The Counts Years (1975 to 1990)

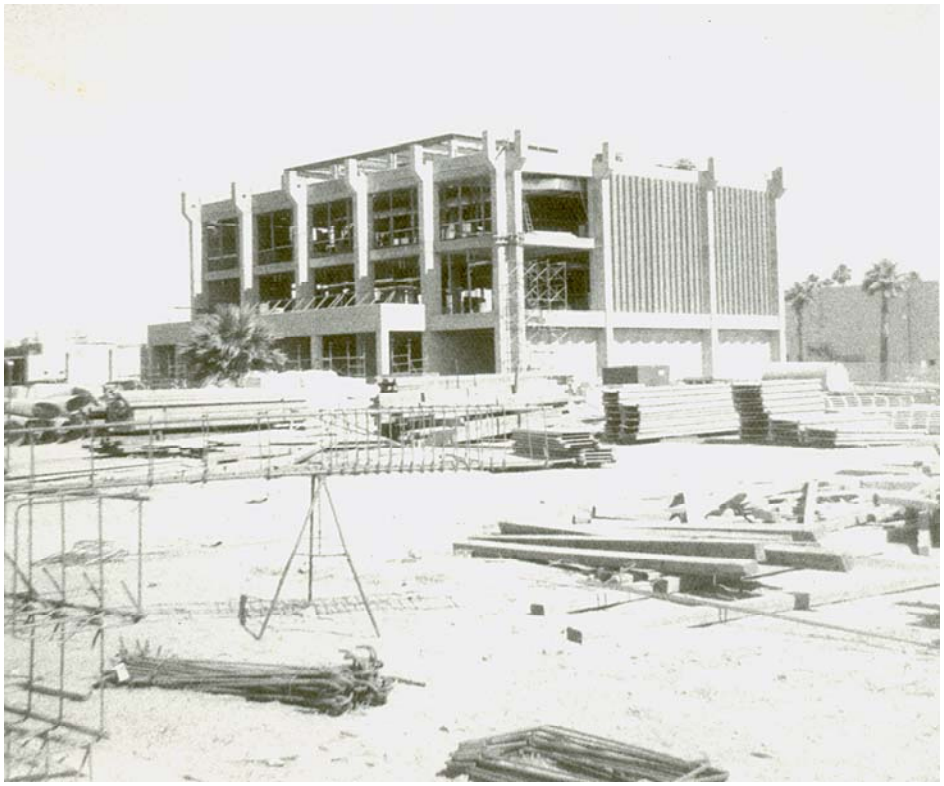
Dr. Jon M. Counts, Ph.D., who had been with the laboratory since 1966 and had become the Assistant Director, took over as Director after Dr. Crecelius's retirement in 1975. Dr. Counts received his B.S. in Bacteriology from the University of Arizona and a Doctorate in Public Health at University of North Carolina in Chapel Hill.

Dr. Jon M. Counts

In 1975, the construction of the new laboratory began. This was kicked off in a groundbreaking ceremony attended by Governor Raul Castro.

Governor Raul H. Castro breaks ground for construction of the new State Health Laboratory located at the NW corner of 15th Avenue and Adams Street

The ceremony was also attended by Miss Jane H. Rider, the laboratory director from 1917 to 1935 and Miss Marion E. Stroud, who started the Phoenix branch laboratory in 1931 (Miss Stroud worked for the laboratory from 1922 to 1968). The laboratory was finally finished and dedicated in 1976.



1520 W. Adams Laboratory during Construction

1520 W. Adams as Pictured in 2009

In August of 1978, the State Health Laboratory was again thrown in the middle of a milk contamination controversy. High levels of the mycotoxin, aflatoxin, were found by the State Health Laboratory in some Arizona milk, which led to it being dumped.

To make things worse, in December of 1978, the Arizona Republic alleged that the Department of Health Services was allowing illegal amounts of dangerous pesticides in milk to be sold containing DDT and toxaphene. The Dairy Commissioner blamed the State Health Laboratory stating, "pesticide-tainted milk always got to market before test results were returned by the DHS Laboratory. He needed the results to order sales stopped." Dr. Dandoy, Director of the Department of Health defended the laboratory by stating, "The DHS laboratory, in addition to its regular workload, is being taxed to the limit by an expanded aflatoxin surveillance program ordered by the governor." She further added, "We've had some hang-ups in testing and historically, I'm sure they've been there because they (lab) are not appropriated to the level we need to address." As a result of the article, the Department of Health Services announced that testing pesticides in milk would get more attention in the Department.

While most of the news coming out about the State Health Laboratory in the 1970s was about chemical testing at the laboratory, the microbiology laboratories continued to test increasing numbers of clinical microbiological samples. One finding of note written in the Arizona Republic in March of 1979 was that, "preliminary tests by the Arizona Department of Health Services' laboratory show an association between Reye's syndrome – a flu-like disease that killed two of eight Arizona victims in December – and influenza A, a viral infection."

In May of 1981, the State Health Laboratory found high levels of trichloroethylene (TCE) in 4 wells around the Tucson International Airport, which were closed. Further well samples by the State Health Laboratory also found record levels of TCE in wells around the Motorola Plants in Scottsdale and Phoenix later in the Fall of 1981. This contaminant had been linked to cancer and led to the closure of the wells for drinking water.

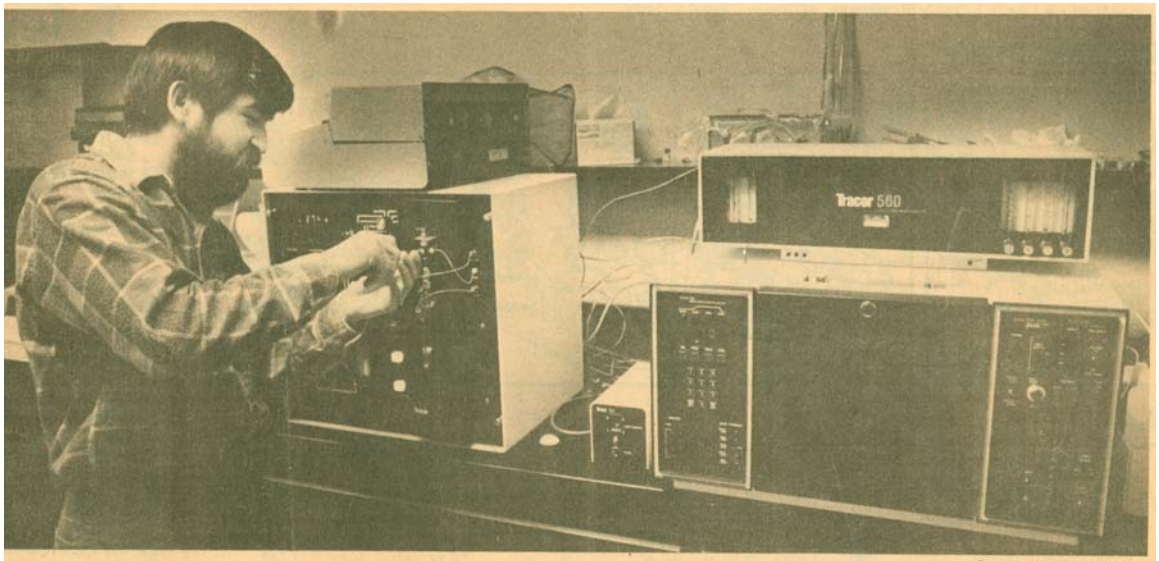
An editorial in the Arizona Republic in January of 1981 provided support for the lab by stating decisions were needed to solve the state's contaminated well problem. They further stated that, "DHS laboratory facilities are inadequate and much more work is sent outside the state at additional cost and delay. Consideration should be given to expanding the lab."

Budget cuts in January of 1982 led the Health Department to review its priorities. The DHS Director, Dr. Sarn indicated that new health problems crop up each year, noting, "new priorities in industrial wastes and ground water contamination."

In January of 1982, the northern State Health Laboratory located in the basement of the Coconino County Court House moved to the County facility at 2700 N. Fort Valley Road. The laboratory shared some of the area with the Medical Examiner. One of the biggest complaints of the Laboratory staff in the new laboratory site was the smell of embalming fluid from the bodies in the next room.

In an interview with the Scottsdale Daily Progress in February of 1982, Dr. Counts stated that the State Health Laboratory was receiving increased requests for environmental tests, which had overburdened the lab. He said the shift of the laboratory's emphasis from communicable diseases to environmental contamination gained momentum in 1978 with the discovery of excessive amounts of aflatoxin, a potent

carcinogen, in consumer milk. He further stated that this shift was also spurred by a pesticide problem that hit Scottsdale in 1978, a growing awareness of hazardous chemical problems and the TCE in drinking water and the testing of school insulation for asbestos. The laboratory was just beginning to be equipped with instruments that could test for these contaminants.



Progress photo by Bob Johnstone

DAN PEREZ, a chemist with the state laboratory, uses one of the sophisticated testing machines to sample water taken from various parts of the state. Increasing requests for environmental tests have overburdened the state Health Services Department laboratory and officials say the lab is not equipped to deal with them all.

One big addition to the State Health Laboratory's arsenal in 1982 was the addition of a mobile laboratory. Its first noted job was in January and June of 1982 at the Mohave Valley Elementary School District where it was parked to collect urine from students to do a study on the effects of defoliants on children. The mobile laboratory, supervised by Donald Finical, also participated in water quality testing along the Colorado River late in 1982 and the Clifton floods of 1983. This mobile laboratory tested for coliform bacteria to try to isolate where septic tanks were leaking into wells or the river.

ADHS's Mobile Laboratory

Also in 1982, the Arizona State Legislature passed a Drunken Driving Law which required the Department of Health Services to adopt rules for uniform procedures or standards for each approved device for breath tests and that such approved procedures must be used by every law enforcement agency throughout the state. This led to the State Health Laboratory adding a Blood Alcohol Program to its Office monitoring environmental and clinical laboratories. The State Supreme Court in 1983 also decided that alcohol tests had to be conducted under a Department of Health Services quality-assurance program, using a statewide operator checklist to be valid.

In March of 1983, the State Health Laboratory tested raw-milk from a Glendale dairy and linked the *Salmonella* found in the milk to the *Salmonella* of a 72 year old woman who had died drinking the raw milk. The raw milk products from a dairy where the milk was produced were banned and recalled. Further testing on other raw milk producers later in the year found *Salmonella* also in other milk which also led to its recall.

One other State Health Laboratory finding of note in 1983 was in April when 400 stuffed chicks from China that were being sold in florist's shops were recalled. The State Health Laboratory had found that the birds contained at least 8% arsenic in the feathers.

1984 turned out to be a banner year for the State Health Laboratory as far as the number and variety of tests occurring in the lab. A list compiled by the laboratory director of examples of public health emergencies that have been confronted during the year listed: the NutraSweet (Aspartame) controversy; aflatoxin in milk, EDB in fruits, vegetables and grain products; DBCP and TCE in water; contaminated bulk food supplies; pesticide contamination of Mexican products and wildlife; toxaphene, DDT and DDE contamination of milk; *Salmonella* contamination of milk; asbestos contamination (Globe, schools and public buildings); Colorado River flooding (contaminated water and airborne encephalitis); hysteria contagion in schools; windstorms disseminating coccy

spores and toxic chemicals; toxic waste spills; sulfites in food; hepatitis, giardiasis, salmonellosis and shigellosis in day care centers and suspected pesticide intoxication in various areas of the state.

One of these listed emergencies started off in late 1983 with an ASU professor who alerted health regulators that a study on the storage of soft drinks with Aspartame showed that Aspartame broke down in the high temperatures of Arizona into toxic levels of methyl alcohol. The company that produced aspartame disputed the claim. The State Health Laboratory in its own testing in January of 1984 validated the professor's claim; however, Norman Peterson of DHS stated that the DHS study strongly disputed the professor's claim that Aspartame is a health hazard. He said the study found the levels of methyl alcohol were well within established limits.

In 1984, environmental testing at the State Health Laboratory ramped up to test contaminated creeks from the Globe-Miami area that fed into Roosevelt Lake. Not only were wells contaminated along these creeks, but health officials were afraid that the contamination would end up in drinking water in the Phoenix area.

Another significant event that occurred in August of 1984 was the end of mandatory premarital syphilis testing. The Program which began in 1956 had grown to where nearly 60,000 tests were being performed annually by the State Health Laboratory and others overwhelming the staff. This end of testing was not due to the lack of disease in the state, which saw an increase in stillbirths later in 1984 on the San Carlos Indian Reservation due to "rampant" syphilis infections.

Due to the numerous tests being performed at the State Health Laboratory, an ASU researcher in August 1984 recommended that ASU open an environmental laboratory to assist the State laboratory. The researcher noted that the State Health Lab was three months behind schedule in testing. He further noted that "the state lab, with 17 chemists and technicians, has a backlog of about 800 samples." A statewide task force was convened to determine how DHS could share expertise with chemists and specialists at ASU, the U of A and NAU.

Also in 1984, the Laboratory's New Blood Alcohol Unit ran into its first crisis. Numerous alcohol tests were being thrown out of court due to ADHS not adopting specific rules for uniform procedures or standards for each approved device for the breath tests and that such approved procedures must be used by every law enforcement agency throughout the state. The loophole was later fixed by the Legislature helping the Unit.

A December 1986 picture shows that due to the increased microbiology, chemistry and lab licensure work, the laboratory in Phoenix had grown to a staff of 51.

Phoenix State Health Laboratory Staff - December 1986

In 1986, most of the environmental programs at the DHS were split away into a new Department of Environmental Quality. Only three programs remained with the DHS; the Environmental Laboratory Certification Program (with the State Health Laboratory), the Environmental Chemistry Program and the Environmental Risk Assessment Program. About this same time, the environmental chemistry and microbiology testing was overburdening the laboratory and environmental consultants and laboratories were complaining about the poor quality of testing in private laboratories in the state and the lack of State oversight. To alleviate some of the State Health Laboratory's testing requirements and to address the testing issues, the Legislature passed a Bill in 1989 that established provisions for an Environmental Laboratory Licensure Program that would inspect and license private and municipal laboratories performing compliance testing. This Program had gotten its root in 1967-68, when the first field work was done to evaluate the laboratories and their equipment. This began as a special project of the Health Department that later morphed into a plan to build a new Program when widespread problems were noted in the early evaluations.

Dr. Counts left in 1990 to become the Laboratory Director for the Public Health Laboratory in the State of Washington. Tom Davis who was the Assistant Laboratory Director and had been head of the chemistry programs at the laboratory took over as Acting Director.