

## Preface



While emerging diseases and the latest public health issues often capture the headlines, effective environmental public health services are the cornerstone of a healthy population. Health protection activities include ensuring our community has effective sanitation, safe food, clean air and clean drinking water. Public Health - Seattle & King County has provided environmental health services to protect the health of our residents since the late 1800s, when Seattle's growing population created conditions for typhoid, cholera, and other communicable diseases. In 1889, the first sanitary "policeman" was hired, primarily to convince residents to hook up to the new sewer system, but also to deal with adulterated food, plague-carrying rats, uncontrolled garbage, and unsafe drinking water. Today, Environmental Health services still plays a significant role in ensuring that our land, air, food, and water is as healthy as possible. The fact that as residents we don't have to think much about these basic issues is a tribute to the fine work our public health professionals do every day.

But, our work is not done, static, or even routine. As we look into the future, and begin to confront a new array of public health challenges ranging from climate change to the globalization of our food sources to the impact of the built environment on our local communities, the importance of our environmental health work will only increase

*David Fleming, MD*  
*Director and Health Officer, Public Health - Seattle & King County*



## Hello!

Welcome to the 2005-2006 Environmental Health Services Division Biennial Report. My goal for this report is to capture the hard work that our staff does every day to protect the health of all King County residents, whether they live in rural, urban, or suburban communities. You'll see how our division is a leader in providing both traditional Environmental Health services and delivering innovative and progressive Environmental Health services with a special focus on underserved segments of our populations.

Environmental health is a dynamic field that evolves as community needs and science evolve. As environmental public health professionals, we too must adapt our work to fit 21st century challenges, while paying attention to environmental justice and disparities as we deliver services. Our mission, "to identify and sustain environmental conditions that promote healthy people and communities," applies to all King County residents. Please consider the innumerable ways our outstanding Environmental Health professionals are creating safer, healthier communities for all of us as you read the following Biennial Report.

*Ngozi Oleru, Ph.D.*  
*Director, Environmental Health Services Division*





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King County has some of the most spectacular natural environments anywhere – dynamic cities, productive farmland, and salmon-spawning rivers and streams. When the land we live, work, and play on is healthy, we have a greater chance to be healthy too. The following Environmental Health programs protect the land in King County through regulation efforts and by working with communities to increase their ability to keep the land healthy.

### **Hazardous Waste**

The Local Hazardous Waste Management Program, a collaboration between Environmental Health, Seattle Public Utilities, King County Department of Natural Resources and suburban cities, ensures hazardous wastes produced by households and by businesses are handled properly. Many people have hazardous wastes like oil based paint, pesticides, and fertilizers in their homes. Businesses, like auto body shops or drycleaners, may generate small quantities of hazardous waste. In the past, a typical way to get rid of left over chemicals was to flush them down the drain or toss in the garbage. We know that by doing this hazardous chemicals may eventually go into our water or food supply, endangering human and animal health. We help people and businesses figure out what their hazardous wastes are and determine the proper and safe way to dispose of them.

### **Illegal Drug Labs**

When an illegal lab is found by law enforcement, they alert our meth lab team, which then determines whether the property is contaminated. Illegal drugs like methamphetamine (“meth”) are manufactured in houses, apartments, outbuildings, and even cars or motel rooms. During the manufacturing (or “cooking”) process, the chemicals can cause serious injury to anyone who is exposed to them. The fumes saturate the carpets, floors, and walls in the building where people, particularly young children, become exposed long after the cooking is done. The chemicals may include solvents, metals, and acids like ammonia, benzene, hydrochloric acid, or sodium hydroxide. We work with the property owners, concerned neighbors and other agencies to get the site cleaned up by overseeing the decontamination process and ensuring that all toxic wastes are properly disposed. Finally, we approve the property for re-occupancy.

### **IMEX**

The Industrial Materials Exchange (IMEX) program links individuals and businesses that have unwanted industrial materials with individuals and businesses that can use them. Each party saves money by avoiding both disposal and purchasing costs, and we all benefit by keeping usable materials from the landfill. If you have materials to give away or are looking for materials, you can be on the IMEX list for free by visiting the IMEX website at [www.govlink.org/hazwaste/business/imex](http://www.govlink.org/hazwaste/business/imex) or calling either 206-296-4899 or 1-888-TRY-IMEX.

### **Solid Waste**

Approximately 1.5 million tons of solid waste (garbage) is generated each year in King County. Solid waste must be handled carefully to protect people from disease and to protect the environment from contamination. The Solid Waste Program team reviews and approves plans for waste-handling facilities like landfills, issues permits to operate facilities and garbage trucks, and inspects and monitors to ensure that waste is being handled in the safest way for people and the environment.







We also work directly with residents by investigating complaints about illegal garbage dumping and other refuse. We do this through regulations, inspections, and education on:

- Preventing landfill gas exposures and explosions
- Controlling rodents, birds, flies and mosquitoes
- Limiting noise from landfills, transfer stations and vehicles
- Minimizing odors and litter

### Vector/Nuisance

The Vector/Nuisance Program team educates residents on how to control rodents and other vectors species. Vectors transmit disease from one living being to another. Vectors can be insects such as mosquitoes or animals like raccoons or rats. In addition to being a disease vector and one of the oldest public health problems, rats are a nuisance that also destroy property, cause electrical fires, and contaminate food. The Norwegian and roof rat, the most common rat species in our region, are found anywhere food, water, and shelter are available. Norwegian rats live in both sewers and burrows in the ground, while roof rats live in trees and, occasionally, our homes. Our team responds to hundreds of rodent complaints each year, and within the City of Seattle we bait sewers to control rat populations.

### SUMMARY of LAND PROTECTION and DISEASE CONTOL ACTIVITIES

Quick Statistics	2005	2006
Conducted initial site hazard investigations and assessments	27 Initial Investigations and 14 Site Hazard Assessments	24 Initial Investigations and 26 Site Hazard Assessments
Investigated unlawful dumping complaints	1,572	1,841
Investigated rodent complaints	1,243	1,305
Mapped dead birds reported to the West Nile virus surveillance program	3,094	2,503
Consulted with residents on questions about mosquitoes, birds and West Nile virus	1,083	781
Issued Waste Clearances to ensure dangerous waste is not going to landfill	326	358
Responded to inquiries regarding hazardous waste	15,990 household and 2,438 business	16,979 household and 1,695 business
Released decontaminated illegal drug lab sites for re-occupancy	30	21
Saved businesses money through the IMEX program	\$95,374 saved through 60 reported exchanges	\$272,869 dollars saved through 73 exchanges
Consultations and investigations by the Zoonotic Disease Program	568 rabies consultations 35 investigations of animal leptospirosis	612 rabies consultations 42 investigations of animal leptospirosis 1 psittacosis investigation 1 illegal animal sales investigation
Controlled rat population in the City of Seattle	8,834 manhole inspections, 2,925 baitings	11,347 manhole inspections, 2,247 baitings
Roadside spray sampling		54 samples at 6 sites
Sampled for lead/arsenic - Tacoma Smelter Plume	1,790 soil samples from 91 properties	Schools investigated - 28 Schools sampled - 26 Water samples tested - 238
Petshops, kennels, and dog daycares in the City of Seattle	79 consultations 20 complaint investigations 3 inspections	165 consultations 11 complaint investigations 49 inspections

## Roadside Monitoring

Weeds and plants along the roadside reduce driver visibility, creating safety hazards for pedestrians, motorists and bicyclists. Environmental Health tests for pesticide residue after King County Road Services Division's staff performs controlled herbicide spraying along some roads. We have found that low concentrations of pesticides are effective at killing weeds while not leaving significant toxicity behind, demonstrating that King County's Integrated Pest Management program is minimizing impacts to the land and water.

## Site Hazard Assessment

Contaminated soil and water caused by old technologies and careless environmental practices are unfortunate legacies of industrialization. Our Site Hazards Assessment team investigates contaminated sites to determine the type and seriousness of the contamination. Our assessments allow the State Department of Ecology to prioritize cleanup for these sites.



## Tacoma Smelter Plume Project

### A 2005 EPA Program for Excellence in Children's Environmental Health Education Award Winner

Arsenic and lead spewed out of the Tacoma ASARCO copper smelter stack and over much of King County for almost 100 years before it closed in the mid 1980s. Our team tests soils for lead and arsenic and educates residents about the soil contamination. Arsenic and lead may cause serious health problems, including intellectual and developmental delay, particularly in children.

We focus on where young children learn and play by collaborating with community groups, schools, preschools, child care providers, and gardeners. Young children can develop habits that lower their risk of exposure to contaminated soil. To help children learn these habits, we produced a music video in English and Spanish for pre-schools. "Be Alert in the Dirt!" is a 5 minute video with Tickle Tune Typhoon, children from local child care centers, and Digger the Dog singing about how to "Leave the dirt outside!" It has been "kid tested" to rave reviews.

In 2005, staff collected 1790 soil samples from 91 different properties using GIS mapping technology to identify sites. Twenty seven of the 91 properties sampled (29.7%) had results above the Model Toxics Control Act (MTCA) – the state standards for safe levels of toxics. We found maximum arsenic and lead concentrations at 223 parts-per-million (ppm) and 660 ppm respectively (the state cleanup standards are 20 ppm arsenic and 250 ppm lead).

In 2006, Washington State passed a law requiring all schools and child care centers in the Plume area to be tested for presence of arsenic and lead by 2009. In 2007 and beyond we will focus on soil sampling the hundreds of child care centers in South King County.





## **A Focus on Lead Safety**

Our staff helps families avoid lead hazards and link to follow up medical care when needed. Recently, a mother concerned about living in a 1912 home during a major remodel asked her doctor to test her 11 month old son for lead. The child's blood lead level was high, so we conducted a home visit to find the source of the lead. The family had a "safe room" for the baby, but even that room had dust and paint chips in it with unsafe levels of lead. The baby was monitored by a public health nurse and his provider, and the lead was safely removed from the home.

## **Zoonotic Disease Control**

An important function of the Zoonotic Disease Program is to manage, reduce, and eliminate the threat zoonotic disease plays in our communities by providing technical assistance and information to residents, businesses, community partners, and governmental agencies. This program also focuses on "emerging infections," those that are just being recognized and could become global concerns. More than 75% of new diseases impacting people originate with animals, such as SARS, monkeypox, and avian influenza.

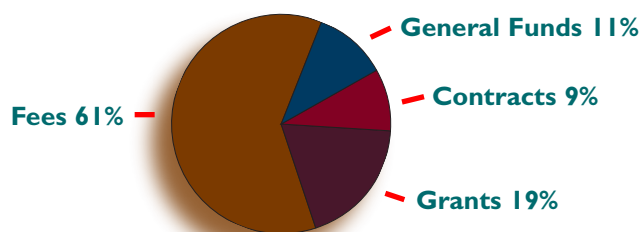
Some diseases are transmitted directly from an animal to a person, such as rabies, and some diseases are transmitted through a vector to people. Examples of vector-borne diseases include West Nile virus, a bird disease that is spread to humans by an infected mosquito, and Lyme disease spread by infected deer ticks. Since 2002, Environmental Health has been educating residents about West Nile virus, training on the safe control of mosquitoes on public land, responding to thousands of questions about West Nile virus, studying local mosquito species, and tracking thousands of bird deaths in an effort to understand more about the insect and bird ecology. After being first identified in the U.S. in 1999, King County had its first confirmed cases of West Nile virus in birds in 2006.

Finally, there are some diseases that both animals and humans can get from common environmental sources like soil or water, such as anthrax or fungal infections. It is anticipated that global warming will increase the incidence of vector and environmental source of diseases, so it is important that we remain vigilant about zoonotic diseases.

## **Funding**

Environmental Health programs focused on protecting the land are funded through a variety of sources including fees, grants, contracts for services, and some support from state and county general funds. The revenues collected for these programs are dedicated to their specific program activities. Any excess fee revenues at the end of the year are reserved for future years' work in that area. These programs cost approximately \$5,658,000 in 2005 and \$5,975,000 in 2006. The funding came from the sources shown below.

**Revenues for Land Programs 2005-2006**





Food borne illness can be very serious. If you have ever had diarrhea or vomited, it was most likely a case of food borne illness. Of the estimated 76 million people a year in the U.S. who suffer from vomiting and diarrhea caused by food contaminated with disease-causing organisms, 325,000 are hospitalized and 5,000 die. Environmental Health's goal is to reduce the risk of food borne illness through education and community-supported regulation.

### **Food Establishment Inspections**

King County has a wonderful diversity of food establishments, representing cultures from around the world. Our inspection team works with over 10,000 permanent and temporary food establishments to assure that they are selling food that is safe to eat. Thousands of visitors each month visit the restaurant inspection reports available on our website ([www.metrokc.gov/health/foodsfty](http://www.metrokc.gov/health/foodsfty)) to check the status of local restaurants and to learn home food safety information.

### **Food Worker Training Program**

Every food worker who prepares and serves food to the public must have a food worker card, which they obtain by taking a food safety class and passing a test. We provide regularly scheduled classes and our partners at the Washington Restaurant Association Education Foundation offer classes at food establishments. The materials for our classes are in seven different languages. If we don't have the materials someone needs, they may request an interpreter or bring a trusted friend.

## **Program Highlight**

### **The 2005 Food Code Adopted**

A great deal of energy and effort was put into preparing industry and regulators alike for learning and practicing the new food safety guidelines. Restaurant inspectors were trained in the new code and provided educational sessions on this new code to food establishments. The new regulations include clear directions on no bare-hand contact with ready-to-eat foods and lowered the temperature requirements for cold foods to 41 degrees to better prevent bacterial growth. Also, with the new food code, we reorganized our categorization of food establishments to a risk-based system focused on the complexity of food preparation rather than on the size of the establishment.

An important aspect to the development and adoption of the new food code was the input from the Food Stakeholder Advisory Committee. This committee provides a forum for food industry stakeholders of Seattle and King County to discuss food protection goals and codes and build mutual understanding between government and industry.





## Temporary Events

When food is being served to the public for a one-time event, like a festival or fair, a temporary food permit must be acquired. Our staff reviews plans for the food booth layout and menus, focusing on preparation, transportation, hand wash stations, proper refrigeration, food storage, cooking equipment, and restroom availability. With advance planning and inspections during the events, we strive to ensure that temporary events are both safe and enjoyable.

Environmental Health staff worked at hundreds of temporary events in 2005 and 2006. Some of the larger events included:

### 2005 Events

- Bite of Seattle - 61 vendors
- Bumbershoot - 56 vendors
- Kent Cornucopia – 46 vendors
- Northwest Folklife Festival - 45 vendors
- Salmon Days (Issaquah) – 41 vendors
- University Street Fair – 40 vendors
- King County Fair – 31 vendors
- Fremont Fair - 31 vendors
- NHRA Nationals/Pac Raceway - 29 vendors
- 60 Acres Event - 25 vendors

### 2006 Events

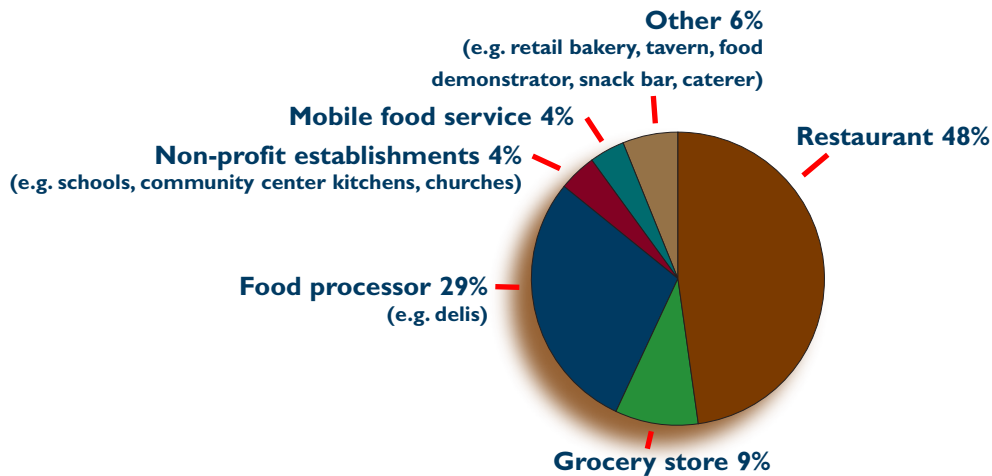
- Bite of Seattle – 60 vendors
- Kent Cornucopia – 49 vendors
- Salmon Days (Issaquah) – 48 vendors
- Bumbershoot – 47 vendors
- Northwest Folklife Festival – 40 vendors
- University Street Fair – 35 vendors
- Fremont Fair – 27 vendors
- Ballard Seafood Festival – 21 vendors
- King County Fair – 20 vendors
- Hemp Fest – 20 vendors

## SUMMARY of FOOD SAFETY ACTIVITIES

Quick Statistics	2005	2006
Permitted food service establishments	9,628	10,031
Provided inspection and educational visits to food service establishments	24,262	25,080
Investigated food borne illness complaints	75	100
Reviewed kitchen designs for food service establishments	866	959
Provided training and testing for food workers	46,723	49,500
Responded to public concerns about restaurant food safety	1,086	1,248
Distributed annual newsletters to restaurants	10,000	9,595

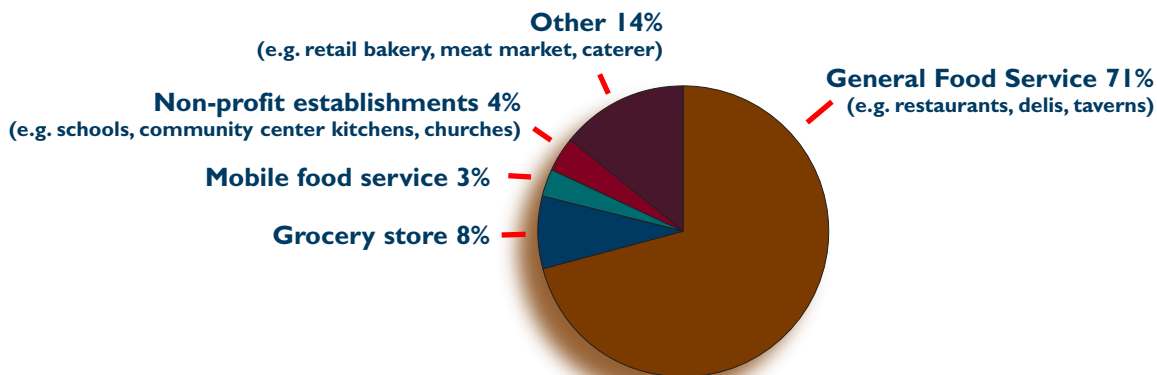
## Types of Permitted Food Establishments

### 2005 Restaurant Categories



### 2006 Restaurant Categories

(based on New Permit Categories with Risk Levels)



## Funding

More than 99 percent of the funding for Environmental Health programs to prevent food borne illness comes from fees paid by the food industry. In 2005, \$6,271,000 was spent to regulate the food industry in King County and provide food safety education and training; \$6,919,000 was spent in 2006.





## ■ WATER

Water contamination can be dangerous to an individual or a community's health. Septic systems can contaminate surface and ground water supplies if managed incorrectly. Sewage overflows and spills or wildlife waste can contaminate swimming beaches. Incorrectly installed plumbing systems may result in toilet water flowing into drinking water pipes. Inadequately maintained spas and pools can spread disease or create conditions for preventable injury or death. Through regulation, education, inspection and working with other agencies, property managers, and users, Environmental Health helps community avoid these potentially hazardous situations.

**“I got into this line of work when I was an LPN and was meeting folks that were doing environmental health. They were working at preventing disease in a whole population versus taking care of one patient at a time. That prevention orientation appeals to me. It's satisfying to work with the public and help people solve problems.”**

*Steve Burke, Health & Environmental Investigator, 28 years*

### Drinking Water

Although most King County residents get their water from the Cedar and Tolt River watersheds, some get their water from wells. "Group B" small multifamily water systems, along with several thousand individual private wells, provide water in areas of rural King County. We assist residents in operating their water systems safely by providing technical assistance and education on water quality monitoring, safe well location, and wellhead protection.

### Onsite Sewage

Home owners and businesses use septic systems most often when there is no opportunity to connect to a community sewer system. We provide educational, advisory and permitting services for septic system owners and certifications for septic system professionals. The education component focuses on maintenance and operation of onsite septic systems so they function efficiently for as long as possible.

### Plumbing and Gas

Indoor plumbing, heating, and air conditioning are modern conveniences we rely on. When plumbing is installed correctly, it prevents drinking water contamination, the spread of bacteria and disease, exposure to scalding hot water, unpleasant odors and the inconvenience of fixtures and faucets that do not work properly.

### Pools and Spas

Residents, tourists and visitors make up the tens of thousands of people who enjoy swimming pools and spas in King County each year. Our inspectors check each public pool and spa for safe water disinfection, proper water temperature, adequate and functioning gates, and other safety equipment. We also write and distribute an annual newsletter - "Splash!" - with tips to avoid common pool and spa-related health and safety problems.

### Shellfish

The Biotoxin Program works year-round, sampling mussels and clams from salt water beaches to monitor for Paralytic Shellfish Poison (PSP, also known as "red tide"), and Amnesic Shellfish Poison. These biotoxins occur naturally in marine waters. However, a combination of warm temperatures, sunlight, and nutrient-rich waters can cause rapid reproduction, or "blooms". When a toxin is detected at dangerous levels, harvest areas are closed, and "shellfish harvest closure" signs are posted on the beach in seven languages until the levels drop again.

## Swimming Beaches

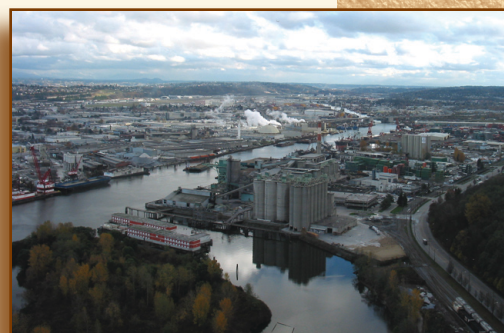
The main purpose of beach monitoring is to protect public health by providing timely information about the water quality at 18 fresh water public swimming beaches and 10 salt water beaches in King County. This program helps identify the source of bacteria, whether from bathers, animals or overflow from the sewage system. The water beach program is a collaboration between Environmental Health, King County's Department of Natural Resources and Parks, Washington Departments of Ecology and Health, and local cities and parks.



## Program Highlight

### Duwamish River Festival

The Duwamish Waterway was designated an Environmental Protection Agency (EPA) Superfund toxic cleanup site in 2001. The sediments in and along this five mile industrial waterway are contaminated with PCBs and other toxic chemicals from decades of unregulated industrial discharge and sewer overflows. The waterway cuts through two diverse communities, South Park and Georgetown. Environmental Health, regulatory agencies, and the Duwamish River Cleanup Coalition formed the Duwamish River Community Engagement Group, and have been meeting for six years to increase communication and education about the cleanup efforts. In August of 2005 and 2006, EPA and the Washington Department of Ecology invited the Community Engagement Group to join them in putting on a festival. At the event Environmental Health offered an interactive activity for festival goers in which they were asked to identify valuable “community assets” of the Duwamish and its communities. Spanish interpreters and translated materials helped make our efforts a success. The festival gave neighbors, friends, and others who used the river a chance to learn more about the river and about government efforts to improve the health of this essential waterway.



## SUMMARY of WATER PROTECTION ACTIVITIES

Quick Statistics	2005	2006
Group B small multifamily water systems	1,491	1,484
Households and businesses with a septic system	120,000+	121,000+
Biotoxin sampling from May through November, and seasonal consultation on fresh water beaches	13 saltwater beaches 4 beaches were closed for a short time before water samples confirmed safe water	13 saltwater beaches and 27 fresh water beaches All tested saltwater beaches remained open and 3 fresh water beaches were closed
Provided plumbing and gas piping permits	10,322 plumbing and 7,457 gas piping	9,756 plumbing and 6,760 gas piping
Reviewed onsite septic system site applications	2,088	2,058



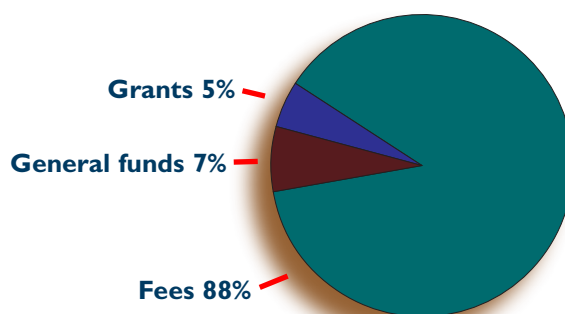
## SUMMARY of WATER PROTECTION ACTIVITIES

Quick Statistics	2005	2006
Approved as-built designs for onsite septic systems	1,307 (1,174 were new septic systems)	1,131 (1,054 were new septic systems)
Received operation and maintenance reports from licensed maintainers	1,162	1,043
Sent information to homeowners with onsite septic systems and facilitated workshops	1,751 packets 2 workshops	1,500 packets 2 workshops
Displays of onsite septic information		Earthday at Westlake Plaza, King County Council Meeting, 330 Metro Busses interior displays
Inspected pools, spas, and wading pools	3,379	3,628
Inspected well seals and decommissioned wells	120 well seals and 46 decommissioned wells	120 well seals and 61 decommissioned wells
Conducted inspections of Group B wells	219	208

### Funding

Environmental Health programs to protect our water from contamination are funded through fees paid by residents and businesses, grants, and state and county general fund support (as shown below). Program expenses in 2005 were \$5,734,000 and \$6,269,000 in 2006.

Revenues for Water Programs 2005-2006



“I got into environmental health on a recommendation from my mentor when I was freshman at UW. The most satisfying thing about my job is the decision making authority that I have. I don't work at a desk 40 hours a week. I'm out in the field reviewing wastewater systems and evaluating soils and drinking water systems.”

Jarone Baker, Health & Environmental Investigator, 8 years at Public Health



## AIR

While we may more often hear about outdoor air pollution problems, the air indoors can actually be more harmful to our health. Mold, pesticides, chemicals, airborne particles, smoke from cigarettes and fireplaces, household cleaners, lead dust, and noise create potential hazards for indoor environments. Poor indoor air quality can trigger respiratory illnesses including asthma, one of the most common reasons for children to need hospital care and to miss school.

Environmental Health promotes healthy indoor environments by collaborating with other agencies to address air pollution concerns, working with schools to prevent air quality problems, and responding to calls from home renters and owners.

### Indoor Environment Assessment

In 2005, with funding from the City of Seattle, we conducted home environmental assessments for Seattle residents, especially for those living in a multi-unit complex. During the assessment, we looked for asthma triggers in residences with children under 18 years old with asthma or asthma-like symptoms. In some units we tested carpet dust for chemicals and allergens. Some of the participants were provided with allergy bedding covers, green cleaning kits, walk off mats and vacuum cleaners. In 2006, we also assisted the City of Tukwila in assessing a substandard housing complex for livability and code violations.

We also provide education on home assessments as trainers for the American Lung Association Master Home Environmentalist Program and with the National Center for Healthy Homes.

### Noise

Noise is usually defined as a sound you don't want to hear, and over which you have no control. Stress generated from noise is a health hazard. In an urban environment, road and other construction projects can generate high levels of noise, often at odd hours. We review, approve, and recommend plans so that noise is minimized during and after a construction project.

“An Environmental Health staffer came to my class to share his experience in environmental health. I got an internship in March 1999, and from then on I knew this would be my career. One of the things I like most about my job is the variability. I get to work with many different food and management styles to assure food safety, as well as many other Environmental Health programs.”

*Tony Bui, Health & Environmental Investigator, 6 years at Environmental Health*





## Program Highlight

### Tools for Schools - Improving Indoor Air Quality in Schools

In 2005, Environmental Health received a grant to implement the Environmental Protection Agency's Indoor Air Quality Tools for Schools program. Tools for Schools is designed to help schools and school districts create indoor air quality plans and guidelines for their schools and school districts. Staff partnered with schools to implement the program at three high schools, three middle schools, and 14 elementary schools.

#### SUMMARY of AIR PROTECTION ACTIVITIES

Quick Statistics	2005	2006
Noise consultations	65	45
Site assessments for Seattle Asthma Program	61	28
Presentations/trainings on housing and indoor air quality	8	4
Indoor air and environment phone consultations	450	532
Trainings for the Master Home Environmentalist Program	3	2

“Our capacity to respond to emergencies and disasters, as members of the community and the public health team, begins with being prepared so that we can be self reliant for at least 3 and even up to 7 days. We all need to have a plan, build a kit and get involved. Guidance can be found at [www.metrokc.gov/prepare/preparerespond/english.aspx](http://www.metrokc.gov/prepare/preparerespond/english.aspx). ”

*Jim Henriksen, Environmental Health Supervisor, 30+ years at Environmental Health*

## OTHER EH PROGRAMS

### Enforcement

Regulations, rules and policies are the foundation for many of the programs in Environmental Health. Our enforcement team provides legal support services to the division and drafts rules and regulations for adoption by the King County Board of Health. The team represents the Division on inter-agency meetings and hearings before the King County Hearing Examiner and serves as liaison between the division and the Prosecuting Attorney's Office. When the Washington State Legislature is in session, the team reviews bills relating to Environmental Health and helps establish recommended positions on the proposed legislation.

### Enforcement Actions

Year 2006	Solid Waste Facilities Program	Unlawful Dumping Program	Wastewater Program	Vector/Nuisance Program	Illegal Drug Labs Program	Other
Notice of Violation	0	195	0	97	1	39
Notice and Order	1	53	0	8	14	16
Number of Complaints	11	851	160	908	58	
Year 2005						
Notice of Violation	132	107	63	46	0	16
Notice and Order	49	37	2	0	25	2
Number of Complaints	14	823	142	970	38	

### Emergency Preparedness

Environmental Health fosters strong partnerships that value community preparedness. In 2005 and 2006, we continued emergency preparedness and response planning; examples of key activities that staff participated in include:

- Developed and strengthened partnerships on planning committees and in emergency response exercises such as the emergency planning committees for Seattle and King County; a King County Regional Disaster Plan exercise; the Seattle Public Utilities Power and Water Outage exercises; the City of Redmond and American Waterworks Association Response Planning; the Pacific Northwest Economic Region Annual Summit; the Marine Terrorism Response exercise series with the Puget Sound Marine Firefighting Commission; and the Mass Vaccination/Dispensing site drills with Public Health's Disease Outbreak and Surge Capacity Response Team.
- Participated on response teams as a member of Emergency Operations/Coordination Center Teams, Disease Outbreak and Surge Capacity Response Team, Public Health Amateur Radio Team, and the Isolation and Quarantine Team.
- Provided incident command support for environmental health issues in response to an Elliott Bay oil spill and assisted with the Department's planning for potential public health care of Hurricane Katrina victims.



- During the December 2006 windstorm, in which hundreds of thousands of King County residents lost power for days and up to a week, we provided technical assistance to help restaurants operate safely with minimal resources and were safety officers at a shelter serving medically fragile residents

### **GIS Initiative**

A Geographic Information System (GIS) is a computer mapping system that shows many layers of related data. “How far do I have to walk to get to a place that sells healthy food? How many major roads impact the quality of air I breathe?” These and many similar questions are being answered with the help of GIS maps because they allow viewers to graphically see relationships between data sets. In 2005 and 2006, staff responded to over 100 requests for maps from Environmental Health programs. In 2006, we became the first county in the nation to use GIS to make available up-to-date status information on methamphetamine lab clean-ups, now available at [www.metrokc.gov/gis/mapportal/iMAP\\_main.htm](http://www.metrokc.gov/gis/mapportal/iMAP_main.htm).

### **Community Engagement**

A goal of Environmental Health is to improve the health of communities by building relationships and working together to identify and address environmental challenges. Unfortunately, some communities in Seattle and King County are disproportionately impacted by environmental hazards, like substandard housing, toxic air, contaminated soil, poor water quality, unsafe walking areas, and limited access to fresh and healthy foods. Most often, these impacted communities are home to refugees, immigrants and people of color and we often see higher levels of illnesses and diseases like asthma, diabetes, heart disease and cancer in these populations. Please visit [www.metrokc.gov/health/hokc](http://www.metrokc.gov/health/hokc) to see the Health of King County 2006 report for more specific information.

The Environmental Justice and Health Equity program works with impacted communities to assess concerns and collaborates with agencies and the communities to resolve those concerns. Examples of projects include:

- The Environmental Justice Network in Action (EJNA), a coalition of seven community based refugee/immigrant organizations, Seattle Public Utilities, City Light, University of Washington and Environmental Health
- The Community Action for a Renewed Environment (CARE) grant of the International District Housing Alliance
- The South Seattle Interagency Group, whose purpose is to learn more about each agency's regulatory authority and service gaps in order to help communities work more effectively with each agency.

### **Built Environment and Land Use**

Land use, urban design, and zoning are among the key drivers underlying the form and function of the built environment. Land use and transportation choices involve decisions that will impact health. These decisions can determine the walkability, air quality, and land uses present in a neighborhood. New research is confirming what we have long intuitively understood – that where and how land is developed, modified, and maintained has an effect on environmental, community, medical, economic, and social health.

In 2005 and 2006 Environmental Health worked with the Puget Sound Regional Council to develop a list of public health issues, including physical inactivity, obesity and chronic disease, social and environmental injustices, mental health, and social capital to be considered for incorporation into their Vision 2020 plan. We also participated in the King County Overweight Prevention Forum, a broad-based effort focused on combating obesity. As part of this effort, we convened a group of health professionals, planners, academics and others to develop strategies that encourage people to be physically active. The group created a checklist for local governments with recommendations for ensuring that communities, neighborhoods, and other places are designed with built environment features, such as sidewalks and transit facilities that make everyday physical activity easy and routine.

Another milestone in 2005 and 2006 was the initiation of a new methodology, Health Impact Assessment, which focuses on the community health effects of a project, policy, or plan. This process is noted for its inclusion of community perspectives and experience when developing recommendations for decision-makers that would achieve improved health outcomes.

**“People call me a restaurant inspector, but inspecting restaurants is the smallest part of my job. Helping restaurateurs create good food safely is the biggest part. Education is far more powerful than enforcement in the long run.”**

*Chris Skilton, Health & Environmental Investigator,  
15 years with King County, 12 years at Public Health*



## BUDGET

### Revenues

Environmental Health funding is heavily dependant on fees that we collect for providing services. For example, we charge each restaurant for the inspections that are required. With increasing dependence on fees as funding sources, the portion of total revenues from general funds, such as Current Expense or State Funding, decreased slightly in 2005 but increased somewhat in 2006. If the revenues received in a year for a program are more than the expenditures, the excess amount is reserved for that program for subsequent years. The division revenues comprised of the funding sources as follows.

Revenue Category	2005	%	2006	%
Fees	17,905,000	85%	15,609,000	82%
Grants	1,438,000	7%	1,341,000	7%
Contracts	568,000	3%	582,000	3%
General Funds	1,073,000	5%	1,535,000	8%
<b>Total</b>	<b>20,984,000</b>	<b>100%</b>	<b>19,067,000</b>	<b>100%</b>

### Expenditures

The total number of budgeted FTEs (166) in Environmental Health remained stable in both 2005 and 2006. Employee salaries and benefits take up the most of the division budget. With a large portion of costs being salaries and benefits, Environmental Health's budget is affected by cost-of-living adjustments as well as any changes in labor agreements. In 2005, the budget remained as status-quo from the 2004 budget. In 2006, the division budget stayed relatively stable in spite of the volume adjustments and loss of grant funds.

Expenditure Category	2005	%	2006	%
Salaries & Benefits	13,209,000	75%	14,078,000	74%
Supplies & Services	1,467,000	8%	1,421,000	7%
Overhead & Indirect Costs	3,008,000	17%	3,568,000	19%
<b>Total</b>	<b>17,684,000</b>	<b>100%</b>	<b>19,067,000</b>	<b>100%</b>



