

# Health Department

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LOB #143:

## **ENVIRONMENTAL HEALTH PROGRAMS**

### **Purpose**

The Environmental Health Division enhances the quality of life by protecting public health and safeguarding environmental quality; educating the public to increase environmental awareness; and implementing and enforcing local, state, and federal environmental laws. As a Health Department core function, Environmental Health services work to prevent, minimize or eliminate exposure to biological, chemical, or physical hazards in the community. The Environmental Health program works closely with the Health Department's Communicable Disease Unit and Laboratory to investigate, confirm and contain disease outbreaks.

The division has three program areas: the Consumer Protection Program, the Onsite Sewage and Water Program, and the Disease Carrying Insects Program. The primary services conducted by these programs include routine and complaint investigations; commercial and residential plan reviews, surveillance and control activities, and community outreach. The division supports the regulated community, other agencies, and the general public to encourage healthy behaviors and maintain voluntary, long-term compliance with state and local regulations.

### **Description**

Environmental Health has three program areas which work 24/7 to receive and respond to complaints; proactively inspect establishments (food service, swimming pools, and daycare centers) and homes; provide public health education that protect the community from environmental hazards and exposures that pose a risk to human health. In FY 2015 the number of inspections, permits and service requests for Onsite Sewage and Consumer Protection was 29,543. A general description of each program area is included below.

#### **Onsite Sewage and Water Program (OSW)**

This program administers state and local regulations for sewage disposal systems and private well water supplies to ensure proper construction, operation and maintenance. The first sanitation ordinance was adopted in 1928, and the first water supply ordinance was adopted in 1962. All new construction for commercial and residential properties without access to public sewer as well as existing malfunctioning sewage disposal systems require a site soil evaluation by a properly trained and licensed Environmental Health Specialist (EHS). These EHS review and inspect the installation of alternative onsite sewage systems that have been designed for property development by a professional engineer. The Onsite Sewage and Water Program also houses the water recreation facilities program which has regulatory oversight of pools, spas, interactive water features, and water parks.

#### **Consumer Protection Program (CPP)**

This program administers state and local regulations for food service establishments, religiously exempt child care centers, hotels/motels, campgrounds, and summer camps. The first local ordinance for food establishments was adopted in 1940. A risk and performance based approach is used to determine the annual inspection frequency of a food service establishment. Standardized inspections are conducted by a properly trained EHS to identify risk factors that may lead to foodborne illness and to educate food service employees on public health interventions that promote a healthy and safe community. The Consumer Protection Program also conducts health inspection for other licensing agencies and responds to reports of public health or safety menaces.

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## Disease Carrying Insects Program (DCIP)

This program protects the public by conducting mosquito surveillance and control activities; identifying aquatic habitats that support the development of mosquitoes and, when indicated, treating those habitats with a larvicide. In FY 2015 76,377 storm drain larvicide treatments were carried out by a contractor. Education, outreach and surveillance activities are conducted by EHS with expertise in entomology and a team of Environmental Health Technicians. Since 2001, Fund 40080, the Integrated Pest Management Program, has been financially supported by a countywide tax levy to fund both the Disease Carrying Insects Program and the Forest Pest Program (Stormwater Services).

## **Benefits**

Environmental Health Programs include a comprehensive array of services that are essential to the protection, improvement, and preservation of public health and improve the quality of life in the community. Program staff play a vital role in promoting compliance with public health laws and regulations through routine inspections and outreach activities to the regulated community. All programs regularly provide formal and informal presentations to the public to encourage healthy and safe practices to prevent disease and mitigate environmental hazards. Services also include complaint investigations to identify and correct potentially risky situations or behaviors that could adversely affect public health.

## **Mandates**

All Environmental Health Programs are state mandated by the Code of Virginia. The percentage of the Line of Business resources used to satisfy the mandate is 100 percent. The following services are performed in accordance with provisions of the Code of Virginia, the regulation of the Board of Health and/or Virginia Department of Health (VDH) agreements with other state or federal agencies:

## Consumer Protection Program

- The local health department is responsible for the regulatory activities of all frozen desserts plants that are part of a Grade “A” milk plant operation or food establishment, per the VDH Memorandum of Agreement (MOA) with the Virginia Department of Agriculture and Consumer Services (VDACS).
- The local health department is responsible for administering the Food Regulations to food establishments and will conduct at least one annual inspection of each food establishment to ensure compliance, per Virginia Code § 35.1-14.
- The local health department is responsible for administering the Rules and Regulations Governing Migrant Labor Camps and conducting inspections to ensure compliance, per Virginia Code §§ 32.1-203-32.1-211
- The local health department is responsible for administering the Hotel Regulations and conducting inspections to ensure compliance, per Virginia Code § 35.1.13.
- The local health department is responsible for administering the Regulations Governing Grade “A” Milk and conducting the inspection of Grade “A” milk to ensure compliance, per Virginia Code §§ 3.2-5130, 3.2-5206, 3.2-5208 and the VDH MOA with VDACS.
- The local health department, at the request of the Department of Social Services (DSS) will inspect DSS-permitted homes for adults to evaluate their food safety operations, wastewater disposal and general environmental health conditions, per 22VAC40-80-160(B)(3).
- The local health department, at the request of DSS will inspect DSS-permitted daycare centers to evaluate their food safety operations, wastewater disposal and general environmental health conditions, per 22VAC40-80-160(B)(3).
- The local health department is responsible for conducting at least one annual unannounced inspection of juvenile justice institutions in order to evaluate their kitchen facilities,

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general sanitation and environmental health conditions, per Virginia Code § 35.1-23 and the VDH MOA with the Department of Corrections.

- The local health department is responsible administering the Regulations for Summer Camps and the Rules and Regulations for Campgrounds and for conducting inspections to ensure compliance, per Virginia Code §§ 35.1-16 and 35.1-17.
- The local health department is responsible for investigating complaints and reports of suspected rabid animals exposing a person, companion animal, or livestock to rabies, per Virginia Code § 3.2-6500 et seq.
- The local health department may assist VDH Central Office with radon testing and analysis, per Virginia Code § 32.1-229

## Onsite Sewage and Water Program

- The local health department is responsible for administering the Alternative Discharging Regulations as applicable to single family dwellings and for conducting regular inspections of alternative discharging systems in order to ensure that their construction and operation are in compliance with the Alternative Discharging Regulations, per Virginia Code § 32.1-164(A)
- The local health department is responsible for the administration of the Sewage Handling and Disposal Regulations and the Alternative Onsite Sewage System Regulations to conventional and alternative onsite sewage systems and for assuring that onsite sewage systems are inspected at time of construction for compliance, per Virginia Code § 32.1-163
- The local health department is responsible for assuring that surveys are conducted of properties which include soil evaluations and identification of potential sources of contamination to determine site suitability for onsite sewage systems, alternative onsite sewage systems, alternative discharging sewage systems and wells, per Virginia Code §§ 32.1-163, 32.1-164(A) and 32.1-176.2.
- The local health department is responsible for administering the Private Well Regulations and for inspecting private wells to ensure that their construction and location are in compliance, per Virginia Code § 32.1-176.2.
- The local health department is responsible for administering the Marina Regulations and for inspecting marinas and other places where boats are moored to ensure that their sanitary fixtures and sewage disposal facilities are in compliance, per Virginia Code § 32.1-246.
- The local health department is responsible for regulating hotel swimming pools, per a state mandate for hotel pools and posting of water quality results in all pools, per Virginia Code § 32.1-248.1. There is a local option for regulation and inspection of all public pools.

## Disease Carrying Insects Program

The Board of Health shall develop and maintain the capability and technical competence to investigate diseases borne by insects and rodents and shall recommend such measures as may be necessary to prevent the spread of such diseases and to eradicate or control disease-bearing insects and rodents. The Board shall make provision for assistance to mosquito control commissions when requested, field surveys and investigations of complaints, advice to citizens and local governments, training in vector control, advice and recommendations on proper use of pesticides and identifying specimens, per Virginia Code §§ 32.1-163 through §32.1-248.2.

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## Trends and Challenges

The most significant emerging issues in environment health are food safety, climate change adaption, and the increase emergence of disease carrying vectors. Food safety, which underlies the importance of protecting the community against bacteria in food and food preparation, is critical to preventing foodborne illness. There are multiple reasons for increased incidents of foodborne illness including better methods of detection and identification, resistant microorganisms that are adapting to changes in their environment, changes in consumer lifestyles (more than 30 percent of meals are eaten away from home), and changes in the food system (farm to table). Mobile food vending has grown considerably in recent years. One of the most intrinsic and logical concerns regarding food trucks, and one that has been a basic consideration since their inception, is public health. Looking to adopt sanitation regulations for mobile vendors is a pressing and emerging environmental health issue.

Climate change is projected to impact the severity of natural disasters such as floods and storms, air and water quality, and patterns of communicable diseases. Efforts by local governments for climate change adaption are increasing. Adaption can consist of a wide variety of actions by an individual or community to prepare for, or respond to, climate change impacts. Examples of climate change adaption can include increase energy efficiency to help offset increases in energy consumption, implementing early warning systems and emergency response plans to prepare for changes in frequency, duration, and intensity of extreme weather events, improving emissions from idling vehicles that impact air quality and improve water use efficiency.

The vast majority of insects encountered each day are harmless to man and some are even beneficial. Increased temperature and precipitation suggest the emergence of more disease-friendly conditions that did not previously host diseases or disease carriers. In addition to changing weather patterns, climatic conditions affect diseases transmitted via vectors such as mosquitoes (vector-borne disease) and through rodents (rodent-borne disease). Adaption of the community to warmer weather will be required to protect against deadly diseases often associated with hot ambient temperatures, like West Nile virus and Lyme disease. Disease carriers like mosquitos, ticks, and mice thrive in warmer temperatures.

The Environmental Health Program has a number of highly specialized technical staff who are eligible for retirement in the next three to five years. To address this challenge, Environmental Health will make succession planning efforts for continuity of this technical expertise including intensive and specialized cross-training through temporary work assignments. Workforce planning includes efforts to provide entry level environmental health positions through reclassification of existing positions. These entry level positions foster the retention of staff by providing an opportunity for professional growth and development in the field of environmental health.

Another trend in Environmental Health Programs is doing more with fewer resources and needing to hold managed vacancies. In response to the loss of four FTEs as part of the FY 14 budget reduction process, the Environmental Health Program has reallocated and cross-trained staff to maintain the mandated level of services. New hires are no longer trained in one specialized environmental field, such as onsite sewage or food safety. Instead training and experience is generalized in an effort to build the capacity of the program to respond to community needs and trends. The long-term goal is to have Environmental Health Specialists who are licensed or certified to conduct services in all environmental programs.

Due to ongoing budget constraints, funding of non-mandatory training and development opportunities has been impacted. As a model regulatory food program, the Health Department has been able to secure approximately \$63,000 in grant funding over the last three years through FDA's cooperative agreement programs. This funding has been used to support travel and training for professional development that would otherwise not be available to build the competency of the program staff.

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An opportunity to increase efficiency and improve monitoring exists with existing retail food service establishments currently only under regulation through an inspection program conducted by the Virginia Department of Agriculture and Consumer Services. Improved coordination and local oversight of the regulatory activities for these food service establishments allows the County to assure the frequency and quality of inspections by properly trained and standardized staff in a program that complies with the FDA's Retail Program Standards.

Having information technology software packages that allow Environmental Health to better collaborate with other state and local agencies, including the Virginia Department of Health, is an ongoing challenge. A recent upgrade to HealthSpace, the state electronic inspection system, had a significant negative impact on the productivity of the Consumer Protection Program staff with regards to conducting food service establishment inspections per the prescribed inspection frequency.

## Resources

Category	FY 2014 Actual	FY 2015 Actual	FY 2016 Adopted
<b>LOB #143: Environmental Health Programs</b>			
<b>FUNDING</b>			
<u>Expenditures:</u>			
Compensation	\$3,787,326	\$3,800,390	\$4,514,432
Operating Expenses	388,351	280,323	572,855
<b>Total Expenditures</b>	<b>\$4,175,677</b>	<b>\$4,080,713</b>	<b>\$5,087,287</b>
General Fund Revenue	\$3,124,415	\$3,133,057	\$3,140,541
Net Cost/(Savings) to General Fund	\$1,051,262	\$947,656	\$1,946,746
<b>POSITIONS</b>			
Authorized Positions/Full-Time Equivalents (FTEs)			
<u>Positions:</u>			
Regular	61 / 61	63 / 63	63 / 63
<b>Total Positions</b>	<b>61 / 61</b>	<b>63 / 63</b>	<b>63 / 63</b>

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## Metrics

Metric Indicator	FY 2013 Actual	FY 2014 Actual	FY 2015 Actual	FY 2016 Estimate	FY 2017 Estimate
Number of Environmental Health community protection activities: inspections, permits, and service requests	29,640	30,983	29,543	30,000	30,000
Mosquito larvicide treatments of storm drains to control West Nile virus	101,013	103,661	76,377	105,000	105,000
Percent of foodborne illness risk factor inspections conducted in food service establishments within the prescribed inspection frequency	76%	95%	95%	95%	95%
Percent of out-of-compliance onsite sewage disposal and water supply systems corrected within the specified time period	92%	89%	90%	90%	90%
Percent of environmental complaints resolved within 60 days	86%	91%	88%	90%	90%

In response to the FY 2014 reduction in program staff, while also meeting the Department's managed vacancy rate, Environmental Health Services reallocated staff and realigned program areas to meet state and local mandates for services. There has also been an increased collaboration with partner County departments to streamline the provision of services, improve customer service, and reduce redundancy. As a result of these program improvement activities, the number of Environmental Health community protection activities (i.e., inspections, permits, and service requests) in FY 2015 (29,543) is less than in FY 2014 (30,983).

Approximately 36,500 storm drains are treated with a larvicide during three separate six-week cycles from mid-May through October, for a total of approximately 109,500 storm drain treatments. Weather conditions are the principal factors that determine the number of storm drains that will be treated, as well as the percent of storm drains treated within the scheduled timeframe, during a given year. There was a significant decrease in the number of larvicide treatments of storm drains for the control of mosquitoes that transmit West Nile Virus from FY 2014 (103,661) to FY 2015 (76,377). The new contract with the provider of mosquito control activities was delayed and not awarded until late May 2015. Multiple days of rainfall in June 2015 limited the application of larvicide treatment. Future estimates for this measure have been set at 105,000 treatments.

The prescribed inspection frequency during a 12-month period for each food service establishment is based on the complexity of the food operation and the history of its compliance with foodborne illness risk factor interventions. Inspections are conducted on a routine interval of one, two, or three times a year. In FY 2015, Environmental Health Services achieved the goal of 95 percent of foodborne illness risk factor inspections conducted in food service establishments within the prescribed inspection frequency.

During FY 2015, 90 percent of the violative conditions of sewage disposal and water supply systems were corrected within the time period specified by Environmental Health Services. This is a slight increase from FY 2014 (89 percent) and meets the estimated outcome for this measure.

During FY 2015, 88 percent of service requests to investigate complaints of public environmental health concern were resolved within 60 days. This slight decrease from FY 2014 (91 percent) is due to the design of a new report of complaint investigation records in the County's inspection database that yields more accurate and reliable information for this measure.