

**ALAMEDA COUNTY  
VECTOR CONTROL SERVICES DISTRICT  
COUNTY SERVICE AREA VC 1984-1**



**ANNUAL REPORT  
FY 2001-02**

ENVIRONMENTAL HEALTH SERVICES  
1131 HARBOR BAY PARKWAY, SUITE 166  
ALAMEDA, CA 94502

## **MISSION**

The mission of the Vector Control Services District is to prevent human disease, injury, and discomfort to the residents of the district by controlling insects, rodents and other vectors and eliminating causal environmental conditions through education, legal enforcement, and direct pesticide application.

## **DISTRICT SERVICES**

### **Request for Service Investigations**

- Conduct investigations in response to service requests concerning vectors, assess the extent of the problem, and take the appropriate action. The district generally responds to about 5,000 requests for service per year.
- Investigate reported problems concerning cockroaches, flies, fleas, lice, yellow jackets, and other insects, as well as, ticks, mites, and spiders, and render the appropriate service.
- Provide advice on insect, tick and spider identification and recommended methods of control.
- Conduct surveys of insects and arachnids of public health importance and maintain a reference collection.
- Survey and effect control of cockroaches in public sewers, utility boxes, and storm drains.
- Conduct yellow jacket and feral bee control in public areas or by contract with other agencies.

### **Wildlife Management, Domestic Animals and Rabies Control**

- Oversees the administration of quarantine measures regarding animal bites.
- Conduct investigations of nuisances related to bats, skunks, opossums, raccoons, dogs, cats, rabbits, pigeons, chickens, and fowl.
- Trap biting or nuisance mammals when alternatives are ineffective.
- Work cooperatively with local animal control agencies, and compile statistics for an annual report for the State Health Department.

### **Rodent Control**

- Make recommendations on rodent proofing and suppression of rats and mice.
- Conduct rodent suppression during disease outbreaks or emergencies.
- Conduct surveys of rat populations to assess species prevalence and population control needs.
- Conduct district-wide inspection and baiting of sanitary sewers and waterfronts for rats.
- Inspect and test sewer laterals and mains to detect breaks, which may allow rats to expand their range into neighborhoods.

### **Solid Waste Problems**

- Investigate complaints regarding solid waste handling and storage problems involving refuse, human or animal waste, and odors at residential properties and businesses.

### **Vector Borne Disease Surveillance and Control**

- Investigate reports of animal or human illness such as Lyme disease, Psittacosis, Scabies, head lice, Reptilian Salmonella, Ehrlichiosis, and Rabies to determine cause, and recommend preventative measures.
- Assist the public in submission of ticks to the public health laboratory for testing.
- Collect rat fleas and determine the potential risk of plague transmission.

### **Public Education and Information**

- Make presentations to groups on vector control, and participate at public events.
- Provide educational information on vectors and vector borne diseases for individuals and groups.
- Staffs public displays at health fairs, special events, and the county fair.
- Post the annual shellfish harvesting quarantine notices on the Alameda County bay shoreline.

### **Legal Enforcement**

- Enforce state laws, regulations, and local ordinances when necessary to protect the public from vectors and related problems.

## **INTRODUCTION**

Alameda County Annual Report for County Service Area (CSA) VC 1984-1 for Vector Control is presented to the Alameda County Board of Supervisors in compliance with Section 25210,77a of the Government Code; County Service Area Law, and Chapters 5.24 and 6.32 et. Seq. of the Alameda County General Ordinance Code. The report, which includes the recommended benefit assessment for the fiscal year 2002-03, is submitted for review and public hearing.

This report gives the history of how and why the County Service Area (CSA) known as the Alameda County Vector Control Services District was formed, explains how the assessments are calculated, and includes tables of assessments since the CSA was formed in 1984 as well as the proposed 2002-03 assessments.

This report is also available for review at the Vector Control Services District, 1131 Harbor Bay Parkway, Suite 166, Alameda, CA 94502. In addition, current reports will be posted on our website at ([http://www.co.alameda.ca.us/ehs/vector\\_control/index.htm](http://www.co.alameda.ca.us/ehs/vector_control/index.htm)).

## **BACKGROUND & HISTORY**

The County Service Area (CSA) 1984-1 for Vector Control was established in June 1984 in order to meet the public needs by providing a comprehensive vector control program. Environmental Health Services was experiencing dwindling financial resources causing severe cutbacks in vector control in Alameda County. In response, the Board of Supervisors created the County Service Area following confirming election for Measure A, in which over 70% of the voters approved formation of the CSA. The CSA now includes 12 of the 14 cities of Alameda County and the unincorporated county areas. The CSA excludes the cities of Emeryville and Fremont, which opted to seek alternative sources for administering vector programs. The City of Dublin was initially not included in the CSA but was annexed by the Board of Supervisors in 1992 at the request of the City Council of Dublin, which voted to join the District.

### **CITY OF OAKLAND**

In 1987, it was recognized that the City of Oakland had a severe rat population, originating primarily from the sanitary sewers, which exceeded the capabilities of the district to cope with the problem. The City of Oakland approved a supplemental assessment, which was first levied in fiscal year 1988-89, and provided for two additional vector control officers.

## **CSA ALAMEDA COUNTY VECTOR CONTROL** **2001 ANNUAL SUMMARY**

## Introduction

The district was at full staff for part of the year, but one retirement occurred during the summer and will result in the rehiring a Senior VCO position next year. An unusually mild winter provided staff with an opportunity to get an early start on the Oakland sewer-baiting program. Since the district provides a variety of services in a wide range of program areas, seasonal and environmental conditions can influence work priorities. Typical services include identification of pest species and advice on exclusion, prevention and control. The key programs include Urban & Sylvatic Rodent Surveillance, Venomous Arthropod Suppression, Rabies Surveillance, Wildlife Management, Nuisance Abatement, and Public Education. In addition, the district enforces a variety of public health laws and regulations, primarily in the areas of public nuisances and the harborage of vectors. The district participates in public events, offering information on our services, new and emerging diseases, and introduced pests.

## Urban Rodent Surveillance

The urban rodent surveillance program concentrates on the monitoring and control of domestic (old world) rats and mice of the rodent family Muridae. The program goals include dissemination of advice, and administration of a strategy to suppress populations of Norway Rats, Roof Rats, and House Mice. The District responds to service requests concerning rats and mice at single-family residences, apartments, and businesses. In 2001, the district received 1202 requests for service from the public concerning domestic rodents, representing 25% of all requests. Staff also performed an additional 11,026 field services concerning domestic rodents, including smoke tests, consultations, field surveys, follow up evaluations, and enforcement actions. When there is evidence that rats are surfacing near sewer laterals, district staff conduct inspections to locate broken sewer lines, and take appropriate action to insure those repairs are made. Introduction of smoke producing flares into the sewers helps locate breaks in the lines, and document locations where rats can exit the sewers and infest neighborhoods. District staff performed 18 smoke tests and 38 dye tests on the sewers of Oakland and Alameda in the year 2001. Staff are working with the City of Oakland, and other municipalities, to facilitate repair of broken sewer lines and laterals.

There has been a long history of Norway Rats invading homes and neighborhoods from the sanitary sewers of Oakland, due to the age and cost of maintenance of the sanitary sewer system. Service requests for Norway Rats from Oakland totaled 307, representing 81% of all service requests for this species countywide. The property owners of Oakland are assessed an additional \$ 1.28 over the standard rate of \$ 5.92 per residence, to cover the cost of placing anticoagulant bait, when necessary, in to the sanitary sewers. A total of 5,808 inspections and treatments were made into the sewers of Oakland, and increase of 28 % over the 2000 level, and 9.2 % over the District goal. Two community college students were hired during the summer of 2001, to assist Vector Control Officers in the sewer-baiting program, and compensate for seasonal workload variations. Even though the summer help program was a success, the limitation of these staff not being able to operate a county vehicle reduced the effectiveness of the program. During the summer months of 2002, the two assistants from last year will be returning.

In 2001 the district initiated an innovative pest management technique called pulse baiting, to enhance the efficiency of the program and reduce the amount of ineffective rodenticide applications. The Alameda County sewers are somewhat different than the Boston Sewers, where the program was developed, so some local modifications of the program were necessary. Only sewers with observable rat activity are targeted for treatment. These sewers are re-inspected and retreated only if necessary. It has been demonstrated that this method can result in a significant reduction in rodent expansion. In addition, a total of 3050 sewer inspections were conducted in the communities of Castro Valley, Dublin, Livermore, San Leandro, Piedmont, Alameda and Pleasanton. Surveys of the adjoining drainage courses are planned for the summer of 2002. The surveillance will continue until the rat population is significantly suppressed.

In 2001, Vector Control Officers responded to 537 Service Requests for Roof Rats, representing 45 % of all rodent-related services. Roof rats are well established throughout the suburban and semi urban areas of Alameda County, including the Oakland Hills. The District responds to requests by homeowners, businesses, and communities regarding roof rat activity. The District has established a high priority to ensure that these rodents do not enter homes, and expose occupants to potential diseases. Homeowners and landlords are advised on recommended structural modifications to prevent rodent ingress. The perimeter yard is also surveyed for conditions conducive to rodents, and recommendations to eliminate these conditions are given. Staff responsibilities during the inspection include consultation, distribution of brochures (or fact sheets), and enforcement of Environmental Health Laws when necessary. If evidence is found suggesting an infestation over a larger area than a single-family residence, expanded area surveys are conducted.

### Sylvatic Rodent Surveillance

Sylvatic rodents are native species to California in the rodent families Sciuridae, Cricetidae, and Arvicolidae, and are normally confined to the rural and semirural areas of Alameda County. Many of these animals are reservoirs of zoonotic diseases such as Bubonic Plague, Hantavirus Pulmonary Syndrome, Ehrlichiosis, Lyme disease, and Babesiosis. Occasionally these rodents, primarily Cricetids (deer mice), will enter buildings and put occupants at risk, because they are reservoirs for a wide range of zoonotic diseases. Since Alameda County has a history of bubonic plague, surveillance of the sylvatic plague reservoirs in this county is an on going program. The district conducts rodent surveys routinely, usually working cooperatively with the California Department of Health Services, in an effort to prevent outbreaks of these diseases. These rodent surveys also provide an opportunity to advise the public on the potential health risks and the necessity to avoid exposure to these animals.

The investigation into a human Arena Virus infection, of an unnamed disease in a 14-year-old female resident of Oakland, which occurred in April of 2000 is still ongoing. The agent of the illness was the White Water Arroyo Virus, an Arena Virus, related to many of the hemorrhagic fever viruses of South America. This was the first suspected fatality originating from an Arena Virus in North America. There is only minimal information about the victim's activities prior to onset of symptoms. Possible exposure locations include her home in the Oakland Hills, a riding

stable, and a recreational area in the vicinity. Initial rodent surveys failed to reveal any positive results. A Dusky Footed Woodrat from Sunol, and a Deer Mouse from Camp Parks in Dublin were tested and had antibodies for White Water Arroyo Virus, indicating prior exposure to this virus. In the spring and early summer of 2001, a total of 99 rodents were captured in several North Oakland rural sites. Two of the deermice had antibody titers for arenaviruses, but DNA sequencing tests have not been conclusive enough to satisfy CDC that this is a confirmed case. Additional surveys are planned for 2002.

### Venomous Arthropods

The district provides advice and identification of spiders, scorpions, bees, and a wide variety of wasps, including yellow jackets. Recommendations are made for exclusion and control of these pests in order to help property owners to reduce their risk of exposure. In the case of yellow jackets and honey bees, the risk of stinging incidents increases the urgency for timely response. The District will destroy the nests of these insects, when they are located in close proximity to people, but outside of habitable structures. In addition, the district has a contract with the East Bay Regional Parks, to control ground nests within the county parks. In 2001 the District responded to 509 venomous wasp and 335 honeybee complaints. An additional five yellow jacket nests were controlled within the East Bay Regional Parks. Yellow jacket populations increase when there are mild winters and the spring rains end in February. Most yellow jackets nest in the ground, and late rains tend to expose the developing nests to moisture and mold. Since the district does not have the ability to make structural repairs to buildings, control of bees and wasp nests inside buildings are normally referred to structural pest control operators for abatement.

### Rabies Surveillance

The rabies surveillance programs in Alameda County are administrated by various animal control agencies. The Alameda County Animal Control and the thirteen municipal animal control agencies are responsible for monitoring rabies associated with cats and dogs. The District conducts surveillance over skunks, bats and occasionally other wildlife, by responding to service requests, and submitting specimens to the Alameda County Public Health Laboratory for rabies testing. Raccoon Rabies, a strain specific for this animal, is not present in California, and is confined to the Eastern United States and Canada. Raccoons can be exposed to bat or skunk rabies, but positive animals have been rare in recent years. The district also investigates animal bite incidents and prepares an annual report for the California Department of Health Services.

There were no reported human cases of rabies in the United States during the year 2001 reporting period. At least twelve residents of Alameda County underwent the *Rabies Vaccine* treatment after bites or close contact with suspected rabid animals. Two were for bat contact (one was a confirmed rabid bat), one for raccoon contact, one for opossum contact, and eight were for dog bites. This post-exposure treatment was administered because the biting animals were not located for quarantine or for testing. The district submitted 183 animal specimens to the Alameda County Public Health Laboratory for testing, with 36 of them from Fremont. Ten wildlife specimens tested positive for rabies including five skunks and five bats. The City of Berkeley submitted 38 animals to the California State Public Health Lab for testing, with no positives. On a national



level, 1245 animal specimens tested positive for rabies, with 52 of them in California. Staff provided 1,382 services including consultations, neighborhood notifications, investigations, and collection of samples for testing.

### City of Berkeley

The district maintains a contract with the Berkeley City Health Department for vector control services within that city. The District forwards funding received from the Citizens of Berkeley to the City Health Department for rodent suppression and related services. On occasion District staff will work with City Staff, usually in special studies and disease surveillance. The Berkeley Vector Control Team cleared 482 properties of violations of vector standards within the City Municipal Code (BMC), including abatements that cost \$ 10,600. The Department conducted 33 hearings for BMC violations, and is on track to meet contractual obligations for sewer baiting. The Marina Area has been routinely monitored for commensal rodent activity and anticoagulant bait is applied to suppress populations when necessary. Vector Control Staff have conducted surveys of several areas of the City in conjunction with other City Departments.

### Wildlife Management

The district responded to 1217 service requests concerning wildlife, and provided almost 3028 hours of field support within or near residential areas. There was almost a 100% increase in the number of calls about wildlife since the year 2000. Most of these activities involve responding to service requests about raccoons, skunks, squirrels, or opossums, and advising homeowners on how to exclude these animals from their residences, and making their property unattractive to them. When circumstances require direct action, Vector Control Officers may assist property owners by setting traps for these pests, and coordinate with the USDA-APHIS trapper or local animal control agencies to pick up and remove the animal. The USDA trapper destroyed 67 wild animals this year, which might have been prevented if people would not offer food to these animals. The problem of wildlife in residential areas is becoming an ever-increasing problem. USDA records show that wildlife caused property damages to domestic animals, grazing land and buildings amounting to over several thousand dollars. Predators have killed sheep (26), lambs (5) and calves (1) and have wounded a horse. The district was not charged with this program when it was formed, but animal control agencies struggling with continuously tight budgets, have been unable to take on this responsibility. The only solution for this problem is to enact strict ordinances concerning the feeding of wildlife by animal fanciers. The lack of natural habitat in the urban areas results in the animals being forced to inhabit residences, resulting in property damage. Staff will consult with the public regarding other animals such as pest birds, carnivores and larger rodents such as squirrels, are provided on an ongoing basis, and give advice on exclusion and control.

### Miscellaneous Arthropods

The district responds to service requests regarding a variety of arthropod and insect pests such as spiders, ticks, mites, head lice, cockroaches, flies, fleas, or ants that infest homes and commercial facilities. A total of 520 requests for identifications, consultations and inspections were

responded to concerning these pests. In addition, the District worked cooperatively with city operated water districts in Pleasanton, Livermore, Hayward and unincorporated areas of Alameda County, by placing cockroach bait stations in water meter boxes, which had been identified with infestations. The sewers in Hayward and Oakland and the storm drains in Hayward and Union City were also baited on an "as needed" basis. In the current year the districts requested treatment for 987 water meter boxes throughout the various participating municipalities.

From time to time, the District will receive service requests concerning biting arthropods other than mosquitoes. Two cases of human body lice and one from bedbugs were investigated. Eighteen complaints of bites from small insects or mites were investigated. In 12 of the cases, rodent mites were identified as the cause; advice on eliminating the mites and the rodent hosts was provided. In six of the cases, no biting arthropods were found and it is assumed that the victims were exposed away from their residence or were suffering from delusory parasitosis. In these instances, they are referred to their physicians for further evaluation.

As part of the Lyme disease surveillance program, District Staff identify ticks and mites, and will authorize testing for tick borne disease when appropriate. The District is currently investigating two human Lyme disease, case histories, from victims who are believed to have acquired the disease in Alameda County. The collections and surveillance will occur in the spring of 2002, when the adult and nymphal *Ixodes pacificus* ticks are most numerous. As part of the general tick borne disease surveillance program, 49 Western Black Legged Ticks were tested and none were positive for *Borrelia burgdorferi*. Vector control officers are being trained in tick surveillance techniques and equipment, and plans are in place to increase tick surveillance. Sixty-Five residents of Alameda County were bitten by ticks, and submitted them to the Alameda County Public Health Laboratory for Lyme disease testing. Some additional samples were sent to IgeneX, a private laboratory for PCR Testing. All of the twenty-four ticks acquired in Alameda County tested negative for the Lyme disease spirochete. Additional ticks, one from France and another from the east coast, tested positive for *Borrelia burgdorferi*, the bacteria responsible for Lyme disease.

### Mosquito Surveillance

Alameda County Vector Control currently performs mosquito surveillance for the City of Albany only. The Alameda County Mosquito Abatement District serves the remainder of the county. Staff documented a series of mosquito sources in Albany, primarily in the drainage ditches close to the San Francisco Bay, and along the Southern Pacific Railroad Tracks. Mosquito breeding is occasionally found in the early spring when ditches do not completely drain after seasonal rainfall. Staff conducted a survey for Western Tree Hole Mosquitoes, *Ochlerotatus sierrensis*, in response to a complaint from another agency, but the delay in them reporting it resulted in the sources drying up before a survey could be completed. Staff also conducted surveys of commercial nurseries and other Asian Businesses for Lucky Bamboo. Some plants imported into California from China were found to be infested with the Asian Tiger Mosquito, *Aedes albopictus*, the vector of Denge Fever. No contaminated samples were discovered in the Albany area survey.

### Inventoried Sources

The District maintains an inventory of stables and kennels, and inspects them routinely to prevent nuisances such as odors, insects, or rodents. Animal hobbyist facilities are also evaluated when Alameda County Animal Control requests an inspection, at the time of their annual permit renewal. At the current time there is not any statutory requirement or authority to conduct inspections of pet shops, animal grooming salons or livestock holding facilities, but we will inspect them when complaints are received regarding nuisances. A total of 51 inspections of these facilities were conducted, either in response to a use permit renewal or a service requests from the public.

### Nuisance Abatement

Accumulations of garbage, rubbish, junk cars and stockpiles of animal manure can become public nuisances when left unattended prior to disposal. In addition, these nuisances can provide harborage and nourishment for rodents, flies and other pest arthropods that might result in human exposure and risk of disease. The District responds to complaints about these conditions and will follow up to assure compliance with applicable laws and regulations. The District responded to 470 service requests concerning nuisances, resulting in 5,125 actions including investigations, progress assessments, correspondence, and compliance inspections. An additional 31 inspections were conducted in accordance with the Oakland Beat Health Code Enforcement Program, and Union City CHAT program, which may include elements of substandard housing in addition to nuisances.

### Public Education

In May of 1995, Mary Koory, a consultant on contract for Environmental Health, drafted a strategic marketing plan. One recommended goal for the Vector Control Services District was to make a concerted effort to encourage the City of Fremont to annex to the District. The City currently provides vector control services from their Animal Control Department. Even though their level of training in vector control is not extensive, there is a forceful element within the city to be self-reliant. In 2001 an effort was made to get the word out on District Services based on some overtures from concerned Fremont Residents on dissatisfaction with the Cities Rabies Program. The Community Outreach Specialist set up two separate displays posted at the main library, the first on "Ticks and Lyme Disease" in February, and the second one on "Wasps and Bees" in October. In addition staff participated in the Washington Hospital Children's Health Fair in Fremont, and the Tri-Cities Community Services Fair in Newark attracted neighboring Fremont residents.

Presentations on such subjects as spiders, head lice and rats were made at the Glenview School, and Oakland Head Start at Fruitvale, and Eastmont locations respectively. Staff participated in 25 community events, primarily health and information fairs. The Districts Community Outreach Coordinator organized the "Public Health Week 2001," information fair at Bay Fair Mall in San Leandro. We have continued to participate in the Low-Cost Nix Pediculicide Program, by

purchasing Nix from Phizer Pharmaceuticals, the manufacturer, distributing it to the interested school districts at a very low price. This was done to help the financially disadvantaged children, who have acquired head lice, to be treated for the infestation and reduce the spread of head lice in the schools. This program may contribute, to reduce the number of school days missed by these children. As part of our participation in the Head Lice Prevention Month, we mailed informational packets to 280 elementary schools in Alameda County and included a quality poster within each packet

The first edition of our Alameda County Africanized Honey Bee Task Force Newsletter was printed and mailed out in December 2001. In addition, new and revised informational brochures including a revised Pigeon brochure, a new Yellowjacket brochure, a new AHB brochure is now available for printing, A new Lyme disease brochure, and a new Canine Heartworm brochure are ready for printing

Our Vector Control District at ([http://www.co.alameda.ca.us/ehs/vector\\_control/index.htm](http://www.co.alameda.ca.us/ehs/vector_control/index.htm)), has been up and running since December of 2001. Current features includes most of our brochures, are posted as PDF files and the 2000 annual report. Since going on line the district has received twenty-one “requests for service” via the internet.

### Pesticide Usage

The District was formed with a goal of protecting the public health by an Integrated Pest Management (IPM), which applies various methods and techniques to reduce the risk of human disease from exposure to disease vectors. The use of pesticides by the district is usually confined to the public sewers and storm drainage systems, but we also make applications at public buildings and recreational areas. In addition the district will control venomous insects on private property, with the understanding that this will reduce exposure to neighbors and visitors. The chemicals used by the district in the current year are listed in the table below. Our main programs for accomplishing these goals include:

- Educate the public on the most current methods of prevention, exclusion, and suppression of disease reservoirs and vectors.
- Enforce public health laws and ordinances that pertain to vectors, when it is determined that the general public may be at risk.
- Maintain surveillance over disease reservoir species and vectors associated with them, and make recommendations for reduction of human risk.
- Suppress reservoir and vector species in the public domain when there is a risk of exposure to the public.

### Pesticide Usage

Pesticide	Manufacturer	Formulation	Target Pest	Amount Used	Applications
Delta Dust	AgrEvo	Insecticidal Dust	Yellow Jacket Wasp nests	9 lbs. 10 ounces	29

Contrac Super Blox	Bell Labs	8oz or 1 lb blocks	Domestic Rodents	980.50 lbs.	172
Ditrac Super Blox	Bell Labs	8oz or 1 lb blocks	Domestic Rodents	27.50 lbs.	4
Drione Dust	Roussel UCLA	Insecticidal Dust	Yellow Jacket Wasp nests	12.88 lbs.	37
Quintox Meal	Bell Labs	Meal	Domestic Rodents	1.19 lbs.	2
Contrac Pellets	Bell Labs	Pellets	Domestic Rodents	3.47 lbs.	4
Contrac Blox	Bell Labs	1 ounce	Domestic Rodents	28.37 lbs.	6
M-Pede	Mycogen Corporation	Liquid Concentration	Bees	25 ounces	1
Maxforce Large bait stations	Clorox	Plastic Bait Stations	Cockroaches	2.96 lbs.	8
PT565+	Whitmire	Aerosol Spray	Wasps	61 ounces	4
PT565XLO	Whitmire	Aerosol Spray	Wasps	40 ounces	4
Wasp Freeze PT515	Whitmire	Aerosol Spray	Yellow Jacket Wasp Nests	1,230.75 ounces	92
BTI Briquette	Summit Chemical	10.0%	Mosquitoes	10 ounces	3

- **BENEFIT ASSESSMENT**

The Board of Supervisors reviews annually the proposed rate of assessment, holds public hearings, and then establishes the assessment for the fiscal year. Assessments are levied and collected at the same time and in the same manner as the general county taxes. They are subject to the same fines, penalties, and forfeiture as property taxes. The assessment charge levied

against each parcel is available for review at the Vector Control Services District Office, and at the Clerk of the Board Office at 1221 Oak Street, Oakland, 5th floor.

Assessments are based on land use as classified by the Assessor's Office. A basic assessment rate is established as a single benefit unit (BU), which is applied to the schedule for assessments according to land use as follows:

**LAND USE CATEGORIES**

1. Single Family Residence/Condominium	1BU
2. Vacant Land Parcel	1BU
3. 2-4 Residential Units	2 BU's
4. Commercial and Industrial Property	2 BU's
5. Large Agricultural Rural Properties	2BU's
6. 5 Residential Apartments or more	5 BU's
7. Improved Commercial Property	5BU's

**ASSESSMENT FOR ONE BENEFIT UNIT (BU)  
(Single Family Residential and Vacant Land)  
CSA Basic Rate and Oakland  
1984-2002**

<b>FISCAL</b>	<b>CSA</b>	<b>OAKLAND</b>	<b>OAKLAND</b>
<b>Year</b>	<b>Basic Rate</b>	<b>Supplemental Rate</b>	<b>Total Rate*</b>

<b>84-85</b>	<b>\$3.15</b>	<b>\$0.00</b>	<b>\$3.15</b>
<b>85-86</b>	<b>2.66</b>	<b>0.00</b>	<b>2.66</b>
<b>86-87</b>	<b>2.66</b>	<b>0.00</b>	<b>2.66</b>
<b>87-88</b>	<b>3.24</b>	<b>0.00</b>	<b>3.24</b>
<b>88-89</b>	<b>3.30</b>	<b>0.70</b>	<b>4.00</b>
<b>89-90</b>	<b>3.58</b>	<b>0.66</b>	<b>3.84</b>
<b>90-91</b>	<b>3.80</b>	<b>0.70</b>	<b>4.50</b>
<b>91-92</b>	<b>3.96</b>	<b>0.70</b>	<b>4.66</b>
<b>92-93</b>	<b>3.96</b>	<b>0.70</b>	<b>4.66</b>
<b>93-94</b>	<b>4.72</b>	<b>1.04</b>	<b>5.76</b>
<b>94-95</b>	<b>4.82</b>	<b>1.06</b>	<b>5.88</b>
<b>95-96</b>	<b>5.82</b>	<b>1.26</b>	<b>7.08</b>
<b>96-97</b>	<b>5.92</b>	<b>1.28</b>	<b>7.20</b>
<b>97-98</b>	<b>5.92</b>	<b>1.28</b>	<b>7.20</b>
<b>98-99</b>	<b>5.92</b>	<b>1.28</b>	<b>7.20</b>
<b>99-00</b>	<b>5.92</b>	<b>1.28</b>	<b>7.20</b>
<b>00-01</b>	<b>5.92</b>	<b>1.28</b>	<b>7.20</b>
<b>01-02</b>	<b>5.92</b>	<b>1.28</b>	<b>7.20</b>

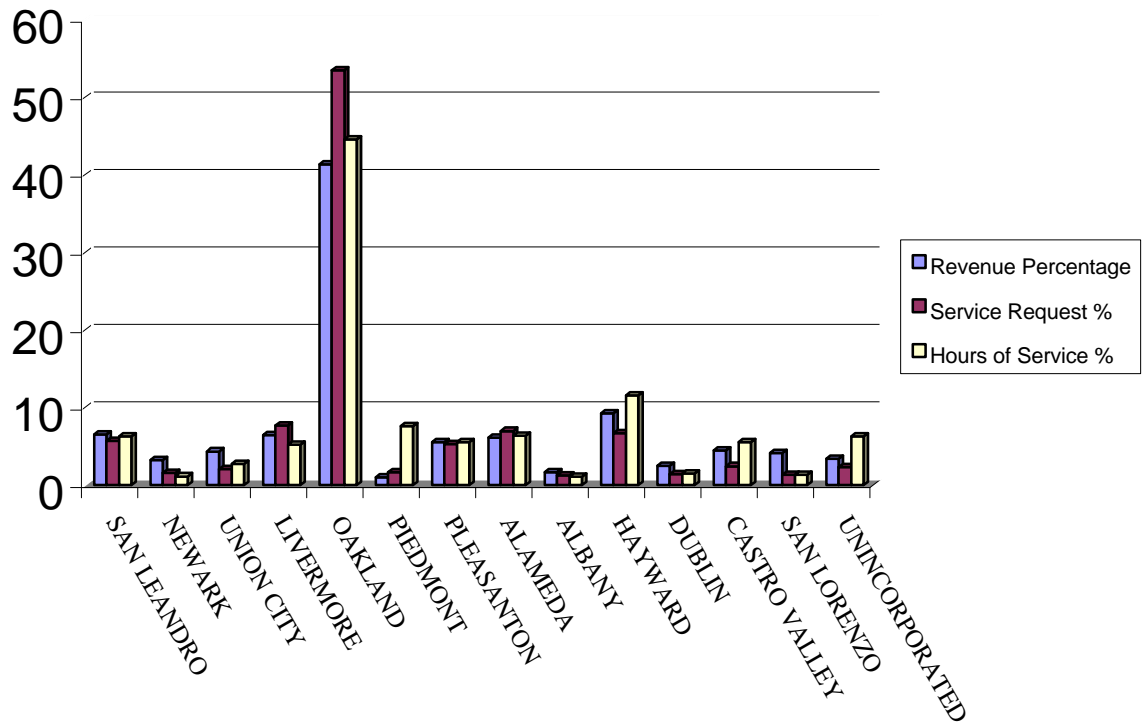
**\*Includes Oakland Supplemental initiated 1988-89**

**CSA VECTOR CONTROL SERVICES  
RECOMMENDED ASSESSMENTS  
FY 2001-2002**

Use/Size	Benefit Unit Assessment	
	Basic	Oakland
<b>1. Single Family Residence/ Condominiums</b>	<b>\$ 5.92</b>	<b>\$ 7.20</b>
<b>2. Vacant Land</b>	<b>5.92</b>	<b>7.20</b>
<b>3. Multiple Residential small (2-4 Units)</b>	<b>11.84</b>	<b>14.40</b>
<b>4. Commercial, Industrial</b>	<b>11.84</b>	<b>14.40</b>
<b>5. Large Rural Property (More than 10 acres)</b>	<b>11.84</b>	<b>14.40</b>
<b>6. Multiple Residential</b>	<b>29.60</b>	<b>36.00</b>
<b>7. Large Commercial (Hotels, Motels, Mobile Home Parks)</b>	<b>29.60</b>	<b>36.00</b>

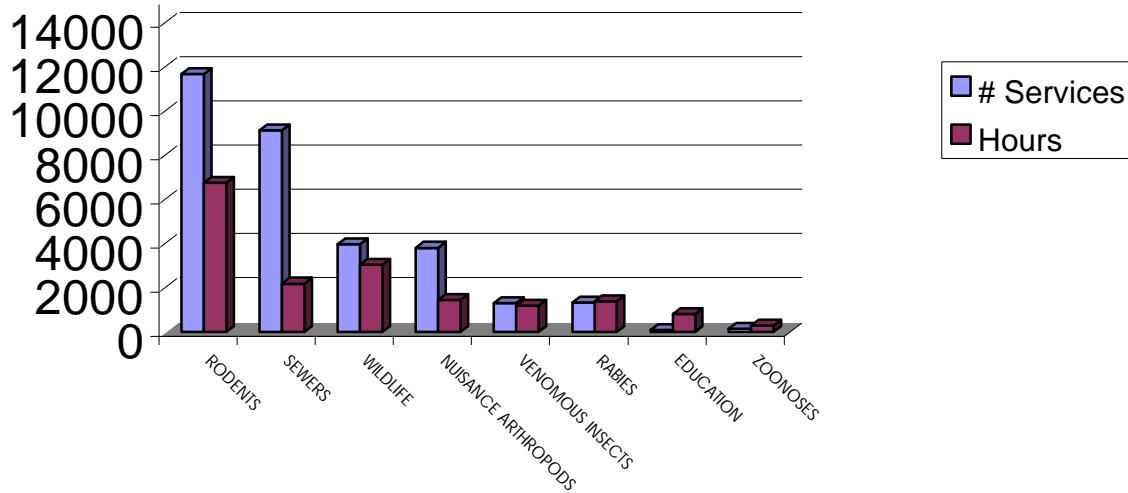


# Alameda County Vector Control Labor Distribution 2001



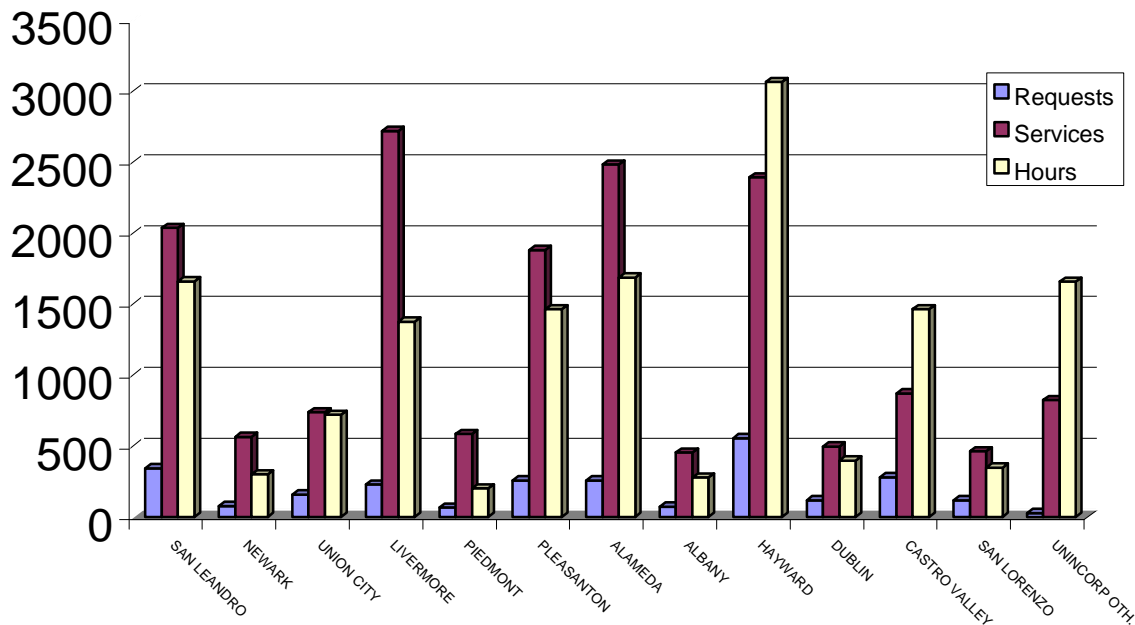
The labor distribution for the district has historically matched pretty well with the assessment for the various communities we serve. The unusual number of service requests concerning wildlife has skewed the statistics toward the traditional wildlife areas of Hayward, Castro Valley, Oakland Hills, Piedmont, and Unincorporated Alameda County. A long-term staff vacancy in the Oakland District has required all staff to assist in coverage this fall and winter, resulting in skewed results. The balance will be achieved when the position is filled.

# Alameda County Vector Control Labor Distribution 2001



In 2001 there was a general drop in service requests for rats and mice and an increase of complaints about raccoons skunks and opossums.

## Alameda County Vector Control Service Requests 2001



This chart depicts the number of service requests for 2001 and the hours typically spent taking care of the problem. The chart excludes the City of Oakland, which accounted for 2,289 service requests, accounting for 11,739 hours of service (44.5 %). Even though the 44.5 % of staff hours exceeded the 41.4 % revenue expenditure from Oakland, it will balance when the vacant position is replaced. The above statistics do not include the services for the USDA – APHIS trapper.