



**Program #40008A - Vector-Borne Disease Prevention and Code Enforcement** 5/6/2020

**Department:** Health Department **Program Contact:** Jae Douglas  
**Program Offer Type:** Existing Operating Program **Program Offer Stage:** As Proposed  
**Related Programs:** 40007, 40010A  
**Program Characteristics:**

**Executive Summary**

The Vector program protects the public from emerging and imminent vector-borne (animal to human) diseases and reduces the social/economic impact of uncontained outbreaks. Major vector-borne diseases include Hantavirus, West Nile Virus and Zika virus. Climate changes in the Northwest (warming winter temperatures, increase in rainfall, and urban landscape management) will increase the risk of vector-borne diseases. Interventions include surveillance, analysis, proactive control/abatement of rodents and mosquitoes, and public education. The program includes enforcement of nuisance codes.

**Program Summary**

Vector control and code enforcement are core public health services. Multnomah County's climate supports ideal mosquito and rat habitats. International airport and shipping along with migratory bird flyways provide avenues for new diseases to enter the community. Mosquito control began in the county in the 1930's, when malaria was endemic. In 2018, five counties in Oregon reported 58 mosquito-cases of West Nile Virus. There were no cases detected in Multnomah County. It is necessary to maintain current levels of surveillance and control to ensure early prevention and suppression of this and other vector-borne diseases using World Health Organization and Center for Disease Control best practices. Rodent control is critical to public health. Rodents can spread Hantavirus, plague and other diseases and can affect livability. A survey in the county rat population showed Toxoplasmosis (Cat Box Fever) in 6% of the rat population. Vector Control protects the community by serving all populations, while focusing on the vulnerable (i.e. elderly, children, homeless). The citizenry understands and expects these program functions.

The Vector program's major components include mosquito control; rodent control; and nuisance code enforcement. Mosquito control comprises the majority of the program's funds/staffing. The program is the primary provider of rodent control in the county. Nuisance code enforcement addresses public health code violations, including restaurant enforcement and dumping.

The program's main activities include collecting and identifying mosquitoes, birds, and rats; monitoring for and responding to emerging vector-borne disease such as Zika virus and now-endemic West Nile Virus; performing laboratory analysis on rats and mosquitoes to determine what species carry disease, their preferred habitats, and population size; abating/suppressing mosquitoes that carry West Nile Virus with pesticides with the least impact; reducing the mosquito breeding habitat through water control and vegetation management; and educating the average citizen and vulnerable populations about preventing vectors and their habitat through community meetings, pamphlets, and the media.

**Performance Measures**

Measure Type	Primary Measure	FY19 Actual	FY20 Budgeted	FY20 Estimate	FY21 Offer
Output	Number of acres treated for mosquitoes	1,526	1,300	1,500	870
Outcome	Proportion of number of acres treated for mosquitoes funded by jurisdictional entity	1.9	0.65	1.9	1.1
Efficiency	Number of acres treated for mosquitoes per FTE	381	325	375	218
Output	Number of rodent inspections conducted	1,083	1,050	1,000	580

**Performance Measures Descriptions**

1) Total acreage where mosquito suppression activities occurred is subject to variance in weather patterns, seasonal flooding, characteristics, and presence/absence of disease. 2) Based on industry standard estimate methodology: 500,000 mosquitoes per surface acre of water multiplied by number of acres treated, estimates mosquitoes prevented (to nearest whole number). 3) Total acreage treated per FTE. Four FTE were used to treat for mosquitoes in FY19 and FY20. 4) On-site inspections stemming from rodent complaints received.

## Legal / Contractual Obligation

Legal mandates are ORS 167, 452, 498, 506, and 634; OAR 635 and 603; 1968 Agreement City of Portland and Multnomah County – Title 13 and Title 8; MC 2011-129; NPDES General Aquatic Permit for Mosquito Control 2300A; 7 contractual mandates include grants, contracts, federal, regional, and local mandates.

## Revenue/Expense Detail

	Adopted General Fund	Adopted Other Funds	Proposed General Fund	Proposed Other Funds
Program Expenses	2020	2020	2021	2021
Personnel	\$1,031,574	\$0	\$887,019	\$0
Contractual Services	\$26,500	\$0	\$19,583	\$0
Materials & Supplies	\$64,740	\$0	\$49,390	\$0
Internal Services	\$0	\$0	\$246,698	\$0
<b>Total GF/non-GF</b>	<b>\$1,122,814</b>	<b>\$0</b>	<b>\$1,202,690</b>	<b>\$0</b>
<b>Program Total:</b>	<b>\$1,122,814</b>		<b>\$1,202,690</b>	
<b>Program FTE</b>	8.65	0.00	6.82	0.00

Program Revenues				
Fees, Permits & Charges	\$500	\$0	\$0	\$0
Intergovernmental	\$0	\$0	\$10,000	\$0
Other / Miscellaneous	\$1,000	\$0	\$1,000	\$0
Service Charges	\$302,612	\$0	\$272,612	\$0
<b>Total Revenue</b>	<b>\$304,112</b>	<b>\$0</b>	<b>\$283,612</b>	<b>\$0</b>

## Explanation of Revenues

\$ 266,112 - The City of Portland, Bureau of Environmental Services  
\$ 10,000 - State of Oregon, West Nile Virus  
\$ 5,000 - Oregon Zoo  
\$ 1,500 - Maywood Park  
\$ 1,000 - Penalty Enforcement

## Significant Program Changes

**Last Year this program was:** FY 2020: 40008-20 Vector-Borne Disease Prevention and Code Enforcement

In FY 2021, Vector-Borne Disease Prevention and Code Enforcement has a reduction in FTE (field staff and administration support), resulting in a decreased level of service that treats fewer acres for mosquitoes and conducts fewer rodent inspections.