

Karl Mason

(1915–1966)

Vagel Keller

If asked to describe his life's work, those who remember Karl Mason would most likely exclaim, "He wanted to clean up the world!" If pressed to date the beginning of environmental regulation by a single state agency, many Pennsylvanians would probably choose 1970, the year the Pennsylvania Department of Environmental Resources—predecessor to the Commonwealth's Department of Environmental Protection (DEP)—was created. Surprising to some may be the revelation that such an agency had existed in the Pennsylvania Department of Health for fifteen years and that it was headed, not by a medical doctor, a scientist, or an attorney, but by a sanitary engineer. Mason is credited with creating the Bureau of Environmental Health during the 1950s, the forerunner of the DEP. It's clear that before overwhelming public demand for governmental concern about the environment began to mount, Mason was already changing the way state government responds to such demands.

Born on January 14, 1915, in Bayonne, New Jersey, to Frank B. and Mary Mellow Mason, Karl Mellow Mason grew up in nearby New Providence. He attended the local public schools and attained the rank of Eagle Scout in the Boy Scouts of America. After graduating from Summit High School in 1932, Mason studied mathematics and science at New Jersey's Union County Community College before entering The Pennsylvania State University's engineering program as a sophomore in 1936.

Family tradition credits Frank Mason for molding his son's personality and influencing his career choice. Even though the Great Depression put the



COURTESY KARL MASON FAMILY

elder Mason, an industrial chemist, out of work, he and his wife continued to serve the community. Frank served on the New Providence town council and Mary, on the board of education. When the community put its sewage treatment plant in operation in 1936, Mason resigned his council seat to accept the position of superintendent at the new facility, the skills for which he would learn to do through self-education. Within the year, the junior Mason decided that he, too, would become a sanitary engineer.

While following in his father's footsteps, Mason definitely did not follow the crowd. He possessed an ardent drive

Karl Mason (left) was an innovative thinker for public health and environmental issues years before the first Earth Day. An engineering graduate (facing page, top) of the Pennsylvania State University, he earned several academic honors, including a W.K. Kellogg Fellowship for Emerging Leaders.

for excellence, a trait for which both he and his father would be admired. As a college senior, Karl presided over Penn State's student chapter of the American Society of Civil Engineers; ranked in the top 10 percent of his class; was inducted into the Tau Beta Pi and Chi Epsilon engineering honor societies; and won a prestigious post-graduate W.K. Kellogg Fellowship for Emerging Leaders in Public Health. The fellowship took Mason back to Michigan, where he had spent the previous summer as an engineering intern and met Phyllis Winifred Rule, a secretary for the County Health Unit of Isabella County, Michigan, whom he would marry in 1940. The ensuing decade saw a

new generation of children for the Masons and the emergence of their father's strident formula for effective environmental administration.

In 1943, following brief terms as sanitarian in Michigan's rural Isabella and Ingham Counties, Mason and his family moved to Peoria, Illinois, where he was Director of Sanitation and Industrial Hygiene until the U.S. Public Health Service (USPHS) called him to active duty in 1949. There had been a nine-month sojourn at the Mason family homestead in New Providence during the 1945–1946 school year while he completed a master's degree in public health at Columbia

University. Yet, he somehow found time to prepare for and pass Illinois' professional engineering exam.

Mason rose through the ranks of the USPHS Reserve Corps to the post of sanitary engineer director (equivalent to U.S. Navy captain), but a brief stint in Pittsburgh would be his only active service. He

arrived there in the aftermath of one of the country's most serious environmental disasters, the 1948 Donora Fog (see "Marking Time," Spring 2002). From Tuesday through Sunday, October 26–31, a temperature inversion trapped toxic fluoride emissions from the United States Steel Corporation's Donora Zinc Works in the narrow Monongahela Valley south of Pittsburgh, killing twenty people and hospitalizing hundreds more. The bizarre catastrophe grabbed headlines in newspapers throughout the nation and led to the first government study of the effects of air pollution on public health, the project that brought Karl Mason, family in tow, to Pennsylvania.

By January 1951, Karl and Phyllis Mason, and their sons Gary, David, and Robert, had relocated to Pittsburgh where Karl worked as an assistant sanitary engineer in the USPHS field office. Pittsburgh was the sixth—but

Karl Mason poses with Governor George M. Leader and a giant slide rule to mark the start of "National Engineers Week in Pennsylvania" in February 1958. Leader was a reformer who professionalized state government with a particular focus on public health. The slide rule is symbolic of the importance that both Mason and Leader placed on the professionalization of environmental management.



COURTESY KARL MASON FAMILY

not final—home for the young family. The city's fouled air, polluted water, and blighted landscape were Karl Mason's first practical exposure to the crisis in environmental management that challenged the entire country. Although

he possessed a respectable pedigree in administration—the American Public Health Association (APHA) elected him a fellow in 1949—the "Smoky City" was a far cry from Peoria, where his major problems had been unsanitary dairy barns and suspect restaurant kitchens.

His experience led him to develop two fundamental beliefs, both visionary for the time.

First, he believed that environmental programs could only succeed when managed by professional administrators with backgrounds in engineering or science. Mason also contended that such programs required oversight by individuals with sufficient management skills to craft effective solutions to environmental problems, while accommodating conflicting values of diverse interest groups. Second, he perceived widening public support for environmental controls extending beyond public health issues to include cleaning up the environment for aesthetic reasons. He understood the need for jurisdiction over such controls

to be placed in a single agency staffed by technical experts. He soon found the opportunity to put his ideas into practice—in Pennsylvania.

At the recommendation of U.S. Surgeon General Leonard A. Scheele, Mason moved to the Pennsylvania Department of Health in 1951 to professionalize the Commonwealth's public health establishment, which the APHA had recently rated near the bottom in a national survey. Mason quickly established a reputation as an apolitical and hard-nosed administrator possessing outstanding organizational



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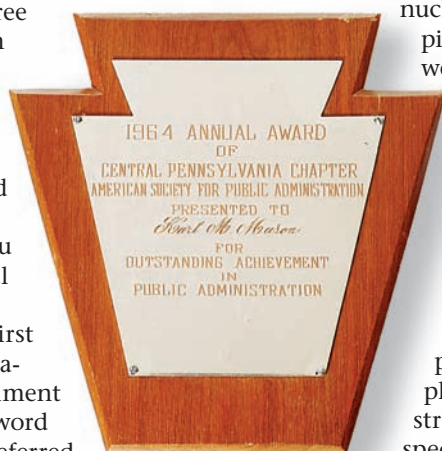


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skills. Within three years he had won support for consolidating sanitary engineering, industrial hygiene, and food sanitation into a new Bureau of Environmental Health.

This was the first time in Pennsylvania's state government history that the word "environment" referred to the outdoors; previously it had applied only to the prevention of household accidents. Mason's vision of centralized, professional oversight of all facets of environmental regulation reached fruition in 1961, with the creation of a bureau of five divisions charged with the abatement of air and water pollution and soil contamination and "providing Pennsylvanians with clean, safe places in which to live, work, go to school, and play."

Two important legacies—both of them unheeded warnings—stand out among Mason's contributions to Pennsylvania's environmental history in regard to preventing nuclear contamination and assuring water quality. In 1957, America's first full-scale



COURTESY KARL MASON FAMILY

nuclear power plant at Shippingport, Beaver County, west of Pittsburgh, began operations under standards developed by Mason's bureau. Shortly afterward, Congress authorized the Atomic Energy Commission (AEC) to ignore state-level agencies when issuing permits for nuclear power plants, despite Mason's strident protests before a special joint sub-committee on radiation. The first plant in Pennsylvania built

under an AEC permit was Three Mile Island, site of the country's worst nuclear accident, in 1979 (see "An Interview with Harold Denton—From Chaos to Calm: Remembering the Three Mile Island Crisis" by Kenneth C. Wolensky, Spring 2000).

Water quality by far loomed as the most visible and controversial issue confronting the Bureau of Environmental Health; it was also the most important environmental issue on a national scale. At the National Conference on Water Quality

A popular speaker—from sportsmen's leagues to congressional hearings—Mason gave an address as out-going president of the Pennsylvania Public Health Association (above) in 1962. Water pollution was a frequent topic. Mason received numerous awards and honors (below and facing page).

in 1960, Mason declared that state water pollution control agencies were failing to meet public expectations because of the absence of national standards. His message was clear. If the public health community did not put its house in order, the issue could well become so politicized that it would be taken out of their hands completely—an alternative he did not relish. Mason had anticipated the Earth



COURTESY KARL MASON FAMILY



Day protests by a decade. Twenty million people participated in the first Earth Day, culminating on April 22, 1970.

Mason did not live to see his prediction of 1960 come to pass. Suffering from heart disease exacerbated by the stresses of overseeing what amounted to a revolution in environmental regulation in one of the nation's most industrialized states, he died of heart failure on April 10, 1966. Condolences and memorials poured in from public health organizations throughout the United States, attesting to his stature as a national leader in the field of environmental protection a half-decade before it became a household word.

Today, the Pennsylvania Association of Environmental Professionals memorializes him with an annual Karl Mason Award to an individual, organization, or project making the most significant contribution to the betterment of Pennsylvania's environment through a vital, well-managed, and innovative program. Outside the community of professionals—which he helped to create—Karl Mason remains an unsung hero of Pennsylvania's conservation heritage.

Vagel Keller is a visiting assistant professor of history at Carnegie Mellon University, where his work focuses on the relationships among technology, public policy, and environmental change. A native Pennsylvanian and retired U.S. Army officer, he holds a bachelor's of science degree in civil engineering and a doctorate in history. He was a PHMC scholar-in-residence in 2002. Dr. Keller resides in Pittsburgh, where, in addition to academic pursuits, he is a consulting scholar for several projects dealing with industrial and environmental history.

KARL MASON CONSERVATION HERITAGE PROJECT

Dr. Vagel Keller joined the Karl Mason Conservation Heritage Project at the Pennsylvania Historical and Museum Commission (PHMC) in October 2005. He recently completed research documenting Mason's contributions to Pennsylvania's conservation heritage and presented a talk on Mason's life and career to the Pennsylvania Association of Environmental Professionals (PAEP) at its annual conference in State College in May.

PAEP pays tribute to Mason's legacy annually with its Karl Mason Award, an honor "given to a Pennsylvania person, organization, or project that has made a significant contribution to the betterment of Pennsylvania's environment, exemplifying Karl Mason's vision." PAEP is a multidisciplinary professional society devoted to environmental education, research, and planning.

For the Karl Mason project, Dr. Keller examined the collections of the Pennsylvania State Archives, where he consulted the records of the Office of the Governor (RG10) and the state Department of Health (RG-11), which includes original documents, reports, newspaper accounts, correspondence, and photographs. Dr. Keller was granted access to the subject's personal

papers by members of Mason's family whom he interviewed, and a collection of papers recently donated to the Pennsylvania State Archives by Walter A. Lyon, chief sanitary engineer under Mason, who was interviewed as part of the Karl Mason Conservation Project.

The interpretation of conservation pioneer Karl Mason's career and significance is the first in an array of projects to be produced by PHMC in association with PAEP over the next several years to increase conservation heritage awareness in the state. The project provides a template for including some of the state's many conservation leaders in future PHMC exhibits, Web content, public symposia, and other venues.

The Karl Mason Conservation Heritage Project was funded by PAEP and the family of the late conservation pioneer and administered by the Pennsylvania Heritage Society.

As part of his research of Karl Mason's career, Dr. Vagel Keller (right) interviewed Walter A. Lyon, former Pennsylvania Department of Health official and Mason colleague.



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