, and communities
- Winter is coming: California residents will see increased rodent impacts as weather cools
- Rodent infestations fueling an increase in dangerous diseases such as Typhus – current rate of increase in cases raises concern regarding possible public health epidemic

RECOMMENDATIONS IN BRIEF

1. Declare a Public Health Emergency, Work with Centers for Disease Control and Prevention, and Require Local Governments Conduct Immediate Assessments
2. Require Remediation Plans Be Formulated and Executed by Local Governments
3. Launch Public Education Campaign to Get Businesses and Residents to Mitigate Risk Factors
4. Oppose and Reject Assembly Bill 1788 – A Misguided Attempt to Ban Best Practice Pest Control Tools That Are Essential to Fight the Rodent Infestation

PART 1: EXPLOSION DETECTED IN CALIFORNIA'S RODENT POPULATION

California is experiencing a massive spike in its rodent population that is both measured by available data sets and observed by field personnel.

Major cities in California, especially dense urban areas such as Los Angeles, San Diego and San Francisco, are experiencing an infestation of rodents the likes of which we have not seen in decades.

The cause of this recent spike in the rodent population cannot be explained by mere environmental factors such as increased rain in the Fall of 2018. Indeed, data shows the increase in rodent population has occurred during both the drought period and the recent period of rains.

The pest control and public health experts contributing to this report believe the increase in the state's homeless population, combined with elimination of the most effective pest control tools, are significant drivers in the increased rodent population in California.



Rodent activity during the day is abnormal behavior and depicts that the population is very large. Usually younger rodents and older/sick rodents will be forced to eat during the day. Source: UC ANR

1.1 Private Pest Control and Public-Sector Vector Control Agencies Report Massive Spike in Rodent Population in California

Unlike the decennial U.S. Census taken of the human population, there is no census count of the rodent population in each state. However, data exists on Rat Service Requests (defined as a homeowner or business requesting service). This data provides a reliable indicator of changes in population.

Percent Increase	Number / Percent of Firms
0-25%	0 (0%)
25-50%	5 (21.7%)
51-75%	6 (26.1%)
76-100%	10 (43.6%)
100% or greater	2 (8.6%)

In preparation for this report, the study team surveyed 23 private pest control companies that operate throughout California. All 23 companies reported that Rat Service Requests were up “substantially” in the last 12 months. More importantly, not a single company reported that service requests were down or in line with the previous year.

The Orkin pest control company has long published its “Rattiest Cities” ranking based on the number of new rodent treatments performed annually. Orkin’s survey is also detecting upward movement for California’s three biggest cities.

For the latest ranking covering September 2017 to September 2018, the City of San Diego saw a 9-spot spike in its ranking from 35th to 26th in just one year. San Francisco landed at 5th and Los Angeles nabbed the 2nd Rattiest City behind Chicago.

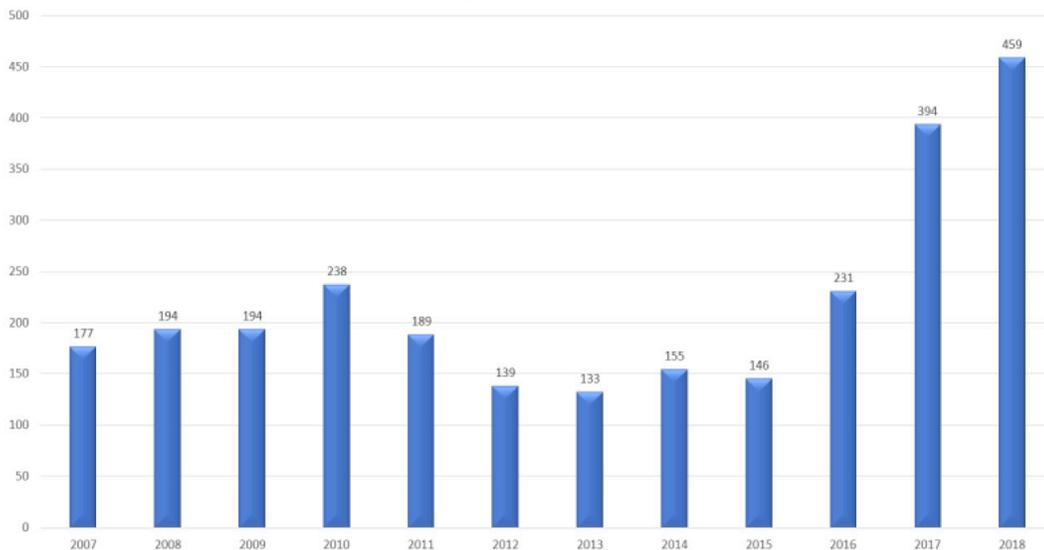
While private companies did not disclose proprietary service request data, our study team did obtain data on service requests maintained by local government vector control agencies which also shows a massive spike in service requests being handled through these agencies in all regions of the state.

Norway Rat Spike – Significantly Above 10 Year Average

Norway rats, *Rattus norvegicus*, sometimes called brown or sewer rats, are stocky burrowing rodents that are larger than roof rats.



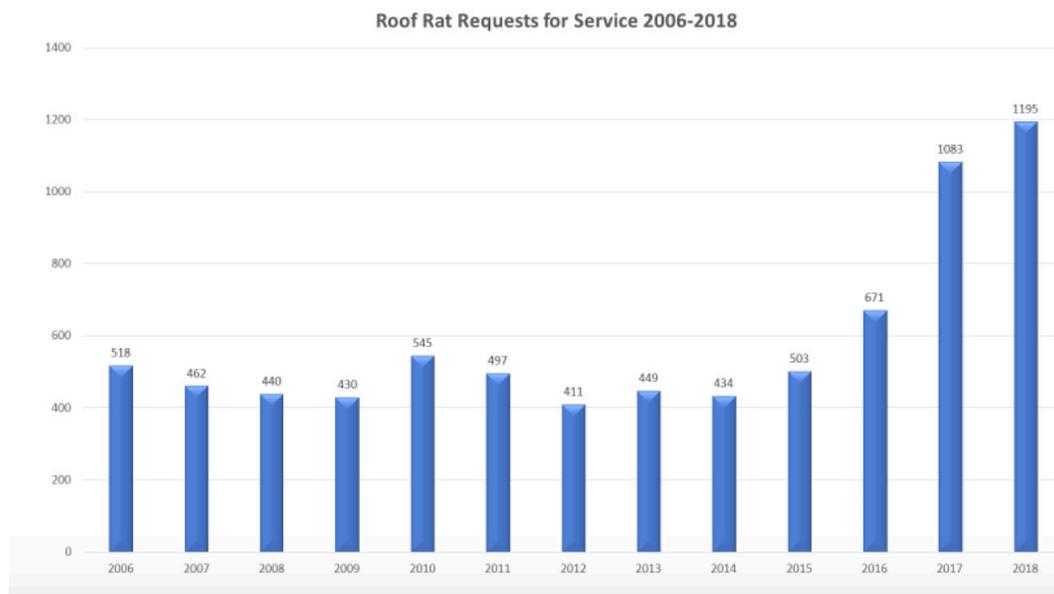
Norway Rat Requests for Service 2006-2018



Source: Alameda County Vector Control Agency

Roof Rat Spike – Significantly Above 10 Year Average

Roof rats, *R. rattus*, sometimes called black rats, are slightly smaller than Norway rats. Unlike Norway rats, their tails are longer than their heads and bodies combined. Roof rats are agile climbers and usually live and nest above ground in shrubs, trees, and dense vegetation such as ivy.



Source: Alameda County Vector Control Agency

1.2 Daytime Activity and Droppings from Rodents Suggests Larger Population

In addition to the measurable service requests that capture California's rodent population explosion, professionals have observed both an increase of rodent droppings, as well as a change in behavior in rodents. That is cause for both alarm and a warning regarding population levels.

In Los Angeles, pest control professionals and city staff have observed an unusual increase in Norway rats moving around during the day which is highly abnormal behavior for these species of rodents. Movement of nocturnal animals ***during the day*** is direct evidence of an extremely large population of commensal rodents.

Observations in the cities of Los Angeles, San Diego, and San Francisco have shown a higher-than-normal level of rodent droppings, according to industry professionals.

“I’ve never seen this many droppings, ever”

— Niamh Quinn, Human-Wildlife Interactions Advisor
with University of California Cooperative Extension
(NBC News, June 10, 2019)

1.3 Increase in Rodent Population Tied to Spike in Homeless Population

The measured and observed increase in California’s rodent population is directly related to the increase in the state’s homeless population. Homeless individuals provide food sources for rodents that are far more accessible than in homes and/or buildings. As the homeless population increases, it is no surprise that the rodent population would increase as well.

In early July, the results of the U.S. Department of Housing and Urban Development’s (HUD) national “Point-In-Time (PIT) Count” of homeless were released and the figures are staggering. With rare exception, California cities saw a massive spike in their homeless populations in the past year – an alarming increase that has been a pattern over the last five years.

Homeless Population Increases By County

Los Angeles: 16% city-wide; 12% increase county-wide
Santa Clara County: 31% increase
San Francisco: 30% increase
Alameda County: 43% increase
Orange County: 41% increase
San Diego County: 11% decrease

1.4 Increase in Rodent Population Tied to Elimination of Effective Rodent Control Methods

California’s rodent population can be controlled using the best practices for pest control.

Unfortunately, many of the most effective tools for rodent control are under attack and recent decisions have limited the use of the best practice pest control tools. Even more alarming, the California legislature is just days away from passing legislation to make the situation worse.

In 2013, California’s Department of Pesticide Regulation (CA DPR) announced a proposal to restrict use of second-generation anticoagulant rodenticides (SGARs). Environmentalists had raised concerns about possible impacts of SGARs to other wildlife. In 2014 the Los Angeles Department of Recreation and Parks stopped the use of SGARs.

In terms of controlling the rodent population, the alternatives to SGARs are significantly inferior.

Since Los Angeles discontinued use of SGARs, its rodent population has spiked.

A more localized example of the ineffectiveness of alternative products, includes the rodent infestation that has occurred at the CalEPA building in Sacramento.

For at least five weeks, CalEPA has been struggling to control a rodent infestation and have been trying to use inferior “green pest control” products to eradicate them. The effort to use these so-called “green alternatives” has failed. Indeed, CalEPA recently acknowledged to the public that **“when we learned of a rat problem in our building’s exterior courtyard and childcare center play yard, we took action with non-toxic pest management measures. When those measures did not solve the problem, we consulted experts and determined that protecting children from rodent-borne diseases required the additional step of applying a rodenticide (e.g. SGAR) with strict safety procedures”** (emphasis added).

Unfortunately, while evidence of the ineffectiveness of SGAR alternatives is being widely reported, the California State Legislature is rushing a bill through the legislative process to **BAN** the use of SGARs, statewide, starting January 1, 2020.

Eliminating the use of SGARs in California to control the rodent population will be the equivalent of pouring kerosene on an already-blazing fire.

1.5 Winter Warning: CA Residents Should Brace for Increased Rodent Activity

This fall and winter could be the tipping point for registering a massive spike in human impact due to the spike in the rodent population in California. Why? During the colder months, rodent activity increases as these rodents seek shelter in warm areas with readily available food and water.

Data from the National Pest Management Association has long-captured this spike in rodent-human interaction as rodents enter an estimated 21 million homes in the U.S. each winter.

“Rodents don’t need much of an invitation to enter your home. A rat can squeeze through an opening as small as a quarter, while a mouse can wedge its way into a hole smaller than a dime.”

— Chelle Hartzler, Entomologist

PART 2: SPIKE IN CALIFORNIA'S RODENT POPULATION WILL IMPOSE ECONOMIC COSTS AND MAY RESULT IN POSSIBLE PUBLIC HEALTH CRISIS

2.1 California Rodent Infestations Already Fueling Increase in Dangerous Diseases – Including Typhus



Dead Norway rat in downtown Los Angeles which is also one of the Typhus zones. Photo by UC ANR

Rodents can carry hundreds of pathogens that can transmit various diseases and dangerous parasites. Evidence of their biology indicates their ability to vector not only the spread of diseases like typhus, plague, salmonella, rickettsialpox and other gastrointestinal diseases, but also contribute to asthma. Rodent droppings are one of the leading causes of asthma in children.

Contrary to common belief, being bitten by a rodent is rare and is not the most common way diseases are spread. Nonetheless, reports of city workers being bitten by rodents is on the rise – with most recent cases being reported in Los Angeles.

Two other vehicles of transmission are far more prevalent: fleas and urine droppings.

With a massive increase in the rodent population, fleas can quickly multiply. Worse, fleas can transmit diseases carried by a rodent to another animal or a human being.

Rodents also routinely drop their urine as they travel. The urine from rodents is deposited on virtually anything from the ground to items commonly handled by humans such as blankets (especially by homeless) and other personal items. In addition, rodents can contaminate food and liquids while also transmitting diseases.

On March 22, 2019, Dr. Muntu Davis, the Chief Health Officer for Los Angeles County, wrote a letter to the Board of Supervisors warning them of a spike in flea-borne typhus cases detected from 2013 to 2017 and disclosed “a two-fold increase” in the number of typhus cases being reported this year compared to annual average over the previous five years.

Dr. Davis went on to warn: “Flea-born typhus has become an increasing public health threat that has the potential to affect all residents of Los Angeles County.”

The letter also reports that typhus cases were reported in 49 of Los Angeles County’s component cities. Los Angeles city officials now refer to several neighborhoods as “Typhus Zones” where rodent activity and cases of the disease are the highest.

According to the California Department of Health, last year Los Angeles County broke a record for the most typhus cases – 124 – and is poised to break that record again this year.

“Flea-born typhus has become an increasing public health threat that has the potential to affect all residents of Los Angeles County.”

— Dr. Mantu Davis, Chief Health Officer,
Los Angeles County

“An officer at the Los Angeles Police Department’s Central Station has contracted Salmonella Typhi, the bacteria that causes typhoid fever, and another is suspected of contracting typhus, a disease carried by rats and fleas.”

— NBC News, May 29, 2019

These rub marks are handrails where children eat their lunch and put their hands on as they go up the stairs. Considering the thickness of the rub marks the population is very large and uses this zone to move up and down into the planters and onto the ground.
Source: UC ANR



Rub marks from rodents that are entering buildings. Source: UC ANR



Large box store in LA showing active rodent infestation around food storage. Footprints in dust.
Source: UC ANR

2.2 Rodent Infestations Impose Massive Economic Costs on Individuals, Businesses, and Communities

If you want to see an immediate economic impact from a rodent infestation, speak with a manager of a restaurant that is shut down by the County Health Department or gets negative press coverage like a Buffalo Wild Wings restaurant in Los Angeles. In June, a rat literally dropped from the ceiling of that restaurant and landed on the menu of a patron! The story quickly went viral and no doubt has had a negative effect on that location's business.

“A woman received an unexpected surprise after a live rat fell from a Buffalo Wild Wings ceiling in Los Angeles, California, and landed on her menu.”

— NBC News, June 21, 2019

The economic impacts of a rodent infestation are far ranging and include more than just negative press coverage for a local restaurant. First, building managers and homeowners must pay the cost of remediation and removal of rodents. Pest control is a necessary cost.

Second, rodents do significant damage to buildings. Rodents can chew through just about anything and can cause structural damage as they gnaw on electrical wires, gas lines and support beams. In fact, it's estimated approximately 25 percent of unexplained fires start from the results of significant rodent chewing.

FACT: 25 percent of unexplained fires start from rodent chewing



Big box store showing rodent droppings where food is stored.
Source: UC ANR

PART 3: RECOMMENDATIONS FOR REMEDIATING CALIFORNIA'S RODENT INFESTATION

1. Declare a Public Health Emergency, Work with the Centers for Disease Control and Prevention, and Require Local Governments Conduct Immediate Assessments

The Governor of California should declare a public health emergency immediately and request special funds to carry-out remediation actions in communities with severe rat infestation. Cleanup activities will be costly and include the removal of trash, sanitizing sidewalks, and deploying several rounds of pest control.

Working with the Centers for Disease Control and Prevention (CDC), local hospitals and public health agencies should carefully monitor all cases of diseases and educate city workers on ways to reduce health risks as they perform their jobs.

To significantly control the rodent population and areas requiring immediate remediation, every local government should be tasked with conducting a survey of their neighborhoods within 60 days and reporting the results publicly to the community and to the state.

2. Require Remediation Plans Be Formulated and Executed by Local Governments

For any local government with a rodent infestation, a remediation plan should be devised and filed with the state outlining immediate steps for addressing the situation. In addition, each local government should be required to convene a Task Force that meets weekly (similar to New York City's model) to assess progress with implementing remediation actions. Finally, local government 311 apps should be updated to allow for the requesting rodent service.

3. Launch Public Education Campaign For Businesses and Residents to Mitigate Risk Factors

One of the most effective ways to reduce the risk to humans from rodents and to reduce the population of rodents is to get individuals and businesses to adopt best practices for rodent control.

Each local government should launch a public education campaign, including public service announcements (PSAs) and outreach through local media. It should also include steps that should be taken by residents and businesses to improve sanitation, refuse disposal, etc. The goal of the education campaign would be to make homes and buildings unattractive to rodents to prevent entry.

4. Oppose and Reject Assembly Bill 1788 – A Misguided Attempt to Ban Best Practice Pest Control Tools That Will Be Needed to Fight the Rodent Infestation

Assembly Bill 1788 would ban the use of second-generation anticoagulant rodenticides (SGAR) – which are by far the most effective tools for controlling and reducing the rodent population. In light of the emerging rodent population explosion seen across the state, it is stunning that California legislators have rushed AB 1788 through their legislative process and are poised to pass the bill entirely.

California politicians should immediately suspend any action on AB1788 – and if the bill passes both the Assembly and the state Senate, the Governor should veto the legislation.

As an alternative, California leaders should call for additional research on rodent population control tools and techniques. To improve the proper use of SGARs, California should consider banning online sales of these products and restrict use of SGARs to pest control professionals that are licensed and trained.

STUDY PANEL

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Corky Mizer

Corky's Pest Control

APPENDIX A: RECENT STORIES IN THE MEDIA

US may dump 1.5 tons of rat poison on Farallon Islands to halt invasive rodents - Fox News

<https://www.foxnews.com/science/farallon-islands-rat-poison-house-mice>

<https://www.nbclosangeles.com/investigations/LAPD-Officers-Diagnosed-With-Salmonella-Typhi-Typhus-510589141.html>

<https://www.nbclosangeles.com/investigations/LA-Begins-Cleaning-Up-Trash-Heap-ignored-by-mayor-Garcetti-510305721.html>

<https://www.nbclosangeles.com/news/local/LA-Crawling-With-Rodents-511112152.html>

<https://sacramento.cbslocal.com/2019/07/02/cal-epa-rat-problem-not-green/>

<https://californiaglobe.com/fr/bill-to-ban-rodenticides-coincides-with-rat-infestation-and-disease-in-los-angeles/>

<https://www.nbclosangeles.com/investigations/LA-Begins-Cleaning-Up-Trash-Heap-ignored-by-mayor-Garcetti-510305721.html>

<https://www.nbclosangeles.com/news/local/LA-Crawling-With-Rodents-511112152.html>

APPENDIX B: ADDITIONAL RESOURCES

<https://www.cdc.gov/rodents/>

<https://www.cdc.gov/rodents/diseases/direct.html>

<https://www.cdc.gov/rodents/diseases/indirect.html>

<https://www.cdc.gov/typhus/murine/index.html>

<https://escholarship.org/content/qt88p773zr/qt88p773zr.pdf>

<https://www.sgvmosquito.org/flea-borne-typhus>

<http://www.publichealth.lacounty.gov/acd/vectortyphus.htm>

<http://www.publichealth.lacounty.gov/acd/procs/b73/B73Index.htm>

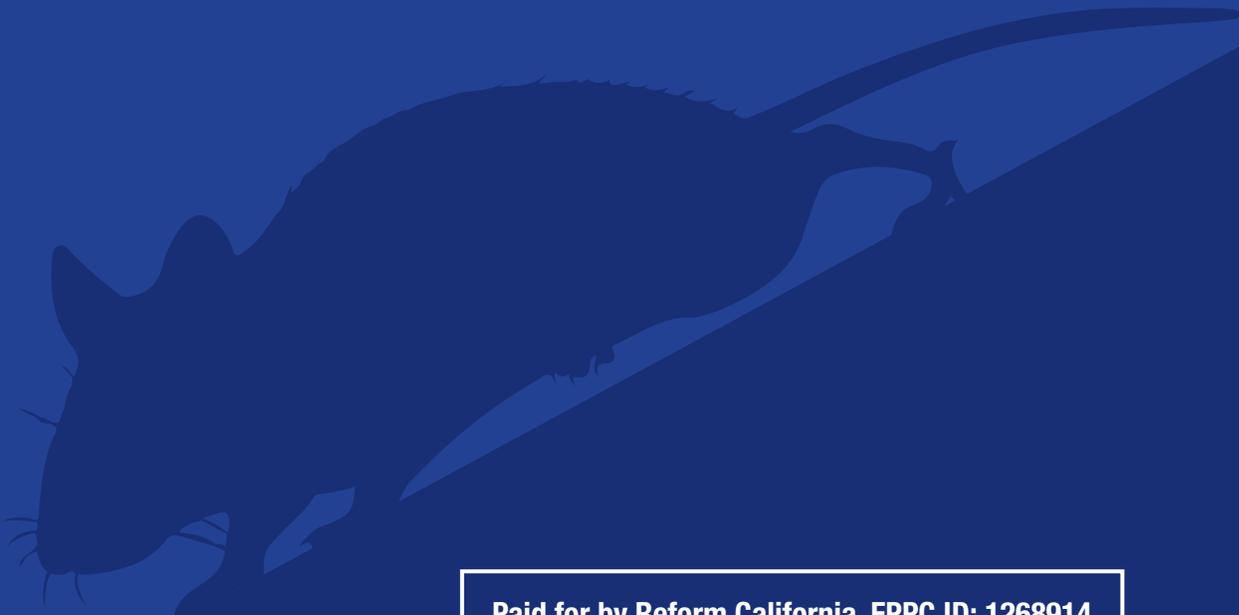
<http://www.publichealth.lacounty.gov/acd/VectorPlague.htm>

<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/TyphoidFever.aspx>

<http://www.publichealth.lacounty.gov/acd/Diseases/Tularemia.htm>

<https://www.ncbi.nlm.nih.gov/pubmed/18260508>

<http://publichealth.lacounty.gov/phcommon/public/media/mediapubhpdetail.cfm?prid=1930>



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