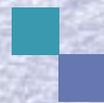
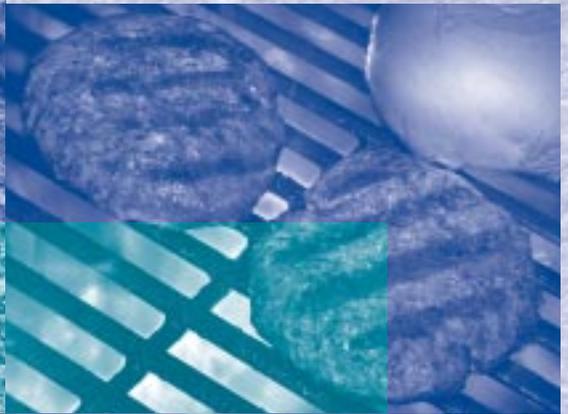


Environmental Health Services



2004

Annual Report





Preface



I am pleased to present the Environmental Health Services Division 2004 Annual Report. Environmental Health is a division of Public Health - Seattle & King County, the tenth largest public health department in the United States. This annual report presents an excellent summary of major Environmental Health programs and services and an overview of the Environmental Health budget. The report provides the opportunity to describe and convey the extent of Environmental Health services to policy makers, agency partners, and community members.

Environmental Health is the foundation of public health as we know it today. Beginning in the latter part of the 19th century, newly urbanized areas experienced disease epidemics associated with poor sanitation and sewage disposal, rodents, and impure foods. The modern field of public health was born, and scores of inspectors were sent out to stop the cycle of disease and ill health. The result was tremendous gains in life expectancy and quality of life for all Americans. While we may not often think of it, without the services provided by Environmental Health, we would not be assured that the quality of our land, water, air and food supports our ongoing good health.

From the early days of environmental public health to the present, the focus has been on prevention. By working to keep toxic chemicals and pathogens out of our land, water, air and food, Environmental Health activities minimize the risk of a whole host of diseases and conditions, from asthma and lead poisoning to food borne illness and cancers, as well as new infectious diseases such as West Nile virus and hanta virus. Environmental Health is truly the backbone of public health practice.

This year's Annual Report conveys the excellence of the Environmental Health services that are provided here in Seattle and King County and the exceptional talent and commitment of the Environmental Health investigators, management, and administrative support staff who deliver them. The Environmental Health Division 2004 Annual Report is available online through the Public Health - Seattle & King County website located at the following address: www.metrokc.gov/health.

Please enjoy reading about these important and fundamental health services provided by Public Health - Seattle & King County.

A handwritten signature in dark blue ink that reads "Dorothy Teeter". The signature is written in a cursive style.

Dorothy F. Teeter, MHA
Interim Director and Health Officer



Welcome!

Environmental Public Health practice is fundamentally a prevention-oriented enterprise. Our goal is to prevent illness by eliminating, reducing, or removing those elements in the environment that could lead to human harm. We employ a variety of strategies to reach this goal, including education, outreach, regulation, and enforcement. To give just two examples -- through education and outreach to households and businesses, we reduce the amount of contamination entering the groundwater, thereby preventing drinking water pollution -- and human illness - before it materializes. Second, through regulation and enforcement, we identify hazardous waste sites that may need clean up under state hazardous waste rules, thereby protecting people from the harmful impacts of toxic materials. Across all of our programs -- from food protection to solid waste, wastewater to toxic hazards, we practice prevention to protect our community's land, water, air, and food.

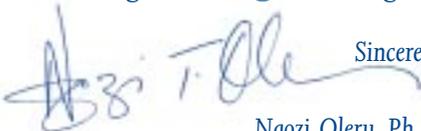
An important factor in achieving success is by engaging our many diverse partners. Partners range from the food and septic system industry to government agencies and non governmental organizations. I am very proud of the partnerships we fostered that led to the successful statewide update of the food safety code. We now have a risk-based code that aims to achieve compliance through education before the need for enforcement. We do not hesitate, however, to appropriately use our Health Officer enforcement powers to close a restaurant or require an onsite septic system repair when circumstances warrant.

We recognize that the built environment, or how land is used and developed, can negatively or positively impact the health of neighborhoods and families. To give a concrete example, some neighborhoods have more traffic, more pollution, more noise, more fast food and convenience stores that provide fewer fresh food choices, fewer mass transit opportunities, fewer recreational opportunities, and fewer sidewalks that encourage walking. These communities are often populated by low income families and minorities. We are committed to ensuring that equity is taken into account as land use policies are considered and decisions made, and we're working to broaden the spectrum of people at the decision-making table. We involve a broad spectrum of stakeholders with different types of knowledge and interests in order to share each other's expertise and practices. Our wide net of partnerships improves the likelihood that health issues are kept in mind while regional, transportation, community development and revitalization plans are developed.

Lastly, funding is always an issue for Environmental Health programs because our dependence on fees reduces our flexibility to respond when and where the community needs us. We continue to work to identify stable and flexible public health funding.

In the pages that follow, I invite you to read and learn about the breadth of effort, dedication and professionalism that Public Health's Environmental Health staff bring to our form of prevention every single day.

If you have questions or comments, please contact me at ngozi.oleru@metrokc.gov

 Sincerely,

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



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LAND

Healthy land and healthy people go hand in hand. Environmental Health Services works to promote the health of the people and communities in King County by protecting the land through proper management of toxic materials, household and business hazardous waste, rodents and other pests, illegal drug labs, solid waste (garbage), and more.

Hazardous waste: Years ago, before our society was concerned about or understood hazardous waste, it was poured down the drain, put into the garbage or buried in the landfill. If hazardous waste is disposed of in this way, eventually the chemicals make it into our water or food supply, endangering human and animal health. We now know that hazardous waste of any amount must be identified, handled, and disposed of correctly. Businesses like auto body shops and drycleaners, and households with old paints, pesticides, and fertilizers are typical generators of small quantities of hazardous waste. We help individuals and businesses identify the toxicity of their chemical wastes and determine where to safely and soundly dispose of them. We achieve this by partnering with the Local Hazardous Waste Management Program, a collaborative effort that also includes Seattle Public Utilities, King County Department of Natural Resources, and suburban cities. This partnership ensures the proper management of hazardous wastes produced by households and in small quantities by businesses.

Illegal drug labs: Illegal drugs such as methamphetamine (“meth”) cause serious direct health impacts to the people who use them. There can also be serious health impacts on people who come in contact with the acids and explosive chemicals used to manufacture these drugs. Law enforcement alerts our meth lab team that posts “potentially contaminated” signs on the property when a lab is found. The team surveys the property, which may have contaminated walls, floors, ceilings, and other surfaces proximal to the drug manufacturing area. Synthesizing this information with laboratory and police reports, our team determines whether the property is contaminated or not. The contamination can include septic tanks, burn pits, and soil and ground water, as well as the building that contains the lab site. If it is contaminated, the team works with the property owners, concerned neighbors and other agencies to help them understand how to address the contamination. The team oversees the decontamination process, ensuring that all toxic wastes are properly disposed. Once the property is decontaminated, the property is approved for re-occupancy. These steps ensure that health and environmental risks to human health are eliminated.

IMEX: The Industrial Materials Exchange (IMEX) links individuals and businesses wanting to dispose of 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 out of the environment. Since starting IMEX in 1990, businesses have saved over \$26,207,635 through 2775 reported exchanges of 8435 tons of materials. Available or wanted items can be listed for free by visiting the IMEX website at www.govlink.org/hazwaste/business/imex IMEX can also be reached at 206-296-4899 or 1-888-TRY-IMEX.



“One impact I am able to make is on children. Although I do not often talk to or see the children involved with drug labs, I know that making a “clean” living environment is often the most valued thing I can do for them.”

Nicole Thomsen, Health and Environmental Investigator, Illegal Drug Labs, Hazards Section, 5 years.





Solid Waste: The Solid Waste Program reviews and approves plans for waste-handling facilities, and issues permits. In addition, the program inspects and monitors solid waste treatment sites, transfer stations, and landfill disposal sites to ensure that waste is being handled in the safest, healthiest way for both people and the environment. Complaints about garbage and trash being dumped in non-permitted areas like alleys, and parks are also investigated.

Proper solid waste management ensures community health through:

- Protection of groundwater and surface water from leachate that is water/liquid contaminated by contact with solid waste
- Protection from landfill gas exposures and explosions
- Control of rodents, birds, and potential vectors such as flies and mosquitoes
- Control of odors
- Control of noises from operation of landfills, transfer stations, and vehicles
- Control of litter

Vector/Nuisance: The Vector/Nuisance Program provides education on rodent and vector control. Vectors are animals like rats, and insects such as mosquitoes, which can carry disease. Rodents destroy property, contaminate food supplies, and carry disease. They are one of the oldest public health problems known to humans. Of greatest concern in Seattle and King County are the Norwegian and roof rats. Norwegian rats live in sewers and in burrows in the ground, while roof rats live in trees and occasionally our homes. Rats are

found anywhere food, water and shelter are available. Our team responds to hundreds of rodent complaints each year and educates residents on how to get rid of the food and shelter that allow the rodents to survive and thrive, which helps keep the rat population from getting out of control. Within the City of Seattle, we also bait sewers to control rat populations.

“Every day I engage in collaborative and creative work with other public health professionals, teachers, children, parents, child care providers, nurses and a variety of community agencies. I love being able to learn from these diverse perspectives, approaches and concerns, and then utilize this knowledge to create programs that are of value to children’s health.”

Donna Keller, Health Educator, Hazards Section, 2 years.

Community-wide Rodent Control Education:

In recent years the prevalence of the roof rat (*Rattus rattus*) has increased. This species is a great climber and is

attracted to grain such as bird feed and dog food. In 2004, the Vector Nuisance Program increased its educational efforts to show people what they can do to control these rats. We took advantage of media opportunities to educate the public, which included an hour-long live call in radio show, as well as several print and television stories on controlling rodents. Here are additional Environmental Health educational activities:

- Updated the “rat and mice” information website at http://www.metrokc.gov/health/env_hlth/Rats.htm
- Developed a power point presentation showing conditions that support rats
- Distributed more than 6,000 copies of our colorful “Unwanted – Rats are Dangerous” brochure through community meetings and mailings to neighborhoods with rodent problems
- Trained 25 Seattle Department of Planning and Development staff on rodent control. These inspectors now have information and knowledge to provide to their customers while doing housing and zoning inspections.

Roadside Monitoring: If not kept under control, roadside weeds can impede drivers' visibility. Roadside weeds are managed within King County's Integrated Pest Management guidelines. Environmental Health ensures that roadside spraying is not harming the land and water. Sample sites are monitored for three important pesticides. We find that low concentrations of pesticides are effective and leave only small traces of chemicals behind. Our program provides the only information in Washington State on the background levels of pesticides along roadways, and gives King County Transportation the information it needs to lower pesticide use while still controlling vegetation.

Site Hazard Assessment: One of the unfortunate legacies of industrialization is soil and water contamination resulting from leaky old technologies and careless environmental practices. Environmental Health investigates sites in King County that the Washington Department of Ecology identifies as contaminated. Our job is to determine the extent and severity of the contamination in order for the sites to be properly placed on Ecology's priority cleanup list. Once we have completed a site assessment, the results may be reviewed by the public. In this way, prospective purchasers of both commercial and residential properties can investigate possible contamination before they buy. We also identify contaminated sites in residential neighborhoods, parks, and schools in order to lessen any possible exposure to vulnerable populations from contaminated properties.

Tacoma Smelter Plume: The old ASARCO copper smelter near Tacoma spewed arsenic and lead out of its smokestack over much of King County for almost 100 years before being closed in the mid 1980s. Our team tests soils for lead and arsenic and educates residents about the soil contamination. In 2004, we collected 848 samples in 183 locations by using GIS technology to map the county and identify sampling sites. Staff encountered a mountain lion, and battled both dense vegetation and foul weather to collect the necessary samples. Tacoma Smelter Plume staff worked in collaboration with community groups, schools, preschools, child care providers, and gardeners to offer information on how to reduce exposure to soil contamination.



Program Highlight

Duwamish Superfund Area: The Duwamish River, a South Seattle industrial corridor, is an EPA Superfund toxic cleanup site. It is also home to almost 5,000 people living in the river communities of South Park and Georgetown. As part of the sampling for the Superfund cleanup, Seattle Public Utilities (SPU) found polychlorinated biphenyls (PCBs) in a

storm drain on the river and unpaved streets in a small section of South Park. Environmental Health worked with SPU and the Washington state agencies to sample, review data, inform residents and plan protective action. Along with SPU, Environmental Health staff went door to door talking with almost 40 residents before and after the project. We facilitated community meetings about the PCBs and the protection plan, sampled the soils of four nearby homes and the interior dust of two others. Within three months, the plan was developed, accepted by the community and crews completed the work to temporarily protect people from coming into contact with the PCBs by paving and storm water treatment.





Program Highlight

Zoonotic Disease Control: Environmental Health Service’s Zoonotic Disease Program addresses the prevention and control of diseases that are transmitted directly from animal to human (rabies, for example) and diseases transmitted from animals to people by a vector (e.g. mosquito-borne West Nile virus or tick-borne Lyme disease). The Program is also concerned with diseases such as anthrax and fungal infections that animals and humans may get from a common environmental source such as soil or water. More than 75% of “emerging infections” like SARS, monkeypox, avian influenza, and West Nile virus originate with animals, and planning for the control of these diseases, should they come to King County, is also part of the Program.

“To be successful in this work, you have to work well with people. Although we have regulatory authority, it’s much better to educate. It feels good when something is done the way we want it to happen, when we’ve facilitated positive change. It feels good to have actually helped someone.”

Bill Heaton, Supervisor, 33 years.

In 2004, the Zoonotic Disease Program provided over 500 consultations on possible rabies exposures, investigated two outbreaks of psittacosis in pet shops and a community-wide outbreak of leptospirosis in dogs, developed new rabies control regulations for King County, and was involved in advising the public on beef safety in the wake of the

nation’s first confirmed “mad cow” case. Our Program led King County’s West Nile virus surveillance, education and control programs, and was responsible for coordinating a county-wide response through the West Nile Virus Interagency Work Group. As part of our surveillance activities, 2,097 dead bird reports were recorded and mapped. Staff provided consultation to hundreds of residents with questions or concerns about mosquitoes and West Nile virus.

The Zoonotic Disease Program is directed by Sharon Hopkins, DVM, MPH. Dr. Hopkins is a 20-year veteran of Public Health - Seattle & King County. While doing graduate studies for her Master’s of Public Health degree from the UW, Dr. Hopkins did field studies of the transmission of the bovine leukemia virus in dairy cattle and has published many papers including a book chapter on this topic. You will often see Sharon with a "service dog" pup in training. She and her family have trained many pups in the basics before they go to school for their final intensive education.

2004 Quick Facts

- Conducted 58 initial site hazard investigations and assessments
- Investigated 481 unlawful dumping complaints
- Investigated 1,023 rodent complaints
- Mapped 2,097 dead birds reported to the West Nile virus surveillance program
- Issued 390 Waste Clearances to ensure dangerous waste is not going to landfill
- Responded to 17,820 household and 2,513 business inquiries regarding hazardous waste
- Released 50 decontaminated illegal drug lab sites for re-occupancy
- Saved businesses \$383,635 through 130 IMEX exchanges
- Distributed 45,000 nail brushes, posters, and brochures in eight languages to remind the community how to reduce exposure to contaminated soil

FOOD

Most people will experience a food borne illness during their lifetime. Foodborne illness is a serious public health threat. The Centers of Disease Control and Prevention (CDC) estimate that 76 million people a year suffer from vomiting and diarrhea caused by foodborne illness. However, for small children, the elderly and the immune compromised, foodborne illness can be deadly. Each year 325,000 people are hospitalized, and 5,000 die from eating food contaminated with disease-causing organisms. Environmental Health Services' goal is to reduce the risk of foodborne illness through education and community-supported regulation.

Inspection Program: Environmental Health serves almost 10,000 permanent and temporary food service operations by providing facility inspections, annual educational visits and food worker training. The King County Food Code dictates how food must be handled in order to assure its safety. Food service establishment inspection reports are posted on our website (www.metrokc.gov/health/foodsfty), where tens of thousands of visitors each month access restaurant inspection histories and home food safety information.

Environmental Health's Food Safety Program for meat, poultry, rabbit, aquatic foods, and fish purveyors is one of only two in the nation. Inspectors ensure that these products are handled according to safe food standards and are properly labeled with packaging date, sell date, product name, and ingredients.

Food Worker Training Partnership: All food workers in King County must demonstrate basic food safety knowledge by taking a class and passing a test. More than 62,000 cards were issued in King County in 2004. Forty-four thousand food workers attended the training classes offered through Environmental Health's Food Worker Card Program. This program is offered in several locations, with materials and tests in seven different languages. More than 18,000 other food workers received their class training and cards through a partnership with the Washington Restaurant Association Education Foundation. In 2004, Environmental Health held four classes to train the Restaurant Association certified food service professionals in the art of teaching food safety classes effectively.

“ I didn't choose Environmental Health as a career, it chose me. I left a position working in the meat industry to inspect the industry. I like interacting with community and securing compliance by developing effective partnerships. ”

Leonard Winchester, Meat, Poultry, Rabbit, and Aquatic Foods Officer, 19 years.

Education: Every inspection has an educational component, and food service establishments can request an “educational visit” once a year. In 2004, Environmental Health inspectors were also invited to teach food safety at Hospitality Basics at Lake Washington Technical College, Current Issues in Food Safety at the Washington State Association of

Dietetics, and a Train the Trainer class for Food Worker Card industry trainers. The Food Program also provided field experiences to Bastyr University students. Both the Board of Health Chair and members of the press had opportunities to ride along as we inspected several restaurant kitchens.

A long-time Environmental Health inspector, Larry French, designed *Don't Gamble on Food Safety* to teach and reinforce food safety principles. *Don't Gamble* uses an interactive game show format that includes audience participation. It provided a lively and fun educational





experience to Eastside school districts, vocational-technical colleges, and Restaurant Association trainers. *Don't Gamble on Food Safety* debuted on King County Television airwaves in 2004.

Program Highlight

The 2004 Food Code: After many months of work, representatives from the food industry, consumer groups, local health departments and the Washington State Department of Health completed the new Washington State Food Code. The Washington State Board of Health passed the new rule on September 8, 2004, and it went into effect in May, 2005. This regulatory agency and food industry partnership created a practical and sensible set of regulations to help provide consistency and a science-based approach to preparing safe food.

A great deal of energy and effort was put into preparing industry and regulators alike for learning and practicing the new food safety guidelines. The restaurant inspectors are in the process of completing their standardization training based on the new regulations. This training enables the inspectors to implement the new code in a smooth and comprehensive manner. Inspectors then provide educational sessions to food establishments based completely on the new food code.

Temporary Events: Environmental Health inspectors monitor community festivals and farmers markets to ensure that foods are safely prepared and served. With detailed advance planning and inspections during events, we strive to ensure that community festivals and farmers markets are both safe and enjoyable. Prior to the event, staff review plans with event coordinators and food booth operators to examine the food preparation steps associated with menu items. Complex recipes that involve multiple ingredients and cooking steps need to be carefully managed both prior to the event and at the food booth. Finally, we assure that booths are properly constructed, equipped with hand wash stations, proper refrigeration and cooking equipment, and we verify that restrooms are available nearby for food workers.

“I have always liked solving puzzles. Finding the cause of a food-borne illness is just another puzzle to solve. The challenges are never ending. However, the reality of foodborne illness makes it all the more meaningful, and I am making a true public health difference.”

Gale Yuen, Supervisor, 27 years.

In 2004, Environmental Health staff worked at over 130 temporary events that included 1,950 vendors. Some of the larger events included:

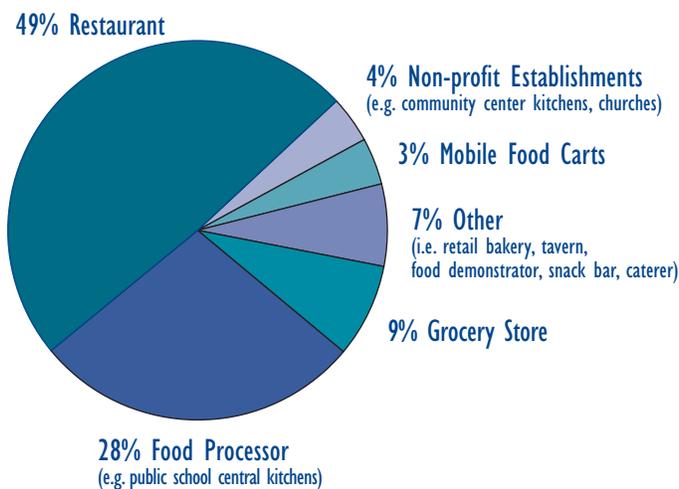
- Bumbershoot - 62 vendors
 - Bite of Seattle - 48 vendors
 - Salmon Days (Issaquah) – 46 vendors
 - Kent Cornucopia – 37 vendors
 - Northwest Folklife Festival - 36 vendors
 - King County Fair – 32 vendors
 - University Street Fair - 30 vendors
 - Ethiopian Sports Federation Soccer Tournament - 29 vendors
 - SeaFair - 25 vendors
 - Fremont Fair - 24 vendors
- 

The Food Stakeholder Advisory Committee is essential to maintaining a public/private partnership as our Food Protection Program strives to lower the risk of food borne illness. The Committee provides a forum for food industry stakeholders of Seattle and King County to discuss food protection goals and codes, support one another, and build a coalition of mutual understanding and working relationships between government and industry. We count on this committee to provide comments and assist our program in meeting the intent of public health legislation. Last year the Committee worked on the new risk-based food service establishment permit fee schedule, gave input on the new King County Food Code, and developed educational outreach programs for the new code.

2004 Quick Facts

- Permitted 9,765 food service establishments
- Provided 27,988 inspection and educational visits to food service establishments
- Investigated 68 foodborne illness complaints
- Provided training and testing to 44,000 food workers
- Reviewed 831 kitchen designs for food service establishments
- Responded to 1,020 public concerns about restaurant food safety
- Produced and distributed 10,000 newsletters to restaurants

Types of Permitted Food Establishments



“ Little did I know that 15 years of managing restaurants would lead me to another part of the industry. For 12 years now (and counting), I’ve worked as a restaurant inspector. It instantly breaks down barriers for food service operators when they know my background, and helps to make my work very satisfying.”

Vickie Morrison, Health & Environment Investigator, Food & Facilities Program, 13 years.



WATER

Protecting our water resources is an essential public health service in which Environmental Health Services plays a critical role. Clean water, without excess bacteria or chemicals, is absolutely essential to health. Water contamination can be devastating to individuals or the whole community's health. Incorrectly managed septic systems may contaminate surface and ground water supplies. Sewage overflows and spills or wildlife waste may contaminate swimming beaches. Plumbing systems installed incorrectly may result in allowing toilet water to flow into drinking water pipes. Inadequately maintained spas and pools can spread disease or create the conditions for preventable injury or death. Environmental Health staff help our community stay safe from all of these potentially hazardous situations.

Drinking water: Most King County residents get their water from either the Cedar or Tolt River watersheds. Some water in this regional system is supplemented by municipal well water, such as in Redmond and Issaquah and large "Group A" community water systems. In addition, there are 1600 "Group B" small multifamily water systems and several thousand individual private wells that provide water service in portions of rural King County. Environmental Health ensures Group B operators provide safe drinking water to these residents.

“For me personally, a job well done is seeing the smile of a customer who may have at first been apprehensive, yet came through the permit and inspection process confident that they have a safe and code compliant installation.”
Dave Cantrell, Chief Plumbing Inspector, 30 years as a plumber, 19 of those as an inspector.

Onsite sewage: Onsite septic systems are miniature sewage treatment plants, serving one to several households. The system must function correctly to keep sewage from contaminating ground and surface water and soil, potentially exposing people to untreated sewage. In 2004, there were over 115,000 households and businesses in King County with a septic system. Houses and businesses are being built in areas of the county with marginal soils, so

ever-more complex systems are required making the plan review even more challenging. Finally, we have increased our homeowner education efforts regarding maintenance and operation of onsite septic systems so that owners can keep them functioning safely for as long as possible.

Plumbing & Gas: Indoor plumbing, heating, and air conditioning are modern conveniences we all rely on and Environmental Health ensures that these systems are installed correctly for your safety. Improperly installed plumbing could lead to the contamination of drinking water, the spread of bacteria and disease, exposure to scalding hot water, unpleasant odors or the inconvenience of fixtures and faucets that do not work properly. Gas systems that are installed incorrectly can produce deadly carbon monoxide, fire hazards and inefficient operation of appliances.

Our plumbing inspectors conduct site inspections of all plumbing and gas piping installations in King County. Inspectors provide guidance to contractors, installers and property owners on how to apply various codes and regulations correctly.

Recreation: Each year thousands of people enjoy spas, pools and beaches in King County. Our inspectors check all public pools and spas for proper water disinfection and the correct water temperature. We ensure that gates and other safety equipment around the pool or spa are properly working, and verify that safety signs are clearly posted. In addition, we

distributed other educational materials to owners and operators, providing tips to avoid common health and safety problems.

“Sometimes people we inspect get angry because they don’t pass inspections. They feel like we’re giving them a load of lemons. But when I educate them on the health benefits of plumbing it right, show clearly what needs to be changed, and get back right away when they’re ready for inspection, we’ve turned lemons into lemonade and they leave happy -- and I’m happy too.”

Clyde Fane, Senior Plumbing Inspector, 16 years in Public Health, plus 15.5 years in the plumbing industry.

The new Washington State Water Recreation Code became effective in October 2004. New health and safety features were added to the code, which included protection from injury at the main water drains and new requirements for protective barriers, like walls and fences, around the pools. Pool operators were given a compliance schedule to complete these construction changes by June 2008.

Red Tide (Shellfish Biotoxin) is most likely to occur from April to November. During this period, we collect samples of mussels and clams at salt water beaches and post warning signs on the beach if necessary.

Environmental Health staff coordinate with the King County Department of Natural Resources and Parks and municipal park owners to assure the water is safe to swim in at many of our fresh water beaches. Water is sampled weekly throughout the summer for levels of bacteria and other toxins. In 2004, we closed two beaches for a short time before water samples confirmed the water was safe for swimming again.

Under the Beaches Environmental and Coastal Health Grant sponsored by the Department of Ecology, Environmental Health began testing King County's salt water beaches in 2004. During our first year, we tested thirteen beaches in King County, closed two, and re-opened them several days later when samples showed safe levels of bacteria.

Quick Facts

- Provided 10,287 plumbing and 7,442 gas piping permits
- Reviewed 2,763 onsite septic system site applications
- Approved 1,979 as-built designs for onsite septic systems (1,613 of these were for new septic systems)
- Received approximately 860 operation and maintenance reports from licensed maintainers
- Sent out approximately 1,277 welcome packets with septic system information to homeowners with onsite septic systems
- Inspected 3,743 pools, spas, and wading pools
- Inspected almost 50 decommissioned wells and conducted 427 surveys of Group B wells





AIR

While we may hear about outdoor air pollution problems, the air indoors can actually present more of a health problem because we spend most of our time indoors. Mold, pesticides, chemicals, airborne particles, smoke from cigarettes and fireplaces, household cleaners, lead dust, and noise all create potential hazards in indoor environments. Poor indoor air quality can be a trigger for asthma and other respiratory illnesses. Asthma is one of the most common reasons for children to need hospital care and to be absent from school.

Indoor Environment: Environmental Health responds to concerns about indoor environments by working to keep the air safe and breathable by identifying issues, determining probable causes, and helping to alleviate poor conditions. In order to promote healthier environments

we partner with many other agencies to address air pollution concerns, work with schools to prevent air quality problems, and respond to calls from home renters and owners.

With enhanced funding from Seattle, we conducted home environmental assessments for residences with a child under 18 years old who had asthma or asthma-like symptoms. Homes were surveyed to identify the steps to reduce the presence of asthma triggers in the home environment. Some participants also had their carpet dust tested for chemicals and

allergens, and supplies of allergy bedding covers, green cleaning kits, walk off mats and vacuum cleaners were provided where warranted.

The Indoor Air Program is facing a severe budget shortfall and may be completely eliminated in the future.

Noise: Evidence shows that the stress generated from noise is hazardous to health and can affect pre-existing health conditions, making noise both a public health issue and nuisance. Noise is usually defined as a sound you don't want to hear, and over which you have no control. Environmental Health oversees noise control for construction projects (e.g. highway or building construction) in King County where an environmental impact has been recognized. Our job is to review, approve, and/or recommend noise management plans so that noise is minimized during and after construction.

Program Highlight Indoor Air Quality in schools

In 2004, we worked with six high schools, six middle schools, and 24 elementary schools to implement the Environmental Protection Agency's Indoor Air Quality Tools for Schools program. The Environmental Protection Agency's Tools for Schools program was designed to help schools and school districts create indoor air quality plans and guidelines for their schools and school districts.

Environmental Health visited the schools to provide an air quality assessment, both inside and outside. The focus was measuring the carbon dioxide levels within rooms in the school and the carbon dioxide levels coming through the venting system into these rooms from outside.

“What I find most challenging about our work is that we can help prevent unintentional illnesses and injuries through our understanding of the interrelationship and interaction between Environmental Health and human health.”

Patrick Murphy, Senior Health & Environmental Investigator, Food & Facilities Section, 18 years.

“ I learn new things everyday. EH gives me the opportunity to have had several different careers in many diverse fields and at the same time contribute positively to society.”

Doug Jones, Health & Environment Investigator, Hazards Section, 15 years.

“I feel privileged to be able to assist a great team of people who are passionate about improving the health and well-being of the community as a whole.”

Roman Welyczko, Enforcement Coordinator, 11 years.

School rooms were also evaluated for other potential indoor air quality problems that may trigger asthma, asthma-like symptoms or other respiratory problems. The carbon dioxide readings and a draft plan for each assessed school was sent to each district’s air quality coordinator to assist in the creation of an indoor air quality plan for the school district.



Quick Facts

- Responded to 400 indoor air inquiries
- Provided 75 noise consultations
- Made eleven major presentations on indoor air quality
- Provided 35 residential in-home assessments and consultations for a Seattle asthma project

DIVISION HIGHLIGHTS

Enforcement: Coordinator Roman Welyczko and associate Roycee Hasuko form the Environmental Health’s enforcement team. They provide enforcement assistance and other legal support services to the division management and staff, and draft rules and regulations for adoption by the King County Board of Health. Many of the Environmental Health programs are regulatory, requiring Roman to represent the division in inter-agency meetings and hearings before the King County Hearing Examiner, and to serve as a liaison between the division and the Prosecuting Attorney’s Office. When the Washington State Legislature is in session Roman reviews numerous bills relating to Environmental Health and helps establish Environmental Health’s recommended positions on proposed legislation.

In 2004, Roycee responded to many of the public disclosure requests submitted to Environmental Health, and facilitated the policy and procedures process to implement the new King County Solid Waste Code. In addition, Roycee worked with section managers, supervisors, and Information Systems staff to develop procedures for improved enforcement data tracking of time and costs. One of our more significant accomplishments during 2004 was the collection of over \$28,000 in penalties and costs.

Emergency Preparedness: Our community is vulnerable to public health emergencies that may be caused by natural events such as disease outbreaks, winter storms, flooding, earthquakes or by accidental or intentional actions, which could result in water and power outages/shortages, hazardous material releases, or chemical, biological or radiological events. Environmental Health will be an essential component of an overall coordinated and collaborative emergency response. Such response might include multiple Public Health – Seattle & King County Divisions and/or non-public health response partners organized, coordinated and implemented within an Incident Command System structure.

During 2004, Environmental Health was an integral part of the Department Emergency Preparedness Section’s preparedness planning strategy and activities. Examples of key activities include:

- **Developing and strengthening partnerships:** Our staff participated with key partners on planning committees, workgroups and in joint emergency response exercises such as: Local Emergency Planning Committees for both the City of Seattle and for King County, King County’s Critical

Infrastructure Planning, King County's Regional Disaster Plan and exercise, City of Seattle Public Utilities Power and Water Outage Exercises, City of Redmond/Department of Health Water Emergency Response Exercise, Pacific Northwest Economic Region Critical Infrastructure Dependency and the Public Health Emergency Preparedness Training Team.

- **Response Teams:** Environmental Health staff participated on Emergency Operations/Coordination Center Teams, Disease Outbreak and Surge Capacity Response Team, Public Health Amateur Radio Team, and the Isolation & Quarantine Team.
- **Emergency Response:** We mobilized and coordinated Environmental Health responses to a public beach contamination incident where with multiple hypodermic syringes as well as a separate incident of beaches contaminated by a significant marine oil spill.
- **Emergency Operations Plans:** Staff were incorporated as co-responders into Center Emergency Operations Plans.
- **Emergency Preparedness Training:** Environmental Health staff received basic individual preparedness and response awareness trainings. In addition, several specialized training sessions were held for members of response teams.

Land Use and Public Health: In January 2004, Public Health – Seattle & King County chose “land use and the built environment” as an initiative. More and more research is confirming what we have long understood – that where and how land is developed, modified, and maintained has a effect on environmental, community, medical, economic health, and social health status.

For example, potential health effects from land and transportation choices are:

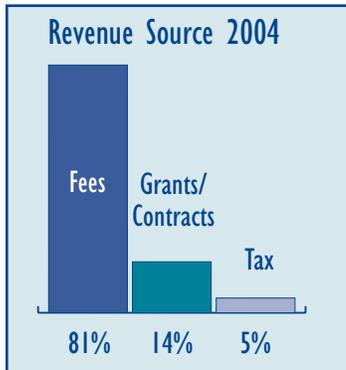
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| ■ Air quality | ■ Physical inactivity |
| ■ Water quality | ■ Obesity and chronic disease |
| ■ Toxic exposure and body burdens | ■ Social and environmental injustices |
| ■ Noise | ■ Mental health |
| ■ Safety and injury prevention | ■ Social capital |

The emphasis on the connection between health and planning led Environmental Health and the Environmental Health Community Assessment Team to initiate a department-wide effort to address this issue and ensure that public health officials are making essential partnerships with the region's planning professionals.

In 2004, Environmental Health staff, along with a City of Seattle representative, attended a workshop to increase understanding of how to develop the partnerships and proactively participate in land use planning efforts. Staff also began developing steps to effectively provide input to local, county, and regional comprehensive plans on the critical public health considerations that need to be included as plans are drafted and updated. For example, Environmental Health worked with the Puget Sound Regional Council to develop a list of public health issues to be considered for incorporation into their Vision 2020 plan.

BUDGET

In 2004, Environmental Health Services budget increased to \$17,507,348, an increase of 5% from the 2003 adopted budget. Environmental Health's funding comes from permits and other fees, grants and contracts, and some tax support. The level of tax support has decreased over time, and in 2004, it was only 5%. Decreasing tax support for public health is a statewide challenge, but Seattle-King County's Environmental Health Services' tax support is well below the average for other counties in Washington. Environmental Health now relies most heavily on fee and grant support and must limit services in areas where no fee can be identified, such as indoor air assessment and response.



In 2004, fee revenues made up the largest portion of all Environmental Health funding sources, approximately 81% of the total revenues. This represents an increase of 2.1% from the previous year. The second largest source of revenue comes from grants and contracts, making up about 14% of total revenues. Grants and contract revenues were increased by 25% from the previous year.

In 2004, the Food and Facilities Protection Section comprised 38% of the division budget. This section budget increased by 3% from the previous year. The Food and Facilities Protection Section includes the Food Protection Program, Food Worker Training, and Living Environment Program (pools, spas and beaches). The Food Protection Program budget is the largest component of this section and increased by 8% from the previous year due to a continuing growth in number of food establishments in King County.

The Environmental Hazards Section comprised 36% of the total division budget. 2004 saw this Section budget increase by 8%, even though grants funded by the Washington Department of Ecology were reduced. The Solid Waste Program budget was increased to reflect the increased work loads due to the new state solid waste standards. The Environmental Hazards Section programs include Solid Waste and Vector/Nuisance, Tacoma Smelter Plume, Illegal Drug Labs, Indoor Air, Site Hazard Assessment, Roadside Spraying, Local Hazardous Waste Management, and Public Health Veterinary services.

The Community Environmental Health Section comprised 27% of the division budget. This section budget has increased by 5% from the previous year. The Community Environmental Health Section includes the Wastewater Program, Drinking Water Program, and Plumbing and Gas Piping Programs. The increase was required to adjust to an increased level of construction activities boosted by lower interest rates, which raised the volume in plumbing and gas piping permit applications and inspections.

Employee salaries and benefits comprise the largest portion of budget expenditures at 75% of the total 2004 budget. Total budgeted number of staff was approximately 168 FTEs, which was down from 170 FTEs in the 2003 adopted budget. The overall staff reduction was mainly caused by the loss of state grant funding.

