

ENVIRONMENTAL HEALTH AND PROTECTION ADVENTURES

By

**Larry J. Gordon, Visiting Professor
School of Public Administration
University of New Mexico
Albuquerque, New Mexico**

With Contributions by Environmental Officials

**Thomas E. Baca
Russell F. Rhoades
Cubia L. Clayton
Sarah B. Kotchian**

FOREWORD

by

Cubia L. Clayton

Former Deputy Director,

New Mexico Environmental Improvement Division

This is a story of one man's experiences while managing and improving the environment of New Mexico during one of the most interesting, exciting and tumultuous periods in our state's history. It may be read with benefit and pleasure as a history at the local and state levels of our nation's attempt to deal with the effects of industrial revolution and unbridled western expansion.

Larry Gordon was deeply involved with the development of national environmental control programs as both advocate and consultant from the earliest days of an emerging national awareness of the need for them. In a multitude of situations, his programs and ideas implemented at the local level served as a national laboratory. It is difficult to estimate how many of the environmental health programs across the country owe at least part of their structure and implementation to his ideas, but I suspect that a thoughtful and perceptive reader anywhere in the country may see some of the ideas at work locally.

This is also a story which could and should be read by students preparing for a career in the environmental health field. Although he may not have intended this as a text for emerging environmental program directors, all who have aspirations toward a profession in the field would benefit from a study of the principles and program elements which are so carefully enunciated. They are as valid today as when Larry first brought them together in a cohesive whole.

There is a perspective, however, which seems to me to be lacking in the story, and that is the more deeply personal and human side of Larry Gordon. It is an aspect which Larry, who is usually a very private person does not often show, but it is as much a part of him and his story as any other. Since I was a member of Larry's staff beginning in October, 1961 in Albuquerque, it may be appropriate for me to fill in some of the gaps.

Larry notes that his first job out of college was teaching. One might get the impression that was but a short detour on the way to his true career field, but nothing could be further from the truth. A new employee in the Albuquerque Environmental Health Department spent the first six weeks reading and studying with occasional trips to the field in the company of one of the more senior people to observe the solution to problems he had been studying.

Larry was constantly busy, one of the busiest persons I've ever known, but he always had time during the day to discuss the things I was studying and answer the questions that inevitably arose. At such times, he never gave the impression that my questions were in any way an imposition. He was always careful and thorough in his answers and seemingly willing to devote whatever time I wanted to discussing and explaining. In short, Larry was a private tutor for his new employees, and one of the finest teachers I've ever known.

Nor did his teaching stop when people progressed to full-time field work. He required people to set aside at least one hour a day for reading various professional journals in order to remain current with progress in our area. I can remember many long and fruitful discussions in the office which arose as a result of something I had read. Again, Larry always seemed to have whatever time one wanted to participate, explain and teach.

I must confess that it was many years later that I came to a full appreciation of the lessons I had learned over my years of association with Larry. One day in the late seventies, I was reviewing some of the letters of resignation I had gotten from various employees and was suddenly struck by the fact that almost without exception they thanked me for the things I had taught them while I was serving as their supervisor. I realized with one of those rare flashes of insight one sometimes gets that I was only emulating Larry, my own teacher. Although teaching is only mentioned in passing in his book, I will always think of Larry personally as my first and most important teacher in the field of environmental health.

Larry also possesses the rare ability to match program needs with personnel aptitudes and interest. Many times over the years I have seen him promote people into jobs which required a specialized knowledge they didn't have fully developed at the time of promotion. In almost every case, with Larry's help and guidance and a lot of extra hours in hard study, those same people became in fact what Larry pronounced them to be, the department's experts.

Early in my career, Larry designated me the department's expert in swimming pool sanitation and safety, and later expanded the task later to include water supply and sewage disposal systems. If a question concerning these areas came up, Larry always deferred to me as "the department's expert." I was not yet experienced enough or mature enough to appreciate that his knowledge and experience in the field was far ahead of mine and that the true expert was himself.

When he developed a local swimming pool ordinance based on a U.S. Public Health Service recommend code, he involved me at every step and incorporated many of my suggestions. I was immensely flattered and secure that I was the expert he proclaimed me to be. That lasted until the first City Commission meeting to consider the ordinance. Although Larry was to make the formal presentation of to the Commission, he asked that I attend as his backup and resource person.

While discussing the proposal, one of the Commissioners asked Larry what pH was? Larry explained that it was an indication of the acidity or alkalinity of a solution. But sensing the Commissioner wanted something more, he said that technically it was defined as the log of the reciprocal of the hydrogen ion concentration. This came from the man who always professed to have no great knowledge about the science of swimming pools! The Commissioner was satisfied and I was suddenly enlightened. Never again would I make the mistake of underestimating Larry's knowledge in any area, and never again would I make the mistake of

thinking I was necessarily the most knowledgeable person in the office in all areas of any program.

I hope the reader will see from these examples that Larry is far more than a bureaucrat who understood the needs of his state and nation for programs to address and correct the problems of environmental deterioration. He has the ability to manage people and surmount the almost overwhelming obstacles confronting one who tries to change things for the better, and he possesses both in about equal proportions. I shall always cherish the years I had the privilege and opportunity of working with and learning from Larry Gordon. He was and is my leader, teacher and friend.

ABOUT THE AUTHOR

Larry Gordon is Visiting Professor, School of Public Administration, University of New Mexico. In 1988, he retired as New Mexico Cabinet Secretary for Health and Environment, after serving in various environmental health and protection, and public health positions for 38 years.

Mr. Gordon started his career as a County Sanitarian in 1950 in Silver City, New Mexico after serving in the U.S. Navy during World War II, and receiving his B.S. in biology and chemistry from the University of New Mexico. He received his M.S. in biology with a major emphasis in ecology from UNM in 1951, and earned his Master of Public Health from the University Of Michigan School Of Public Health in 1954.

Mr. Gordon envisioned and designed, gained statutory authorization to create, and was the first Director of the Albuquerque-Bernalillo County Environmental Health Department, the New Mexico Environmental Improvement Agency, and the New Mexico Scientific Laboratory System. He also recommended creation of the New Mexico Public Health Division (initially termed the State Health Agency), and was instrumental in the planning and design of the New Mexico Health and Environment Department, which he headed as Cabinet Secretary for Health and Environment prior to his retirement from state government in 1988.

Larry Gordon served as President of the 55,000 member American Public Health Association, the world's largest association of public health professionals, in 1980-81.

As a Navy Captain in the U.S. Public Health Service Reserve, he also fulfilled federal environmental health and protection responsibilities.

Mr. Gordon and his wife, Nedra Gordon, live in Albuquerque. Their daughter, Debra Dunlap, Executive Director of the Albuquerque Subcontractors Association, is married to businessman Rick Dunlap; they have two daughters, Dana and Kim. Nedra and Larry's older son Kent Gordon owns and manages a marketing research organization, and lives in California with his wife Elli and daughter Bianca. Larry and Nedra's youngest son, Gary Gordon, is a partner in an Albuquerque law firm. Gary and his wife, Terri and daughter Celine, live in Placitas.

Larry Gordon is the recipient of numerous state and national professional honors and awards. He is also listed in Who's Who in America and Who's Who in the West.

ABOUT THE TITLE

My brother, Ladd S. Gordon, was with the New Mexico Department of Game and Fish from the time he graduated from the University of New Mexico in 1949 until his retirement from state government in 1975. He subsequently held key professional positions with the National Rifle Association and Ducks Unlimited before he fully retired in 1985.

During his tenure as New Mexico Game and Fish Director from 1962 through 1975, he had an exemplary record and moved the department into the era of modern game and fish management. His record was one of professionalism and disdain of attempts to inject political sleaze into the department. The New Mexico Game and Fish Department received international recognition during his tenure as Director.

Ladd Gordon passed away prematurely in 1991 at age 66, one of the fifty Americans who die by slow suicide each hour from the slow, creeping, insidious, toxic, mostly irreversible and ultimately fatal effects of that uniquely perilous legal product called tobacco.

Ladd planned to write a book dealing with his conservation and wildlife management experiences. He planned to title it, A New Mexico Adventure. I have partially plagiarized his planned title, but not the content.

Larry J. Gordon
Albuquerque, New Mexico
March 1, 1994

ABOUT THE BOOK

This book is about environmental health and protection as well as other public health issues, experiences, principles and many of the key players involved in them in New Mexico from 1950 until 1994.

Larry Gordon was directly involved in nearly every major issue relating to the organization of environmental health and protection, and public health programs and agencies in New Mexico from 1950 through 1988, as well as the development and implementation of most environmental health and protection statutes, ordinances and policies during that period of dramatic change. He took special pride in recruiting, developing and mentoring professionals for leadership positions in environmental health and protection, and public health agencies.

This book deals with numerous environmental and public health organizational, statutory, budgetary, programmatic, policies and political issues which occurred in New Mexico from 1950 through 1988. Relevant involvement of governors, legislators, lobbyists, city commissioners, county commissioners and mayors is chronicled, as well as Larry Gordon's recommendations regarding creation of the U.S. Environmental Protection Agency and the confirmation process involving former USPHS Surgeon General C. Everett Koop.

This book also contains a number of Mr. Gordon's professional publications, letters and presentations. As he gained higher responsibilities in larger organizations, Mr. Gordon found it essential to write and publish to the end that personnel in his organizations, as well as the public, would understand his vision, philosophy and organizational goals.

Larry Gordon is the author of more than 185 publications dealing with local, state, and national environmental protection and public health policy.

ABOUT ACKNOWLEDGEMENTS

I wish to express appreciation to my wife Nedra and children Debra, Kent and Gary for their continuing support and their belief that I was accomplishing something important during my 38 year career in public service. This support was particularly important during times of stress and controversy. On a number of occasions, my wife encouraged me to remain in New Mexico during difficult times, rather than accept more lucrative professional offers elsewhere. Additionally, all members of my family spent many hours reviewing and editing the manuscript for this book.

My career and accomplishments would have been impossible without the support of dozens of outstanding professional protégés, supervisors and colleagues, many of whom are mentioned in this book. Management is truly the art of getting things done with and through other people. Many of my long time associates were also essential in reviewing, editing, and suggesting improvements in the contents of this book.

It is important that I note the positive influence of my parents, Andrew J. and Deweylee S. Gordon, who inculcated me with a value system which included an absolute understanding of the necessity of ethical behavior.

And finally, I thank the many citizens, civic and political leaders, and media reporters and editors who were supportive of progressive recommendations and actions. Change is not possible in the absence of public support and understanding.

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1. DAWN OF A CAREER

"There is a tide in the affairs of men which, taken at the flood leads on to fortune: Omitted, all the voyage of their lives is bound in shallows and in miseries. On such a full sea we are now afloat, and we must take the current when it serves, or lose our ventures."
Shakespeare.

The first light of dawn was barely touching the fir and spruce atop the Black Range between Hillsboro and Silver City as I drove to my first job with the New Mexico Department of Public Health. That was in May of 1950.

I had spent the previous night at my parents' farm-ranch which we called Amber Acres, near La Joya, New Mexico. My parents had purchased several hundred acres of land near La Joya and donated it to the New Mexico Boys Ranch which they had planned, established and managed, as well as serving as Ranch Father and Mother. Later, we moved to our own farm and ranch nearby. After graduating from the University of New Mexico in 1949, I taught high school science at La Joya Independent School District in 1949-50. In 1950, I had not yet completed my orals for the degree of Master of Science in biology with a primary emphasis in ecology.

As I crossed the Black Range in the early glow of dawn, I wondered about my new job as a "sanitarian" with the Seventh District Health Department in Silver City. I had seen the posted position announcement, been interviewed and hired by District Health Officer John C. Mitchell, M.D., M.P.H. But I still knew little about the duties. The job required a degree in science, and was to pay \$225 per month, 6¢ per mile for official mileage using my still-to-be-paid-for 1949 Hudson, and \$6 a day per diem when I had to be away from Silver City overnight on business. I would be receiving the \$225 through seven checks each month: one each from Grant, Luna, and Hidalgo Counties; Silver City, Deming, and Lordsburg; and the State of New Mexico.

2. THE SEVENTH DISTRICT HEALTH DEPARTMENT

The Grant County headquarters of the Seventh District Health Department, as was typical of many health offices of that era, was located in the basement of the court house. The district also had offices in the court houses in Deming and Lordsburg.

My programmatic responsibilities included food protection, milk sanitation, industrial hygiene, solid wastes, plague surveillance, insect and rodent control, nuisances, municipal sewage treatment plants, water supplies, swimming pools, and hotels and motels for the counties of Grant, Luna and Hidalgo, plus all the dairy farms shipping into that district from the lower Rio Grande Valley. Throughout my career, I valued and professionally profited from those early experiences, which involved personal relations, public relations, enforcement, prioritization, risk assessment, epidemiology, risk communication, sampling, surveillance, laboratory analysis, and data analysis and interpretation. What a way to begin my career!

In later years, I often wondered if I would have developed a career in the field of public and environmental health had it not been for the constant mentoring and support offered by Dr. Mitchell. He had been educated in public health at the Johns Hopkins School of Public Health, and he took a great deal of time to instruct me in the principles and practices of public health. He went out of his way to see that I attended appropriate professional meetings to expand my knowledge and horizons. And he supported me locally to ensure that I was successful and effective. Prior to my first court case he took me to see the Judge, told the Judge that he wanted me to be effective, and admonished the Judge to render a supportive decision.

The Judge did just that!

On August 26th, 1950, Nedra Callender and I were married in Albuquerque, and moved to Silver City to make our first home. Transportation problems made it impractical to utilize the New Mexico Public Health Laboratory in Albuquerque for water, milk and food work, so Dr. Mitchell sent Nedra and sent her to be further trained under the tutelage of State Public Health Laboratory Director Myrtle Greenfield. This greatly enhanced Nedra's laboratory skills, ensured compliance with Standard Methods, and she became the laboratory technician for the District Health Department. Nedra's degree from UNM was in biology and her previous experience had been in microbiology. The extra money from the laboratory work was a welcome addition to my \$225 salary. I also frequently worked as night manager at a Silver City theater, and slept in my car when away from home overnight to help live within our income.

It was a very enjoyable and educational stage of my career!

3. THE DIVISION OF SANITARY ENGINEERING AND SANITATION

In the spring of 1951, I was invited to accept a transfer and a promotion to the State office effective August 1, 1951. James R. Scott, M.D., Ph.D., was State Health Officer; Charles G. Caldwell, M.S., was Division Director; and Carl E. Henderson, M.S., was my division supervisor. I was assigned as the state sanitarian, with Carl Henderson as my boss. Other division supervisors with whom I was privileged to work, included James Doughty, Carl Jensen and Robert P. Lowe. Again, I was very fortunate to have outstanding professionals as mentors. My duties were statewide ensuring quality control and training for field staff. The training involved all aspects of the duties of local environmental health personnel throughout the state.

State Health Officer Scott was particularly proud of the personnel in the Division of Sanitary Engineering and Sanitation. One morning in the spring of 1953, I was privileged to accompany the senior Division personnel to an informal meeting with Dr. Scott. At one point, Dr. Scott chose to commence praising "his boys", as he termed us. He indicated his pride in the graduate professional degrees of each person present, but completely ignored me. I finally spoke up to remind him that I had a Master's degree in biology with an emphasis in ecology. He looked at me rather condescendingly and said, "Son, we've got to get you off to school!"

(Our adorable daughter, Debra Gordon, was born in Albuquerque August 27, 1951, and I was actually home!)

I had already determined that earning the degree of Master of Public Health was essential for my further professional development and career advancement. I investigated a number of schools of public health and chose to apply to the University of Michigan School Of Public Health due to its academic and professional strengths, as well as the fact that the environmental health program had close ties to the National Sanitation Foundation housed within the School of Public Health.

4. THE UNIVERSITY OF MICHIGAN SCHOOL OF PUBLIC HEALTH

(Our adorable son, Kent Gordon, was born in Santa Fe, September 16, 1953, the first night after I left home by train enroute the University of Michigan.)

Michigan was among the older and more prestigious schools of public health. All faculty had excelled as practitioners prior to academic appointment, and all students were required to have a minimum of three years field experience before qualifying for admission. These two factors made the school distinctly practitioner oriented. In later years, I repeatedly observed that Michigan School of Public Health Alumni disproportionately held key leadership roles in federal, state and local agencies as well as in professional groups such as the American Public Health Association.

My time spent at Michigan was academically, professionally and personally gratifying, and consistently proved to be among the "keys to the kingdom" for an extremely rewarding career in public and environmental health. For some years after graduating, I felt that I should have been taught more specific facts and techniques. Over a longer period of time, however, I have been increasingly thankful for the orientation to public and environmental health philosophy, concepts and practices.

5. REVISITING SANITARY ENGINEERING AND SANITATION

I hoped that earning the MPH would provide an opportunity for a promotion within the Division. I was eager to utilize my newly acquired knowledge. But I did not reckon with the ways of a bureaucracy. I found myself performing the same duties, and additionally being assigned local responsibilities within the First District Health Department headquartered in Santa Fe. That was acceptable, but the attitude of District Health Officer Marion Hotopp was not. I was trained to be effective and ensure compliance with applicable requirements. To me, that was the ethical way of serving the public and earning my salary (by now \$325 per month). After failing to gain compliance through warnings, written notices and bluff, I commenced legal action against a number of individuals and businesses in the First District. Upon learning of these actions, Dr. Hotopp shook her finger in my face and admonished, "Don't you ever, don't you ever, take legal action in my District, for to do so is to admit failure through health education."

I immediately requested that the First District duties be reassigned, and I returned to my statewide training and quality control role.

Shortly after that, I was invited to accept the position of chief sanitarian with the Health Department of the city of Albuquerque at \$450 per month. Big bucks! When I informed Charles G. Caldwell that I was resigning, he said, "We can meet that salary." I could only respond that he should have said that yesterday, and that I was already committed.

6. THE CITY OF ALBUQUERQUE

A. In the Beginning ----

The Albuquerque Health Department provided a challenging experience as well as a career opportunity. Programmatic scope was very limited. No other personnel in the department had any formal education in public or environmental health, or even had a degree of any type. The director, Wayne Stell, devoted most of his time to the interests of his church, his commercial "help-yourself" laundry, and his coin-operated "ponies" in front of markets. Most of the personnel would meet each morning for coffee and small-talk in the old Hilton Hotel Coffee Shop, and then retire to their other interests that included a dog kennel, a small farm, home chores, or reading at the Albuquerque Public Library for the day. After observing this for a few weeks, I suggested to the director that all personnel (including the director) at least check back into the office at the end of the day. Stell said that he did not want the troops to do anything he didn't want to do.

I also found that a few personnel would not even bother to appear at the morning coffee sessions for a few weeks prior to the city election as they tried to insure election of their favorite candidates to the city commission. Others would visit dairies, food establishments and slaughterhouses occasionally to recommend the purchase of Lindane vaporizers (later outlawed) prior to returning after hours to sell the vaporizers.

I learned that some personnel would visit businesses to collect fees-for-service as required by city ordinance, and that the fees collected never reached the city treasurer.

City employees were being paid 5¢ per mile plus gasoline from the city pumps for the use of their private vehicles, there being no city vehicles furnished. There was a long line of personal vehicles lined up at the city gasoline pumps each Friday afternoon as city personnel prepared for their weekend trips on personal business, or emptied their tanks on the mesa to make it appear they had driven more miles in order to qualify for higher mileage reimbursement.

About this time, Howell G. "Bud" Ervien was hired as Assistant City Manager. One of his first acts was to develop a fleet of city vehicles and a car pool for employees previously driving on mileage. Total miles reported as traveled by city employees were miraculously cut in half!

I obviously had a problem on my hands. The department director reluctantly agreed that I could require personnel to attend all-day training courses every Friday. This served to infuriate a number of personnel to the end that they resigned.

B. An Era of Change

During this period, something really positive occurred. I was able to hire Peter O. Griego! Peter, a biology graduate of UNM, was qualified, motivated, goal-oriented, ethical and loyal. He provided a breach in the otherwise unified wall of opposition and corruption. Other personnel attempted to get him to play their game, join their ranks, and told him he was making them look bad. Having Peter Griego on staff led to further resignations, and we were able to hire a few more qualified personnel. Position descriptions were modernized, job titles were improved, salary scales were upgraded, and professionalism enhanced. We persuaded all employees to wear coats and ties, unless involved in milk sanitation or meat inspection duties.

One morning I looked out my fifth floor office window and observed one of our personnel gunning the engine of his official vehicle and almost covering the area with black exhaust. Previously, I had not had sufficient cause to get rid of him. I knew him to be an alcoholic, and his work was slip-shod. I asked Peter Griego to get his personal vehicle. We followed the individual all day as he went to Belen and back without doing any work. I asked him into my office late that afternoon and told him what I had observed. I inquired if he preferred to resign immediately, or be dismissed. He glared at me and retorted: "You son of a bitch, I'll resign." He was the last of the incompetents whom I had inherited.

I should note that Lester Stevenson, one of the original crew, had always attempted to do his job, difficult though it was under the conditions. As the department was professionalized and Les found he was being supported, he became a key force in administering pure food control efforts upgrading the operations of all city food processing establishments, as well as those shipping food or food products into the city from elsewhere in the state.

With the addition of a number of qualified personnel, program effectiveness and the reputation of the department began to significantly improve. A number of the new personnel became career professionals, and I was privileged to work with them for the remainder of my career. Among these were:

Pat Kneafsey, later to be a division chief, earn his MPH, become Special Projects Manager in the New Mexico Environmental Improvement Agency (EIA), and Director of the Albuquerque Environmental Health Department

Thomas E. Baca, later to earn his MPH, become Manager of the EIA Occupational Health and Safety Bureau, EIA Field Services Manager, Director of the Environmental Improvement Division from 1977 until 1981, Santa Fe City Manager, University of Arizona Vice President, Deputy Assistant Secretary for Environment for the U.S. Department of Defense in 1990, and Director of Environmental Management for Los Alamos National Laboratories in 1994.

Russell F. Rhoades, later to earn his MPH, become EIA OSHA Manager, Environmental

Improvement Division (EID) Field Services Manager, EID Director from 1981 until 1983, and Director of Environmental Services for U.S. EPA Region VI in 1984, Director of the Arizona Environmental Quality Department, and Director of Environmental Management for Public Service Co. of New Mexico.

Cubia L. Clayton, who later headed water and sewage control efforts for the Albuquerque Environmental Health Department, earned his MPH, and became Deputy EID Director in 1977, and Air Quality Bureau Chief in 1987; and an Environmental Consultant upon his retirement from state government in 1989.

John Cordova, who was later selected to head the Albuquerque Model Cities Program, then directed the Joint Projects Office in Washington for all U.S. Senators and Representative from New Mexico, and performed in a variety of important roles as a consultant.

Harold Eitzen, who earned his DrPH and became a well known industrial hygienist and epidemiologist working primarily in the private sector.

Richard Brusuelas, who earned his MPH, became environmental health planner for the Albuquerque-Bernalillo County Environmental Health Department, Dade County (Florida) environmental health planner, Director of the New Mexico Health Systems Agency, a health services consultant, and Bernalillo County Environmental Health Director in 1992.

A number of other significant changes also occurred in Albuquerque. Wayne Stell resigned, and I was appointed director in November, 1957. With the complete involvement and support of these new professionals, all departmental functions were improved. We established excellent working relationships with the State Division of Sanitary Engineering and Sanitation, the U.S. Public Health Service, the U.S. Food and Drug Administration, and the State Public Health Laboratory in Albuquerque. I had become a Commissioned Officer in the U.S. Public Health Service Reserve which led to several opportunities for further training and active duty assignment and experience. The public, the news media, and the city commission were amazingly supportive.

The following discussion of the city food protection program is a typical example of changes that occurred.

C. Food Protection in Albuquerque

There is nothing more difficult to carry out, nor more doubtful of success, than to initiate a new order of things. For the reformer has enemies in all those who profit by the old order. Machiavelli

In 1955, a U.S. Public Health Service evaluation of the food program indicated it was among the worst in the state and the nation in terms of compliance as well as administration. We commenced routine, thorough inspections; continuing training classes for food service employees and managers; proper administration of state laws (local ordinances were still antiquated); and worked with the news media to keep the public informed of the problems and department activities and needs.

Scores of establishments were downgraded, many voluntarily closed rather than be downgraded and subjected to publicity by the news media, and the compliance ratings began to dramatically improve.

Peter O. Griego once asked me how I was able to close so many substandard establishments without taking legal action. I pointed out that I merely gave them their choice of being downgraded and subjected to an article in the newspapers, or closing voluntarily until standards were met. They usually chose the voluntary route.

Peter discovered that the method worked. We didn't have to resort to a single court case!

But a number of somewhat recalcitrant owners and operators were feeling the pressure, and were reluctant to comply. I was invited to a meeting of such operators in a private dining room at Lobo Joe's Restaurant on East Central, and was advised that my continued employment with the city would be in jeopardy if we continued our aggressive efforts.

On Christmas Eve of my first year as Director, a number of Christmas goodies such as a frozen turkey, a smoked ham and an ice cream cake were delivered to my home courtesy of some of the larger businesses which we regulated. I returned all of them and advised the business managers and owners that such practices were no longer appropriate. I also learned that some of our other personnel had been accepting such gifts. Anyway, the practice was stopped once and for all.

On one occasion, Peter O. Griego inspected the state's largest convention hotel, the Western Skies, indicated that he planned to downgrade the food establishment, and asked to see the manager. The manager sent back word that he would meet Peter in the bar, as "he had always found elsewhere that such downgrading could be averted." By the time the manager came down to meet Peter, he found the red grade "C" on the front door, while Peter had gone on to other duties.

We continued despite such adventures.

We also vigorously enforced the state and city pure food acts which covered sanitation, wholesomeness, adulteration, packaging and labeling of food and food products. We applied the requirements to all food processors in New Mexico which shipped into the City of Albuquerque.

One specific example: When I first visited the facilities of the Albuquerque Ice Company, I was shocked. Delivery truck drivers were walking over the freezing vats in their street shoes and clothes. The water supply was unsafe. Ice was delivered in canvas bags which were never washed. The canvas bags were frequently dragged across sidewalks during delivery. When we insisted on the necessary changes, the contract truck drivers all descended on my office to convince me the changes were unworkable and would drive them out of business.

We implemented the requirements, and the company was able to comply and thrive!

We conducted routine six-hour food service training courses for food service employees, and sponsored seminars for food service managers. The seminars were co-sponsored by the University of New Mexico, the USPHS, the New Mexico Restaurant Association, and the National Sanitation Foundation.

Within two years both Peter O. Griego and I were awarded Honorary Life Memberships in the New Mexico Restaurant Association for our efforts in making it "Safe to Eat Out."

In 1959, the Albuquerque Health Department was the proud recipient of the National Samuel J. Crumbine Certificate of Merit for "development of a Comprehensive Program of Environmental Sanitation and the Eating and Drinking component thereof". The Samuel J. Crumbine Awards Jury requested information about any gains accruing from participation in the awards program. Here are some excerpts from our reply:

- 1. Our entire staff cooperated in completing the application forms. This created considerable comment as it brought to everyone's attention all the items that must be considered in a comprehensive program. Since that time, we have attempted to remedy many of the shortcomings which were noted.*
- 2. The Award created a great deal of pride and a considerable degree of self confidence among all the members of our staff.*
- 3. The local newspapers and TV stations were most generous in their releases dealing with the Award, increasing the prestige of this department and the effectiveness of our programs. This enhanced our position with the city commissioners and with other departments and agencies.*
- 4. The Albuquerque National Bank is devoting its entire September-October issue of*

Albuquerque Progress (14 pages) to the personnel and programs of the department. Some twelve to fourteen thousand copies will be distributed. Such a publication would cost close to \$10,000 if we had this done as a public relations venture.

In 1961, the department was awarded the highest national Crumline Award for the excellence of the food sanitation program protection program in Albuquerque.

I had been appointed a Special Consultant to the U.S. Public Health Service and served on the USPHS Food Sanitation Advisory Committee, which developed a new Recommended Food Service Ordinance and Code. With the support of the New Mexico Restaurant Association, Albuquerque became first in the nation to adopt the new food service ordinance.

When the new USPHS Recommended Ordinance and Code were recommended for local adoption by the city commission in 1962, the New Mexico Restaurant Association wrote:

The organized food service industry is proud of the cooperative relationship that has been developed with the Albuquerque Health Department, and we realize the desirability of promoting modern uniform public health legislation. This cooperation and understanding has resulted in a high level of food sanitation standards and practices in this area, which has caused the sanitation program in Albuquerque to be recognized nationally. Albuquerque restaurateurs are proud of the improvements achieved in food sanitation in the last few years. This has been economically healthy for the industry, as our citizens now know that it's "safe to eat out". Our customers have faith in our restaurants and our health department. We understand the desirability of further improving food sanitation practices throughout the country.

Your favorable consideration will be appreciated.

(Our adorable son, Gary Gordon, was born in Albuquerque, May 23, 1961. I was in town, but left later that day for a presentation at the Centers for Disease Control in Atlanta. But my fee more than paid for all health care expenses. That was prior to the era of everyone having, or believing they were entitled to, health care insurance. We still thought we had a responsibility to look after ourselves!)

D. Radiation in Nevada

I always valued and professionally profited from my consulting and other relationships with various national official and voluntary agencies and associations. Prominent among these was my status as a commissioned reserve officer in the U.S. Public Health Service. I was initially commissioned in 1955 shortly after joining the Albuquerque Health Department. Over the years, I was promoted to the rank of USPHS Captain, equivalent to a Navy Captain. On two occasions, my commission was activated to serve in conjunction with nuclear testing at the Nevada Test Site. This provided invaluable training and experience, which, over the years, enabled me to better understand both radiation and risk assessment.

On one such assignment, I served for three months as a team leader in Mesquite, Nevada and Cedar City, Utah, during an era when federal concern and leadership regarding nuclear testing was sloppy at best. Time has proven that some of the "shots" (rather than explosions) during the fifties and early sixties created unacceptably dangerous levels of radioactive exposure from nuclear fallout. Most of the off-site fallout occurred in southern Nevada and southern Utah, although some occurred world-wide. This eventually led to a ban on surface testing of the "devices". We were instructed to call them "devices," rather than bombs. We were also instructed to refrain from utilizing such terms as "hot" in relation to high levels of radioactive fallout. A responsible attitude on the part of the Congress and administration was not evident, and this resulted in litigation in later years.

While I was responsible for monitoring the fallout from numerous "shots," the most awesome shot, titled "Hood," was detonated in the early morning hours of darkness in July, 1968. I was probably about 100 miles from ground-zero. The illumination from the fire ball created by Hood was so brilliant that I could have read a newspaper for a short period of time. Hood proved to be the largest nuclear device ever detonated in the continental United States. This experience gave me an understanding of the awesome damage which would be caused by a nuclear war.

During this era of atomic testing and weapons development, the government issued blithe assurances that there was no reason to fear nuclear experiments -- even as their secret and classified documents suggested there was reason to fear. The government seemed to be determined to indicate that radiation doses were not large enough to harm human beings.

U.S. Atomic Energy Commissioner Willard Libby stated, *"People have got to learn to live with the facts of life, and part of the facts of life are fallout."* A.E.C Commissioner Thomas Murray stated, *"We must not let anything interfere with this series of tests -- nothing."*

Many years later, I requested information regarding radiation exposure which I received during my tour of duty. In my case, my total exposure was extremely low, probably insignificant, despite the fact that I spent several months measuring fallout.

E. Radiation Exposure in Albuquerque

Prior to 1957, serious radiation exposure from shoe-fitting fluoroscopes was commonplace. Most major shoe stores used them. None of the machines met proper standards in their design or use, and they constituted a definite public health hazard. Many delivered more than 10 times as much radiation per minute as a medical fluoroscope. Children received overlong exposures while a clerk, parent or friend took turns looking at the foot bones. This process was often repeated at several stores.

Although I did not have specific regulatory authority, I issued a letter to the stores requesting that the use of all such devices be discontinued immediately, and gained 100% cooperation.

In conjunction with representatives of the U.S. Public Health Service and the New Mexico Department of Public Health, we also surveyed all dental X -ray and fluoroscope machines in the city. Recommendations for safety were issued to all dental practitioners.

Radiation protection efforts were the first step in our development of a city industrial hygiene program in 1960.

Solutions were frequently simpler in those days. We were able to solve many problems through administrative decision and action without going through the process of gaining passage of a new ordinance, regulation or statute.

F. Housing Conservation and Rehabilitation

In 1958, we conducted a community housing survey, using the standards and procedures developed by the American Public Health Association. Community support for improving the sanitation and safety of dwellings in Albuquerque was strong. We continued the process of working with community groups, churches, businesses and various governmental organizations for more than a year before recommending an ordinance similar to one developed and recommended by the American Public Health Association. The ordinance was designed to cover maintenance, occupancy, and supplied facilities of existing dwellings, rather than new construction.

Albuquerque Journal reporter Marianne Johnson wrote a series of feature articles which included pictures of some of the conditions. The Board of Realtors was particularly supportive, as was the Albuquerque Home Builders Association after some early differences.

The city commission unanimously adopted the proposed ordinance in 1959. Improvements were striking. The program was based not only on enforcement, but on the cooperative efforts of all the agencies and groups we had worked with earlier. Businesses gave special prices to those attempting to comply. Welfare workers, churches and community groups helped. The efforts of such city departments as Refuse, Public Works, Buildings and Inspections, and Fire were effective and essential. In cooperation with dozens of other agencies and groups, we sponsored city-wide "Clean-up, Paint-up, Fix-up" campaigns.

The program focused on specific neighborhoods, and helped create improved community pride.

This successful venture led to the Albuquerque Health Department initiating and spawning the City Urban Renewal program and the low rent, leased housing program.

Commencing in 1961, the Albuquerque Health Department became part of a team effort to inspect scores of dilapidated downtown commercial buildings. Other departments were Fire and the Building and Inspections Department. A.P.Garland, Superintendent of the Building and Inspections Department, was the team leader. This team effort led to widespread improvements, as well as condemning and razing a number of unsafe structures.

G. Water and Sewage Related Issues

Until 1959, there had been no effective regulation of water supplies, on-site sewage disposal, and subdivision lot sizes within the city and its five mile planning jurisdiction. The Albuquerque Health Department developed standards for water supplies and sewage disposal, and the City Health Advisory Board developed a policy regarding minimum lot sizes, and stated preference for extending city water and sewer lines. The City Planning Department subsequently recognized and adopted the standards and policy. The city commission backed the department on the first appeal. That support set the tone, and water and sewage control efforts continued to be effective.

To further insure safe drinking water, Albuquerque Health Department personnel also commenced efforts to rid the city of dangerous plumbing arrangements known as cross-connections and inter-connections in businesses which they visited. We even found them commonplace in mortuaries.

There had been little, if any, control of the sanitation and safety of swimming pools. A modern ordinance was developed and approved by the city commission, resulting in an upgrading of pools.

During commission deliberation on the proposed swimming pool ordinance, Commissioner William Atkinson asked me what "pH" was. I simply replied that it was the reciprocal of the log of the hydrogen ion concentration. There were no further questions. Sixteen pools were closed in 1959.

H. Air Pollution in Albuquerque and New Mexico

Live dangerously, breathe deeply!

While still with the Division of Sanitary Engineering and Sanitation in 1954, I met with Albuquerque city commissioners regarding emerging concern over air pollution.

Air pollution in Albuquerque was nothing new. In the early days, residents relied primarily on wood-burning as sources of heat. When my father, Andrew J. Gordon, was Forest Ranger on the Tijeras District in the early 1930s, I recall the time he spent issuing wood permits. Old U.S. Highway 66 from Tijeras to Albuquerque had a steady stream of trucks and horse-drawn wagons supplying wood for homes and businesses in the valley. Wood-burning, coupled with the topography and meteorology, had long made Albuquerque a natural for air pollution, particularly in winter months.

By 1954, commissioners had become concerned about a number of point sources, particularly the sawmill area of the north valley. In 1955, the commission adopted an ordinance designed primarily to deal with a few such point sources. Responsibility for administering the ordinance was delegated to the Building and Inspections Department, but no resources for equipment, analyses, or personnel were allocated. The ordinance was on the books, but was never energetically enforced.

In 1958, I developed an arrangement with the U.S. Public Health Service to continuously sample air for particulates, including their chemical composition. The USPHS furnished the monitoring equipment and analyzed samples. The news media cooperated by portraying the results. I frequently met with various community and professional groups to discuss the problem and indicate the need for controls. City Planning Director Harry B. Coblenz was particularly supportive of the need to develop an effective program and transfer administrative responsibility to the Albuquerque Health Department. Several local physicians were also enthusiastic about the need for a new and effective ordinance.

By 1962, point sources were still common, and open-burning of wastes, refuse, weeds, and agricultural stubble was widespread.

In 1962, Albuquerque Tribune reporter Moises Sandoval wrote a series of front page feature articles which accurately discussed the problem and the need for an effective approach. Enforcement responsibility for the 1955 ordinance was transferred to the Albuquerque Health Department, and we commenced developing a new ordinance. Led by County Commissioner Harry Kinney (later to be a city commissioner and two-term Albuquerque mayor), the county commission also became interested in developing an ordinance.

While we were developing the new ordinances, we commenced enforcement of the existing ordinance where it could be useful, particularly against open-burning, sand and gravel

operations, and asphalt mix plants.

Following extensive public information, we scheduled a public hearing on the proposed ordinance in October, 1962. We had a large, but practically empty room. Those in attendance included Albuquerque Tribune reporter Moises Sandoval, one TV cameraman, and two of us from the Albuquerque Health Department. We proceeded with preliminary efforts to schedule the proposed ordinance for commission action.

And then the sky fell in!

I was invited by representatives of the Albuquerque Chamber of Commerce and the Albuquerque Industrial Development Service to attend a closed-door session. They wanted me to back off, and told me that to even talk about air pollution in Albuquerque would ruin the economy and drive industry out of the area. One even suggested that I should be "tarred and feathered and ridden out of town on a rail."

It was not a pleasant experience!

We went ahead and scheduled the ordinance for action by the city and county commissions. The county commission slightly altered its ordinance, but both were adopted within a few months.

(How attitudes and times changed. The Albuquerque Chamber of Commerce and economic development officials became foremost proponents of environmental health and environmental quality in Albuquerque. They understood that we can't have a healthy economy without a healthy environment. Environmental activists have been slower to recognize that the converse is also true, and that the environment and the economy are closely interdigitated.)

The previous City Health Advisory Board later became a city-county board and was given the additional responsibilities of providing advice on air pollution issues.

Bernalillo County did not provide funding for the city-county program, but having a city-county program enabled us to receive three-to-one USPHS matching funds instead of the fifty-fifty awarded a single governmental unit. The USPHS recognized the need for area-wide controls and uniformity.

And we did, too!

We worked with the state Division of Sanitary Engineering and Sanitation to develop a State law. The first bill was introduced by a Bernalillo County Representative in 1963. He caught so much pressure from polluter interests that he dropped sponsorship, and the bill was never reported out of committee.

In the next session of the legislature, Senator Austin Roberts from San Juan County introduced

the bill again, but dropped sponsorship due to the concerns of energy interests in San Juan County.

Next, Senator Sterling Black of Los Alamos sponsored a bill, and it actually moved to a hearing before the Senate Conservation Committee. At this hearing, Senator Harold Runnels said they thought air pollution was green (the color of money) in Lea County. The hearing rapidly deteriorated as other senators guffawed us out of the room.

I was not sure if there was a formal "do not pass" vote, or if they just reported out the laughter!

(It was paradoxical that the state building in Santa Fe, which housed the Health and Environment Department, was named the Runnels Building. Harold Runnels, later a U.S. Representative, was not a role model or positive force for health or environment.)

By 1967, it was becoming apparent that there would soon be federal air quality legislation, and that states would be mandated to enact legislation. A group of industry officials developed a draft bill, which was extremely weak and polluter oriented. They submitted it to the State Board of Public Health for review and endorsement. Board members were apparently so pleased that the bill provided for enforcement by the New Mexico Department of Public Health that they failed to notice all its weaknesses. The Board unanimously endorsed the draft bill. That inappropriate action precluded the Sanitary Engineering and Sanitation professional staff from opposing or attempting to improve the measure.

That endorsement by the State Board of Health also meant that Albuquerque Health Department personnel were the only advocates having the freedom to push for a stronger and more effective measure.

In the 1967 legislature, I requested Senator Robert Jones of Bernalillo County to introduce a measure which the city drafted and supported. It passed the Senate with little opposition. But the groups opposing it had decided to deal with it when it moved to the House. A committee substitute was passed out of the first house committee. Assistant City Attorney D. Pete Rask was extremely helpful in developing a number of amendments to improve the bill. City Commission Chairman Ralph Trigg spent many hours on the phone attempting to gain support from the financial institutions which backed many of the interests opposing the bill.

But the pollution interests showed their muscle. At one hearing, the chair said he needed to leave the room for a few minutes and would just turn things over to the industry lobbyist (who was an excellent, effective lobbyist and a respected adversary). At a joint House-Senate Committee hearing, an environmental activist (the first I had come across) from Los Alamos, said that he would rather live in a cave and use candles than tolerate the Four Corners Power Plant. That statement certainly didn't help our cause, and created a huge smile on the face of Max Llewelyn, President of the Neanderthal-minded Arizona Public Service Company.

In the final analysis, the legislative process worked, a good bill was developed, and was signed into law.

I was also involved in the development and passage of the New Mexico Water Pollution Control Act during the same 1967 session. My brother Ladd S. Gordon, Director of the New Mexico Game and Fish Department, was more directly involved with the water act. However, the intrigue was basically the same as it was for the air act. The final products were both good legislation, although both were subsequently amended and sometimes weakened later.

The new state air act repealed the existing Albuquerque and Bernalillo County air ordinances. The Albuquerque Health Department Advisory Board became the City-County Air Quality Control Board and was vested with powers in accordance with the provision of the new state law. We commenced public hearings to develop new and more comprehensive and effective board regulations.

In 1968, I commenced the same process at the state level, thus getting the state into the action for the first time.

"We travel together, passengers on a little spaceship; dependent on its vulnerable reserves of air and soil; all committed for our safety to its security and peace; preserved from annihilation only by the care, the work, and I will say, the love we give our fragile craft." Adlai Stevenson.

I. Valley Annexation

Albuquerque City Manager Edmund Engel was a planner and a visionary. He tried to view things the way they should be. He was not a politician, but was able to serve as City Manager from the early fifties to the mid-sixties through the terms of many different commissioners. He didn't socialize or belong to community groups, but was all business. Previously, Engel had been a U.S. Navy officer, as well as a city planner in Long Beach, California before being brought to Albuquerque when the reform-minded Citizens Committee took power in the early 1950s.

When Ed Engel was finally dismissed, he didn't complain or hold a press conference. He simply packed his personal belongings, carried them across the street to his car, and went home. Only three of us later took a gift of appreciation to his home. These three were Parks and Recreation Director Bob Burgan, City Attorney Frank Horan and I. Engel helped move city government from the spoils system to a progressive and enlightened form of government. Shortly after his dismissal, he was appointed Assistant to the President of New Mexico State University.

In 1964, Edmund Engel recognized that the Albuquerque metropolitan area would benefit from a wide variety of city services. Instead of attempting city-county consolidation, he had a different approach. He asked me to prepare a comprehensive report on the water and sewer problems in the Albuquerque valley. This report, and some from other City departments, was submitted to the city planning commission and the city commission as part of Engel's case for annexation and extension of city services and utilities. Engel developed a proposal that the commission accomplish the annexation by first annexing a strip by voluntary annexation around the entire valley area, from Sandia Pueblo on the North to Isleta Pueblo on the South. State law provided that a municipality could annex an area already encircled by the city. The city commission subsequently annexed the entire valley area, primarily to remedy the already obvious problems of water pollution and contamination of water supplies.

Alfred Schwartzman, owner of Schwartzman Packing in the south valley, opposed annexation of his large plant and property holdings even though solid and liquid wastes from his operation posed one of the most significant contamination, pollution, insect, and odor problems in the Albuquerque metropolitan area. Al Schwartzman took his case to district court. The city brought in expert witnesses, and based its case on pollution problems, good planning and the greatest good for the entire community. The judge ruled in Schwartzman's favor and admonished the city to the effect that "you can't just throw a lasso around an area and annex it."

The planning, the goal and the action had been excellent, but the judge didn't buy the legality.

Environmental problems in the valley area outside the city limits continued to be re-discovered, re-studied, re-discussed, and new proposals made for some sort of solution. Had the city prevailed in 1964, city services and utilities would have been available throughout the valley, and the water and sewage problems would have been solved.

Over the years, the ground-water problems became worse, and the community did not muster the collective community and political will to do what was essential to solve the problem. Specifically, to provide public water and sewer services to the entire valley area, either by extending the city system, or authorizing an area-wide water, sewer and waste district to provide services from Bernalillo to Belen. Without a public, area-wide approach, the problems only became worse.

In 1983, I was requested to attend a south valley community meeting to discuss the problem of groundwater contamination. I read my statement, and it was well received. I then noted that it was the same statement I had developed for the Albuquerque Planning Commission in 1964, and the problem had only become more serious, complex and expensive to solve.

That 1964 letter to the Albuquerque Planning Commission stated, in part:

As far back as 1954, the City and State Health Departments were cognizant of the water and sewage problems in the valley area, and both agencies made recommendations for stop-gap or temporary control measures. This included a recommendation to the City Planning Commission that subdivisions within the five-mile zone not be approved unless public water and sewage facilities were available to the lots.....Septic tanks were never intended or designed to be used in densely populated areas or subdivisions on a mass basis, but were intended for use for relatively isolated homes such as farms and ranches. There is absolutely no doubt that the use of individual sewage disposal methods such as septic tanks, cesspools, and privies in congested areas has proven to be a health problem, a nuisance, and uneconomical.

Residents of the Albuquerque metropolitan area are now faced with a potential health problem due to the over use and continued use of improperly located and constructed private water supplies; and septic tanks, cesspools and privies. We conservatively estimate that there are at least 15,000 private water supplies and sewage disposal systems in the Albuquerque valley area. In many areas of the valley, the water table is only 5 to 10 feet beneath the surface of the ground. When one considers the limited geographic area involved, thousands of homes each having a hole penetrated in the ground to obtain water with a nearby hole in the ground to dispose of sewage, it is obvious that there will be an increasingly serious problem of underground water pollution. Tests made by the Albuquerque Health Department and the U.S. Geological Survey have indicated that the underground water table in the Albuquerque valley area has been contaminated for many years. The contaminants involve both foreign chemicals and bacteria. Chemical contaminants in our drinking water may have chronic, long-term effects which are not well understood or documented.....

Experience elsewhere has indicated that in the absence of good, long-range environmental health planning, the health problems associated with the use of individual water supplies and sewage disposal units have quickly gotten out of hand and have been

extremely time consuming and expensive to remedy.....

The Albuquerque Health Department believes that it is essential that immediate steps be taken to commence providing safe, municipal water and sewage facilities to the densely settled Albuquerque metropolitan area....

Lack of community and political will and leadership!

An interesting sidelight to the valley water and sewage issue occurred with regard to water contamination at the Lee Acres School in the north valley. I had reason to suspect that the school's water supply was being contaminated by the school's septic tank. But the school was not within the Albuquerque city limits, so I had no legal jurisdiction. The Bernalillo County Health Officer was a typical physician who had not training or experience in environmental health. He and his staff professed that the school had no problem. Chief Sanitarian Peter O. Griego of my staff lived within the city limits in the north valley. I asked Peter to take a water sample at the school, but utilized his home address for the sample. Obviously unethical, but good public health investigation. The sample was reported positive for coliform bacteria by the State Public Health Laboratory. I told the County Health Officer about the sampling, and this resulted in a significant interchange. On December 4, 1963, he wrote the Albuquerque Journal that:

The suggestion that the city decide to annex adjoining county areas to safeguard the health of the population is utterly baseless. Wild and irresponsible statements made on the purity of the water supplies from shallow wells in the South Valley are open to question and completely unjustifiable.....

The situation as it exists at the moment shows no cause for alarm and the city authorities may rest assured that no public health hazard exists. There is no reason to suspect that the situation will worsen in the future.

To condemn the use of shallow well off-hand on the grounds that waters are subject to pollution is unjustifiable, and such statements should not be made without evidence of support. The fact that privies and individual sewage disposal systems do exist in the vicinity of wells is no reason to conclude that water-borne diseases will occur now or in the future....

It is, therefore, obvious that the statements made in the article have no basis in fact. To condemn shallow wells is quite unnecessary and South Valley residents may rest assured that on the whole their underground water supplies are quite safe. The County Health Department will continue to safeguard these supplies as far as is humanly possible, but it is up to the owners of wells to insure that they have their water tested at reasonable short intervals in order to make certain no pollution takes place.

The gentleman had little knowledge of public health, environmental health concepts and standards, or the fact that public health is synonymous with prevention. He resigned shortly after his outburst of ignorance!

I was reminded of a statement made by my friend, Professor Mort Hilbert, when I attended the University of Michigan School of Public Health. Mort said, *"People will wade through their own sewage to go to the polls and vote against a bond issue designed to solve the problem!"*

City Manager Edmund Engel made a visionary annexation proposal whose time had not yet come.

Edmund Engel was a visionary!

Human events ever resemble those of preceding times (because) they are produced by men who ever have been, and ever will be, animated by the same passions, and thus they necessarily have the same result. Machiavelli

J. The Municipal Health Act

Prior to 1965, New Mexico law specified that "municipalities and school districts may employ their own health or sanitation personnel, but they shall report to, and render such reports to the District Health Officer as he may deem necessary. Basically, we were ignoring this provision as all our funding was from the city, and the department was part of city government just as certainly as were all other city departments, which were not required to report to state government.

But this 1935 state law was creating problems for a series of district health officers (DHOs) who believed in tradition, and thought they should supervise the city's environmental health functions even though none of them had any education or experience in environmental health. One of them even went so far as to attempt to enlist the support of the American Public Health Association to gain his ends. Each of these DHOs ended their New Mexico careers by resigning in frustration. I was not their favorite lackey.

It was time for a statutory remedy!

I developed a suggested bill which was drafted into legal form by the Legislative Council Service and introduced by Representative Walker Bryan of Carlsbad. The bill moved through the legislative process with no apparent opposition until State Health Officer Dr. Stanley J. Leland decided it was a serious threat to his turf. Earlier, after having too many drinks at a dinner in Old Town, he had smilingly stated, "*Larry, I'm going to pull the rug out from under you!*" The municipal health bill provided him this opportunity. He managed to have the bill recalled by a committee in order to bury it. I contacted a number of influential people including Edith Schulmeister, a local dairy farmer and a leader in agricultural circles. The dairy farmers were supportive due to the effective and ethical manner in which we administered the milk sanitation program. With the support of Ms. Schulmeister and others, the bill was voted out of committee again, enacted by the Legislature and signed by Governor David Cargo.

Dr. Leland subsequently submitted nine questions to the Attorney General, seeking to elicit interpretations which would weaken the Act. The AG's responses were all favorable to the interests of municipal government.

The Municipal Health Act specifies the responsibilities and jurisdiction of a department and the qualifications of a municipal health director. The latter has insured professional leadership for the department since enactment. The act requires that the Director have the degree of Master of Public Health from a school accredited by the Council on Education for Public Health.

K. The Nation's First Environmental Health Department

1965 was long before the public developed interest in environmental issues. Seemingly, the only significant interest was that of environmental health professionals. I appointed a blue ribbon, seven-member city health advisory committee, later gained enactment of an advisory board ordinance, and did not have a single request or nomination for someone to serve on the board! Therefore, the city manager appointed those recommended by the department. (Later, with the passage of the New Mexico Air Quality Control Act, the Board also became the City-County Air Quality Control Board.)

This was prior to Earth Day, public awakening, the creation of EPA, and the passage of major Federal and State environmental legislation.

But we were moving ahead in Albuquerque!

Working with Bernalillo County Commissioner Gerald Goodman and County Manager Dick Heim, I developed a proposal to have the county contract with the city for all environmental health services. The contract was submitted as a joint powers agreement and approved by the Bernalillo County Commission, the city commission, the state board of health and the state board of finance.

The result was the Albuquerque-Bernalillo County Environmental Health Department — the first such entity in the nation!

Earlier, I developed many new environmental health ordinances for the city. For the county, I developed the Bernalillo County Environmental Health Code, which was a comprehensive document encompassing such issues as subdivision requirements, water and sewage standards, swimming pool sanitation and safety, milk sanitation, food protection, air pollution control, and meat inspection.

The city-county arrangement worked well and afforded county residents the same level of services as those received by city residents. This city-county arrangement lasted until 1975 when the county, presumably for more patronage positions, opted to cancel the agreement.

Since dissolution of the city-county agreement, none of the county environmental health personnel had requisite training, degrees, or appropriate education except for the former Director who had an MPH — not in environmental health, but in health education. The services in the county deteriorated, causing the New Mexico Environmental Improvement Division to assume some of the responsibilities, and the county's scope of services was reduced.

Hopefully, however, there are good forebodings for the future. As of February, 1992, Richard Brusuelas was appointed to the position of Director, Bernalillo County Environmental Health Department. I was privileged to serve on the search committee.

Richard had a major challenge!

Certain city-county services continued to be provided by the city Environmental Health Department, including air pollution control, insect and rodent control, plague surveillance, residential hazardous waste collection, and vehicle emissions inspection and control.

L. Solid Waste Experiences

Pollution, our growing national resource.

G.B. Robertson became City Manager in 1966. Robbie, as he was known to his many friends, was a practicing politician who had worked his way through the ranks of City government from an entrance grade position to Director of Maintenance and Services, which included refuse, streets and city maintenance functions. He was an active and effective member of Alcoholics Anonymous. I once heard him lecture the County Manager that, "Son, I've spilled more booze trying to get a drink down in the morning than you've ever seen." He made this pronouncement while shaving in his office.

Robbie had a warm personality and was well liked. I had an excellent relationship with him. He was friendly and jocular, at least with those he liked. We had worked well together while he was administering the refuse department. Robbie had a lot to do with controlling city elections, and was not one to be ignored regarding statewide elections. He had worked for the old Mayor Clyde Tingley regime, and asserted that he had been Tingley's "bag-man". He once told Tribune reporter Carroll Cagle and me that he would see that voters were ostensibly moved into the city in advance of city elections to vote for the Tingley slate, and that he and others would alter other ballots after the polls were closed.

The laborers who worked in Robbie's department would generally vote as he dictated. They had many relatives, and knew they provided the swing vote in city elections. They usually had a grand victory party after the election results were in. Robbie was a Democrat, but could also be a king-maker for Republicans. He was influential when his friend Pete Domenici first ran for the City Commission, and later when Domenici successfully ran for the United States Senate.

G.B. Robertson was city manager until 1968, and very different from Edmund Engel. Engel practiced full delegation of authority and responsibility, which provided a professional bonanza for department directors who were self-starters and had ideas of their own to pursue. Robbie was more inclined to become involved in processes, at least if the processes might have political implications.

Robbie never intended to be a long-term city manager, and repeatedly encouraged me to become assistant city manager so that I would be in line to be his successor. However, I had been educated as a professional in public and environmental health, and was not interested in such a career diversion.

But Robbie did me other "favors", at least one of which I could have survived without. He and the commissioners thought the Environmental Health Department was doing such an excellent job, that they transferred the Refuse Department to Environmental Health. I never believed that Environmental Health should administer such direct services, but it was a

memorable experience in many ways.

One of the experiences was another idea whose time had not arrived. In 1966, I contacted every unit of local government, every school district, and the pueblos from Bernalillo to Belen regarding area-wide solid waste management problems, and developed an area-wide solid waste management plan. I contacted the solid waste management people in the U.S. Public Health Service and described our proposal. They professed to be eager to fund such an area-wide program as a demonstration project for other areas of the Nation.

The USPHS had already utilized our department for other demonstration projects, including development of their methodology and resultant publication for community environmental health planning. Working with the USPHS, I had also directed the nation's First Governor's Conference on Environmental Health Planning under the sponsorship of Governor Jack Campbell.

Our plan involved creating a solid waste management district, with initial financial contributions from the afore-listed local governments, and with the vast bulk of funding to be received from the USPHS in accordance with an oral commitment. Solid waste transportation was based on using the railroad tracks from Bernalillo to Belen, with refuse trucks feeding into this system.

I convened a meeting of local government officials at the old city convention Center. All signed an initial agreement to participate financially. (This took place prior to creation of the Mid-Rio Grande Council of Governments.) Local enthusiasm was high. Commission Chairman Ralph Trigg referred to the plan as the Tri-County "Trashportation" System. I again contacted the USPHS solid waste management officials, as we were ready to go. But by then, there had been some change in federal resolve or priorities, and they declined to fulfill their earlier commitment.

An excellent idea, good planning and excellent local support, but withdrawal of the promised federal support resulted in no further area-wide solid waste management efforts.

A regional approach to solid and hazardous wastes as well as water supply and liquid wastes continued to be essential. But lack of local action continued to be another example of turf protection and lack of political resolve!

The city refuse department also provided other challenges and experiences. The personnel were politically formidable, and to a significant extent controlled their own operations. They had a long-standing and effective "buddy" system which protected them from unwanted interference. I found that the crews of the large and expensive-to-operate refuse vehicles would complete their routes early in the day and spend the rest of the working day driving around town appearing to be busy. On one occasion, I observed a crew parked on a side street drinking beer. These practices not only resulted in exorbitant personnel costs, but in high mileage costs. I

started transferring crew members to different crews, and changing some day crews to night work. I paid for this by repeatedly receiving anonymous calls threatening to kill me, injure my family members and rape my wife!

And the results of our changes were short-lived. When I later accepted the invitation to become Director of the Environmental Services Division of the New Mexico Health and Social Services Department, I was told that the entire system and assignments reverted to their previous arrangement within a week after I returned to Santa Fe. I learned that results were comparable to sticking my hand in a bucket of water and then withdrawing it. The water level did not permanently change!

M. Animal Control

A fairly broad definition of environmental health is necessary if animal control is to be included, but it does involve managing environmental factors which impact human health and safety. Animal control functions are commonly administered by public or environmental health agencies.

Albuquerque animal control functions were transferred to the Albuquerque Health Department in the mid-sixties. Fortunately, retired Colonel Eugene Hughey was the manager. Gene was energetic, and a self-starter. By 1965, we had gained approval for a modern animal shelter to replace the unprotected dirt runs which were in existence when the city had acquired the "facility" from the Humane Association some years earlier.

As animal control functions became better organized and more effective, we received a plethora of emotional and hysterical criticism from individuals who believed that their animals could do no wrong, or that people should be allowed to live in a dwelling ankle-deep in feces from several dozen dogs or cats. Solving these problems also resulted in anonymous obscene phone calls, as well as some negative publicity from the Albuquerque Tribune whose editor, otherwise highly supportive of our department, was critical of our animal control efforts. At one point, I referred to our animal control critics as "irrational nuts." That accurate, but inopportune comment was applauded by some, but certainly didn't help to cool the debate!

But it was all part of early efforts to establish what became an excellent facility and operation in later years.

A little humor always helps. The following was published in The Pony Express column of the Albuquerque Tribune.

The City Hall Reporter vs Larry Gordon

*The doggies are cold, their footsies are freezin'
One even was heard to be coughin' and sneezin'!*

*So it would seem it is time the reporter with pad,
Get out his pencil and make Larry look bad.*

*The people who take these writings to heart,
Are crackpots and nuts by the largest part.*

*They never presume that some truths may be hidden,
The facts printed clearly must have somehow been forbidden.*

Our Director of Health has been honored far and wide,

And most of us point to him with a great deal of pride!

*Now, regarding these features to boost circulation,
Why not "The Child With Cold Feet In Our Population??"*

*Most of us wish you'd get off Larry Gordon's back,
At least dig to the bottom, and come up with the facts!*

Nelda L. Kregle

*Mr. Boyer hunts facts with the nose of a beagle.
He'd be glad to get help from Nelda L. Kregle.*

The Editor"

N. Achievement Recognition

Environmental health achievements and progress in the years 1955-68 would have been impossible without the continuing interest and support of the print and broadcast media. Seldom did a week go by without several articles appearing in the press, as well as radio and television interviews and announcements. The media were positive and constructive in their support, and this was a major factor enabling the Environmental Health Department to achieve, be creative and have a feeling of broad-based community support.

In 1959, The Albuquerque National Bank devoted an entire issue of the publication Albuquerque Progress to the Albuquerque Health Department, distributed it to those on their mailing list, and provided an additional 10,000 copies to the Albuquerque Health Department for further local and national distribution.

The quality of programs also gained the department extensive national recognition. A number of Department professionals were asked to serve on various national professional and policy committees. The USPHS repeatedly paid expenses for me to speak at, and participate in, various state and national public and environmental health training courses and meetings. These opportunities to meet with professional peers also constituted an on-going training course for our department to keep current, learn of new advances and maintain enthusiasm.

Departmental awards during this period included:

1959- Samuel J. Crumbine Award for "Outstanding Development of a Comprehensive Program for Environmental Sanitation"

1965- Samuel J. Crumbine Award for "Outstanding Achievement in Developing a Comprehensive Program of Environmental Health"
(This Award recognition ceremony was sponsored by the Albuquerque Chamber of Commerce.)

Personal recognition included:

1961- Walter S. Mangold Award by National Environmental Health Association for "Meritorious Contributions to Sanitation and Public Health"

1962- John J. Sippy Memorial Award from Western Branch, American Public Health Association for "Meritorious Service to Western Public Health"

1962- "Sanitarian's Distinguished Service Award" from International Association of Milk, Food, and Environmental Sanitarians

1967- New Mexico Association of Public Health Sanitarians Award for "Outstanding Contributions to the Field of Sanitation"

Consultant, USPHS Health Programs System Center
Commissioned Officer, USPHS
Guest Lecturer, USPHS Centers for Disease Control
Director, First Governor's Conference on Environmental Health Planning
Lecturer, UNM Peace Corps Training Center
Consultant to Sandia Corporation
Consultant, Professional Examination Service, New York
Clinical Associate, UNM School of Medicine
Consultant, Comprehensive Health Planning, USPHS
Consultant, National Sanitation Foundation
Special Consultant, USPHS
Chair, National Conference of Local Environmental Health Administrators
President, New Mexico Public Health Association
President, New Mexico Environmental Health Association
President, Rocky Mountain Association of Milk and Food Sanitarians
Committee on Environment, American Public Health Association
Founder, American Academy of Sanitarians

But even more rewarding were the scores of complimentary letters received by the department over the years. We were able to attain significant improvements without more than a half-dozen court cases. The following excerpt from a 1965 letter from Steve Vidal, an industry consultant, is instructive:

It is most refreshing in today's world of constant legal proceedings, that administration of a complex and vital department such as yours can be accomplished without the hard-nosed approach.

I personally feel the key is effective communications. Your department has done an outstanding job in this respect; people know what to expect and when; they are treated fairly, but expected to comply. This is much more conducive to compliance than a spotty hit and miss enforcement.

The "At City Hall" column in a July 1969 edition of the Albuquerque Journal stated, in part:

Although the word had leaked down from Santa Fe to a few big ears in City Hall, most employees there were surprised at the news of Health Dept. Director Larry Gordon's resignation to take a similar job with the state. It was even sort of a shock to City Manager G.B. Robertson, who thought that Gordon would stay with the city when all was said and done.

But Gordon's move was no sudden decision even though he had turned down plenty of other job opportunities in recent years. One of those opportunities came more than a year ago when Robertson asked him how he'd like to become assistant city manager.

But Gordon is STRICTLY an environmental health man and the idea of switching careers at age 40 didn't appeal to him.

Gordon is well respected by Robertson, fellow department heads and those city commissioners who know of his department's growth and most of the rank and file within his own office to whom he seems somewhat distant.

Unlike some department heads who are willing to delegate responsibility but hold tight to authority, he is willing to delegate with the result that his chief subordinates make major decisions on their own as Gordon believes they should.

And unlike some others, he is not particularly hurt if he does not get his name in the paper. The fact of the matter is that Gordon's name appears less frequently than the names of some of his staff.

For all of this, Gordon is a proud man and people who don't know him might call him a pompous one on hearing him relate the multitude of societies he belongs to and the awards he has garnered in bringing the health department up from one which used to confine itself to perfunctory restaurant inspections, to a professional outfit that carries at least 15 separate responsibilities.

Professionalism is Gordon's by-word as everyone who works for him knows and Gordon believes the city's prestige has grown greatly through his department's efforts in the environmental health field.

Gordon sometimes indicates, however, that he wonders if anyone else knows. At \$15,000 a year, he makes less than many department heads, several of them recent additions to the city staff.

He makes \$1,000 more than Don Peterson, the city's assistant planning director, who in turn makes plenty more than Gordon's top assistants.

Perhaps it can be argued that planners should cost more than health department sanitarians.

And perhaps it can't and no attempt to present either position will be made here.

But no one will argue with the proposition that the city will lose no dud when it loses

Larry Gordon.

When I left the Albuquerque-Bernalillo County Environmental Health Department in 1968, we had developed a highly respected, nationally recognized, professional city-county department. During my tenure, we had increased personnel from 17 to over 300. Activities included food sanitation, pure food control for all plants within New Mexico which shipped into Albuquerque, milk sanitation covering all dairies and plants in New Mexico which shipped into Albuquerque, safe drinking water, liquid waste disposal, air pollution control, cross-connection control, swimming pool safety and sanitation, accidental injury prevention, housing conservation and rehabilitation, low-rent leased housing, animal control, subdivision control, meat and slaughterhouse inspection, radiation protection, industrial hygiene, insect and rodent control, and the City Refuse Division. We had also promoted, designed and spawned the City Urban Renewal program and had been significantly involved in developing the City Model Cities program.

Those were years of progress and satisfaction!

7. RETURN TO SANTA FE — A NEW CHALLENGE

A. The Environmental Services Division

In 1968, John Jasper, Executive Director of the New Mexico Health and Social Services Department (HSSD), requested that I be a candidate for the position of Director, Environmental Services Division.

Perhaps, after thirteen years in Albuquerque, I needed a new challenge. Or perhaps I was a masochist and needed to be subjected to the commute to Santa Fe. It certainly wasn't for any enhanced remuneration. Or perhaps it was because every professional should be re-potted every few years to keep from becoming root-bound, as many do!

At any rate, I accepted the position and was appointed in August, 1968.

Governor David Cargo had merged the New Mexico Department of Public Health and the New Mexico Department of Public Welfare in 1967, thereby creating the Health and Social Services Department. He did this under 1955 statutory authority, and the Legislature confirmed the action in 1968. This organizational arrangement didn't make sense on an organizational or programmatic relationship basis, but was another move by many states to follow the federal model, which didn't make sense either. Functionally, it is difficult to develop a working relationship between health and welfare, and even more difficult to imagine a programmatic relationship between environmental health and welfare.

However, the quality of personnel and services is more important than the type of organizational model.

New Mexico's health and welfare functions had been confused before, and the organizational arrangements for each continue to undergo a constant and sometimes inappropriate reorganization every few years. Reorganizations usually don't make any of the programs more effective, but may make them more visible or politically sensitive. The Legislature created the New Mexico Department of Public Health in 1919, made it a Bureau of the Department of Welfare in 1921, re-created the Department of Public Health in 1935, authorized merger into the Health and Social Services Department in 1955, accomplished merger in 1967, and separated health and welfare again in 1977 when the Health and Environment Department was created by lumping the Health and Environmental Programs (which I headed) and the Department of Hospitals and Institutions (DHI) together, and separated Health and Environment by creating the Department of Health and the Department of Environment in 1991.

I guess that what goes around comes around.

Meanwhile, back at the ranch ...

Until that time, every state director of environmental services (or whatever the positions were titled) had been an engineer. That had been the tradition, the practice, and the USPHS requirement for federal funding. Therefore, New Mexico officials had to request an exception through the regional PHS office in Dallas. My long-time friend and associate Ed Ruppert (an engineer) was the person to contact regarding such an exception. I was on an extension when Ed was phoned and the request made. He approved the request, laughed, and jokingly added, "*I guess that'll show those sons-of-bitches!*"

But tradition is powerful. The official organization for state directors was known as the Conference of State Sanitary Engineers. They didn't know what to do with me, so they offered me an associate rather than a full membership. I advised them that I didn't need to be a member, and would only join as a full member. After a few months of silence, I became a full member of CSSE.

Eugene Mariani, HSSD's Director of programs and my new boss, told me that the Environmental Services Division was "*dead-in-the-water*", they were not sure of its budget, and they didn't have its programs defined! Personnel complained that they were understaffed and didn't have enough time to accomplish their work, so I helped them out by scheduling newly-instigated, routine staff meetings at 7:00 A.M., so they wouldn't interfere with other responsibilities. This was a distinct shock to the Santa Fe culture of bureaucrats, but I assumed that if I could drive from Albuquerque for a 7:00 A.M. meeting, certainly the Santa Fe bureaucrats could be there.

I started developing a program guide to describe every program, specify program goals, state the need for the programs, state annual objectives, indicate legal authority, specify program methods, discuss program evaluation methods, list programmatic relationships and sources of assistance, and suggest literature references for each program. The document also discussed staff training, development of standards and regulations, improvement of program methods, legal advice, public information, enforcement guidelines, and coordination with other agencies.

Developing the program guide was a monumental task, but was essential to the proper functioning of the division. It was the first such environmental health and protection document in the nation and became a model for many other states and communities.

A December 7, 1970 letter from the EPA Office of the Administrator stated that:

You seem to have brought together a wealth of useful information which should prove of great value to the environmental services planners and practitioners of your State. The emphasis on a systematic approach to environmental control, including the setting of goals and objectives, the development of alternatives, and evaluation, should ultimately have a very beneficial effect on your overall environmental effort. A notable accomplishment consists of the comprehensiveness of your coverage; I have not seen anywhere a more complete detailing of the subject areas that go to make up a total

environmental control program -- and as you know we have long needed a clearer definition of this kind.

What you have provided in the present volume---- is light years ahead of anything I have seen from other states. (emphasis added).

While the New Mexico air quality statute had been enacted in 1967, the division had not scheduled public hearings to develop standards and regulations. These were scheduled in the fall of 1968. That was when we learned with delight that the public had finally heard the word "environment", and that they were concerned. People arrived by the bus-load, and we had to schedule a much larger auditorium for the hearings. The hearings lasted several days, and resulted in the Health and Social Services Board adopting air quality standards and regulations.

The New Mexico Water Quality Control Commission, which I chaired, was also scheduling hearings to adopt water quality standards and regulations.

And we emphasized developing leadership!

Thomas E. Baca returned from graduate environmental health education and joined our staff, as did Russell F. Rhoades, Cubia L. Clayton, and Pat Kneafsey (all mentioned earlier).

Aaron Bond, later to be Director of the Environmental Improvement Agency from 1973 until 1977, Director of the Scientific Laboratory System from 1977 until 1982, had returned from graduate environmental health education, and was promoted to direct the state's fledgling air pollution control program.

Mike Burkhart, earned his MPH and worked in several key positions prior to being Director of the Health Services Division from 1977 until 1983, Director of the Environmental Improvement Division from 1987 until 1988, Deputy HED Secretary from 1988 until 1991, and Cabinet Secretary for Health commencing in 1991.

William C. Bennett, who had earned his graduate degree in science at UNM, was hired to work in our plague research program at Roswell, promoted into the state office where he did excellent work in several different programs, named EID Regional Manager in Albuquerque, and I again hired him in 1983 to be Environmental Services Division Manager for the Albuquerque Environmental Health Department. In 1992, Bill retired and entered the private sector as Environmental Protection Coordinator for the Lovelace Biomedical and Environmental Research Institute.

Jon Thompson joined our staff. Jon had also earned his MPH in environmental health, and would later be an EIA regional manager, and EID Deputy Director for Field Services.

Roy McKeag returned to school to earn his MPH in environmental health, was appointed regional manager for the Las Cruces area, and later became EID Director of Field Services, Health Services Division Director of Field Services, and Public Health Division Director from 1988 until 1991.

John Guinn, an environmental health classmate of mine at the University of Michigan School of Public Health and Chief of Environmental Health in Wyoming, joined the Consumer Protection Division and was subsequently named Regional Manager for the Roswell Area.

Dale Patrick Curtis accepted an environmental health position for Curry County, was promoted to a position in the state office, earned a graduate degree in environmental health, became manager of the Special Projects Division, was appointed Director of Health Policy and Planning for the Health and Environment Department, and is now a partner in CERL Environmental Consultants.

Mike Curtis was hired as an environmentalist for Rio Arriba County, earned his graduate degree in environmental health, was appointed Manager of the Occupational Safety and Health Bureau, and later became the senior partner in CERL Environmental Consultants.

Joe Harris, another MPH in environmental health graduate, was appointed regional manager for the Santa Fe area.

Carl E. Henderson, my former boss and an outstanding, experienced graduate sanitary engineer, continued with us for many more productive years.

Bryan Miller, another MPH in environmental health, was an expert in plague and vector control, as well as toxic chemicals. Bryan later became Director of Environmental Health for Boulder County, Colorado. (Bryan was one of the principals in Tony Hillerman's The Plague Hunters.)

John Wright, a graduate sanitary engineer, continued with the program for several years. John was the primary force in gaining legislative approval for matching funds for local sewerage projects.

Richard Mitzlefeldt, already experienced in environmental health, was recruited. Richard returned to school to earn his graduate degree in environmental health, held several key positions, was Environmental Improvement Division Director from 1988 until 1991, and Manager of the consumer Protection Division of the Albuquerque Environmental Health Department commencing in 1992.

Joe Pierce joined our staff, earned a graduate degree in environmental health, and

subsequently became EID District Manager in Albuquerque, and later Water Pollution Control Division Manager.

As indicated above, we developed the pattern of having a regional manager for each field district. All the key personnel in the state office had previous local experience, and every district manager had served in the central office. Every section chief and regional environmental manager had been through graduate environmental health or science education. All were knowledgeable, effective professionals.

Basically, we created what was later termed the New Mexico Environmental Improvement Agency and subsequently the New Mexico Environment Department.

We were ready to move into the future!

B. Outrage over a Paper Mill

The first indication of widespread public concern regarding the quality of the environment in New Mexico developed in reaction to an announcement in 1968 that a large national corporation planned to locate a Kraft paper mill along the Rio Grande a few miles upstream from Albuquerque. Anyone who has ever struggled for a breath of fresh air in the vicinity of a paper mill immediately understood what this would mean for the greater Albuquerque area. Further, the liquid effluent from a paper mill causes the receiving water to turn a light coffee brown color.

At this time, we had not completed development of air and water standards to regulate air and water emissions from a paper mill. Company representatives promised to meet the then highly touted Washington-Oregon standards, but we thought they were much too lenient. The company promised to meet a standard of 7 pounds per ton of dried Kraft pulp. Dick Burgard, our air pollution representative suggested a level of .4 instead of 7 —, quite a difference. The company then countered with an offer of 4 pounds, still a factor of ten difference.

During this time, my brother Ladd S. Gordon, New Mexico Game and Fish Director, noted that construction of the Cochiti Dam would result in clear, cold tailings water below the dam and a premier fishing area. The paper mill would have destroyed that resource, and the public didn't like that idea either.

Company officials were understandably confused. They had never experienced such an outpouring of opposition. In other areas, local officials had welcomed them and their payroll and inquired where the company wanted an airport located, and how they wanted the roads improved!

The company finally agreed to meet our target figure for air pollution control. But about the same time, the Albuquerque Chamber of Commerce voted unanimously against allowing the paper mill to locate in the Albuquerque area.

What a change in attitude from a few years earlier when the Albuquerque Industrial Development Service had suggested that I be "*tarred, feathered, and ridden out of town on a rail*" for even having the audacity to talk about air pollution in Albuquerque.

That action by the Chamber of Commerce was the final nail in the coffin for the mill!

C. The Great DDT Fiasco

New Mexico had the highest rate of human bubonic plague in the nation. Occasionally, some self-serving public health official made it such an issue that the public might believe that it was the major public health problem in the state. Exaggerated statements coupled with public hysteria created problems affecting tourism and, possibly, economic development. Plague was endemic in New Mexico, and was an important public and environmental health issue, but should not have been misrepresented out of proportion to its importance and priority.

In the late sixties, plague was reported in the Jemez Valley. As usual, numerous officials converged on the area to investigate the matter, properly alert the public and health care personnel, and develop control measures as indicated. Dr. Bruce Hudson from the Fort Collins Plague Research Field Station of the USPHS Centers for Disease Control was among the personnel studying the Jemez Valley reports. He finally met with me, and insisted that we apply DDT throughout the Jemez area. He obviously had no concern for water pollution, possible toxic effects of DDT, or the impact of DDT on the biota in the area. I refused, and he recommended that CDC place New Mexico on the International Quarantine List.

A pretty powerful remedy!

I wrote to Dr. David Sencer, CDC Director, requesting that he countermand Hudson's recommendation. The International Quarantine order was stopped, and Dr. Sencer wrote me a letter of apology.

We didn't bathe the area in DDT, and I don't believe there has been a human case in that area since then.

Predicting the time and place of the next case of bubonic plague is much like predicting the time and place of the next bolt of lightning.

D. A Statement on the Quality of Our Environment

I delivered the following opening statement at the Second New Mexico Governor's Conference on Environmental Health Planning in Santa Fe, January 15, 1969. It was published in the July-August 1969 issue of New Mexico Wildlife. It was useful in providing a sense of vision and direction for Environmental Services Division personnel, and others.

We believe that citizens demand and deserve a quality environment, including clean air and water, for reasons of health, safety, and economic and social well-being.

We believe that New Mexico's air, water, and land resources must not be allowed to be further polluted, and, in some cases, such environmental quality must be improved.

We believe that technological means exist to control air, water, land, and other pollutants.

We believe that we cannot, and should not, delay taking obvious action until every final shred of damage is known.

We believe that promulgation of air quality standards and regulations on a statewide basis is long overdue, due to budgetary and personnel limitations.

We believe that the Environmental Services Division does not have sufficient budget to conduct a comprehensive or reasonably effective environmental services effort. The Environmental Services Division has no state funds for air quality management, and a completely unsatisfactory level of water quality management. Additionally, the State's financial base for receipt of federal matching funds is so inadequate that, without substantial improvement, federal funding for water pollution control and municipal construction grants will be revoked.

We believe that New Mexico, on the whole, still has a quality environment which is of very significant economic value in terms of tourism, recreation, and attracting clean industry.

We believe that the indiscriminate clamor for industry may produce results which are not in the best economic, social, governmental, or health interests of the majority of citizens of the State. Further, a degraded environment may actually prove to be detrimental to tourism, attraction of clean industry, and the State's total economy.

We believe that the cost of controlling pollution is passed on to citizens and tourists who are the eventual beneficiaries and consumers of clean clear air, water, or other quality environmental factors.

We believe that high-level control measures must be instigated now to prevent environmental degradation, and to provide standards and regulations for designing new or additional pollution control facilities.

We believe that any further delay of effective control measures will, in the final analysis, cause greater expenditures for polluters as well as consumers.

We believe that new industry has a right to be advised of pollution control standards and requirements prior to location, construction, and operation.

We believe that any and all significant sources of pollution must be controlled even though they may offer minimal contribution to the total pollution problem, in order to:

- be equitable*
- be effective*
- be preventive*
- be thorough and comprehensive*
- recognize that small quantities of some pollutants may be more detrimental than larger quantities of other pollutants.*

We believe that New Mexico has the responsibility and obligation to fund environmental services programs at such a level as will insure an environment that will, in the greatest possible measure, confer optimal health, safety, comfort, and well-being on its inhabitants; will protect this generation, as well as those yet unborn, from threats posed by the environment; and will maximize the economic and cultural benefits of a healthy people.

We believe that, in some areas, New Mexico does have a responsibility to provide conservation of clean air and water for conservation's sake. Such a policy will provide a resource, a blessing, a unique area, a retreat for future generations who will be thankful for this foresight and gift. This policy would produce more benefit for the greatest number over the longest period of time than an irresponsible attitude of judging human need in terms of the momentary and fleeting opportunity for financial self-gain and environmental destruction.

We believe that a quality environment, once destroyed or degraded, may never be returned to a satisfactory quality.

We believe that most pollution control programs throughout the world have come too little and too late, as a result of hindsight being better than foresight.

New Mexico has the advantage of learning from mistakes made elsewhere!

E. Regulating Land Use

In the late 60s, there was considerable public concern over the massive and unnecessary land developments in New Mexico and throughout the western United States. Many of them were simply swindles, designed to sell worthless land to an unsuspecting easterner wanting a little blue sky and fresh air. There was also concern over the way in which land was being platted and subdivided, as well as its proposed use.

During this period of time, there was also serious discussion of federal mandates for land-use standards and controls, but these did not reach fruition.

The use of our lands is particularly important in New Mexico, where development has taken place in our valleys and removed these areas from agricultural and wildlife productivity.

Land use is also an important consideration in preventing air pollution and contamination of water supplies, as well as in managing liquid, solid and hazardous wastes.

I believed that the Health and Social Services Board had adequate statutory authority to promulgate land-use regulations, and my belief was supported by the HSSD legal staff and members of the Board with whom I discussed the possibility.

I requested that the Special Projects Office of the Environmental Services Division work with the legal staff and develop draft regulations for review, comment, and public hearing. This move, however, was certainly not popular with the development, ranching and real estate power structure. It soon became apparent that while such regulations were legally possible, they were not politically feasible.

But discussion continued regarding the subdivision control component of our proposal. Shortly thereafter, the legislature developed a Subdivision Control Act. The act was a significant improvement over the previous situation, but was also weak. All authority was given to counties to develop local subdivision regulations with review and comment by a number of State agencies. Some counties developed meaningful regulations, while others went through the motions.

But our proposal had provided the spark to enact the subdivision control requirements. We were proud of our role in defining the problem and instigating discussion and action!

F. Unification Needed for Environmental Management

In 1970, I presented the following paper at an environmental conference in Alaska. It was useful not only in New Mexico, but was referenced and copied a number of times at other national conferences and workshops dealing with environmental health and protection. It was published in the September/August, 1970, issue of The Journal of Environmental Health.

The question of consumer protection and public service vs special interests also merits discussion when considering a delivery system. Many jurisdictions have assigned environmental management functions to agencies which promote or protect a special industry or other narrow segment of society. Food and pesticide control functions have been assigned to agriculturally oriented agencies, radiation protection functions to radiation producing interests, water quality programs to environmental development and utilization agencies, and occupational health programs to labor departments. All such environmental protection functions should be handled by an agency having a prime mission of public service, consumer protection, and environmental protection rather than promotion and protection of any special interest.

This leads to the question of unified effort versus fragmented effort. For purposes of economy, effectiveness, and public service, all environmental protection regulatory functions must be administered within one agency. These problems are ecologically inter-dependent, and unified effort is necessary to prevent confusion; duplication of facilities, personnel, effort and travel; program gaps; controversy; program imbalance, and haphazard priorities.

The system should be action-oriented, not problem-oriented. Some environmental protection agencies and personnel are so involved identifying the reasons something can't be done that they become ineffective.

The system must be so organized as to insure visibility, ease and speed of action, adequate funding, coordination with other involved agencies and groups, reaction to public and environmental needs, and multiple objective programming (health, safety, comfort, and well-being.)

In developing programs for a comprehensive environmental management system, we should not blindly follow tradition in terms of programs and program methods that have been followed elsewhere. Problems should be identified, goals and objectives established, priorities developed, program methods specified, and programs established on the basis of achieving the stated goals and objectives. After all, a program is a logical grouping of activities designed to achieve a specified end result. Many traditional programs have been less than successful, making re-evaluation and re-grouping appropriate.

Program methods include:

1. *Research — and obligation and responsibility of all individuals and groups involved in environmental management and consumer protection.*
2. *Demonstration — to determine the effectiveness of a given program, method, facility, or equipment.*
3. *Standards promulgation — a specific statement of environmental quality desired, so that regulations may be developed to address them.*
4. *Promulgation of regulations — enforceable action of a legally constituted legislative body stating the means of achieving a standard or other environmental objective.*
5. *Enforcement — a wide array of administrative and legal methods to insuring the effectiveness of a legal requirement. Basic to any program of environmental and consumer protection.*
6. *Planning — includes a number of necessary program methods including problem identification, goal setting, stating objectives, determining priorities, evaluation, cost-benefit studies and budget projections. Each component of the planning process is vital, and arrangements must be made for their inclusion in any environmental management system.*
7. *Public information — to keep the public continuously advised of problems, needs, goals, objectives, solutions, and program gaps.*
8. *Training — for staff and certain target groups involved in environmental and consumer protection.*
9. *Management information — a vital, but frequently overlooked component of the system. Basic to planning, programming, and program execution. Includes data to delineate action, activity, needs, and environmental conditions.*
10. *Environmental surveillance and analysis — to assess contaminant levels and the impact of environmental problems on man's health, safety, comfort, and well-being.*
11. *Coordination — with other agencies and groups to insure exchange of information and coordination. Cannot be left to chance or good-will. Equals cannot coordinate equals!*
12. *Legislation — designed to be effective and serve the public, not to create*

procedural delays.

13. Fiscal commitment — basic to all the foregoing.

14. Developing a constituency — perhaps the most important. This is an outstanding example of long-term, continued failure on the part of health agencies and public health professionals. Conservation groups may well afford the best constituency at this time in history.

While this discussion is primarily oriented to official agencies, do not under-estimate the critical importance of such agencies and groups as:

1. Industry — which must cooperate, comply, or be forced to adhere to the will of the majority of the total public.

2. Consumers — who must eventually pay for environmental quality or the lack thereof.

3. Educational institutions — not only to educate environmental managers, but also to research and provide unbiased information to the public.

4. Citizen advisory groups — critical to the effectiveness and success of an environmental agency.

5. Citizen groups — to provide mechanisms for interested citizens to become constructively involved in the struggle for a quality environment.

Those involved in developing an environmental management system should reassess and question the needs for traditional types of environmental management personnel. These types have not always had a track record to be proud of. Change should not be made for the sake of change, but for improved environmental management.

G. The U.S. Environmental Protection Agency

By 1970, the public and some political leaders were becoming increasingly concerned about the rapid deterioration of the environment. The federal focus for environmental programs was primarily in the Consumer Protection and Environmental Health Service of the U.S. Public Health Service, except that water pollution control was in the Department of Interior, pesticide regulation was in the Department of Agriculture, and food protection was in the U.S. Food and Drug Administration.

The U.S. Senate Committee on Environment and Public Works (known as the Muskie Committee and chaired by Senator Edmund Muskie) held lengthy hearings regarding environmental problems and organizational approaches. The committee was concerned that the USPHS seemed to be more interested in research than rapid action to address the nation's environmental problems.

I was Chair of the American Public Health Association Section on Environment at the time. I scheduled a meeting with the staff of the President's Advisory Council on Executive Reorganization (usually known as the Ashe Committee and chaired by Roy Ashe). On behalf of the American Public Health Association, I testified in part as follows:

....We are concerned not only with program effectiveness at the federal level, but also with the ultimate effect that federal organizational patterns have on state and local governments. In arriving at federal organizational patterns, we strongly recommend that the environmental organization:

- 1) Have a mission of environmental protection rather than environmental utilization and development (as in Interior). The missions of protection vs. development create a serious conflict of interests within the same department.*
- 2) Have multiple program objectives of health, safety, comfort, and well-being in arriving at its overall goal of protecting man in his environment.*
- 3) Be consumer protection oriented.*
- 4) Be truly comprehensive and include not only the currently popular air-land- water programs, but also the closely interdigitated programs of food protection, pesticide control, noise pollution, water supply, population dynamics, space, liquid wastes, insect and rodent control, radiation protection, environmental injury control, solid waste management, land-use, and occupational health.*
- 5) Maintain the necessary balance between urban and rural environmental programs.*

When President Richard Nixon created the U.S. Environmental Protection Agency by Executive Order, many of the foregoing recommendations were heeded, but it was not as broad in programmatic scope as we had recommended.

The failure to include food protection was a serious omission. Environmental contamination of the food supply is a threat to the continued existence of many plant and animal communities of various ecosystems, and frequently threatens the health of humans. Every chemical released into the ecosystem has the potential of getting into the human food chain, and it may be the major exposure route for most of the known toxic contaminants in the environment.

Fortunately for New Mexicans, environmental programs in New Mexico were more comprehensive than those in EPA, and include food protection as a full partner. In 1990, however, EPA Administrator William Reilly highlighted food protection as a serious environmental problem.

EPA is a health agency, no matter what the title is. Few of its programs would be authorized were it not for their public health basis. EPA would not be successful in regulating and litigating, except for health effects. A 1990 EPA publication, Reducing Risk, developed by EPA's Science Advisory Board states, in part, that:

.... for the past 20 years and especially over the past decade, --- The Agency has considered protection of the public health to be its primary mission, ---.

H. The New Mexico Environmental Improvement Agency

By 1970, the public throughout the nation was becoming alarmed about deterioration of the environment. Instant activists, sometimes called "Tang Ecologists", literally came out of the woodwork. They were sometimes supportive, sometimes disruptive, sometimes knowledgeable, and sometimes woefully misinformed. But they did provide a balance to the efforts and power of the polluters. Sometimes they made our efforts easier, often more difficult. But in balance, they helped change public opinion and improve governmental environmental efforts, particularly at the federal level. In New Mexico, John Bartlit, a Los Alamos Engineer, was most effective and consistently based his opinions, recommendations, and actions on the best available data rather than hysteria.

And the activists quickly became a political force to be reckoned with.

Until this time, organization of environmental health services had not been an issue of concern to the public. Public and political clamor throughout the nation helped instigate a widespread re-evaluation of environmental problems, program goals, program scope, program methodology and effectiveness, fiscal support and legislation, as well as program organization and institutional arrangements. Frequently, without much real study or understanding, programs in many states were shifted to new and/or different agencies for a variety of reasons--- some valid, some questionable and some irrational.

Sometimes it was change for the sake of change. Eager citizen groups sometimes confused change with progress. In many states, environmental health program officials exhibited a high degree of territorial defense, and a relatively low titer of organizational and program management knowledge. Powerful polluter lobbyists delighted in the opportunity to retard and confuse environmental health progress through repeated reorganizations, and to place environmental health personnel and agencies in positions of greater "political responsiveness."

The U.S. EPA was erroneously touted as a model for states, and this in turn led to further undesirable program fragmentation in those states imbued with the naive desire to follow the federal "model." It was interesting to note that while the Congress approved the Presidential Executive Order establishing the U.S. EPA, practically all Congressional hearings criticized the proposal on the basis that it was not truly comprehensive.

Unfortunately, many citizen leaders mistakenly identified air, water, and wastes as "the environment." While air, water and wastes are all significant environmental factors, they are only a portion of the total factors to be controlled and should not be fragmented from other environmental program issues. Such fragmented programs and organizations typically result in program gaps or duplication, confusing competition over the environmental health program dollars, public confusion regarding the roles and responsibilities of the various agencies, program inefficiency and ineffectiveness, and a general disservice to the public and the environment.

But in New Mexico, we were able to take a more rational and comprehensive approach for a number of reasons. One reason was that the Environmental Services Division was in place and functioning. Another was the division's professional staff. And another was that we chose to be positive and assertive, rather than defensive regarding the status quo.

And, Bruce King was elected Governor in early November, 1970. During the campaign, he had promised to support creation of a New Mexico Environmental Protection Agency. However, he had not offered any specifics. (I held key appointed positions in state government during Bruce King's first two terms. King seldom held staff meetings, preferring to deal with his personnel on a one-on-one basis. He seldom became involved in details, and was good at delegating and leaving people to their own devices. This worked fine for self starters, and I enjoyed working in his administration. During this time, I gained approval for creating the New Mexico Environmental Improvement Agency, the New Mexico Scientific Laboratory System, and the New Mexico State Health Agency, as well as numerous key environmental health and protection statutes and regulations.)

On November 23, 1970, I wrote Governor elect King as follows:

We environmentalists were quite interested in the environmental issues raised during the last gubernatorial campaign, and repeatedly noticed that you came out strongly in favor of retaining New Mexico's environmental quality and insuring the necessary environmental programs to that end. It is heartening to note that the public throughout the Nation now identifies problems of environmental and consumer protection among the major issues of this decade. We all realize that New Mexico's environment is a prime asset to the state's citizens and the state's economy, and that it is one of the few remaining areas in the United States where we still have options open for retaining or regaining the necessary quality environment. The last year or so has been a time of renewed emphasis and effectiveness for environmental services programs such as this. Throughout the nation, various levels of government have devoted huge new sums of money attempting to solve the nation's environmental crisis. Fortunately, New Mexico can still act in terms of preventing environmental deterioration and degradation to a large extent.

I, of course, do not know what your organizational concepts are for programs of environmental and consumer protection. I have been involved in such organizational matters for many years, and would like to specifically mention a few such items.

I was in the fortunate position of being able to plan, promote and gain acceptance for creating the nation's first department of environmental health in Albuquerque. This department received national recognition and awards on a number of occasions.

Last year, I was privileged to participate as the environmental expert in making

recommendations for reorganizing the nation's largest local health department, the Los Angeles County Health Department.

Last spring, as Chair of the Section on Environment of the American Public Health Association, I chaired a small delegation which met with the Presidential Advisory Council on Executive Reorganization, and made meaningful recommendations pertaining to the organization, scope, mission and objectives of environmental and consumer protection programs at the federal level.

I have also been privileged to deliver papers on this general subject such as the enclosed presented at a conference on 'Man's Health in a Changing Arctic Environment'.

From the point of view of program effectiveness, it is really not particularly important whether such programs are structured within a department such as the Health and Social Services Department, or in a separate environmental and consumer protection agency. There are, however, some over-riding basic principles which must be attained, no matter what the institutional arrangement is. These include such basic considerations as:

- adequate budget*
- professional staffing*
- laboratory facilities*
- organizational visibility*
- freedom of regulatory action*
- ease of inter-agency communication and cooperation*
- reasonable shielding from vested interest and political intervention*
- appropriate mission and goals, and*
- sound legislative base designed for results instead of procedural delays.*

As you know, the President and the Congress have recently created a new Environmental Protection Agency in order to bring together some of the fragmented programs from Health, Education and Welfare; Agriculture; Atomic Energy Commission; Interior; and Transportation. (Fortunately, we have not had to witness or endure this type of fragmentation in New Mexico, and most of the basic environmental and consumer protection programs are still lodged in this division.)

It is interesting to note that while the Congress concurred in the Presidential proclamation establishing the EPA, that practically all witnesses at the congressional hearings criticized the proposal on the basis that it is not truly comprehensive. In other words, it really does not include the scope of environmental and consumer protection programs presently lodged in this Division. For example, numerous U.S. Representatives testifying at the hearings indicated that the concept of centralizing all environmental programs was desirable, but that the new EPA does not, in fact, meet this challenge. I hope we can profit from this criticism in New Mexico.

Regrettably, many have mistakenly identified air, water, and wastes, as "the environment". This is certainly not the case, and this concept has led to further fragmentation of programs and effectiveness of governmental effort. (The attached chart on Environmental Services Program Components depicts comprehensive environmental health problems and the interdigitation of all program components.)

A number of states have recently created separate environmental control departments. These include New York, Illinois, and Washington. Thus far, these particular new departments have resulted in confusion and bickering, inasmuch as they have been primarily departments of air, water and wastes. The personnel in these new departments are already fighting with their former friends and peers in other agencies over program responsibility and budgets, indicating that the states did not have the foresight to create true environmental and consumer protection departments containing all the necessary environmental program components. The State of Pennsylvania is currently holding hearings to consider an environmental protection department, but to date, the state of Pennsylvania is showing enviable foresight on a bill designed to include all environmental programs in one environmental agency.

Some New Mexico legislative leaders who have considered proposing a separate agency for environmental and consumer protection have vastly over simplified the matter and have not looked at the total problem. Suffice it to say that any such separate agency would have to include not only all of our professional, technical and secretarial staff, but also our supporting staff services such as finance, legal, personnel, public information and data processing. Additionally, such a system would have to transfer all local (county, district, and regional) environmental health personnel which are currently listed in separate budgets.

Any such effort would also have to include a well-functioning environmental or ecological laboratory designed not only to serve this agency, but also other agencies involved in related ecological considerations such as forestry, game and fish, parks and recreation, etc.

Any environmental effort must allow for program methods of surveillance, research, promulgating standards and regulations, public information, analyses, data processing and enforcement.

Any effort to provide a focal point for environmental and consumer protection programs should address itself to all the environmental problems of water pollution, water supply, air quality, radiation protection, environmental chemicals, environmental injuries, food protection, environmental chemicals, waste management, insect and rodent control, congestion, and land use. These problem areas are then converted into appropriate programs. This Division is currently responsible for administering approximately thirty

such environmental and consumer protection programs.

If the decision is made to create a separate environmental and consumer protection agency, I take this opportunity to apply for the position of Directing of the new agency.

In the 1971 New Mexico Legislature, Governor King requested Representative Jamie Koch to sponsor a bill to create a New Mexico Environmental Protection Agency. Jamie contacted me to discuss the nature, programs, organization, mission, goals, and budget for the proposed agency. He decided to rely heavily on the Environmental Services Program Guide which we had previously developed, and worked with me and the Legislative Council Service to draft a bill. Previously, the Health and Social Services Board had responsibility for developing standards and regulations. The new bill proposed creation of an environmental protection board having no administrative control over the agency. As in the program guide, the agency was to have multiple goals of health, comfort, safety and well-being.

Even though it was 1971, there was no environmental activist involvement or testimony regarding the bill. It was referred to two committees in the House, and two committees in the Senate. There was very little opposition. We had already reached agreement on a proposed budget with the Legislative Finance Committee budget analyst, Waldo Anton. But every time Waldo added the figures on blackboards before the various committees, the total was \$300,000 more than the subtotals. I noticed the discrepancy immediately; but they were his numbers, not mine. Who was I to look a gift horse in the mouth? None of the legislators caught the error. The three-hundred thousand dollar error was big bucks in 1971, and enabled us to enhance professional staffing by some 20 positions.

The bill also included a small amount for the new agency to develop an environmental chemicals laboratory. We had long been dissatisfied with the quantity and quality of services provided by the State Public Health Laboratory, particularly in the area of chemical analyses. The mercury level in fish in the State's reservoirs was one analytical issue of concern at the moment. My brother, Ladd S. Gordon, Director of the Game and Fish Department, provided a portion of a Game and Fish Department warehouse on Cerrillos Road in Santa Fe for the first Environmental Laboratory.

At one point in the deliberations, Representative Merrill Taylor of San Juan County said he wanted to improve, rather than protect the environment. He successfully moved that the name of the agency be the New Mexico Environmental Improvement Agency. Merrill, later to be a member of the EIA Board, certainly couldn't be accused of being an environmental advocate, but the name change didn't make any substantive changes in the powers and duties of the proposed Agency. In fact, the change was useful in that it kept the State agency from being confused with the federal EPA.

Governor King signed the bill into law, and concurred with Dick Heim in his decision to appoint me as Director of the New Mexico Environmental Improvement Agency. For a number

of reasons, the Agency was administratively attached to the Health and Social Services Department. This allowed HSSD to continue providing such essential staff services as epidemiology, biostatistics, auditing, budgeting, payroll, personnel, data processing, purchasing, etc., without having to duplicate these costs in EIA.

The statute we developed to create the New Mexico Environmental Improvement Agency provided, in effect, that the EIA be the most comprehensive environmental agency in the nation. Statutory authorization was provided for programs dealing with air pollution, water pollution, food protection, milk sanitation, insect and rodent control, occupational health and safety, injury prevention, radiation protection, safe drinking water, community noise pollution, swimming pool safety and sanitation, solid waste management, environmental chemicals, housing, recreational environmental management, institutional environmental management, hazardous substances and product safety, and the Sanitary Project Act under which the agency constructed water supplies for small rural communities. The agency was also the designated agency for administering federal construction funds for sewage treatment facilities.

Dick Heim had been appointed HSSD Executive Director in January, 1971, and was my new boss. We had previously worked together when I was Director of the Albuquerque Health Department while Dick was city Personnel Director, and while I was Director of the Albuquerque-Bernalillo County Environmental Health Department and Dick was County Manager. I had also worked with Dick when he was an aide to U.S. Senator Clinton P. Anderson. We continued to work well together.

Dick also had a top-notch deputy named David Farrell, whom I grew to admire for his managerial skills. But both Dick Heim and Dave Farrell were required to be so deeply involved in the difficult issues of welfare, Medicaid cost-control and social services, that I was essentially left alone to manage the EIA. I once joked to Dave that I had little supervision compared with other HSSD elements, and Dave replied that I wasn't creating budgetary problems!

During this period of time, the Environmental Improvement Agency also played a key role in developing the state's health planning efforts. These efforts on the part of EIA staff were led by Mike Burkhart, who developed the health planning process and structure based on the model we had already developed for EIA. This resulted in enhancing the planning efforts of the entire Health and Social Services Department.

I. The Agent Orange Caper

Is our environment a treasure or a dumping ground?

Following the Vietnam War, the Department of Defense (DOD) was desperately looking for a place to dispose of huge quantities of the defoliant Agent Orange. At that point in time, the military didn't have a great deal of environmental or public health sensitivity. It just wasn't its prime mission.

The DOD made contact and conducted investigations in New Mexico. After all, New Mexico may have appeared to be an unpopulated desert to someone sitting in a cubicle on the banks of the Potomac. DOD finally decided that all of its Agent Orange could be injected into deep wells in the area southeast of Roswell on the caprock. This idea was discussed by the New Mexico Water Quality Control Commission (which I chaired), but no action was taken. Bryan Miller and I both tried to dissuade DOD from pursuing their proposal, despite the fact that legal authority resided in the New Mexico Water Quality Control Commission. Agent Orange contains dioxins, and we could just imagine the dioxins getting into the underground petroleum, and ultimately being spewed into the atmosphere from combustion of gasoline in transportation vehicles.

(Until about 1991, dioxins were widely reputed to be highly dangerous carcinogens. More recently, this belief was being re-evaluated. But environmental health and protection professionals must frequently act on what they know at the moment and what appears to be compelling rather than incontrovertible evidence, not always having the luxury of waiting for conclusive research.)

Finally, a Colonel from the Pentagon called me to advise me that DOD was going to implement the plan. I told him we would take steps to require DOD to develop an Environmental Impact Statement if they proceeded.

We never heard from them again.

Later, State Engineer Steve Reynolds inquired if I had taken unilateral action without the approval of the Water Quality Control Commission. I assured him that I had, but he didn't approve of my action and said he would put the matter in the record.

I suppose I acted without authority, but New Mexico didn't get the Agent Orange!

J. 1971 Environmental Improvement Agency Position Paper

At the request of the New Mexico Department of Development, I prepared the following position paper in December 1971 on behalf of the New Mexico Environmental Improvement Agency. The paper was widely distributed in environmental circles, and was published in the June, 1972 issue of the New Mexico Academy of Sciences Bulletin, and in the May/June issue of a national trade publication, Environment News Digest.

- *New Mexico's quality environment is its prime asset.*
- *New Mexico is one of the few areas of the nation which still has options open to determine its own future and the type of environment which is desired by this and future generations of New Mexicans.*
- *New Mexico and the southwestern United States in general have a very delicate ecological balance. It may be very difficult, if not impossible, to restore a given environmental situation once it is damaged or degraded. Therefore, regulations adopted for the purpose of environmental control must be preventive in nature.*
- *All New Mexicans should strive to create a viable economy and jobs for New Mexicans without harming our prime asset, our environment.*
- *Environmental quality is more than the currently popular air-water-waste syndrome, and reaches additionally to such matters as congestion, transportation, visibility, open spaces, and pressure on recreational facilities and areas.*
- *We know of no studies which indicate that increases in population and attraction of more and more industry lead to an improved economy and quality of living. To the contrary, we have only to look at the problems of the populous industrialized areas of the nation to observe that growth leads to a decreased quality of life, increased cost of living, increased social problems, and increased taxes. Therefore, at this period in our history, there is no doubt that but that environmental quality is closely related to population levels, and population growth beyond a certain optimal population is not compatible with a quality environment or a viable economy. New Mexico should not, and cannot, serve as a haven from congestion and pollution for those persons from other areas of the nation, as it will only serve to eventually destroy our prime attraction and prime asset.*
- *The competing demands for limited tax funds to support public agencies is tremendous in all states and at all levels of government. A number of agencies, boards, and commissions are already involved in the struggle to retain or regain New Mexico's quality environment. Fragmentation or proliferation of environmental or ecological responsibility and programs only serves to confuse the public and place further stresses on an already over-burdened state tax structure. All environmental factors, such as air,*

water, wastes, food, environmental chemicals, water supply, etc., are inextricably interdigitated both in the ecological and the program management sense. Therefore, they are most effectively managed within a single, or at least a limited number of agencies.

· We have no doubt that man can survive in a grossly polluted environment; however, we feel that man should thrive rather than merely survive. Therefore, environmental quality controls should be predicated on retaining our quality environment rather than on mere health standards.

· It has been repeatedly shown that technology does not advance or improve control methods until forced to do so by legal requirements. Therefore, environmental quality controls in New Mexico should be based on the needs of protecting the environment and protecting man in the environment rather than on the latest limits of technology.

· All men must live in the environment and are supported by the life processes obtained from the earth. Therefore, environmental quality controls should be administered by an agency having a prime mission of public service, rather than by an agency having a mission of protecting or promoting any given industry.

· Federal standards have been promulgated for the needs of over-populated industrial areas which do not have options or alternatives available to New Mexico and New Mexicans. Therefore, for the most part, adherence to current and proposed federal pollution standards would allow a drastic degradation of New Mexico's relatively high level environment.

· All persons engaged in the business of promoting a viable economy should be well informed regarding the delicate ecological balance of New Mexico's environment and her environmental control regulations, in order that time, materials, effort and money not be inappropriately invested. The New Mexico Environmental Improvement Agency staff stand ready to discuss environmental quality issues or consult with any person or firm regarding compliance with established environmental quality standards and regulations.

K. Occupational Health and Safety

The New Mexico Division of Sanitary Engineering and Sanitation established an Industrial Hygiene program about 1947. It was strictly a consultative, rather than a regulatory program. Carl Jensen was the only staff, but he was very active providing consultation and providing information until his retirement in 1967. The Industrial Hygiene program also provided consultation on radiation and air pollution. Regulations Governing the Sanitation of Places of Employment were adopted by the State Board of Public Health in 1956, but they were used more as general guidelines than as an enforcement tool.

By 1970, New Mexico was experiencing an occupational accident rate higher than many of its neighboring states and, in 1970, 61 persons lost their lives due to occupational injuries in New Mexico. This figure, however, represented only a portion of the actual mortality, as it did not account for deaths which resulted from exposure to various insidious agents not causing immediate death.

By 1971, the federal Occupational Health and Safety Act provided that states could implement their own OSHA programs, provided they were at least as effective as the Federal program. I contacted Governor Bruce King requesting that in accordance with provisions of Federal law, he designate the EIA as the State OSHA agency. He agreed. But subsequently, the State Labor Commissioner Ricardo Montoya asked that the Governor designate the Labor Department for the OSHA program. The Governor agreed. (Bruce King had a reputation for agreeing with the last person to leave his office.) I then restated my rationale in a lengthy memo emphasizing that OSHA was an environmental health activity, was based on health goals, required professional environmental health staffing, and necessitated environmental health laboratory support and environmental health epidemiology. This time Governor King approved my request in writing.

During a 1971 budget hearing before the Interim Legislative Finance Committee, Senator A.T. Montoya of Sandoval County indicated that he intended to attempt a legislative over-ride of the Governor's designation of the EIA so as to place OSHA authority in the Labor Department. I made a rather impassioned plea to the Committee to indicate the organizational rationale, and the change did not occur.

Thomas E. Baca had left the Albuquerque-Bernalillo County Environmental Health Department, earned his graduate degree in environmental health, and I was fortunate to be able to recruit him to head the developing EIA OSHA program. Tom was originally from Belen and had a good relationship with Senator Tibo Chavez, an influential (president pro tem) and supportive member of the Senate. Senator John Rogers, a newly elected Senator from Los Alamos and an individual who was very interested in health and safety issues, introduced a state OSHA bill in the 1972 legislature. The 1972 legislature was a short session, thereby requiring a Governor's message for the bill to be introduced. The bill was subsequently signed into law by Governor Bruce King.

Having a federally approved OSHA program allowed the Federal OSHA program to match State funds on a 50/50 basis.

L. A Potpourri of Environmental Management Methods

In 1973, I presented the following paper at an environmental training conference. This presentation was subsequently utilized at conferences and training course in a number of other states.

Environmental management methods, for today and the future, consist of realizing, understanding, learning, undertaking, envisioning, planning, changing, promoting, defining, conceiving, creating, prioritizing, anticipating, cooperating, regulating, converting, adjusting, organizing, protecting, leading, guiding, counseling and exhorting.

We must adjust to the fact that a vast array of governmental agencies and citizen groups are involved in the struggle for a quality environment (often playing adversarial roles), and adjust to the fact that a great many official agencies exert a greater impact on the environment than do most of the official environmental protection or environmental health agencies represented here today.

We must manage the environment in the best interests of the total public, but remember that many environmental regulatory agencies are fraudulent in that they have conflicts of interest by having a prime mission of protecting and promoting the interests of the very industries or groups they are charged with regulating.

We must realize that despite criticism of "federal intervention" and concern about "states' rights", most states have not become serious about environmental degradation until mandated (and funded) to act by the federal government.

We must realize that the efforts of governmental agencies are inseparable from the political process, which is ultimately the source of power, authority, legislation, policy and money.

We must constantly remember that aptitude, ability, imagination, creativeness and effectiveness are not the sole province of officials in Washington, D.C., or in regional offices.

We must cooperate more effectively with citizen groups and accept the fact that citizen actions have been a desirable stimulant and have often spurred laggard regulatory bodies to action.

We should attempt to regain roles of leadership in solving matters of environmental quality and realize that citizen involvement is necessary and desirable, and that environmental quality is no longer shrouded in professional mystique as it once was.

We must learn that environmental programs can best be planned on the multiple goal

basis of health, comfort, safety and well-being; and promote the sound, time-honored ecological principle of "the greatest good for the largest number over the longest period of time."

We must promote, improve and regulate environmental quality as directed and mandated by our various governing bodies, and let the courts balance the equities instead of trying to so do as program managers.

We must adjust to the fact that there is a universe of difference between preventing environmental pollution and attaining or regaining environmental quality.

We must realize that it is often patently impossible for local environmental health agencies, and to some extent even state agencies, to be fully effective as they are often in the position of attempting to regulate their own proprietary functions which may be creating environmental degradation.

We must learn to anticipate problems so as to offer meaningful input into their prevention and resolution.

We must realize that society has only recently allowed governmental efforts in such environmental problems as water pollution, air pollution, noise pollution and solid waste management; but has not yet reached the point of authorizing program efforts to effectively resolve problems concerning the basic priority issues associated with over-population, energy production, land-use and transportation.

We must increasingly exhort and counsel our United States Senators and Representatives in matters of federal legislation which affect the environmental quality of our individual or collective states.

We must change our efforts wherever possible to attempt to consider environmental matters on a regional, national and global scale in accordance with the truism that "everything is connected to everything else."

We must take legal action where other methods fail, but understand that compliance also consists of warnings, administrative orders, permit suspensions and revocations, and condemnations in addition to appropriate court action.

We must objectively study the types of personnel assigned specific tasks and programs so as to insure that personnel are utilized in accordance with their training and abilities.

We must constantly remember that public opinion polls continue to indicate that the public considers environmental problems among the most serious issues of the decade, and that such polls also indicate that the public is willing to pay for environmental

quality.

We must accept the fact that we are witnessing an attempted backlash perpetrated by some major polluters acting on the thesis that "no harmful effects have yet been shown on future generations", or that "future research will prove that pollution is healthful."

We must convert our concepts to think and program in terms of environmental consumption needs, rather than environmental consumption demands.

We must change our collective attitudes and adjust to the fact that "bigger is not better", and "growth is not progress."

We must remember that experience has repeatedly proven that pollution control technology advances most rapidly under threat of deadlines and penalties, and that environmental quality standards must, therefore, be based on the needs of environmental protection rather than on the latest limits of technology or "state of the art".

We must demand that no significant environmental degradation be permitted beyond current levels, inasmuch as the environment, once degraded, is seldom restored.

We must counsel that to regain a semblance of air quality in urban areas, alternative transportation methods and energy sources must be developed and subsidized by public funds just as facilities to prevent water pollution are financed by tax funds.

We must research and develop alternative energy sources, instead of blindly continuing to rely on fossil fuels.

We must guide national policy and priorities so that development of alternative energy sources and transportation methods prioritize as high as putting a man on the moon.

We must demand continuing health research to determine the long-term, chronic effects of pollutants on man and the biosphere.

We must adjust to the fact that environmental health and economic health are not at opposite poles, but are inseparably interdigitated for the continued health and well-being of the environment, including the human animal.

We must exhort our political and civic leaders that we do not require a sick environment to have a healthy economy.

We must protect those areas, primarily in the West, which still retain a high degree of environmental quality, and resist current federal efforts to control pollution by national dilution by permitting a uniform layer of smog.

We must protect our environment in such a manner that future generations can enjoy the thrill of fresh, brisk air; wilderness areas; trout in clear mountain streams; uncluttered mesas and vistas; wild geese on a cold morning; or solitude on a mountain peak.

We must consider our environment as a treasure, not a dumping ground.

We must dedicate ourselves to the proposition that the environment should provide something for everybody, not everything for everybody.

We must strive to negate the verse: "So leap with joy, be blithe and gay,/ Or weep, my friends, with sorrow,/ What California is today, The rest will be tomorrow."

M. Mercury Hysteria

Among the more important responsibilities of environmental health and protection professionals is that of scientifically assessing risk to the health of the public or the environment, evaluating cost/benefits of control measures, and prioritizing issues in relation to other problems. The easy way out, and the one practiced by all too many environmental personnel, is to simply say that "the sky is falling" regarding every "catastrophe of the week" issue, rather than using essential scientific and professional judgment. The easy way out is usually more popular with the news media and the environmental activists. The media need to keep sales and advertising revenue up, and many of the activist organizations are dependent on a continuing series of "catastrophe of the week" issues. Additionally, Americans seem to love a good calamity. Those activists who make false predictions accept no responsibility for their statements. And there are always a critical mass of official agency personnel eager to be featured in a news article promoting the idea that a new catastrophe has been identified. All this works to the detriment of organized, effective efforts to retain or achieve a healthful, quality environment inasmuch as official agencies do not have unlimited resources to attempt to deal with every perceived environmental insult. As a result, government and industry frequently spend huge sums on insignificant problems at the expense of significant issues. (This type of issue is discussed in more detail in Chapter 13, Section G.)

One such recurring issue in New Mexico is that of mercury in fish caught in the state's lakes and reservoirs. We first identified this in the early 1970's. At that time it was carefully evaluated to determine the actual public health hazard. There is no doubt that the ingestion of mercury can pose serious health problems, or be fatal. This fact has been well documented in the scientific literature. In New Mexico, we determined that many of our lakes and reservoirs contained mercury from natural sources, and that the mercury had always been present. Ingestion of sufficient amounts of certain species and sizes of fish taken from these waters could indeed be undesirable. Caution, not banning of fishing and ingestion of reasonable amounts of fish, is certainly dictated.

When we first determined the mercury problem in Navajo Lake in the early 1970s, we issued appropriate warnings and public information. The problem might be especially serious for pregnant women and children. But realistically, it would probably be unheard of for someone to catch, and subsequently ingest, enough large fish to cause harm. Few are that adept at fishing, and few eat that much fish.

But this approach didn't satisfy a few of the uninformed and misinformed. As a result, a few activists demanded that Governor Bruce King dismiss me.

Bruce King did not dignify their request by responding.

The mercury problem was rediscovered in 1991 by a new crop of personnel who had no institutional memory. They had their few weeks of notoriety in the news, and the problem

subsided once again.

The problem in the 70s did serve a useful purpose, however. The need to evaluate the problem provided rationale for funding of the Environmental Chemicals Laboratory in Santa Fe, which was a forerunner to the Environmental Laboratory, and eventually the outstanding New Mexico Scientific Laboratory System.

N. Do Wildlife Have Rights?

Absolutely!

Man is the only animal which blushes, and should!

Historically, environmental health personnel were concerned primarily with protecting human health through controlling environmental factors which might adversely affect human health. Inasmuch as I was an ecologist before I was professionally educated in environmental health, I always had a different viewpoint. I believed that we should not only protect people in the environment, but protect people and the environment. This difference in concept meant that I was frequently out of step with my peers during my entire career.

In the early 1970s, we received numerous complaints about mosquitoes around swampy areas in the vicinity of Bloomfield, as well as near Tucumcari Lake, outside Tucumcari. Most members of my staff felt we should take steps to drain the swamps, as well as the Lake. Both the swamps and the Lake were important habitat for a wide variety of wildlife. I concluded that we basically had a problem of land use, and that people were living too close to the wildlife habitat areas. Therefore, I refused to take steps to drain the water and solve the mosquito problems in that manner. We did plant mosquito larvae-eating fish (*Gambusia*) in the waters to reduce the mosquito problem. This did not make the complainants completely happy, but we didn't destroy any of our rapidly shrinking wildlife habitat.

My viewpoint was vindicated in recent years. The 1990 report of EPA's prestigious Science Advisory Board, Reducing Risk, stated that:

....there is no doubt that over time, the quality of human life declines as the quality of natural ecosystems declines....over the past 20 years, and especially over the past decade, EPA has paid too little attention to natural ecosystems. The Agency has considered the protection of public health to be its primary mission, and it has been less concerned about risks posed to ecosystems....EPA's response to human health risks as compared to ecological risks is inappropriate, because, in the real world, there is little distinction between the two. Over the long term, ecological degradation either directly or indirectly degrades human health and the economy....human health and welfare ultimately rely on the life support systems and natural resources provided by healthy ecosystems.

It has always amazed me that the human animal can be so arrogant as to play God with the fate or even the extermination of other species of plants or animals. Certainly the human animal is not threatened or faced with extinction. The basic problem is human animal overpopulation, and this can not continue indefinitely in a finite world with finite resources. However, the human animal species does not have the collective knowledge and will to deal with the population issue short of war, pestilence and famine.

The last word in ignorance is the man who says of an animal or plant: 'What good is it?' If the land mechanism as a whole is good, then every part is good, whether we understand it or not. If the biota, in the course of aeons, has built something we like, but do not understand, then who but a fool would discard seemingly useless parts? To keep every cog and wheel is the first precaution of intelligent tinkering. Aldo Leopold, Conservationist.

Like winds and sunsets, wild things were taken for granted until progress began to do away with them. Now we face the question whether a still higher standard of living is worth its cost in things natural, wild and free. Aldo Leopold

In 1987, the New Mexico Game and Fish Commission designated Tucumcari Lake as the Ladd S. Gordon Game Management Area, in honor of the outstanding conservation efforts exhibited by my brother. Had I ordered the lake drained, it would no longer have been there as a permanent memorial to the game management and conservation efforts of Ladd S. Gordon!

O. The New Mexico Council on Environmental Quality

Senator Fred Gross of Bernalillo County introduced a bill in the 1971 Legislature to create a Council on Environmental Quality (CEQ). The CEQ would have powers and duties similar to the President's Council on Environmental Quality and those in some twenty other states. The CEQ was to have five members, and be responsible for environmental studies, recommending programs, identifying environmental program needs, identifying program overlaps and duplications, and developing reports on the status of the environment. The CEQ was also to require a review of environmental impact statements on a state level similar to environmental impact statements at the federal level.

Fred Gross was a Republican in a Democrat controlled Legislature, and many of his bills were failing. He complained to Majority Leader Tibo Chavez, and Tibo asked Fred which bill he would like to see passed. The bill to create the CEQ subsequently passed both houses and was signed into law by Governor King.

But that wasn't the end of the story.

The Legislature had stripped the CEQ of necessary staffing and funding. The responsibility for staffing was assigned to the Environmental Improvement Agency, and the CEQ was administratively attached to EIA. This was a fatal organizational error. The CEQ should have been attached to the Governor's Office, as its powers and scope of responsibility affected many state agencies including, but not limited to, Agriculture, Highways, Natural Resources, Game and Fish, State Engineer and Construction Industries, as well as EIA itself. The organizational location of the CEQ represented a conflict of interest with EIA. Other agency directors viewed CEQ as being a part of EIA and having jurisdiction over their operations.

But it also provided the CEQ with some authority pertaining to the responsibilities of powerful State Engineer Steve Reynolds who was highly regarded, but certainly no environmental advocate.

CEQ members were appointed in 1971, and they began meeting to develop council plans and guidelines. EIA provided necessary minimal staffing.

In the 1972 legislative session, I was invited to visit with the Senate Conservation Committee regarding the CEQ. Senator Ike Smalley of Luna County advised me that Steve Reynolds didn't like the situation. We had a good discussion about the CEQ and how it should have been organized and staffed. Senate Conservation Committee members were only concerned about the environmental impact requirement. The 1972 Legislature then took action to suspend the powers of the CEQ until it could be reviewed and acted on in the 1973 legislative session. At that time, there appeared to be no citizen or political support for the CEQ, and the 1973 Legislature took action to abolish the CEQ.

Certainly the environmental impact statement requirement was controversial. However, the other responsibilities for the CEQ would have resulted in positive actions to protect New Mexico's environment. Providing a mechanism to carry out such responsibilities, either by statute or executive order, would have been desirable.

Fred Gross was another who had an idea whose time had not come!

P. Command-and-Control or Performance?

From the time I was Director of the New Mexico Environmental Services Division through my tenure as Environmental Improvement Agency Director, HSSD State Health Officer, and subsequently HED Deputy Secretary and Cabinet Secretary, I insisted that environmental health and protection regulations be based on performance rather than specification standards. This policy flew in the face of the conventional wisdom of many of the agency's engineers and scientists who thought they were possessed superior ability to that of the private sector's engineers and scientists. I always believed that our program goals were most effectively, efficiently and economically attained when we specified the end results or performance required, and left it to those interests being regulated to be allowed flexibility and creativity in complying with the performance standards. This concept promoted research and application of new knowledge, rather than being forced to adhere to specification or command-and-control requirements. This worked exceedingly well.

Over the years, however, states were gradually forced to perform in accordance with federal EPA command-and-control requirements. This approach was certainly ineffective and inefficient, and resulted in unnecessarily lengthy compliance periods, larger bureaucracies and inappropriate expenditures. It also served to stifle creativity on the part of the private sector. No environmental quality or public health good was served, but it must have made the bureaucrats seated in little cubicles overlooking the Potomac happy, as well as increasing their numbers and perceived importance.

And command-and-control increased operating costs for the public and private sectors, and the costs were ultimately paid by consumers and taxpayers.

Q. Consumer Protection versus Special Interests

In January, 1993, several hundred cases of food-borne illness occurred in Oregon among individuals who had eaten inadequately cooked hamburgers at Jack in the Box fast food establishments. The meat had been processed in California in a U.S. Department of Agriculture inspected plant. High numbers of *E. coli* bacteria were found to be the causative agent. An agency which has a mission of promoting and protecting agricultural interests has an obvious conflict of interest if it purports to have an effective role in consumer protection.

The issues surrounding the Oregon outbreak reminded me of a paper I wrote in 1969 while I was Director of the New Mexico Environmental Services Division. The paper was published in the Newsletter of the Conference of Local Environmental Health Administrators, July 1, 1977. It bears repeating.

Much of the inefficiency, ineffectiveness, and cost of many programs of environmental management and consumer protection at all levels of government have been related to:

- 1) inappropriate fragmentation of responsibility and activities among a number of agencies, and*
- 2) the fact that many such organizations are not oriented to a mission of consumer protection and public service, but owe their allegiance to a specific industry having a vested interest in the program.*

Within the past year, the public throughout the nation has become concerned and knowledgeable regarding problems of environmental quality and consumer protection. Numerous polls indicate the public's concern and citizens' willingness to pay for such programs. It is now apparent that there is a groundswell of demand that such activities protect man and his environment. Increasingly, the public has been outraged to learn of limited or non-existent funding for programs of environment and consumer protection, of which people considered themselves the beneficiaries. The public has been angered by reports of meat inspection programs being administered by agencies basically designed to promote or protect an industry rather than the public; by reports of pesticides being sold contrary to the recommendations of environmental health officials; by reports of a pesticide being marketed in accordance with the recommendation of a consultant to the pesticide manufacturer; and by attempts to transfer public service oriented programs such as occupational health and safety, and radiation protection to agencies created primarily for the purpose of promoting the interests of labor groups.

There is no question that agriculture departments, livestock agencies, and labor departments have a proper role and are necessary elements of governmental structure and service. However, there is also no question that such agencies cannot and should not be public service and consumer protection oriented, thereby attempting or pretending

to serve two divergent interests and masters. To so attempt is to perpetrate a farce and defraud the consuming public.

Programs of environmental management and consumer protection having a significant health component should be administered within a single agency oriented to health, consumer protection, and public service in order to:

- 1) deliver quality service and protection to the public,*
- 2) promote uniformity of effort and standards,*
- 3) prevent duplication of effort, budget, personnel, laboratory and other facilities, supervision, overhead, and staff services,*
- 4) provide program balance on a rational priority basis,*
- 5) balance difficult or controversial decisions in favor of the public,*
- 6) attain desired program objectives and goals, and*
- 7) prevent confusion over program controversies or duplication of effort for the ultimate benefit of both industry and the consuming public.*

Proper funding and organization of environmental management and consumer protection effort is essential for public health and safety.

SCOPE OF PROGRAM

Such environmental stresses as pollution, waste products, chemicals, radiation, pesticides, insects, rodents, light, pathogenic organisms, safety hazards, noise, and adulterants must be properly regulated in air, food water, land and/or shelter whether in homes, businesses, industries, vehicles, institutions, recreational facilities, and open-spaces insofar as they potentially affect man's health, safety, comfort and well being.

Environmental management and consumer protection programs administered by agencies other than environmental health agencies are proper functions of those agencies if they do not have a significant health component affecting the public. Consumer protection regulation of products and services not having a significant health component affecting the public, such as land or product sale fraud, are not proper activities for environmental health agencies. On the other hand, programs such as radiation protection, occupational health and safety, air and water pollution control, food protection, pesticide regulation and meat inspection are proper functions of environmental health agencies, and relate closely to other environmental health

functions in terms of objectives, methods, types of personnel needed, and laboratory facilities.

Too frequently, state organizational patterns and programming have tended to follow the federal pattern. This certainly has not provided an effective, economical or efficient model.

Industry oriented agencies should properly confine their activities to promoting and protecting their industries. Consumer protection oriented agencies should primarily confine their activities to promoting and protecting the health, safety, well-being, and comfort of the consuming public.

Remedying existing problems of program fragmentation and agency conflicts of interest, requires public understanding and political action if the public is to be protected effectively.

8. THE NEW MEXICO SCIENTIFIC LABORATORY SYSTEM

A. The Public Health Laboratory

The New Mexico Public Health Laboratory, located on North Terrace Street on the UNM campus, was built in 1937. For many years, the building shared occupancy with some laboratories and offices of the UNM Biology Department, but the Public Health Laboratory eventually occupied the entire building. The facility became overcrowded, dirty and vermin infested. Equipment and supplies were in short supply, as were the budget and professional recognition. Morale was low, and laboratory results, particularly in the area of chemistry, were frequently of questionable validity. Every employee of the Public Health Laboratory signed and submitted a list of grievances to Laboratory Director Dr. Daniel Johnson in 1970. The grievances related to:

....obsolete equipment, lack of proper supplies, health and safety hazards in the laboratory, inadequate training program, inequities in hiring, low salary scales with little effort to remedy the situation, lack of proper communication within the laboratory and with related programs and institutions, and steadily deteriorating public image situation.

B. The Environmental Laboratory

We began attempting to address the chemistry inadequacy in 1971 by developing a small environmental laboratory in a vacant Game and Fish Department warehouse in Santa Fe. My brother, Ladd S. Gordon, was Game and Fish Director and he allowed us to utilize the building at no cost. But the Santa Fe lab was also inadequately equipped, understaffed, and inadequate to meet rapidly growing needs for timely, accurate laboratory services.

By 1972, we moved the embryonic environmental laboratory to Albuquerque where it really belonged. My old friend Howell G. "Bud" Ervien was City Property Management Director. Bud allowed us to utilize a city-owned building at Montessa Park south of Albuquerque. The city furnished the building and all utilities. We were able to acquire additional equipment and personnel and upgrade chemistry services considerably.

However, the Public Health Laboratory and the Environmental Laboratory still were not adequate to provide the necessary quantity and quality of services essential to program requirements.

C. The Scientific Laboratory System

In 1972, I wrote HSSD Executive Director Dick Heim proposing 1) an organization to be known as the New Mexico Scientific Laboratory System, and 2) a modern, well equipped laboratory facility to be located in Albuquerque. I wrote that:

A Public Health Laboratory was one of the first components authorized in the Department of Health when it was created more than forty years ago. The Public Health Laboratory attempted to supply laboratory services for the Public Health Department, and was quartered in a new building on the University of New Mexico Campus in 1937. This building was built with \$10,000 in State funds and \$37,000 from the Federal Public Works Authority and was constructed in such a manner and at such a location that it has been impossible to enlarge or re-design the interior. The Public Health Laboratory has frequently been over-looked and nearly forgotten in the budgetary process; and Health Agency program personnel have tended, in the past, to assume that the Health Laboratory would continue to provide necessary service without additional financial support even when new or enlarged programs demanded such support. As a result, the Public Health Laboratory facilities, organization and services have not been able to keep pace with the State's growth or the laboratory services required by various health programs.

For many years, the Public Health Laboratory attempted to provide laboratory services for various sanitation programs, but such services were not adequate either in quality or quantity. With the recent and current emphasis on problems of the environment and concurrent with the creation of the New Mexico Environmental Improvement Agency, the EIA has attempted to provide laboratory services to support such programs as air pollution control, water pollution control, water supply, insect and rodent control, food sanitation, milk sanitation, occupational health and safety, swimming pool sanitation and safety, and others.

The lack of suitable facilities and equipment for EIA laboratory services has been a source of continuing frustration to the Agency and the Department. It is essential to provide accurate and rapid laboratory results to support EIA programs, both in fairness to those being regulated and to the public-at-large.

Within a short time we were contacted by several UNM Medical School faculty who recommended that the facility also be designed to provide space and facilities for the Office of the Medical Investigator, and that much of the laboratory services required by the Medical Investigator be provided by the Scientific Laboratory System.

Dick Heim supported the proposal and submitted it to Governor Bruce King for his approval. I again worked with Representative Jamie Koch of Santa Fe to develop a proposal for the 1973 legislature. Politically, Jamie preferred that the facility be located in Santa Fe.

However, Jamie understood and supported our recommendation to locate it on the UNM Campus.

In the 1973 Legislature, I requested \$5 million for the joint SLS-OMI facility, and obtained UNM Board of Regents approval to locate it on the UNM campus. The legislative process was not smooth or easy, and at one point the request was entirely deleted in the Senate. I drove home to Albuquerque after midnight thoroughly worn out and frustrated. But the next morning, I was in Santa Fe early to locate Representative Jamie Koch and get the process started anew in the House. An allocation of \$2.5 million was finally authorized. That was only half of the original request.

I asked Dick Heim to appoint me as Director of the New Mexico Scientific Laboratory System. I wanted to organize and set the mission and policies for the new organization, which would be derived from the pre-existing Public Health and Environmental Laboratories.

Dick then promoted Aaron Bond to Director, Environmental Improvement Agency.

Construction commenced in 1973, and our troubles had only begun. The architect did not prevent numerous cost overruns, and the State Property Control Division did not prevent or control the overruns. The project was soon out of money and I had to return to the 1975 Legislature with a supplemental request. This supplemental request certainly wasn't popular with the legislators, but additional funding was finally allocated. Even after construction was completed, we found that there were serious defects in the design of the heating and cooling systems, so I had to return to the Legislature for more money.

It was a difficult and sometimes stressful project, but in retrospect it was worth it. New Mexico citizens were served by one of the most modern, best equipped and staffed state laboratories in the nation. The final cost was in excess of 5 million dollars —, not far from my original request.

And the laboratory was, and still is, unique. The organization and facility were designed to provide laboratory services to all tax-supported federal, state, and local agencies in New Mexico requiring such services on a reimbursable cost basis. Other states have individual, often inadequate laboratories serving such client agencies as public health, environmental protection, substance abuse, occupational health and safety, game and fish, Indian Health Service, family planning, medical investigator, highway traffic safety commission, local law enforcement, etc. By taking a comprehensive approach, we were able to provide a superior organization, facility, equipment and services for our citizens.

We were able to positively improve professionalism, training, quality control, organizational arrangements, supervision, client relationships, budgets, job specifications, salary levels, and inter-agency communication and coordination.

During the first term of Bruce King, we evaluated laboratory facilities, equipment, and personnel and determined that services could be improved by closing the small, inadequate Farmington Branch Laboratory and transferring the personnel to the new, modern facility in Albuquerque. This would have improved services, quality control, training and supervision. I received verbal approval for this action from Dick Heim, State Planning Officer (and Governor King's nephew) David King, and the Governor. I then issued written notice of the change. But I hadn't duly recognized the politics of the situation. We soon had protests from the City of Farmington, San Juan County, the Four Corners Regional Commission, the Indian Health Service, and the Navajo Tribe. With these protests in hand, Governor King elected to state that he hadn't approved the action.

Another good idea bit the dust. Bad politics on my part!

We promoted or recruited several laboratory professionals who became nationally and internationally recognized in the fields of public health and laboratory science. Among these:

Loris Hughes, was promoted to Chief Biological Sciences Division, later entered the private sector for a short time, and I recruited him to return as Laboratory Director where he has performed in an exemplary manner since 1981.

Mike Skeels, recruited from the Montana State Laboratory, did an outstanding job in the New Mexico SLD, became Oregon Public Health Laboratory Director, and subsequently State Health Director in Oregon.

Sylvia Taborelli, who was with the previous Public Health Laboratory, was promoted, earned her Master of Public Health degree, became Quality Control Supervisor, and was later appointed SLD Deputy Director.

Many states have attempted to emulate the New Mexico model, but have found it impossible to overcome the influence of their already existing, fragmented laboratory organizations and their various "turf" imperatives.

The Scientific Laboratory System became the Scientific Laboratory Division of the Health and Environment Department when Governor Jerry Apodaca worked with the legislature to reorganize state government and create the cabinet form of government in 1977.

At the dedication of a new addition to the SLD in 1987 while I was Cabinet Secretary for Health and Environment, I noted that:

The Scientific Laboratory Division serves all New Mexicans through analyzing the food we eat, the air we breathe, the water we drink, and checking for such diseases as plague, rabies, AIDs and cancer; and analyzing for carcinogens, pesticides, toxic chemicals, drugs, alcohol and radiation. It is the silent, but essential, partner to the efforts of the

Environmental Improvement Division, the Public Health Division, and many others in order to protect and promote the health, safety, comfort and well-being of all New Mexicans.

It is interesting to note the following quote from Myrtle Greenfield's book, A History of Public Health in New Mexico:

Newspapers were not particularly supportive of early efforts to develop a State Health Department. One editor suggested that a State Health Commissioner would be enough, another suggested that since the Public Health Nurse would be essential, that only a nurse would be needed. And still another believed that the Commissioner of Health would have knowledge of sanitation, and there was no need for a sanitary engineer. Others believed that the salary of a bacteriologist (\$2,000) and the cost of a laboratory could be saved as there was a bacteriologist in Albuquerque who could provide all the bacteriological examinations necessary for no more than \$250 per year.

Life must have been much simpler in 1919!

D. A Regional Laboratory?

One of my better ideas regarding laboratory services never got off the ground. Before we gained authorization to create the Scientific Laboratory System and construct the SLS building, I envisioned the desirability of a regional laboratory to serve New Mexico, Utah, Arizona, and Colorado. The facility was to be located in the Four Corners area. I convened a meeting of representatives from the other three states at former Governor Tom Bolack's B Square Ranch near Farmington, New Mexico. Tom Bolack said he would donate the land for such a facility. The various state representatives were in agreement regarding the desirability of developing a regional laboratory. However, in ensuing months, it became apparent that there were too many state turf issues for the project to be realized.

E. A Pound-And-A-Half Won't Hurt You!

While serving as Director of the Scientific Laboratory System, I was invited to visit Los Alamos National Laboratories as a guest for official ceremonies opening their low level radioactive waste sorting facility. Other guests included U.S. Senator Joe Montoya and U.S. Representative Manuel Lujan. Senator Montoya had a prepared statement which was very credible and smooth --- probably prepared by one of his staffers. Representative Lujan's statement was not prepared for him, and not well organized. At one point he indicated that he did not know why people were concerned about wastes from nuclear reactors, inasmuch as you could *"eat a pound-and-a-half of it and it wouldn't even hurt you!"* Los Alamos National Laboratories Director Dr. Harold Agnew looked shocked and embarrassed, but didn't say anything. A few minutes later, Lujan again indicated that he didn't know why people were concerned about wastes from nuclear reactors, as you could *"eat a pound-and-a-half of it and it wouldn't even hurt you!"* At the point, Dr. Agnew politely interrupted and advised that the statements were not factual. If the statements had not been so serious, they might have been amusing. And this startling misinformation came from the mouth of a Congressman who had been serving on the Congressional Joint Atomic Energy Committee for several years.

Lujan later became Secretary of the Interior! Everyone liked Manuel Lujan!

F. Slow Suicide and Slow Homicide

By 1973, we knew enough about the use of tobacco to recognize that it was to the user as well as those exposed to second hand smoke. However, at that time there were few policies or requirements in place to protect the innocent bystanders from the smoke of others. In New Mexico, neither the state legislature, the Albuquerque city council, nor any official agency had developed a policy regarding smoking in the work place.

When I became Scientific Laboratory System (SLS) Director, I promulgated a policy prohibiting smoking in any of the shared areas of the new Scientific Laboratory building. In 1973, such an action was practically unheard of. A number of SLS personnel viewed the policy as punitive, an infringement on their "rights", or entirely illegal. A few threatened to take the matter to court. But despite such reactions and criticism, the policy prevailed.

When I was appointed State Health Officer in 1976, I strengthened the policy somewhat and made it applicable to the Environmental Improvement Agency, the State Health Agency, and the State Health Planning and Development Agency in addition to the Scientific Laboratory System. This greatly increases the furor. More litigation was threatened, but none suits were filed. I also made it known that I would not hire or promote smokers into many sensitive positions. This really caused the stuff to hit the fan. But it worked!

In 1982, when I was recycled for the second time as Director of the Albuquerque Environmental Health Department, I promulgated the same policy for the Environmental Health Department.

While Cabinet Secretary for Health and Environment in 1988, I strengthened the policy considerably to prohibit smoking in any of the statewide Health and Environment Department facilities. A few threatened to resign, but no such resignations were forthcoming.

Years later, many of the smokers involved thanked me and told me that it was the key element causing them to stop smoking.

The use of this uniquely perilous legal product called tobacco remained the number one preventable health problem in the United States. If the top twenty health problem of our nation were listed, tobacco use should fill the top five positions to emphasize its importance and public health priority. While society is understandably seriously concerned about *other* drugs, it is worth noting that tobacco kills some 190 times as many Americans as does cocaine. Tobacco kills almost 50 Americans each hour, and causes the hourly expenditure of some \$7,500,000 in health care costs!

9. THE NEW MEXICO PUBLIC HEALTH DIVISION

A. Recommending The Agency

Following the creation of the New Mexico Health and Social Services Department in 1967, the Department was organized in such a manner that there was no unified "public health" organizational entity. Central office public health services were mostly organized within an inappropriately titled "Medical Services Division."

It should be noted in passing that public health is not synonymous with medicine. Public health is profoundly inter-disciplinary and requires the involvement of scores of professional disciplines, public health physicians being among them.

The Medical Services Division had no direct line authority over the district and county offices where the services were actually delivered, and there was little coordination between the various districts. This 1967 arrangement resulted in some degree of chaos and confusion, and a distinct absence of any visionary professional leadership.

Among the many good management techniques HSSD Executive Director Dick Heim instigated in 1971, was that of frequent "retreats" for HSSD top management. These routine "retreats" resulted in many improvements to HSSD services.

During a 1972 retreat at UNM's D.H. Lawrence conference facility near Taos, I broached the subject of the rather ridiculous HSSD organizational arrangement for the planning, budgeting, coordination, prioritization, delivery and evaluation of public health services. I suggested that the organizational and managerial pattern we had already developed for the Environmental Improvement Agency would result in improved service delivery for public health services. While the EIA had been developed by statute, HSSD could do much the same for public health services by HSSD Executive Order. This idea appealed to both Dick Heim and David Farrell, and resulted in the creation of the State Health Agency within HSSD.

But even the title "State Health Agency" wasn't properly descriptive. When the Health and Environment Department was created in 1977, it became the Health Services Division. After I was appointed Cabinet Secretary for Health and Environment, I changed the name to "Public Health Division" in 1988, and this was endorsed by the Legislature in 1989.

Public health is the art and science of preventing disease, prolonging life, and promoting health and efficiency through organized community effort. Basic public health initiatives have done more to enhance the status of the health of the public than all the collective actions taken in the field of health care (treatment and rehabilitation). Public health, however, lacks the glamour commonly associated with health care and does not compete well for funding. Public health programs are woefully under funded throughout the Nation. Over 93% percent of all health dollars are for health care, 3.5% for health research, and only 2.9% for public health. The nation's health demands greater attention through public health services. Improved public health

services are essential not only to enhance the health status of Americans, but to slow the rapidly escalating costs of health care. Opportunities relating to prevention of the ten leading causes of death such as heart disease, cancer, accidents, hypertension, chronic obstructive pulmonary disease, influenza/pneumonia, diabetes, cirrhosis of the liver, suicides, homicides, and congenital anomalies await the attention of public health. We must have a commitment to preventing damage to the human machine in balance with efforts to repair the human machine after it is worn or damaged.

B. Health Bill of Rights

In 1976, while serving as State Health Officer (Administrator for Health and Environmental Programs), I presented the following paper at the annual meeting of the New Mexico Public Health Association. It was published in Focus on Health, a newsletter of the State Health Agency.

We believe:

In the right to positive health for all our citizens;

In the right to disease prevention and health promotion services;

That the greatest health benefits are to be derived from disease prevention and health promotion services;

That health status is influenced by poverty and ignorance as much as by the quantity and quality of health services;

That the pendulum of health services has shifted too far toward reliance on treatment rather than a balanced approach involving prevention, promotion, and treatment;

That communicable disease program efforts must be balanced with the increasing importance of chronic diseases as major causes of morbidity and mortality; the adverse effects of life-styles including lack of exercise, obesity and smoking; and increased environmental pollutants;

That health education, which has been missing from HSSD since, 1967 must be a basic component of every disease prevention and health promotion program in order to assure the greatest health benefits for New Mexicans;

That HSSD Health Agency services should be uniformly available to all citizens and sectors of the State regardless of economic status;

That HSSD Health Agency services should not duplicate or compete with treatment and rehabilitation services available from the private sector;

That many of the current problems of the HSSD Health Agency have been due to lack of proper planning, organization, and management;

That there is now one HSSD Health Agency instead of the past pattern of having a central office and six districts, each going their own way. Therefore, continuing communication and coordination among all HSSD Health Agency components is an

absolute necessity;

That insofar as possible, HSSD Health Agency should be delivered by field offices and personnel; with program direction, priorities, design, consultation, staff training, and logistical support being assured through the central office;

That professionally prepared public health professionals are essential to efforts to attain positive health status for all our citizens. To this end, professional staff development and training must be enhanced;

That careful and continuing program prioritization must be accomplished to ensure the best cost-benefit relationship for the extremely limited Health Agency budget;

That our citizens are our corporate stockholders. As such, Health Agency personnel are obligated to insure sound two-way communication and openness, as well as effectively relating health needs and program activities to the public;

That we must insure that others understand that the most effective and economical answers to health problems lie in prevention.

10. STATE HEALTH OFFICER (Administrator for Health and Environmental Programs)

Former State Senator Jerry Apodaca (Democrat, Dona Ana County) became Governor in 1975. Prominent among his most unbelievable actions was the appointment of Fernando E. C de Baca as Executive Director of the Health and Social Services Department. An entire chapter might be written about the damage that occurred during his tenure, but I will only mention it as necessary. C de Baca's track record was the worst imaginable, but being a politically astute politician, he had ended up having an office in the hallway of the Executive Office Building next to the White House in Washington, being among the scores of "Special Assistants" to President Gerald Ford, but having no apparent responsibilities. None of us, including members of the Board of Health and Social Services, could ever understand why Governor Apodaca had appointed him. But, politics make strange bedfellows!

In the spring of 1975, the modern facility for the New Mexico Scientific Laboratory System had been completed and equipped, and the budget and staffing improved. The laboratory was organized and functioning. As SLD Director, I wasn't looking for any new challenges at the moment, but that didn't last long.

C de Baca called me at my home and asked me to accept the position of State Health Officer, which would include overseeing the functions of the Environmental Improvement Agency, the State Health Agency, the Scientific Laboratory System and the State Health Planning Agency. I had recommended this organizational pattern to Alex Armijo, Acting HSSD Executive Director, prior to C de Baca being appointed.

Had I known how disruptive and incompetent C de Baca would prove to be, I would have turned him down. But not knowing this, I accepted the position which later was formally termed "Administrator for Health and Environmental Programs." However, such positions in other states were titled "State Health Officer."

I appointed Aaron Bond as Director of the Scientific Laboratory System, Thomas E. Baca as Director of the Environmental Improvement Agency, and Mike Burkhart as Director of the State Health Agency. All were experienced professionals, so my job should have been easy. And it would have been except for the constant disruptive antics of C de Baca regarding personnel and programs. He wanted both Tom Baca and Mike Burkhart dismissed, and attempted to thwart my personnel evaluations of these outstanding professionals.

I rapidly fell into disfavor with C de Baca, and then through "guilt by relationship", with Governor Apodaca. The "guilt by relationship" was due to my brother, Ladd S. Gordon, Director, New Mexico Department of Game and Fish.

The Game and Fish Department had been notoriously professional and non-political during its entire existence. Apodaca ordered Ladd S. Gordon to appoint one of Apodaca's

political buddies as an Assistant Director. The individual had no administrative or game and fish management training or experience, and Ladd didn't need another assistant. To make a long story short, Ladd refused to appoint the person, and Apodaca presumably "fired" my brother. Ladd called a press conference and correctly stated that the Governor did not have the authority to dismiss him; that he had been appointed by the Game and Fish Commission, and it would take an action of the Game and Fish Commission to dismiss him. Alex Armijo, later an interim HSSD Director, told me that the Governor was then flooded with telegrams supportive of Ladd. Apodaca convened a special meeting of the Game and Fish Commission to have the Commission do his bidding. But the Commission voted to retain Ladd as Director. Apodaca was well known for his fiery temper, and he was furious. He later told Ladd that he (Ladd) had succeeded in preventing him from being Governor again, but *"By God, I'm still Governor."*

Later that year, Ladd opted to retire, accepted a position with the National Rifle Association, and later transferred to Ducks Unlimited where he held key positions until his final retirement in 1985.

One morning Thomas E. Baca and I were called to the Governor's Office to discuss priorities for dispensing federal matching funds for local sewerage projects. Tom always seems to have a smile on his face and appear confident. As Governor Apodaca looked up from his desk, he told Tom, *"Wipe that f---ing grin off your face!"*

A very gubernatorial statement!

We had developed an objective methodology for prioritizing request of funding sewage treatment projects. Apodaca wanted to politicize the process. We indicated we would not be parties to his scheme. As we left the office, I jokingly asked Tom, "How many of your relatives will vote against Apodaca if he ever runs for political office again"?

On another occasion, when I went to see the Governor, I found him with his head down. I greeted him and asked him if he had a problem. He responded to the effect that it had been a bad year *"with all that Ladd stuff."* I asked if he couldn't look at me and think about something other than my brother. He indicated that he would never do it again.

But the Governor didn't forget the matter.

Robert McNeil, HSSD attorney, told me that he was involved in a discussion with the Governor and C de Baca about dismissing me, but that Bob admonished them that it would create something similar to the Ladd S. Gordon incident. Actually, that would not have been the case. Sportsmen are well known for their organization and political influence, whereas an environmental health and protection administrator seldom garners the same level of effective and vocal constituency.

But during the "Ferdy" years, Thomas E. Baca, Mike Burkhart, Aaron Bond and I

literally swore a blood oath that we would not leave short of being legally ousted.

And we succeeded!

After Bruce King was re-elected in the fall of 1978, I visited with David King, who was Bruce King's nephew and political confidante, to advise him of Ferdy's reign of horror and request that Ferdy be dismissed immediately.

Ferdy was the first to go after Bruce King became Governor in 1979.

11. THE HEALTH AND ENVIRONMENT DEPARTMENT

A. The Apodaca Years

Gaining legislative approval for a cabinet system of government was the significant achievement of Governor Jerry Apodaca. While the cabinet system was not perfect, and was later altered several times, it was still a major accomplishment. Previously, more than 200 separate agencies, boards and commissions ostensibly reported directly to the Governor making effective management impossible.

The cabinet system provided for a merger of the Health and Environmental Programs component of the Health and Social Services Department (HSSD) with the Department of Hospitals and Institutions (DHI) in order to create the Health and Environment Department. Thomas E. Baca, Mike Burkhart and I were the only officials to testify regarding creation of the Health and Environment Department. No one from DHI showed up at the committee hearings. Representative Fred Mondragon shepherded the measure through the legislative process and had me sit with him on the House floor to supply information during final passage of the measure.

The Environmental Improvement Agency then became the Environmental Improvement Division, the State Health Agency became the Health Services Division, and the Scientific Laboratory System became the Scientific Laboratory Division. The Department of Hospitals and Institutions, with its large numbers of hospital personnel and large budget, was then two-thirds of the new Department.

Within a few months George Goldstein was appointed Secretary for Health and Environment. He had been Planning Director for the Department of Hospitals and Institutions for a short period of time following his departure from his role as a psychologist in the Indian Health Service. George understood hospitals, developmental disabilities, and mental health. He was significantly uninformed and even misinformed regarding environmental health and public health. He had no previous regulatory experience, and attempted to avoid confrontations rather than face the difficult decisions. George was personable, very bright, glib and "quick on his feet" before Legislative committees even when he didn't know the issues or the facts. Thomas E. Baca and I would frequently cringe with embarrassment as we heard his testimony. George once wrote a guest column for the New Mexican, in which he indicated how he had fought to have the Environmental Improvement Agency established. Factually, he wasn't even slightly involved and had not even been transferred to New Mexico by the Indian Health Service when EIA was being established.

I recommended that Thomas E. Baca be reappointed as EID Director, Mike Burkhart be reappointed Health Services Division Director, and Aaron Bond be reappointed Scientific Laboratory Division Director. I was appointed Deputy Secretary for the new Health and Environment Department.

B. The Bokum Incident

Jerry Apodaca was still Governor, and was another who could not be described as an environmental advocate. The following incident is indicative.

Bokum Resources, owned by Richard Bokum of Florida, operated in the uranium belt northeast of Grants, near Marquez. Bokum was known for his "yellow thumb" in being able to locate uranium. He also had a reputation for attempting to coerce regulatory officials, rather than comply. Bokum was politically astute, and was reputed to have given stock to a number of key legislators. Additionally, powerful Santa Fe Senator Eddie Lopez worked for Bokum. Bokum applied for a permit for a tailings pond for his uranium milling operation.

The matter was becoming increasingly controversial, so I visited the site accompanied by Thomas E. Baca, Joe Pierce and Walt Youngblood in the fall of 1978. It didn't take an engineer or geologist to see that the site was unsuitable. It was in a wide arroyo containing large, rounded granite boulders which were rounded as a result of water flowing over them for aeons. We all agreed that the site was unsuitable.

On a Sunday afternoon, Tom Baca was in his office and made the final decision to deny the permit. He called Richard Bokum and George Goldstein. When the Governor heard about the denial, he stormed over to Goldstein's office demanding that the permit be issued. Goldstein told us that he refused and told the Governor that if he were fired, Larry Gordon would not issue the permit; if Larry Gordon was also fired, Tom Baca obviously would not issue the permit; if Tom Baca was fired, and Cubia L. Clayton would not issue the permit. This was one time Goldstein showed some backbone!

A Saturday night massacre would have been required to get the permit issued!

Cubia Clayton later (1992) told me that the \$200,000,000 Bokum facility of concrete and steel was *"sitting there rusting and deteriorating — a monument to political intrigue!"* Cubia said the facility had not produced a single pound of "yellowcake."

But by then Bruce King was again Governor elect and most of us felt assured that if we were fired, it would only be a short time until Governor King reinstated us.

But it made for a stressful fall of 1978!

C. Bruce King Returns

Shortly after Bruce King became Governor elect, he asked me to meet him early one morning in front of the capitol building, known as the Round House. We sat in his Lincoln Town Car where he told me that he wanted me to be HED Secretary, and told me *"not to let them run off with things over there"* before he became Governor again and could appoint me as Cabinet Secretary for Health and Environment. I told him that it was beginning to appear that I might be elected President elect of the American Public Health Association, and it would be difficult for me to do that while being Secretary. I recommended that he consider retaining George Goldstein, but Governor King said he didn't know him. It ended up that King appointed Goldstein to the position, and I became President elect of the 55,000 member American Public Health Association, the largest association of public health professionals in the world. I served as APHA President in 1980-81.

I soon learned that being a "Deputy" was a thankless and frustrating role. I had a good salary, necessary budget, a nice office and a new official vehicle. But I didn't have any authority. The agencies I had brought into the new Health and Environment Department continued to operate effectively. The Behavioral Health Services Division (previously the Department of Hospitals and Institutions) which Goldstein brought into HED, posed continuing problems and controversy for many years, and this adversely affected the entire department.

Goldstein seemed inordinately concerned about my relationship with Governor King, as I had recommended Goldstein to King. Goldstein liked to travel and was frequently out-of-state. His personal Secretary might know he was gone and where he was, but I usually didn't. On those rare occasions when I needed to see Governor King during Goldstein's absences, Goldstein would question me in great detail about the nuances of every discussion. Goldstein seemed so paranoid about these occasional contacts, that I made every attempt to minimize them.

But I had more than enough to do due to my responsibilities with the American Public Health Association. This gave me more opportunity to impact national environmental and public health policy which affected New Mexico than I was allowed in my role as Deputy Secretary. It is important to note, however, that both Goldstein and Governor King understood the importance of these national activities to our State, and were generous in allowing me to spend a great deal of time with such involvements.

During these years I received recognition as follows:

1978 — National Walter F. Snyder Award "For Achievement in Environmental Quality"

1981 — New Mex. Hospital Assoc. "Commendation for Leadership in Health Care" — 1981

1978 — Special New Mexico Public Health Association Award, "In Recognition of Sustained Outstanding Contributions to Environmental Health and Public Health"

D. Does New Mexico Have An Inferiority Complex?

On November 20, 1979 the following "Inside The Capitol" column, by Fred McCaffrey, was published in The New Mexican:

What is this wave of inferiority which sometimes seems to wash over New Mexico? Why do we insist on believing our state is the one which brings up the tail-end of the procession?

That's all right for people in Mississippi or Arkansas, but it doesn't apply to us.

Why, there are times when we are downright out in front.

The thought comes when we read the prepared news release about the fact that Larry Gordon of our Health and Environment Department is going to be President of the American Public Health Association in 1981.

Gordon, deputy secretary of that important branch of state government, is a true pioneer, which this national body of specialists in his field has now recognized.

He put together the nation's first city-size environmental health department right here in little old New Mexico.

That was back in the days when Larry worked for the City of Albuquerque, before he began to stir the state to move in the same direction.

As much as anyone else alive, he was the motivating force in the creation of the New Mexico Environmental Improvement Agency — and many generations of New Mexicans still to come will have reason to be grateful to him for that.

Just as one little extra, he also planned and helped bring into being the nation's only comprehensive laboratory system which supports all parts of our state government.

Not a bad record for a small-state kid, out of the University of Michigan's school of public health, who managed to accomplish that in a time when words like "environment" didn't have the magic force they bear today.

One of Gordon's secrets is steady and protracted plugging, He's not a high profile guy, full of zing and vinegar; in fact, in temperament he tends to be on the shy side. But when he's onto something which he thinks will be good for city or state, he stays on it without let-up, like a bulldog. Eventually it gets done--- at which point, he moves onto the next project.

Anyway, he's an outstanding man in his field, who, as the Scripture suggests, has probably had more recognition as a prophet outside of his home territory than he has had in it.

We congratulate him, and remind all New Mexican's that excessive modesty may be one of our state's failings. Maybe nobody likes those Texas boosters, but nobody ignores them either.

12. PRESIDENT OF THE AMERICAN PUBLIC HEALTH ASSOCIATION

A. Description of APHA

I joined the American Public Health Association while I was first working in Albuquerque in 1955. It provided a mechanism to impact national environmental and public health policy, educational materials, an annual educational conference, and involvement in developing wide-ranging standards for programs, agencies, facilities and laboratories which are utilized at all levels of government and the private sector. APHA was formed in 1872, and grew to have 55,000 national and state affiliate members. Annual meetings have attracted more than 12,000 public and environmental health professionals who identify with one or more of its 26 sections. APHA publishes the prestigious American Journal of Public Health, and The Nation's Health (a monthly newspaper reporting on current environmental and health legislation and policy issues). APHA publishes a variety of books such as Control of Communicable Diseases in Man (which has been translated into most major languages in the world), and various Standard Methods, which are basic requirements and standards for all public and environmental laboratories.

I was privileged to serve on the APHA Governing Council and Executive Board for many years before being elected President in 1980-81. In this role, I testified before Congressional Committees on a number of issues, and made presentations in a score of states. Small portions of a few congressional testimonies follow.

B. Testimony

Larry J. Gordon
President, American Public Health Association
U.S. Senate Environment and Public Works Committee
Clean Air Act
July 9, 1981

....Pollution also costs in terms of absenteeism, health care costs, corroded materials, sterile lakes, deterioration of visibility, damage to crops and property, efficiency, morale, comfort, quality of life and insurance rates. These costs may be hidden and difficult to calculate, but are nonetheless real.

It continues to be a matter of serious concern to me that the human species sometimes seems more willing to suffer the health, social, economic, and environmental consequences of disease and pollution, rather than paying for environmental quality for this and future generations. Perhaps humans can slightly adapt to some degree of environmental degradation, but it is indeed alarming that humans might attempt to merely survive through adaptation, rather than thrive in a quality environment.....

Testimony

Larry J. Gordon
Subcommittee on Health and Environment
Energy and Commerce Committee
U.S. House of Representatives
Clean Air Act
December 7, 1981

.... New Mexico residents value their clean air and 100 mile visibility, and it is indeed an economic asset for our ranchers, farmers, recreational industry, and many other important components of our society. It is difficult to calculate the value of such clean air into an economic cost-benefit relationship. I am certain that my own property and home are worth considerably more due to the 100 mile visibility from my own yard to Mount Taylor to the West, instead of the fifteen or twenty mile visibility limitation that would occur if we were just barely meeting the Federal Clean Air standards....

Not long ago, I was returning to New Mexico from the East Coast. We were ready to land in Albuquerque when the pilot admonished all passengers to disembark while in Albuquerque and take a close look at the skies where "you can still see the stars!"

C. Comments on an Annual Meeting

As President of the American Public Health Association, my editorial in the November, 1980 issue of The Nation's Health stated that:

Thousands of us have now returned from the 108th Annual Meeting in Detroit where we enjoyed a week of re-dedication to the principles and goals of public health.

We listened and shared our knowledge and experiences, and improved our abilities to protect and promote the health of our citizens in our respective agency roles.

While gathered in Detroit, we may quickly have succumbed to an atmosphere of euphoria, but that was quickly replaced by the realism of the problems facing us as we returned to our offices, clinics, hospitals, laboratories and classrooms.

We have been reminded that the basic health problems of poverty, ignorance and over-population are still rampant.

Let us remember that we continue to have preventable diseases, pollution, racism, sexism, inadequate nutrition, and poor lifestyles which prevent many of our citizens from enjoying the highest level of health attainable.

As we have returned to our routines, we are reminded of proposition 13 mentality budget cuts which particularly affect preventive services.

We have been reminded that we still have serious and potentially effective attacks on measures to protect the health and safety of workers throughout the nation.

We are reminded that we still live in a world where energy policy is determined by those few powerful interests which stand to profit, rather than by the multitudes who might stand to gain.

We are reminded that there has been no rational energy policy or leadership, and that renewable energy resources are viewed by too many of our political leaders as some nebulous concept for the distant future, rather than essential for today and tomorrow.

We are reminded that attempts are still being made to roll back environmental progress through weakening laws and regulations, and proposing such measures as the Federal Energy Mobilization Board empowered to override basic environmental health requirements.

We are reminded that we are increasingly experiencing acid rain which adversely affects the productivity of our crop-lands and forests, as well as the productivity of our

waters.

We are reminded that it is still difficult to sell disease prevention and health promotion because it does not have an instant payoff and requires the ability to look to the future.

We are reminded that we still have hundreds of thousands of unwanted pregnancies, and lack the full utilization of family planning services by all who need them.

We are reminded that the tobacco interests still show a blatant disregard for the health of the user as well as the user's children, spouses and co-workers, and that the utilization of tobacco constitutes both slow suicide and slow homicide.

We are reminded that in the real world, powerful interests are still destroying our fragile ecology under the guise of something called "progress", and that to many our environment is viewed as a dumping ground rather than a treasure called "America The Beautiful."

We are reminded that preventable home, industrial and highway accidents are still a leading cause of death throughout the nation.

We are reminded that, contrary to the expressed opinion of one of our Presidential candidates (Ronald Reagan), 80 percent of pollution is not caused by plants and trees.

We are reminded of the thousands of toxic chemicals adversely affecting the health of our citizens, and the thousands of identified and unidentified hazardous waste dumps affecting the health and well-being of this and future generations.

We are reminded that some public health fiefdoms, professional groups and narrowly oriented constituencies number among the enemies of public health by resisting necessary changes in priorities and programs.

We are reminded that it not primarily citizen opinion but corporate will causing a backlash against health and safety measures and regulations.

Let us remember that APHA is not "them" — it is "us" — each and every one of us.

With our collective efforts toward the goal of improved public health, progress will be made during the coming year. The enemies of health and a quality environment — the polluters, the fast-buck artists, the tobacco and drug peddlers, never let up — and we must not let up!

D. The Ronald Reagan Administration

At the October 23, 1981 meeting of the New Mexico Hospital Association, I stated that:

On the familiar scale of one to ten, the score of one is a generous measure of the Reagan's Administration interest in and support for personal and environmental health.

Some of President Reagan's key health appointees have been incredibly unqualified. Seven of the top eight people in the Environmental Protection Agency are former adversaries of environmental programs. In their current roles in EPA, they are aiding in the Administration's attempt to gut the Clean Air Act, the Clean Water Act, the Hazardous Waste Act and other similar measures which protect the health of Americans. The only key exception in the EPA is the Deputy Administrator, Dr. John Hernandez, formerly with New Mexico State University.

We in the APHA have managed to hold up the appointment of Dr. C. Everett Koop as Surgeon General for some 10 months now. It is probable that he will be confirmed in the near future. He has been labeled "uniquely unqualified" by professional health workers. He is the first Surgeon General who did not have a background rich in public health as differed from clinical medicine.

The Detroit Free Press notes that he is a person of "strong views and weak qualifications, so far as public health issues are concerned. He thinks Planned Parenthood is to blame for teen-age sex."

The Louisville Times editorializes that, "Koop's views should stop appointment as Surgeon General."

The Los Angeles Times editorializes that, "Koop, on the other hand, lacks the qualifications to fit the job."

The Washington Star editorial is headed, "The Wrong Job for Dr. Koop."

And another Los Angeles Times editorial is simply captioned, "Koop: Bad Medicine."

The Miami Herald suggests, "Doctor Koop to Surgery, Please."

The New York Time editorial concerning Dr. Koop is captioned: "Doctor Unqualified."

Dr Koop's home-town newspaper, The Philadelphia Inquirer, suggests that, "Senate should reject Koop."

And the St. Louis Post-Dispatch says, "Bad Choice for Surgeon General."

Despite the out-pouring of righteous indignation concerning a person so unqualified for the position, he will probably be confirmed. However, we recall that when Wally Hickel was first nominated for Secretary of the Interior, he had a poor record and poor qualifications concerning conservation issues. He was the subject of so much criticism during the confirmation process that he became sensitized, learned, and became a better Secretary of the Interior than he would have been without the learning experience. We hope Dr. Koop is also learning.

And Dr. Koop did learn. The 10 months of sensitization worked to distinct advantage of the health of Americans!

At one point during the drawn-out confirmation process, Dr. Koop called William McBeath, M.D., M.P.H., Executive Director, American Public Health Association. Dr. McBeath told me the conversation was substantially as follows:

Koop: Dr. McBeath, is the American Public Health Association really opposing me due to the issue of qualifications, or is it because of my stand on abortion?

McBeath: Dr. Koop, throughout my career in public health, private practitioners have approached me noting that they wish to retire from the private practice of medicine and would like to become public health officers. As a public health physician, this has been a professional insult to me. Now you wish to leave private practice and become the nation's Chief Health Officer. This constitutes a double professional insult!

Federal law required that the Surgeon General be a USPHS Commissioned Officer. The fact that Koop was not a Commissioned Officer required that the law be amended, and that the amendment also address the fact that Koop was too old to be appointed to the USPHS Commissioned Corps. These statutory changes obviously required action by both the House and the Senate, plus the usual process of confirmation by the Senate.

As we all know, Koop was confirmed by a narrow margin, and went on to become one of the more outstanding USPHS Surgeon Generals of all time.

The sensitization time and process worked to the advantage of the health of the public. Dr. Koop absorbed many of the principles of public health. But it was a long way from being a world class pediatric surgeon to becoming a professional in public health. Medicine is not public health.

In 1988, the American Public Health Association recognized Dr. Koop's achievements by awarding him the APHA Award of Excellence.

E. Ronald Reagan's EPA

During the early Ronald Reagan years, the unqualified Administrator of EPA admitted to problems of mismanagement and poor morale, while adopting a "white knuckles" approach to running this important agency responsible for clean air, clean water, solid waste management, hazardous waste management, sewerage construction and other environmental health and protection programs. EPA was described by Senator Robert Stafford, Chair of the Senate Environment and Public Works Committee, as "an agency in agony, with its senior officials under siege." Senator Stafford contended that the EPA's proposed 30 percent budget cuts "could amount to de facto repeal of some environmental laws."

There was truly a wrecking crew at work!

During the campaign, Ronald Reagan was quoted as saying, "The battle for clean air has been substantially won", on the same day he had trouble landing in Los Angeles because of a serious smog problem. He received considerable press notice over his utterance that 80 percent of pollution comes from plants and trees.

With that type of environmental health and protection support coming from the White House, those valuing a breath of fresh air had their jobs cut out for them!

F. The EPA in Transition

As President of the American Public Health Association, I wrote the following to President Reagan's EPA Transition Team in the fall of 1980. The letter was also published as an editorial in the Journal of Public Health Policy in June 1981.

All of the programs of the EPA as well as all of the programs of the Occupational Safety and Health Administration are, in fact, health programs. All have health goals and, at a minimum, must protect the health of our citizens. The American Public Health Association supported the creation of the EPA during President Nixon's tenure, and I was privileged at that time to represent the Association and provide testimony before the President's Committee on Executive Reorganization. We have continued to support the EPA and its various public health programs and have worked hard to insure adoption of a wide range of statutes designed to protect the environment and the health of our citizens within that environment. The APHA, through various policy statements and subsequent actions, has supported such measures throughout its 108-year history and will continue to in the future.

It has been understandable and expected that powerful interests affected by the actions of EPA, mandated by the American citizens through the United States Congress, would attempt to create a backlash and turn public opinion against these essential public health measures. Such efforts have not been successful. National opinion polls have continued to indicate that the majority of American citizens continue to support environmental protection efforts even they know that there is some cost connected with such measures. The costs, however, have also been blown out of proportion by affected polluting interests. The studies have indicated that the effect on the economy and on inflation has actually been insignificant, while at the same time environmental protection measures have also created new jobs, new industries, and in many cases, substantial new tax revenues for state and local governments.

At the local level, voters throughout the United States went to the polls on November 4th and overwhelmingly indicated their desire for bond issues to provide new environmental protection facilities (primarily water pollution and waste facilities). Certainly, as evidenced by polls and votes, the majority of the American public continues to favor and understand the necessity of environmental protection measures for this and future generations. There has been no indication that, aside from the corporate will of large polluting interests, the American public will stand for turning back the clock and repealing the existing environmental protection measures designed to protect the health of all of us.

We recommend that key appointees in the EPA in the future be appropriately trained environmental scientists, well versed in the basic health sciences of epidemiology and biostatistics. Many of the key EPA personnel in the past have not had such knowledge

and experience, and this has been indicated by some of the actions and attitudes of the EPA. Health-effects research regarding environmental contaminants and pollutants needs to be re-examined, re-directed, and improved.

The record of EPA since its original authorization and creation has been dismal with regard to its relationships with its counterpart state and local environmental health and environmental protection agencies. Key personnel of the EPA have been inaccessible to such state agency leaders, and in many cases have evidenced the attitude of working "on" the states rather than working "with" state and local governments in pursuit of their mutual goals and desires to enhance the environment and protect human health. Certainly, more input, coordination, and cooperation are necessary in this area, and would seem to be in line with the policy which President Reagan has enunciated.

Additionally, the APHA knows that the battle for clean air, clean water and good solid waste management has not been won, but a few essential protective measures are in place. We are vitally concerned that the Clean Air Act not be weakened when reviewed by Congress this year. We are specifically concerned that there be no weakening of the "no significant deterioration" provisions of the Clean Air Act.

G. The Awful Truth About Our Earth

The foregoing title is that of my February, 1981 President's column published in The Nation's Health.

My father was an early day conservationist with the U.S. Forest Service, and later, the U.S. Soil Conservation Service. While still in grade school, I had absorbed many of his teachings and had developed a working philosophy about the concept of 'carrying capacity'. I would walk with him as he pointed out different range plant species, note their 'palatability ratings', and mentally convert these into a statement of 'X' head of cattle, or 'Y' head of sheep for a given area.

Therefore, I always knew that every animal species, including the human animal, must live in harmony with its environment and the resources available if it was to survive and prosper on a long-term basis. Later, I learned about the concept of 'home range', or the desirable space needed by every individual animal if it is not to inflict some type of violence on other members of its species.

About a decade back, the old Life Magazine carried an editorial concerning over-population titled, "Won't Anybody Hear the Awful Truth?" Well, the awful truth still isn't being heard. Political leaders continue to cry for more growth while making futile attempts to solve problems created by or related to over-population. The problems include the energy crisis, pollution, housing, crime, hunger, crowding, deforestation, overgrazing, unemployment, endangered species, restrictions on individual freedom and health threats.

Over-population must be viewed as the number one social, economic, health and environmental problem facing this Nation and the World (emphasis added). Too many political leaders continue to confuse progress with growth. Progress is simply change toward an established goal and does not imply growth.

A few years ago I copied someone's remarks about 'popullution' as resulting from two selfish drives:

- 1) Exploitation of the blessings of the Earth in the name of something called progress, and,*
- 2) Abuse of the sex drive, which was designed to perpetuate the species rather than destroy it.*

Similar to the principles of the Malthusian Theory, too many members of the human species are already being destroyed by violence in over-populated areas in the same manner as suggested by laboratory research using other animals. The target group in both cases is primarily young, healthy males in their reproductive years.

Biologically, we know that population will ultimately be controlled by some stress such as war, famine, pestilence, pollution or congestion if not by rational behavior. People must curb population growth, not for whimsical aesthetic reasons, but for the very self-serving reason that we must protect our environment because it literally gives us life. The Earth and its resources are finite. Carrying capacity is not only related to space available, but more importantly to resources available. People flying over 'empty' areas of the nation and world may be tempted to think of this as potential expansion space for the human animal while forgetting that water, food, energy, and other resources may be limiting factors.

In the mid-1800s, Alexis de Toqueville wrote, "They (Americans) may finally become so engrossed in a cowardly love of immediate pleasure that their interest in their own future and that of their descendants may vanish and they will prefer tamely to follow the course of their destiny rather than make a sudden energetic effort necessary to set things right."

Such an 'energetic effort' regarding over-population and carrying capacity should be considered the number one priority for all health and environmental personnel (emphasis added). It should be an integral component of many health and environmental programs as well as a basic and required emphasis for all planning bodies such as Health Systems Agencies, State Health Planning and Development Agencies, Statewide Health Coordinating Councils and Councils on Environmental Quality."

H. A National, Rational Energy Policy

My APHA President's Column of March, 1981 dealt with the need for a national energy policy (which was still lacking and needed in 1992).

The American public and their political leaders have finally become acutely and painfully aware that the burgeoning appetite for energy is taking an unreasonable toll of the economic pie and is creating unacceptable health and environmental problems. The problem is world-wide and the underlying predisposing issues include a rapidly expanding population and gluttony of energy from non-renewable sources. The U.S. Government has failed to place priorities and make the necessary commitment to develop renewable energy sources which ultimately must be developed if our technology, civilization and standard of living are to survive. The majority of our political leaders still seem to be insufficiently informed and motivated to act against interests which continue us on the ultimately self-defeating course of relying on non-renewable energy sources. The official agency charged with the responsibility of providing expertise and leadership in energy matters (the Department of Energy), has changed its course little, if any, from the course of its predecessor agency, the Atomic Energy Commission.

Federal proposals for energy development have continued to recommend larger and larger support for energy development from such short-term and non-renewable sources as synfuels and nuclear fission. Citizens and political leaders continue to recognize renewable energy resources as the best and ultimate, but the political reaction has been rhetoric rather than funding and action.

Solutions to the energy crisis must take due notice of the underlying issues of over-population, non-renewable energy resources and the lack of a realistic conservation ethic.

The United States has no comprehensive energy policy or rational leadership in energy matters. There exists a patchwork of bumbling plans and confusion, largely designed to appease powerful interests.

Recommendations and decisions are being made largely by those technocrats representing such powerful interests. The technocrats have understandable but inappropriate biases and conflicts of interests, and are not pursuing a mission of serving the public welfare.

Conservation of energy offers an immediate and effective methodology for significantly reducing energy consumption. There is no tight or predetermined correlation between energy use and economic vitality, and a healthy economy can be maintained with greatly reduced reliance on energy. Conservation through technical improvement, meticulous engineering and personal sacrifice, could result in zero energy demand growth beyond

1985. For example, automobiles can travel twice or three times as far on a gallon of gas, and such improvements are already being made. Other technological changes are involving computers, advances in steel and aluminum processing equipment, fuel cells, heat pumps, etc. Changes in consumer behavior including such things as insulation, mass transit, decreased travel, decreased electric lighting and car-pooling are being increasingly utilized. Price incentives, tax incentives, regulatory controls, alteration of advertising, educational campaigns and changes in research and development emphasis offer conservation improvements which have barely been considered or addressed.

Solar resource systems could provide energy as solid fuels (wood); liquid fuels (from grain); gaseous fuels (methane from manure or plant residues); hydroelectric power; photovoltaic electricity; wind-generated electricity; and direct heat for homes, businesses, industries and institutions. The mix of solar resource systems could be varied and integrated for different climatic areas. Solar energy does not involve an economy of scale. Local solar systems reduce or eliminate transmission costs and losses, and solar systems are less likely to create unacceptable health and environmental problems.

It will take 25 to 50 years of transition to bridge the gap from the current non-renewable energy sources to renewable solar resource energy. Bridging energy during this period of time must be derived from a changing transitional mix of fossil fuels and fission until the required level of solar energy systems are functioning. The United States has recognized the need for solar systems for more than a decade, but has only responded for funding non-renewable systems at a disparate rate while essentially ignoring the long-term needs for renewable solar energy. Only recently (January, 1980), did the U.S. Government make a crash commitment to alcohol production, and this was the right decision for the wrong reasons (subsidizing the agricultural interests rather than rationally developing alcohol production).

The self-interest of the majority of our citizens and future generations would be best served by the solar resource alternative.

13. RETURN TO CAMELOT?

A. Leaving the Health and Environment Department

In 1982, former New Mexico Attorney General Toney Anaya was the victor in the Democratic Primary election for Governor, and it appeared that he would be the next Governor. As immediate Past President of the American Public Health Association, I was still deeply involved in my APHA commitments.

Toney Anaya invited me to lunch at the Inn at Loretto in Santa Fe to discuss the Health and Environment Department, and expressed an interest in appointing me as HED Secretary. We had an excellent and amiable discussion, but I left with some feeling of discomfort. I guess my crystal ball was working overtime.

About the same time, my old friend and former protege, Pat Kneafsey, advised me that he was "burned-out" and planned to retire from the position of Director, Albuquerque Environmental Health Department. With my ill-defined dis-ease about the forthcoming Toney Anaya administration, I decided it might be professionally healthier for me to be "re-potted" again. Harry Kinney was Mayor, and Frank Kleinhenz was Chief Administrative Officer for the City of Albuquerque.

B. The Kinney Administration

I made an appointment with Albuquerque Chief Administrative Officer Frank Kleinhenz, and requested that I be considered for another appointment as City Environmental Health Director. I had been absent from this position for 14 years. Frank appointed me effective August 10th, 1982. I had been commuting to Santa Fe since 1967, except for the three years as Director of the New Mexico Scientific Laboratory System in Albuquerque.

The Environmental Health Department had changed considerably during my 14 year absence. During the administration of Mayor David Rusk, Environmental Health had been merged as a group of divisions into the Services Department. This provided a strange mis-match of functions, personnel, missions and goals!

However, the Environmental Health Department had been "re-created" by the Kinney administration. The Department had a good budget, with reasonable flexibility in utilizing it. Both Frank Kleinhenz and Mayor Harry Kinney were very supportive.

Frank Kleinhenz was an administrator who liked to keep track of every detail in city government, and exercised this penchant through requiring that he review and sign almost every document or request. He was a "workaholic", easily accessible, and was the typical "one minute manager." He could be visited or contacted in his office from about 6:00 A.M. until 6:00 or 7:00 P.M. This was a new management style for me, but it worked and I enjoyed a good relationship with both Frank and Harry. I had my differences with both of them, but we were all able to isolate the differences and move ahead with other matters.

One of the most obvious and distressing changes that had taken place since 1968, was that of employee attitudes. When I had left the Environmental Health Department, the personnel were true goal-oriented professionals, eager to do their jobs and be recognized, and more concerned about delivery of effective services than worrying about the hours worked or their perceived "rights". By 1982, it seemed that many of the personnel wore their "rights" on their sleeves, knew the personnel rules and regulations by heart, and were ever-ready to call their attorneys at the drop of a hat. This made departmental management very frustrating.

I was able to recruit or reassign several key personnel who were particularly knowledgeable and helpful as we attempted to effectively manage the Department. Key among new personnel were:

Sarah B. Kotchian, who joined the Department as Administrative Assistant. Her managerial skills provided impetus for her to be promoted to a newly established position of Deputy Director. She subsequently earned the degree of Master of Public Health, and was appointed Department Director in 1986.

William C. Bennett (previously mentioned), who joined the Department in 1982 and was

appointed Manager for the Environmental Services Division. I had wanted this Division to assume major additional responsibilities in the areas of hazardous waste management and water issues. Bill quickly moved the Division along these lines.

Since I had left city government some twenty years earlier, the City Charter had been changed to provide for a Mayor-Council form of government rather than the previous Commission-Manager form of government. From my perspective, the new arrangement was much more expensive, less responsive, less effective and provided a built-in adversarial relationship between the council and the administration. And each Councilor seemed interested only in his/her own district, rather than the entire city.

C. More Albuquerque Accomplishments

We couldn't change the system of city government, but within the Environmental Health Department, we:

- Developed an **Executive Council** which met weekly.
- Mandated routine **weekly staff meetings** in every Division to promote two-way communication and input from personnel at all levels.
- Pursued meaningful **delegation of authority and responsibility** as far into the ranks as feasible, in order to enhance the delivery of services, insure rapid decisions in the field, and promote career development for all personnel.
- Scheduled periodic one-day **retreats** to provide the freedom and opportunity to discuss basic issues affecting the delivery of services to citizens.
- Developed additional services in **hazardous waste management, water quality, clean indoor air, and environmental health planning.**
- Developed in-house **program planning** based on problem identification and definition (defined in a new Program Guide), and developed effective input into City and County planning procedures.
- Required **quarterly reports** from each Division Manager to keep track of current accomplishments and problems faced by each Division.
- Transferred key personnel from several Divisions to the Administrative Division so that their efforts and **talents were used Department-wide** rather than in only one Division, with no increase in staff. These assignments included the Epidemiologist, Fiscal Analyst, Planning and Development Coordinator, and Staff and Community Development Coordinator.
- Delivered **additional services** without staff increases in **Animal Control, Air Pollution, and Environmental Services.**
- Encouraged **joint projects with various state and local agencies** in order to improve the delivery of services.
- Provided factual, **scientific information to the public and elected officials** regarding current and anticipated environmental health and protection problems, programs, and solutions, using all available mechanisms including public service announcements, utility bill inserts, newspaper inserts, shopping bag inserts, visual aids, Program Guides, and training of industry personnel.

- Attempted to have all personnel realize their **mission of serving our stockholders, the public.**
- Promoted the practice of public health **risk assessment** to better define, quantify, assess, prioritize, and utilize cost-benefit relationships.
- **Improved and expedited plan review procedures** to better coordinate with other departments and better serve architects, engineers, contractors and developers.
- **Evaluated programs** to enhance adherence to program objectives.
- Enhanced programmatic **quality control.**
- Developed a **Department Service Directory** to better serve our citizens.
- Developed a **Department Emergency Response Plan.**
- Increased **emphasis on environmental health planning** in order to prevent further environmental degradation in the metropolitan area.
- Recruited the **best scientific and professional staff** available.
- Developed organized **orientation for all new personnel.**
- Promoted involvement and **participation in** appropriate **trade, technical, and professional** groups as methods of career development, employee training in state-of-the-art technological advances, and influencing environmental policy.
- Insisted on **realistic affirmative action** throughout the Department.
- Developed continuing **training and education on a needs assessment basis** for all personnel through in-house training, as well as promoting attendance at city-wide training opportunities at TVI, UNM, and the University of Albuquerque.
- Held **Department updates** for interested personnel to become knowledgeable about activities and problems in other Divisions.
- Performed in such a manner that various personnel and Divisions continued to receive **local, state, and national recognition and awards.**
- Performed in such a manner that several **national journals and newsletters** made reference to the activities of the Department.

D. Hazardous Waste Testimony

In July 1983, EPA Administrator William Ruckelshaus and U.S. Senator Pete Domenici presided at a hearing of the U.S. Senate Committee on Environment and Public Works in Albuquerque to consider testimony regarding hazardous wastes. I testified, in part, as follows:

At first blush, it might appear that hazardous waste might not be a significant issue in a relatively unindustrialized area such as Albuquerque located in the arid southwestern United States. While it is true that we may not have the variety and volume of hazardous waste that are generated in heavy industry areas, we do have our own type of problem which has not yet been fully defined, and which represents only the tip of the iceberg in terms of the complete problem which will become evident in future years.

Our water resources in the valley area are shallow and easily polluted. Improper disposal of hazardous waste for the past 30 or more years is only now becoming better understood. Hazardous waste has been dumped on our mesas, in our arroyos, in vacant lots, along river banks and ditches, in landfills, in sewers, and in alleys for many years. Migration and leaching of such waste into the groundwater takes more time in this arid area than it would in other areas of the country. Therefore, the pollution impact on our water supplies will only become worse in the future. We have already determined the existence of such pollution in 2 City wells and in a number of private water supplies in the valley area.

Hazardous waste from larger generators will be better identified, defined, licensed and regulated under the Federal-State hazardous waste program. The majority of the unregulated hazardous wastes in this area may come from households and small businesses which are not yet subject to regulation. As yet, we have no regulatory system for the generation, storage, transportation, treatment and disposal of such wastes. Therefore, they are variously discarded into landfills and sewers, as well as strewn on our mesas and valley landscapes.

Enactment of the hazardous waste provisions of the federal Resource Conservation and Recovery Act precipitated a major problem, in that it failed to provide for the essential role of local governments in the management of hazardous wastes. Effective hazardous waste management must rely on a coordinated partnership involving federal, state and local governments, as well as generators, transporters, and disposal facility operators, and various citizen groups. It is only reasonable to conclude that local government officials will be the first to know of hazardous waste incidents, will be the first on the scene, will be the first to be contacted for reliable information, and will be expected to insure clean-up following a spill.

In the Albuquerque area, we are designing a hazardous waste management program to enhance and complement the Federal-State program. However, such a program is not

envisioned or encouraged through the Federal-State program, nor does it receive planning and implementation funding....

A public and official attitude has developed throughout our nation, that storage and transfer, transportation and treatment and disposal of hazardous waste should be handled by the private sector. This is appropriate when the private sector is able and willing to effectively handle the task. In an area such as this, private sector involvement has thus far failed to materialize. It is interesting to note that society has long accepted the fact that solid waste management can be handled by local government, liquid waste management can be handled by local government, and air quality management through mass transit can be handled by local government. But paradoxically, hazardous waste management facilities are not viewed in the same light...

We encourage EPA to take a preventive approach through regulation, consultation, research, demonstration and funding to ensure development of waste exchange, recycling, resource recovery and changes in processing to eliminate hazardous end products as superior alternatives to "secure landfill disposal."

Senator Domenici, Mr. Rucklehaus: In closing I wish to emphasize the need for a partnership with local government if hazardous waste programs are to effectively protect our precious environment and the health of the public.

E. Other Professional Opportunities

During this second opportunity as Albuquerque Environmental Health Director, I had other responsibilities as follows:

Congressional Office of Technology Assessment Advisory Panel on Water Related Technologies for Sustaining Agriculture in U.S. Arid and Semi-Arid Lands

National Research Council Subcommittee on Public Health

Adjunct Instructor, University of New Mexico Public Administration Division

Consultant, University of New Mexico Health Services Administration Advisory Group

President's Council, National Audobon Society

Public Health Leader for a group of public health professional which toured several areas of the Soviet Union to study USSR health and environment conditions

And I was the proud recipient of the national Davis Calvin Wagner Sanitarians Award for Excellence in 1984.

F. The USSR, Land of No Problems

In 1986, I was invited by Professional Seminar Consultants, Inc. to be the Public Health Leader of a team of health and environmental professionals to tour several diverse areas of the Soviet Union in order to study health and environmental conditions and programs. The two-week tour took us through many time zones to Moscow and Leningrad, as well as Samarkand, Bukhara and Tashkent in south central Asia.

The communists were still firmly in power, and attitudes were much different from that of subsequent years. All the Soviets we contacted were friendly, but defensive and guarded. Soviets health and environmental officials had positive answers for everything, and acknowledged only minor problems.

Soviet "sanitary doctors" stated that average life spans were 78 for women and 76 for men, whereas demographic literature indicated the average life span for men had decreased from 68 in 1972 to 62 due primarily to excessive consumption of alcohol and the widespread use of tobacco. By 1994 it had decreased to 57.

The sanitary doctors denied the existence of food-borne illnesses, despite the shortage of refrigeration, and the open display of perishable foods by street vendors and open markets. They denied the existence of cross-connections, with one official admitting he "*saw one once.*" They stated that the problem of Giardia in the Leningrad water supply was only an "*international rumor*", but the same epidemiologist admitted he drank only bottled mineral water (termed the "mee-ner-all"). They alleged that there were full-time sanitary doctors in all major hotels to insure the safety of food and water, but all hotels used the "mee-ner-all" in their restaurants and rooms.

We visited one of the largest of the 33 "polyclinics" in Moscow. The building was old, and in poor condition by U.S. standards. To me, the equipment looked like that of a facility in the United States circa 1935. Physicians at this polyclinic acknowledged high rates of lung cancer and cardiovascular disease due to alcoholism and tobacco use in epidemic proportions.

Soviet environmental officials denied the existence of water pollution. Hazardous chemicals were not a problem because they were placed in natural clay lined pits. Air pollution was not a problem, as they said polluting industries had been moved to the country, and the "road militia" routinely stopped vehicles to check for emissions control. I asked about acid rain, and the answer was "*sometimes from Europe.*"

I inquired about the safety of their nuclear reactors, and they answered that "*our experts say they are perfectly safe.*" I received this reassurance the day before the Chernobyl nuclear incident. But we didn't hear of the Chernobyl incident until we returned to the United States several days later!

Numerous vending machines were in evidence along streets. The machines were popular, and dispensed a mild carbonated beverage. There was one drinking container for each machine. Individuals would drink from the "common cup", and rinse it over a spray. I asked if the washing liquid contained any sanitizer, and was advised that it was recirculated water.

I inquired about sexually transmitted diseases and AIDS. The answer was "no", but *"sometimes the foreigners",*--- with an added *"so you see its perfectly safe."*

In the larger cities, most Soviets lived in overcrowded, drab, look-alike, five to nine story apartment buildings which extended for miles. I might have also been an alcoholic if I had to live under such conditions!

In 1986, the Soviets didn't have any major health or environmental problems. And we were relieved to return to the United States which had many serious problems.

G. The Schultz Administration

In November, 1985 Ken Schultz was elected Mayor, thus casting a pall over honesty, professionalism and ethics in city government. I was re-appointed as Environmental Health Director, but I never understood why.

Schultz rapidly removed many key professionals in city government, brought in his own band of incompetents, and developed another layer of incompetent managers in the Mayor's Office. A number of city personnel had been involved in Schultz's election, and this didn't help matters any. It was a time to protect your backside, a time of suspicion, and a time of political sleaze.

One example: Chief Administrative Officer Gene Romo would call a department director into his office, give inappropriate instructions, and end with the statement that, *"This conversation never took place!"*

What a hell of a way to run a railroad!

And another reason the public frequently has little respect for public servants.

H. Regulator or Professional?

Many environmental health and protection personnel are actually merely regulators having little knowledge of the science, or lack thereof, behind the requirements imposed on the public and the private sector. Requirements imposed by EPA and the Congress have usually been significantly politicized during the legislative or regulatory process, so that huge sums are spent by the public and private sectors to "solve" problems which are either insignificant, non-existent, or of a very low priority.

Dr. Elizabeth Whelan, President of the American Council on Science and Health, has stated that, "*Americans run around squishing ants while the public health elephants run wild.*"

Hysteria, effectively created by self-serving extremists cloaked with the guise of public interest, creates public perception which becomes converted into political action, public policy, and huge expenditures. This not only wastes finite public and private resources, but has the effect of precluding funding to prevent or solve many of the real environmental health and protection issues facing our nation and the world.

The news media feed the public an abundance of misinformation and a shortage of critical inquiry behind many of the "catastrophe-of-the-week" issues. The media usually allow more space and credence to some misinformed or uninformed activists than accorded competent scientists.

Hysteria has been responsible for major expenditures and efforts dealing with low priority or insignificant environmental health and protection risks such as alar on apples, asbestos removal, radon and the Waste Isolation Pilot Project in New Mexico.

Most americans, including some environmental personnel, exhibit a love of catastrophe. Many activists are applauded for, and some even profit from, false predictions disease and environmental calamity. Those promoting such hysteria accept no responsibility for their false statements and predictions.

Additionally, a program becomes impossible to stop once a bureaucracy or an industry is developed to promote or profit from the program. Such a program in motion tends to remain in motion unless impeded by an equal and opposite force. But such an equal and opposite force is almost impossible to develop against the combined forces of the media and the activists. When evidence is presented that contradicts preconceived opinions, most people are quick to dismiss the evidence as erroneous or biased.

If all the catastrophe-of-the-week issues were scientifically factual, we would have many times the current morbidity and mortality rates.

It takes courage and the knowledge that you may lose to take on one of the environmental

"sacred cow" programs. I succeeded on a few, but lost miserably on the issue of the federal mandated carbon monoxide standard, and the federally mandate for an inspection and maintenance program in Albuquerque and Bernalillo County.

However, it was always my belief that funding and efforts should be accorded those programs which were based on good epidemiology and risk assessment, and that it is the responsibility of environmental health and protection professionals to conduct critical scientific inquiry, and make recommendations to elected officials and the public, win or lose!

Based on results of air analyses in 1977, the Mid Rio Grande Council of Governments recommended that all of Bernalillo County be designated as a federal non-attainment area due to exceedances of the federal 9 ppm ambient sliding eight hour air standard for carbon monoxide (CO). CO is only one aspect of a community air pollution problem. CO is colorless and odorless. In sufficient concentrations, it is well established that CO causes illness or even death. The crux of the question regarding CO is the time and concentration of exposure.

The issue of CO problem definition and control was among the more controversial, least understood, and most expensive control issues I faced in my 38 years as an environmental health professional. Opinion regarding the CO problem, or lack of problem, became polarized. "Doom and gloom" statements became more acceptable and quotable than dealing with the science behind the EPA 9 ppm standard, and the temporal and geographic distribution of CO in Bernalillo County and environs. Federal law required the implementation of a vehicle emissions control program based on the infrequent and low level exceedances of the standard.

Neither the media nor most political leaders were willing to deal with the fact that CO levels had been decreasing nationally as well as locally, whether or not vehicle emissions control programs had been implemented. Nationally, there had been a 30 percent decrease in community CO levels due to new vehicle technology. This fact had been admitted to by EPA, as well as being reported in a January 16, 1985 report of the United States Comptroller General. Albuquerque air pollution control officials reported the same trend locally.

People's beliefs change slowly and are amazingly persistent even in the face of contrary scientific evidence. Once formed, initial impressions tend to structure the way evidence is interpreted. New evidence appears reliable only if it is consistent with one's initial beliefs. Contrary evidence is dismissed as unreliable.

After years of supporting and promoting a vehicle emissions control program, I finally conducted a review of the scientific literature rather than the EPA gospel, and developed contrary evidence for Albuquerque-Bernalillo County. The scientific findings flew in the face of conventional wisdom.

Albuquerque air pollution control officials had estimated that, on an annualized basis, some 95% of CO was emitted by vehicles. However, during cold winter evenings when we were

most apt to have meteorological inversions and atmospheric stagnations, and when the exceedances occurred, as much as 30% of CO was derived from wood burning. This issue of time and source of CO should have been the key factor in designing and implementing a control program. Most of the year, air quality in Albuquerque was significantly below the federal standard. Typically, CO levels were 1-2 ppm for most of the year.

Then there was the issue of the scientific accuracy of the 9 ppm standard itself. Most of the data used to establish the CO standards were based on studies by Aranow, and his studies had been discredited and no longer used by EPA. EPA had several ongoing studies to help "determine whether the standards need to be adjusted." EPA's Clean Air Advisory Committee had already indicated that the standard could be raised to 12 ppm, but the EPA Administrator had indicated that it would "be disruptive to ongoing programs."

The American Thoracic Society Report on the Health Effects of Air Pollution noted that, based on the discredited Aranow studies, the first effects of decreased exercise capacity in patients with angina pectoris do not occur until the 8-hour CO average reached a level somewhere between 15 and 18 ppm. Further, based on the Aranow studies, there was earlier onset of leg pain in exercising subjects with peripheral arteriosclerosis at levels beyond an 8-hour average of 18 ppm. Other studies had noted impairment of vigilance in tasks in experimental subjects commencing at 8-hour levels somewhere between 18 and 45 ppm.

The results of EPA's then ongoing studies did not replicate or confirm the discredited Aranow studies. But the standard remained the same. A standard in motion tends to remain in motion in a straight line unless impeded by an equal and opposite force.

In Albuquerque, exceedances of the 9 ppm 8-hour average occurred 1) very infrequently and, 2) almost solely in the high traffic density area of the northeast heights shopping center district for a very few hours per year in late evening or early morning hours. Very few people with angina are out exercising vigorously during these hours on cold winter evenings! Most people are encased in their cocoons (homes) at such hours.

Most of the exceedances were occurring at the high traffic intersection of San Mateo and Menaul NE where the sampling station was not located to measure neighborhood or urban exposure, but rather to measure maximum intersection concentrations. The sampling station was a "microscale station", which the EPA guidelines stated, "defines the concentrations in air volumes associated with area dimensions ranging from several meters up to about 100 meters." My staff advised me that EPA modeling indicated the San Mateo-Menaul microscale sampling station had an "area of influence" of 9 homes. Hardly a neighborhood sampling or a community problem on which an expensive county wide regulatory program should be based!

It was also noted that no city in the nation having a vehicle emissions control program had ever achieved the EPA requirement.

EPA modeling performed by the City air pollution control staff indicated that, due to new vehicle technology, the community CO levels would continue decreasing until about 1992, at which time growth would begin to offset the improvements due to new vehicle technology.

I noted that an emissions control program would be inordinately expensive, and ranked much lower in public health importance than other community environmental health issues, including clean indoor air, the potential of hazardous wastes leaching into our precious ground water supplies, the "brown cloud" component of air pollution, septic tank contamination of ground water, protecting the public food supply, control of vicious and diseased animals, noise pollution control, preventing swimming pool induced infections and accidents, insect and rodent control, noise pollution control, and plague surveillance and control.

I recommended that the city resist the EPA mandate and litigate the matter in federal court on the basis of the inappropriate standard, improper sampling, and serious questions regarding the efficacy of vehicle emissions control programs.

But this particular attempt at scientific leadership, rather than robotically following an ill-conceived mandate was not popular with our elected officials or the media.

I noted that programs and solutions should be based on accurate problem identification, risk assessment and cost-benefit evaluation.

The emissions control program was implemented at a cost to the city and vehicle owners of upwards of 10 million dollars annually. I never thought it did much good.

However, what did more to improve CO levels was the implementation of "no-burn" nights and requirement for oxygenated fuels during winter months. These measures continued to be effective, and were targeted at the time and source of the problem!

Most environmental health and protection personnel tend to be regulators rather than scientists and professionals. And their jobs are much easier and less controversial for it.

But no one ever said there was anything rational about the political process and the development of public policy.

14. THE ANAYA ADMINISTRATION

Shortly after returning to Albuquerque, former Attorney General Toney Anaya was elected Governor. A member of his transition staff called and asked me to be interviewed for Secretary for Health and Environment. With considerable misgivings, I met with the Governor elect. It may have been window dressing on his part, but I had several questions. I inquired if I would be allowed to choose my own staff. His answer was negative. I asked if I could remain active in national environmental and public health policy affairs. The answer was no. I asked if I could honor a commitment I had made to teach a course in health services administration at the University of New Mexico for the spring semester. The answer was no. Toney asked me what I thought about affirmative action. I told him I believed in it, supported it, practiced it, and that it meant choosing a woman or minority, other qualifications being equal. He disagreed, saying it meant choosing the woman or minority anyway to make up for generations of discrimination and neglect.

I didn't select Toney Anaya to work for, and he didn't select me as HED Secretary!

And it was a fortunate disagreement for me, as I wouldn't have survived anyway. During the Anaya administration, the HED was a revolving door for eight Secretaries, four EID Directors, three Public Health Division Directors, and so many Directors of the Health Planning and Behavioral Health Services Divisions that everyone lost count! The Department was in constant turmoil. The Governor's office also got involved in personnel matters at all levels of the Department, not just in the "exempt" positions.

Fitzhugh Mullen was one of Anaya's HED Secretaries. He seemed to be doing well, and had developed good relationships with the media, legislators, and community programs. He was summarily fired without warning. Fitz called me the next day and asked what I thought went wrong. I responded that he was doing such a good job that the Governor couldn't stand his excellent reputation. Fitz was a USPHS Officer on loan to the State. He was re-assigned and later transferred to the Office of the Surgeon General where he wrote Plagues and Politics: The Story of the United States Public Health Service. In 1992, Fitz is an Assistant Surgeon General assigned as Administrator of the USPHS Bureau of Health Professions.

15. RETURN TO THE HEALTH AND ENVIRONMENT DEPARTMENT

A. Appointment as Cabinet Secretary

Republican Garrey Carruthers won the gubernatorial election in November, 1987. I had never met him. Carruthers had been a Professor of Agricultural Economics at New Mexico State University. Highly regarded and influential Maralyn Budke, former Staff Director of the Legislative Finance Committee, had contacted Carruthers offering to be of "some help." Maralyn agreed to be Governor Carruthers' Chief of Staff, but she would accept only \$1.00 per year! Maralyn Budke probably knew more about New Mexico state government than anyone else, knew more people, and was very influential in a quiet, behind the scenes manner. She had a continuing positive impact on the Carruthers administration.

Maralyn called me shortly after the election to inquire if I would chair the Transition Team for the Health and Environment Department. I was understandably eager to do this. A few days later she called to inquire if I would like a "real challenge", and be Cabinet Secretary for Health and Environment. (Maralyn told me that Thomas E. Baca had been offered the position, but indicated that he preferred to remain as Santa Fe City Manager.) At first, I was reluctant. The salary was about the same, and I would be back to the grind of a two-hour commute to and from Santa Fe. But then I thought about the sleaze atmosphere at City Hall, working for a layer of incompetents, and the desirability of attaining the top position in health and environmental affairs in the state prior to my retirement.

I called Maralyn and agreed to a meeting with Governor elect Carruthers. Garrey Carruthers had only two questions: Was I a "walk-around" manager? And had I ever been active in politics? After responding "yes" to the first question, and "no" to the second, I was appointed HED Secretary Designate.

The New Mexico Health and Environment Department had some 3,500 employees, scores of contractual arrangements, an annual budget of some \$170,000,000 plus large major capital budgets for environmental facilities and health facilities construction. Programs included environmental programs as previously listed in Section 7, H.; community developmental disabilities; community mental health; substance abuse; adult health; dental health; the federal Women, Infants and Children nutrition program; health facilities licensing and certification; maternal and child health; administering two rehabilitation centers; nutrition; health promotion; primary care and emergency medical services; injury prevention; the state scientific laboratory; several health care centers; alcoholism treatment centers; developmental disabilities hospitals and training schools; the state mental hospital; epidemiology; and health policy and planning; and the usual support offices such as legal, budgeting, purchasing, fiscal, public information, personnel and internal audit.

My confirmation by the Senate did not go smoothly. Shortly before leaving Albuquerque, I had become embroiled in a pollution issue in the sawmill area of the valley. The city had

authority regarding the air pollution problem, and the state had authority regarding the water pollution problem. The neighborhood group did not wish to be bothered with such trivia. Since I hadn't responded to the water pollution problem while I was in Albuquerque, the neighborhood group requested that I resign as Secretary. Obviously I wasn't about to resign, and observed that *"perhaps they had been eating Loco Weed."* I intended for this to inject some humor into the situation. (I later read that *"Locoweed symptoms include running in circles, walking aimlessly, acting agitated or irritated, and charging."* I really wasn't too far off the mark!). The group chose to view my humorous statement as racist, and this led to six Senators voting against my confirmation.

In fact, The Senate Rules Committee Chair did not promptly schedule a hearing on my confirmation due to the pressures of the Albuquerque activist group displeased over my loco weed utterance. One of the leaders of the activist group had also been a leader in the University of New Mexico campus riots during the Vietnam war. I decided to act on a story I had once heard about powerful State Senator Eddie Lopez, a former New Mexico state police officer. According to the story, Eddie had once been asked to name his favorite movie. He had responded that it was the film clip of the New Mexico National Guard, bayonets fixed, clearing the UNM campus during the riot. I walked over to the Senate and requested that Senator Lopez be called from the Senate floor. When he appeared, I said, *"Eddie, I just need thirty seconds. I just want you to know that one of the leaders of the UNM riot is also opposing my confirmation."* Eddie did not say a word. He turned and re-entered the Senate floor.

My confirmation hearing was scheduled the next day!

B. Guidance for HED Personnel

On January 1, 1987 I wrote the following for all 3,500 HED employees.

I am most pleased to accept Governor Garrey Carruthers' invitation to join his administration and cabinet as Secretary for Health and Environment. HED is a vital, essential department with a proud history of accomplishment and dedicated staff. As the largest department of state government, it has some problems which sometimes overshadow the fact that most of the department is working effectively in delivering essential services to our stockholders (citizens) in accordance with the policies of our executive board (legislature) and the chief executive officer (Governor). The excellent professionals in HED have continued to provide quality services despite top-level changes in Santa Fe. It is heartening to observe that many of the key professionals throughout the State are the same ones who were with us when I left State government four-and- a-half years ago.

I know you will join me in my commitment to pursue excellence throughout our department.

We will insure stability within the department's professional ranks by:

- recruiting and retaining the best,*
- inviting staff involvement and input,*
- delegating as far into the ranks as feasible, and*
- promoting mutual trust and good communication within the department, as well as with our citizens.*

We intend to:

- provide rapid problem-solving,*
- improve organizational efficiency,*
- insure necessary training and career development, and*
- promote initiatives to improve services.*

We expect each of you to:

- be responsive, and*

· maintain a high level of commitment to our mission of providing the best possible services to our citizens.

It is vital that we all understand the political process and work with those elected officials charged with developing or improving policies which govern our activities.

I urge you to keep your staff members informed and involved, and improve your involvement in your own community.

· I request that routine staff meetings be scheduled and held at all levels of management throughout the State.

· We wish to allow our staff to constructively question our programs and policies.

· Please recognize outstanding performance by word and deed.

· Please be supportive of your staff and show your interest through regular, informal visits to your various offices and facilities.

· Involve your personnel in developing policy and major decisions.

· Operate openly, not secretly.

· Provide personal growth and stimulation.

As a team, we will be:

· defining and quantifying the problems in public health, environmental health, and health care throughout the State,

· developing objectives specific to these problems, and

· creating program guides or "blueprints for action" for each Division of this Department.

We wish to promote:

· open relationships with the news media, and

· positive public information throughout the Department at all levels.

We urge you to act and dress in a professional manner.

I am keenly aware that the pursuit of excellence in our Department is not a matter of punching a magic button, and that there are no overnight solutions or "quick fixes." Each of you must know more about your job and responsibilities than your supervisors, or we have an organizational failure.

I am sure the public will recognize our efforts, and that HED will again be known as the most professional agency in State government.

C. The Carruthers Administration

I immediately reduced the Departmental bureaucracy by abolishing the number of "exempt" departmental positions, most of which were attached to the "rarified" level of the Office of the Secretary. All exempt appointments, except two, were purely on the basis of professional qualifications without regard for party affiliation. After all exempt appointees were in place, I realized that I had appointed more Democrats than Republicans — in a Republican administration. I had also appointed more women than men. The two exceptions were the Deputy Secretary, and a Deputy Director Of EID, who were "suggested" by the Governor. But not bad, out of some 3,500 employees. And no others were suggested by the Governor during my tenure.

Garrey Carruthers believed in good management, good communication and team-work. He started having cabinet "retreats" while still Governor elect. He announced that *"Being on time for weekly cabinet meetings is a career decision."* He was knowledgeable and supportive. On a routine basis, he had his cabinet accompany him to community meetings all over the state. He attempted to instigate "merit" raises for all State employees, but it never did work, and probably never will. He attempted management-by-objectives, but I'm not sure it did much beyond forcing departments to think through their responsibilities on an organized planning basis. But even that much was worthwhile.

I think Carruthers became more moderate as he experienced the problems of governing the state. But we had some ideological differences. I finally told Maralyn Budke that I was significantly out-of-step with the Governor on many issues such as tobacco use, requiring motorcycle helmets and seat belts, etc. Her response was that *"the Governor is very trainable."* I scheduled a lengthy meeting with the Governor at the Residence, and we had in-depth discussions of most of the issues concerning me. These issues also included the primacy of prevention, rather than health care (treatment and rehabilitation). The Governor responded positively and came around on nearly every issue.

Garrey Carruthers never interfered or voiced concern about any environmental regulatory action.

It was a pleasure to work with and for Garrey Carruthers and Maralyn Budke!

D. New Mexico Public Health Association Address

I delivered the following comments at the 1987 Annual Meeting of the New Mexico Public Health Association.

Our priority concern is to pursue and attain excellence throughout the Department. In effective pursuit of excellence we are doing a number of things, including:

- Retaining and recruiting the best professional staff available.*
- Insuring stability of such professionals at all levels.*
- Being accountable to and open to our stockholders, the citizens of New Mexico.*
- Insuring necessary training for personnel in order that they may render effective service in a rapidly changing environment.*
- Insuring open communication both internally and externally at all levels. To this end, we have appropriately revised the Department's information policy.*
- Insuring routine staff meetings at all levels throughout the organization and throughout the state.*
- Providing for staff involvement in the planning process.*
- Encouraging supervisors to reward outstanding performance by word, deed and salary increase wherever possible.*
- Encouraging a staff feeling of pride, belonging, self-worth, importance and professionalism.*
- Encouraging involvement in various public health groups, health care groups, business and industry associations, trade groups and others interested in and affected by HED activities.*
- Commencing development of a New Mexico Health Services Policy, as promised by Governor Carruthers; and finally,*
- UNDERSTANDING AND PROMOTING THE PRIMACY OF PREVENTION!*

Prevention and promotion are issues whose time have come, but have not been the subject of appropriate resource allocation in order to stress the primacy of prevention. To this end, we:

- *Must develop a conscience for prevention,*
- *Must not expect health care to bail us out from the consequences of our own foolishness.*
- *Must stop waiting for tragedy before taking preventive action,*
- *Must realize that prevention requires the ability to look to the future, and may not have an immediate pay-off,*
- *Must focus New Mexico Health Policy on prevention,*
- *Must have a commitment to prevent damage to the human machine in balance with efforts to repair the human machine,*
- *Must identify and serve the unserved and underserved, and*
- *Must have the goal, FOR PEOPLE TO DIE YOUNG AS LATE IN LIFE AS POSSIBLE!*

We have a great deal to be proud of in the Health and Environment Department. We have a long and proud tradition of effective services to our citizens. The array of services delivered by HED professionals is complex and comprehensive. The department has the broadest scope of health services of any department in the nation, as do certain of its component Divisions. We have a statewide services delivery organization. The Environmental Improvement Division has long been the envy of the nation in terms of its organization, program scope, and professionalism, as has the Health Services Division. The Scientific Laboratory Division is unique in the Nation, and many states have indicated a desire to emulate the Scientific Laboratory's service delivery model.

I wish to read something I copied from the Arizona Public Health News many years ago:

*'Twas a dangerous cliff, as they freely confessed,
Though to walk near its crest was so pleasant;
But over its terrible edge there had slipped,
A Duke and full many a peasant.*

*So the people said something would have to be done,
But their projects did not tally;
Some said, "Put a fence around the edge of the cliff."
Some said, "An ambulance down in the valley."*

*But the cry for the ambulance carried the day,
and it spread through the neighboring city;
A fence may be useful or not, it is true,
But each heart became brim full of pity
For those who slipped over the dangerous cliff,
And dwellers in highway and alley
Gave pounds or gave pence, not to put up a fence,
But an ambulance down in the valley.*

*Then an old sage remarked, "It's a marvel to me
That people give far more attention
To repairing results than to stopping the cause,
When they'd all better aim at prevention."
"Let us stop at its source all this mischief," cried he.
"Come neighbors and friends, let us rally.
If the cliff we will fence we might almost dispense
With the ambulance down in the valley."*

*"Oh, he's a fanatic," the other rejoined;
"Dispense with the ambulance? Never!
He'd dispense with all charities, too, if he could.
No, no, we'll support them forever!
Aren't we picking up folks just as fast as they fall?
And shall this man dictate to us? Shall he?
Why should people of sense stop to put up a fence,
While the ambulance works in the valley?"*

*But a sensible few, who are practical too,
Will not bear with such nonsense much longer;
They believe that prevention is better than cure,
And their party will soon be the stronger.
Encourage them then, with your purse, voice, and pen,
And while other philanthropists dally,
They will scorn all pretense and put up a stout fence
On the cliff that hangs over the valley.*

E. The Legislature

While working for Garrey Carruthers and Maralyn Budke was a positive experience, working with the Legislature was not. The Department was already having problems with the Legislature due to the turmoil and confusion of the Anaya years. But beyond that, our priorities were very different.

My priorities were environmental health and protection, disease prevention, and health promotion. These provide the greatest cost-benefit, enhance the quality of life, improve health status in terms of decreased morbidity and mortality, and decrease the spiralling costs of health care. However, there was little organized and effective constituency for these efforts. They didn't readily convert into votes.

Health care spending, on the other hand, converts immediately into more beds, more treatment, more clinics, more facilities, more government funded jobs, and more votes for elected officials. It does not convert to any significant improvement in health status.

But for political reasons, elected officials tend to be supportive of health care, while viewing prevention and promotion as somewhat of an annoyance. When I became Secretary, the budget for the Public Health Division was so insufficient that we had to keep a constant 10% vacancy rate just to operate within budget.

And the budget for the entire Department was inadequate. While I had been Deputy Secretary, I told our finance director that I needed a vehicle. He said, *"Go buy one."* We actually had a HED budget surplus every year. When I returned as Secretary in 1987, I told Finance Director Paul Minogue that I needed a vehicle. Paul observed that, *"There is a vehicle down in the parking lot that has been wrecked and we will have it repaired for you."* And when I would accompany Governor Carruthers on his trips to meet with community groups, I would drive in my repaired vehicle while other Cabinet Secretaries traveled by air.

But the Legislature always voted millions for "pork." The HED budget was, and still is, loaded with it. I frequently told legislators that the HED budget could be cut by \$15 to \$20 million, and we could improve efforts to enhance health status if the remaining budget could be properly utilized. No "pork!"

There is not a shortage of funds in New Mexico, but the amount going for "pork" to insure re-election of legislators is astonishing. This also speaks to the need for term limitation and effective ethics laws.

An example: The Anaya administration had recommended that funding for the Albuquerque South Valley Dental Clinic be "zeroed out." In the 1987 Legislature, both the Carruthers administration and the Legislative Finance Committee recommended "zero" for the program. It was considered to be a very low priority. It was my dubious privilege to be the messenger for

this recommendation to the House Appropriations and Finance Committee, which included Representative Henry "Kiki" Saavedra of the south valley as a member. Both Kiki and Senate president pro tem Manny Aragon served on the Dental Clinic's Board of Directors. When Kiki heard the recommendation he became infuriated and lectured all of us about the problems of the South Valley. Kiki indicated we didn't understand, successfully moved that the existing budget be doubled from \$100,000 to \$200,000 despite no request or documentation of need, told us that he would insure that the doubled budget be kept in the House recommendation, and assured us that Senator Manny Aragon would insure its retention in the Senate budget. It was later learned that the clinic's budget had been grossly misused, and that the salary of the woman who directed the program had been doubled the same month that the Legislature doubled the budget. Kiki stated publicly that he didn't know anything about the salary increase!

I never had the opportunity to tell Kiki that I knew something about the south valley. While I was in grade school, my parents and brother and I lived in a one room house in the south valley. We had a pitcher pump, an out-house, and a 55-gallon oil drum for burning refuse. No one told us we were poor or had a problem. We were happy, and we were not victims!

And some people wonder why New Mexico hasn't developed economically as much as it should. Industry leaders looking at New Mexico are turned off by the lack of ethics in the New Mexico Legislature. But the electorate is to blame!

F. The Road to Solid Waste Management

By 1987, it was obvious that the rapidly increasing amounts of solid waste had surpassed the EID's regulatory authority to ensure proper solid waste management. I had observed this inability while still with the city of Albuquerque from 1982 through 1986. The city was creating problems potentially affecting the quality of groundwater and the health of the populace.

In 1987, I asked EID Director Mike Burkhart and EID Deputy Director Jon Thompson, to thoroughly review and propose necessary changes in the Environmental Improvement Board's (EIB) Solid Waste Regulations. After considerable controversy and opposition, changes were proposed for the Board's consideration, public hearings and action. The improvements were controversial, but the Board eventually adopted modernized regulations.

Local governments had opposed many of the changes, and there was some question about the applicability of a New Mexico constitutional provision prohibiting regulatory impositions on local governments without accompanying finances. Local governments managed to have the application of the new regulations stopped through an injunction.

By then, the public and many legislators recognized the serious nature of the growing solid waste problem in New Mexico. But it still took the following two sessions of the Legislature to develop acceptable solid waste legislation. I wrote several key legislators exhorting them to enact a strong solid waste management bill, and noted that such legislation was as important as air and water legislation had been more that twenty years earlier.

The 1987 and 1988 efforts of the EID and the EIB finally culminated in strong statute to protect the public health and the quality of the environment in 1990.

And I brought you into a plentiful country, to eat the fruit thereof: but when ye entered, ye defiled my land, and made mine heritage an abomination. Jeremiah

G. The Negative News Media

Our significant environmental health and protection achievements in Albuquerque in the 1950's and 1960's were due in large measure to the interest and constructive attitude of the news media. We were completely open with the media, and encouraged all employees to speak for the department within their areas of responsibility. I routinely had coffee with the City Hall reporters and openly discussed all activities. Any question was fair game. Newspapers printed several articles each week regarding our problems, needs and activities. Scarcely a week went by that we did not have television and radio coverage. We also received criticism when the media disagreed, or when one of us acted inappropriately. But the media, and particularly Albuquerque Journal Editor Bob Brown, supported most of our activities and actions.

Observing the changes in the so-called newspapers in Albuquerque over the years was frightening as well as demoralizing to those thousands of public servants doing outstanding work.

When I became Cabinet Secretary for Health and Environment in 1987, I found that the Department had been perceived as withholding data and other information from the media and the public. I immediately changed this policy to insure openness, and encouraged all HED personnel statewide to be responsive to media requests.

But the media representatives, particularly the Albuquerque Journal seldom wrote anything positive or constructive about HED activities, problems and needs. Along with two key HED staff members, I requested an informal meeting with Albuquerque Journal Editor Gerald Crawford. We indicated we expected to be criticized when appropriate, but thought it would be useful to have coverage of our many positive changes, services, and achievements. The meeting immediately went from bad to worse as Crawford became infuriated and defensive. He accused us of attempting to tell him how to run his newspaper. He told us that his paper expected us to do the many positive and constructive things we were doing, as that was our responsibility. And he said that they would only cover those activities which they perceived as being inappropriate and subject to criticism.

Obviously, the attempt to communicate was a failure.

Small wonder that many governmental officials eventually become defensive and disillusioned.

Small wonder that the public has such a negative attitude of public servants.

Small wonder that many outstanding individuals do not wish to be public servants.

Small wonder that many outstanding individuals leave public service.

Small wonder that it was so difficult to accurately and scientifically communicate public and environmental health facts and data to the public.

Small wonder that the media over-dramatizes minor or non-existent information, thereby destroying trust in professional personnel, and being a party to requiring billions to be wasted. As one scientist stated, *"Americans run around squishing ants while the public health elephants run wild."*

Regrettably, Albuquerque did not have a quality newspaper. And this was harmful to the entire state.

Many representatives of the news media knew all about their "rights", but had little concept of their responsibilities.

H. More Professional Recognition

While serving as Cabinet Secretary for Health and Environment, I was professionally recognized as follows:

1987- Sedgwick Memorial Medal for Distinguished Service in Public Health", the oldest and highest award bestowed by the American Public Health Association

1987- Clinton P. Anderson Award for "Outstanding and Dedicated Efforts to Improve the Health and Environment for New Mexicans", from the American Lung Association of New Mexico

1988- New Mexico Distinguished Public Service Award, bestowed by the Governor of the State of New Mexico

1989- The New Mexico Environmental Health Association developed the Larry Gordon Environmental Health Annual Scholarship (This was initiated shortly after my retirement)

I. Parting Thoughts

Shortly before my retirement from public service on June 30, 1988, I wrote the following to all Health and Environment Department personnel. It was also published in the Fall, 1988 issue of Environment News Digest.

Recruit and retain the best. Certain types of professional schools and graduate programs supply personnel especially educated for specific technical, scientific and professional roles. These graduates should be affirmatively recruited.

Most people are dedicated to doing a good job and need support, encouragement and trust. Provide general direction, not detailed instruction and supervision.

Your colleagues and staff are people; treat them with respect and keep in mind that everyone has some days which are better —, or worse —, than others.

Recognize that there are usually several good approaches and answers to solving the same problem. What works best for you may not be the best approach for the people assigned the task of solving the problem.

Visit with your personnel informally and frequently. Make "rounds" and be a walk-around manager.

Encourage and promote career development for the agency and the individual.

Remember that you cannot afford not to train.

Encourage new ideas, approaches and program design; but realize there may be mistakes and false starts among the best.

Believe that each of your subordinates should know more about his/her specialized role than you do, or you have an organizational and programmatic failure.

Conduct weekly staff meetings at every level throughout the organization, Hold periodic "retreats."

Encourage participation in appropriate meetings of related trade and business groups to insure open communication.

Give orders as a last resort. Group discussion of problems and alternative solutions usually leads to consensus.

Be open to, and accountable to your stockholders —, the citizens of New Mexico.

Keep your supervisor informed. No surprises!

Delegate authority and commensurate responsibility to field personnel and institutions to minimize red tape and delays. Remember that brains do not flow up hill to Santa Fe.

Encourage staff involvement in program planning, policy development and decision making.

Reward outstanding performance by word and deed —, frequently. Commend and say "thank you."

Attempt to salvage and improve problem personnel before taking disciplinary action.

Realize that you do not have to make a decision immediately on every issue brought to your attention. Be considerate, involve others, look for consensus, investigate alternatives, etc.

As professionals, determine and promote priorities based on the tools of epidemiology and risk assessment, rather than what may be politically or emotionally expedient at the moment.

Risk communication to the public is in its infancy and remains a priority challenge.

Above all, maintain your sense of humor!

Thank you for your support and effective efforts to stabilize, professionalize, and serve our citizens.

16. A REWARDING "RETIREMENT"

After having credit for 42 years toward a 30 year retirement, I retired as Cabinet Secretary for Health and Environment effective July 1, 1988. I had achieved the goals I had set when I accepted the position. These were to re-professionalize and stabilize the Department following the trauma inflicted on it during the Anaya years.

I enhanced my lifetime retirement annuity considerably by retiring at that time, rather than waiting even one day longer.

It was difficult for me to notify Governor Garrey Carruthers and Maralyn Budke of my decision. They had both been outstanding associates.

And, after fighting the battles for environmental and public health for some 38 years, I was undoubtedly burned out.

In a banner feature article *"Retiring HED Boss Made Mark on Land, Government, The Albuquerque Journal wrote:*

When Larry J. Gordon steps down as secretary of the Health and Environment Department June 30, he will end a career as one of the most enduring environmental officials in New Mexico government.

To some, the 61 year-old Gordon is a consummate professional - a forceful advocate of environmental protection and preventive health care. He is the man who brought morale-building stability to HED after seven successive secretaries and numerous political battles under former Gov. Toney Anaya....

Governor Garrey Carruthers stated that:

Larry has brought a tremendous amount of professionalism to the department of health and environment. We've had some amazing successes over there, some great initiatives are under way in terms of health and mental health in particular.

The Albuquerque Journal also noted that:

Carruthers praised Gordon for bringing professional management to the Health and Environment Department by implementing standards of conduct and performance and by appointing qualified people to upper-level management positions.

"He's worked 41 years on behalf of New Mexicans in all areas of health and environment," Carruthers said. "No one has been a greater credit to public service, to my knowledge, ever in this state."

The New Mexican quoted Carruthers as saying:

It is with regret that I accept Larry's resignation. He has been chiefly responsible for initiating public policy affecting a statewide health plan, developing a statewide mental health plan and moving aggressively toward a resolution of the state's underground water quality problems.

I had no plans except to enhance my fly fishing skills, attempt to improve my golf game, travel and do much more hiking and backpacking.

But, the best laid plans.....

I was contacted by Lee Brown, Director of the UNM Public Administration Division, inquiring if I was interested in an appointment as Visiting Professor of Public Administration. At the time, I didn't fully envision what a wonderful professional opportunity such an appointment provided.

As I became involved in academia, I learned that it was very different from the world of my previous experience. I taught, conducted research, published and became more extensively involved in public service at the local and national levels. This enabled me to travel, write and speak regarding public and environmental health issues throughout the nation. I became particularly involved in issues of education for environmental health and protection, and environmental health and protection priorities. I soon learned that I had to say "no" to many requests, and accepted only those in which I had specific interest.

Two of my more significant efforts included the publication Educating Environmental Health and Protection Professionals: Problems, Challenges, and Recommendations for the U.S. Public Health Service, and developing The Future of Environmental Health document as Chair of the Committee on the Future of Environmental Health of the National Environmental Health Association.

At UNM, I helped develop the emerging graduate programs in health services administration, preventive medicine/public health, and environmental science and administration.

All these activities were professionally rewarding. But the best part was that I no longer had to deal with some of the New Mexico legislators and newspapers!

At the request of Governor Bruce King, the New Mexico Legislature converted the Environmental Improvement Division into the New Mexico Department of Environment. Realistically, little was changed except the title. The budget and the legal responsibilities remained much as before. The only real difference was that the agency was headed by a

politically oriented Cabinet Secretary reporting to the Governor, rather than an environmental health and protection professional as Director reporting to the Cabinet Secretary for Health and Environment.

I supported and encouraged the separation of environmental functions from the health care responsibilities of the Health and Environment Department. However, the reorganization proposal was poorly developed in that it provided no in-house expertise for epidemiology or laboratory support. And there was inadequate communication and coordination with these and other functions which were transferred to the newly created New Mexico Department of Health. This type of oversight and ignorance regarding environmental health and protection organizational design and organizational behavior created significant problems for the U.S. Environmental Protection Agency and a few other states after similar changes were made, and continued to be a problem in New Mexico. I vividly recall, and have frequently quoted, a guest lecture when I attended the University of Michigan School Of Public Health in 1954. New York State Health Commissioner, Dr. Herman Hilleboe, stated that, "*equals cannot coordinate equals.*"

Attempting to effectively coordinate the missing elements of the Environment Department with those of the Health Department will continue to create problems of communication, priorities, program design, program evaluation, and effectiveness.

In the long run, it is not the politicians and bureaucrats who are harmed; the citizens are not well served!

A. The Zimmerman Award

In 1993, I received the Zimmerman Award from the University of New Mexico Alumni Association for "Outstanding Accomplishments in Public Health and Environmental Improvement." The Zimmerman Award is awarded annually to a University of New Mexico alumnus who has "made a significant contribution which brought fame and honor to the University of New Mexico and the State of New Mexico." The Zimmerman Award citation read:

Larry Gordon is a biologist, a sanitarian, an administrator, and a teacher. But first and foremost he is a creator.

·In 1955, Larry created the nation's first environmental health department in Albuquerque. He directed the department from its beginning until 1968, and again from 1982 to 1986.

·In 1971, he helped create and subsequently directed the State of New Mexico Environmental Improvement Agency, the first comprehensive state environmental health department in the nation.

·In 1973 he gained legislative authorization to develop, organize and construct the New Mexico Scientific Laboratory System, the nation's first comprehensive state laboratory serving a wide variety of local, state, and federal governmental agencies. Gordon then directed the Lab for three years.

·In 1976, he helped develop and enact legislation that led to the creation of the New Mexico Health and Environment Department, where he was subsequently Deputy Secretary. He retired from state government in 1988 as Cabinet Secretary for Health and Environment.

·Through the years, Gordon has mentored scores of public health students and young professionals around the state and nation. With Gordon's help, they have assumed key roles and responsibilities in the field.

·Within the University of New Mexico School of Public Administration, Gordon is involved in efforts to develop two new master's degree programs, one in health services administration and another in environmental science and administration.

·Recently, Gordon completed another creative project, a manuscript, Environmental Health and Protection Adventures detailing his experiences in developing agencies and gaining enactment of legislation. Gordon has published more than 185 articles in professional journals.

In all his efforts, Gordon has insisted that environmental health and protection be

integral to society's total health effort, and that there be a strong scientific basis for public health actions.

The American Public Health Association honored Gordon with its oldest and most prestigious award, the Sedgwick Medal, in 1987. The APHA called him "...a visionary, a biologist, a sanitarian, and a teacher - one who has trained, inspired, and mentored thousands of young public health workers to explore the interrelationships of the human organism with its environment, so that people may not only live, but live well," Gordon served as president of the 55,000 member organization in 1980-81.

Gordon received the New Mexico Governor's Distinguished Public Service Award in 1988.

Portions of my Zimmerman Award acceptance comments follow:

When I first entered UNM in 1943, my mother drove me to Albuquerque from our home in southeastern Arizona where my father then served as District Conservationist with the federal government. After driving through the campus, we did what I assumed everyone did in those days: we slept on folding canvas cots under the stars in the sandy arroyo beyond what was then the end of north Carlisle --- just to the north of the present K-Mart location. The next morning we cooked breakfast over dried chamisa and cow chips (we always called them buffalo chips). Then I registered at UNM later that morning. The UNM Registrar did not notice that in my zeal to obtain some college education prior to possibly entering the armed services during World War II, I had not completed all high school graduation requirements. I had simply entered Gila Jr. College in southeastern Arizona. Later, I had to atone for this sin when it was discovered prior to UNM graduation.

Rooms were scarce, but I was fortunate. We found a landing at the head of the stairs in a rooming house on east Gold, just a block from UNM. There was no closet or desk, so my small trunk served both purposes. The space contained a small metal frame cot, and had a velvet pull curtain to afford some privacy when necessary. The bath was a few feet down the hall. I was allowed to do my laundry in the bathroom wash basin, and use the backyard clothes line. I ate at a nearby boarding house for a nominal fee where the food and camaraderie were excellent.

I recall these events and conditions with humor and appreciation. No one told me we weren't affluent, I didn't need any help, I didn't feel like a victim or someone deprived of some mythical rights, and I had everything I really needed as a student at UNM.

My professors were all-knowing, god-like, supportive and wise. Their words were the law. I didn't rebel, appeal, create trouble, riot or march. I thought I was at UNM to

learn.

My learning process improved considerably after the first grading period when I learned that I had to study to get decent grades. Perhaps my best instruction came when one of my biology professors wrote across the front of a blue test booklet, "D-. You can't go through life doing only what you want to do!" That statement ranked among the best pieces of advice I've ever had.

For some extra money, I got a night job driving an ambulance -- or hearse -- at Strong-Thorne Mortuary. That was pretty heady stuff, particularly when I was still too young to obtain a driver's license.

I didn't like war or World War II anymore than a later generation liked the Vietnam War. In the fall of 1944, I had 5 semesters of college and was still sweet seventeen. I joined the U.S. Navy three days before I turned eighteen and would have become eligible for the draft. So, I presume I was a draft dodger. The U.S. Navy provided a great opportunity to learn and mature. Not only was I a draft dodger, but a combat dodger. While attending Hospital Corps school, I was informed that the "honor man" of each class of 125 could choose his duty station hospital. This information provided another stimulus to achieve, subsequently allowing me to spend the remainder of the war in relative safety and luxury at the National Naval Medical Center at Bethesda, Maryland.

And while a graduate student in biology, I presumably reproduced in the absence of matrimony. My brother Ladd and I were among several graduates recommended by Dr. Castetter to participate in an artificial insemination program conducted by a physician at Lovelace Clinic which was then located in the old First National Bank building downtown. Along with being an occasional blood donor at the Veteran's Administration Hospital, this provided some of the easiest income I ever received.

When I retired as New Mexico Cabinet Secretary for Health and Environment in 1988, a friend advised that I refrain from answering the phone for at least six months. After a week-end of catching up on some chores, I sat down to read a book which I had been postponing. After 27 pages, the phone rang. Yesterday, I checked and found that I have now progressed to page 58 after five years of so-called retirement.

*I recently heard a former associate remark that life was composed of three parts. For some people, the three parts are those of **learning, earning, and yearning** to be young again. For other, including me, the three parts of life are those of **learning, earning, and having the opportunity of returning** some of the experience and knowledge gained during a long career so that others may **learn, earn, and return**. I have been most fortunate to **return** to UNM as a Visiting Professor in the School of Public Administration, thereby enhancing my opportunities to **return** some of my knowledge through teaching, speaking, consulting, researching, and publishing.*

B. Public Health: A Blurred Vision

In 1994, I was the recipient of the Lester Breslow Award for Distinguished Achievement in Public Health from the Los Angeles County Department of Health Services. I was the featured speaker, and the following are a portion of my comments.

I commend the Los Angeles County Department of Health Services for honoring Dr. Lester Breslow, one of the world's most outstanding public health leaders, through this annual award. Les Breslow has long been one of my public health heroes, as well as being a mentor through his research. For the last years of my career as a state Cabinet Secretary for Health and Environment, I had Dr. Breslow's research findings regarding the values of life-style summarized on the back of my business cards. And Los Angeles County, and Dr. Caswell specifically, are to be commended for sponsoring this Public Health Week and promoting the concept nationally.

To offer a little introductory trivia, I have had many constructive involvements with public health professionals in the Los Angeles area throughout my career, and in 1968-1969 I was a consultant to the Community Health Action Planning Service of the American Public Health Association which made recommendations regarding the organization and services of the Los Angeles County Health Department.

*My presentation today is from the viewpoint of a **practitioner**, as I have spent most of my career working as a public health official striving to **prevent** or solve public health problems. However, my involvement in academia for the past six years **has** allowed me the freedom to think, research, speak, and write without the ideological influence of some Governor or Mayor whom I was serving.*

*Recently, I was particularly impressed by the wording of the letter I received from Dr. Caswell Evans regarding the Lester Breslow Award. Dr. Evans wrote: "**The ongoing theme for Public Health Week is Public Health - An Investment in the Future, which emphasizes that the investment we make in prevention today will yield a better future for the community we serve.**" That factual statement is highly significant and meaningful -- "**prevention today will yield a better future for the community we serve.**" Of course public health is prevention. And I will enlarge on the statement to emphasize that properly prioritized and targeted disease prevention, health promotion, and environmental health and protection programs --- all preventive in nature, ---will yield improved health status and longevity; a brighter future for our families; fewer social problems; fewer unwanted pregnancies and children; fewer problems for our criminal and corrections systems; enhanced educational achievement; a more livable environment; a better quality of life for all; and in many cases, will lead to lowered health care costs. All of us in public health should know this, and be practicing what we preach. But do we really?*

Do we really agree on what public health is? Are we devoting our efforts and careers to good

public health practice? I suggest that this may not always be the case.

*For example: There is no common definition of public health. I define **public health as the art and science of preventing disease and disability, prolonging life, promoting health and efficiency of populations, and insuring a healthful environment through organized community effort.** However, a great many of my highly respected peers do not agree with that definition. Many appear to mistake the **organizational** responsibilities of the U.S. Public Health Service, or a public health association, or a state health department, or a local health department, or a school of public health with the **field** of public health. If we don't know what we are selling how can it be marketed? Are we selling a horse, a buggy, a Cadillac, a rocket ship, or a disorganized bundle of spare parts for something we don't understand? Some assert that there is strength in the diversity of public health, but there is also confusion, competitive priorities, a lack of unity and focus, and lack of understanding by personnel involved in public health as well by our political leaders.*

*Many appear to confuse public health with anything related to health, including health care. **Health care, however, is the diagnosis, treatment, or rehabilitation of a patient under care and is practiced on a one-on-one basis. Health care is not public health!***

*Public health practitioners appear to be suffering an identity crisis, and a misplaced sense of euphoria. Perhaps they have felt slighted and inadequately funded to the end that they are eager to identify with anything that includes the word "health." Perhaps the identity crisis is due to the fact that there does not appear to be a common definition or uniform understanding of public health. Perhaps the identity crisis is due to the fact that public health is not a unified discipline or profession, but is a cause engaged in by a wide variety of disciplines and interests. Or perhaps some public health practitioners recognize that 96% of total health services dollars are spent on health care, with an estimated 1% of the health services dollars being spent for public health, and they find it seductive to aspire to be an element within the 94% rather than within the 1%. Or perhaps the identity crisis is due to the fact that many public health personnel originally had their professional roots in health care and have overwhelming latent proclivities to practice health care rather than public health. Or perhaps the identity crisis is a manifestation of the reality that many public health practitioners simply do not understand the basic differences between public health and health care. Or perhaps the identity crisis is due to some public health practitioners not really believing in the primacy of disease prevention, health promotion, and environmental health and protection as differed from health care. Or, as I stated previously, perhaps the identity crisis reflects the fact that some practitioners confuse the **field** of public health with the organizational scope of the U.S. Public Health Service or a specific health department, or the programs offered by some school of public health. Or perhaps some public health practitioners do not understand that public health continues to be in eternal competition with health care for the budget dollar, just as certainly as public health must compete with other basic governmental functions such as public safety, public welfare, public works, corrections, public education, and national defense.*

*Public health practitioners should ingest a healthy dose of skepticism regarding the current national health care debates, while **enhancing** their efforts to improve the delivery of properly designed and prioritized public health and environmental health and protection services delivered primarily through our varied and complex system of state and local health agencies.*

*As a practitioner, I practiced public health and environmental health and protection in the trenches as well as at the policy levels at the city, county, district, state and national levels. In various leadership roles and as a state cabinet secretary for health and environment, I dealt with local, state and federal legislative bodies for almost forty years and was **consistently** enlightened that **health care is not public health, public health is not health care, and certainly environmental health and protection is not health care.** As a cabinet secretary, I invariably determined that any reasonable requests to expand my health care budget would probably be granted, and in fact, my health care budget was frequently increased in the absence of a departmental request. Not so for public health or environmental health and protection. My number one priority has always been public health and environmental health and protection. But while always advocating public health and environmental health and protection as my priorities, my health care budget was increased disproportionately. I frequently found it somewhere between difficult and impossible to gain approval for one more public health nurse, or one more environmental health scientist, or one more public health educator, or one more public health physician, or one more public health dentist, or one more public health nutritionist, or one more public health laboratory scientist while being criticized by legislators for not requesting more for our department's health care programs. On many occasions, I experienced legislative bodies transferring funds from public health to support health care. On one occasion, my environmental health and protection budget was reduced in order to shore up the constantly escalating medicaid budget. During legislative budget hearings, the rooms were filled with effective health care advocates wearing their caps, banners and badges. Only once in my years of experience did a non-departmental advocate for public health appear to testify. That individual was a public health nurse. We do not have an organized constituency for prevention. Society takes the marvelous successes of public health for granted.*

*Those public health personnel who are demonstrating euphoria and giddiness by believing that health care reform will enhance public health programs may be in for a rude awakening and become disillusioned victims of worshipping the god of health care in vain, rather than pursuing the cause of public health. The national health care reform efforts are designed to contain health care costs and improve access to health care services ---, not public health. In fact, the price tag for revamping our nation's health care system may well utilize revenues that might otherwise be available to support or enhance public health and environmental health and protection services. By the time our political leaders are through utilizing funding sources for national health care reform, even less federal and state resources may be available for basic public health and environmental health and protection measures. Few of our political leaders appear to understand that basic public health and environmental health and protection services delivered through state and local agencies have done more, and can continue to do more, to enhance the health **status** and **quality of life** of our citizens than can health care measures.*

*Public health, properly staffed and supported, stands ready to effectively attack the current leading causes of death and disability as it has in the past. Many public health activities are highly cost effective for preventing disease and disability, but more importantly, public health must be also **marketed** on the basis of improved **quality** of life, **extended** life span, and enhanced **quality** of the environment. While public health measures **do** prevent disease and enhance life quality and longevity, all such activities do not reduce health care costs. Each public measure must be evaluated individually and in all its dimensions. A few examples, however, indicate that:*

- Prevention of only 3 percent of the incidence of coronary by-pass operations can achieve a reduction amounting to nearly \$240 million a year.*
- Lead abatement of a typical pre-1950 housing unit can prevent nearly \$3,000 in treatment costs for each case of lead toxicity.*
- Prevention of only two major communicable disease outbreaks per state each year with each affecting 200 people, could achieve a savings of up to \$10 million a year.*
- Prevention of one new HIV infection for every five persons identified as HIV-positive results in savings of \$15 to \$25 for every \$1 spent in counseling, testing, referral, and partner notification and counseling.*
- The estimated cost of water fluoridation for an individual's lifetime is equal to or less than the cost of one dental restoration to treat a tooth with caries.*
- For each dollar invested in a smoking cessation program for pregnant women, about \$6 is saved in neonatal intensive care costs and long-term care associated with low birth weight.*

*While I am not deprecating the need to deal with access and economic problems of the health **care** system, it should be understood that health **care** reform in the absence of improved public health services will be not deal effectively with the health problems of our communities. Health care reform in the absence of improved public health services will be another expensive experiment and a misplaced priority. Health services must be viewed as a **continuum**, with environmental health and protection, disease prevention, and health promotion preceding health care on the continuum. However, the most important **precursors** to improved human health status include genetic potential, economic vitality, and educational achievement.*

*I have always believed that it is inappropriate for **public health** departments to deliver more than minimal health **care** services. Many health departments have, however, become deeply involved in health care as a matter of choice as providers of last resort, or due to political necessity. Public health has seemingly become obsessed by, or subsumed by, health care, resulting in a lack of clarity, focus, definition, priority, and emphasis for public health, as well as ineffective marketing of public health. Public health may have collectively "shot itself in the*

foot" by making health care reform such a priority rather than focusing on the priority of marketing public health services and improving the health status and quality of life of the public.

*In short, **public health has become a blurred vision.***

Public health leaders believe that public health is an excellent and essential product, but why hasn't the product -- enhanced health status of the public -- been better recognized and supported? Do we have a problem with the product, the need, the marketing, or the sales persons? Perhaps public health organizations should take a page from the private sector and commission a comprehensive national marketing analysis to develop recommendations to succinctly define the product, determine priority needs and demands, describe the market, recommend marketing strategies, and implement effective marketing recommendations.

Health care reform may require many clinical preventive services currently delivered on a community basis through public health departments to be delivered through the health care system. And health care reform could result in public health departments re-emphasizing those public health services remaining within their domain. Or it could result in a de-emphasis of community based public health measures.

With regards to public health aspirations being strengthened by health care reform, I am reminded of a statement occasionally made by one the Governors for whom I worked. Particularly during legislative sessions he would say, "Blessed are those who expect little, for they shall not be disappointed."

Many imbued with conventional public health wisdom and public health egocentrism do not view the world as our political leaders do. It would be interesting and very useful to study why so many in public health are so politically naive, and often disdainful of the political process. Do we attract and retain a certain type of individuals and culture, or do we fail to properly train public health personnel to understand and constructively impact the various public policy elements within our political systems?

*Public health continues to be difficult to sell, whereas health care continues to be demanded and better funded. Public health programs, unlike health care issues, lack an effective constituency. Public health has always been a rocky road, as it provides no immediate gratification or feedback. It requires the ability to look to the future, which is not a customary trait of our political leaders who are looking to the next election rather than the status of their constituents health in coming decades. Public health **does** have the glamour associated with hospitals, organ transplants, emergency medicine, diagnosis, treatment and rehabilitation. However, the excitement and effectiveness of the products of public health have not been convincingly marketed, and public health has not competed well with health care. Seventy-five years ago, a warning about inattention to public health agencies was issued to the Medical faculty of Maryland, and except for the decimal points the following statement is still true:*

"With the appropriations for health insurance running into millions of dollars annually, it goes without saying that legislative bodies will not materially increase the appropriations for their health departments. Owing to this fact, there is a decided probability of sickness insurance acts endangering the very existence of State health department by absorbing all of the funds available for health work. Our statesmen and lawmakers must, therefor, be careful that proper and ample provisions are made for health machinery in any sickness insurance act."

Leadership on the road to improved public health and environmental quality is not an easy route. There are many potholes in the course of providing effective, priority services. The journey requires vision and steadfastness of purpose, as it is beset by emotional pressures, tempting comfortable detours, political surprises, and frequently offers no short-term gratification or pay-off. There are no rest stops along the way.

The public health arena is bright for those professionals who have the necessary knowledge and skills, and who demonstrate vigorous leadership in marketing and implementing disease prevention, health promotion, and environmental control strategies that target priority public health and environmental problems. Many of these priority threats are linked to lifestyle risk factors and environmental hazards.

We should be affirmative regarding public health and understand, explain, promote, market, sell, interpret, propose, advocate, and communicate the need for improved public health services. We should not allow public health services to be left halfway between leprosy and quarantine stations.

We should have a clear, crisp, definable, and marketable vision of public health and its potential for the enhancement of health status, our quality of life, and the future well-being of our families and communities.

If the national public health community cannot agree on the destination required for improved public health, then it doesn't make much difference which road is taken to get there.

*A basketball coach would say, "Let's get back to the basics." Perhaps we need a spirited half-time change in our game plan. Let's get realistic, and put an end to our identity crisis, our misplaced euphoria, our fantasies, and an end to our **blurred vision of public health.***

17. LADD S. GORDON: CHAMPION OF WILDLIFE

Inasmuch as my career was so closely intertwined with that of my brother, I have chosen to include the following article written by Jesse Williams. (Jesse was retired from the Department of Game and Fish, where he was Chief of Public Affairs for two decades.) This article was published in the January-February, 1992, issue of New Mexico Wildlife.

New Mexico lost a champion of wildlife upon the death of Ladd S. Gordon, 66, director of the Department of Game and Fish from 1963 to 1975, who died in Albuquerque Oct. 16 following a lengthy illness. This dedicated wildlife manager was recognized in this state, the nation and the international scene as a true professional, a leader, and one whose primary actions were directed toward the welfare of wildlife. He will be missed but not forgotten by his friends and coworkers.

Looking to the Future

Ladd recognized the need to develop long-range objectives and this will benefit generations far into the future. His foresight resulted in the state legislature approving a capital improvement bond program, financed through hunting and fishing license sales, that has been used to purchase habitat, build dams and lakes, and construct fish hatcheries. Since 1964, \$4 million of revenue bonds have been sold. When matched with federal funds, this has provided more than \$16 million for capital projects.

When game department officers Ocie Grey and Austin Roberts perished in a tragic plane crash, Ladd had memorials established for both men. Lake Roberts in the Gila National Forest was a bond fund project. The Ocie Grey Memorial Scholarship, supported by private donations, was established at New Mexico State University. Now the interest allows two scholarships per year for freshman wildlife science students. Bill Montoya was the first recipient (in 1965-66) and is now the department's director.

An Advocate for Wildlife

Ladd was not afraid to face tough issues and battle for what was best for wildlife. Some of his actions were unpopular and risky. The last one resulted in his retirement from the job he had held longer than anyone, except for Elliott Barker (1931-53). Ladd may have lost this battle, but he won the war that left the department and the state's wildlife in professional hands, away from political interference.

He editorialized that the Smokey Bear philosophy of total fire suppression was not correct, that some wildfires are beneficial and improve wildlife habitats. Most foresters and wildlife managers agree that properly controlled fire is an important management tool. He took this stand despite the fact that the real Smokey Bear had been donated by the Department of Game and Fish to the U.S. Forest Service as a symbol for fire

protection.

Ladd was a skilled negotiator and knew how to resolve sensitive issues without being seen as a politician. When New Mexico was resisting federal interference in a state's traditional role as manager of its resident wildlife, Gordon chaired a committee from the International Association of Game, Fish, and Conservation Managers. It resolved the dispute and established guidelines to avoid future disagreements.

He developed a cooperative relationship with wildlife officials in Mexico. New Mexico antelope were traded for Mexican desert bighorn sheep.

Innovative and Wise Management

During Ladd's guidance, New Mexico was recognized as a national leader in developing new wildlife management programs. Spring turkey hunting was not without controversy in the beginning, but over time it has proven to be a popular and wise use of resources. Many other western states have followed New Mexico's lead. The hunting of lesser sandhill cranes and an early bull elk hunt are other success stories.

Rocky Mountain and desert bighorn sheep, and elk, were reintroduced into historic habitats. A captive breeding herd of desert bighorn sheep was established at Red Rock Wildlife area. New ways of raising hatchery trout by conserving water and money were attempted. The exotic big-game program developed from releases of oryx and ibex, which expanded into huntable populations.

Work of a Lifetime

A veteran of World War II and the U.S. Navy, Gordon received his B.S. degree in biology from the University of New Mexico in 1949 and went to work immediately for the Department of Game and Fish. He worked his way up through the ranks as a patrolman, bird culturist, big-game research biologist, conservation officer, area supervisor, chief of law enforcement and chief of information and education. After retiring as director in 1975 he was employed by the National Rifle Association until 1978 and by Ducks Unlimited from 1979 to 1988. There, he was a regional director and MARSH program coordinator, working with the 10 Central Flyway state agencies.

The Western Association of Fish and Wildlife Agencies made him an honorary member to recognize his leadership....

A true professional, Ladd S. Gordon left a legacy to follow. He was a leader — respected, dedicated, concerned, caring and always giving first consideration to the welfare of wildlife species and their habitats. He made tracks all over the Land of Enchantment, and there they will remain forever. If current and future wildlife managers

follow those footsteps, the future of the state's wildlife will be in good hands.

The January-February, 1992, issue of New Mexico Wildlife also included an article by William S. Huey who had retired after a career that included being Director of the Department of Game and Fish, and New Mexico Cabinet Secretary for Natural Resources. The article stated, in part:

....Before his appointment, the department had suffered from differences among its employees in their feelings, beliefs and loyalties. Ladd had the personality and ability to reduce those differences and create a team that shared its loyalty to the department.

Ladd turned this team toward a game management approach that combined new techniques from college-trained biologists with the common sense and practical field knowledge of older employees....

Ladd gave each employee the opportunity to participate in developing new approaches to game management. The list of department accomplishments during his tenure has been well documented. New approaches were recognized as experimental, and were carefully documented to permit evolution, improvement or elimination. Ladd stuck his neck out frequently to encourage the State Game Commission to permit the regulatory implementation of new ideas.

He was able to reestablish citizen support for the department after it had become somewhat divided. While he was director, the department enjoyed a honeymoon-like relationship with the State Legislature. Bills benefiting the department passed; other were killed.

Ladd was completely without concern for his professional position. He had no need to be jealous of it. He promoted and supported the advancement of department employees. At the same time, he insisted that no employee be expected to perform beyond his or her capacity.

The department grew with Ladd to share with him, a national and international reputation that continues today. I would suggest this is due in part to the example he set for those who succeeded him.

With the beginning of Ladd's time as director, the department began holding public hearings to discuss bag limits, management procedures and legislative matters. I won't suggest this process always created unanimous support for the department, but it did contribute to a consensus. Ladd also developed a closer working relationship with the state's landowners, both private and public, and with the livestock industry.

Ladd created a pattern that was tough to follow, but worth the effort. After I was

appointed his successor, a representative of the media came for an interview. His first question involved the changes I planned for the department. I told him I had no plan to change anything, but would try to maintain the reputation the department achieved under Ladd Gordon.

Ladd was a good teacher.

Ladd was my best friend.

18. THE FUTURE OF ENVIRONMENTAL HEALTH AND PROTECTION

The spacious redwood deck around the top level of our summer home at Pendaries, New Mexico provides an unparalleled vista of the mountains and valleys of northern New Mexico near the pristine Pecos Wilderness Area. The Pecos Wilderness Area was always among my favorite areas for fly-fishing and backpacking.

And the Pendaries scenery and solitude also provides stimulation and inspiration to consider the future of environmental health and protection. It was at Pendaries that I organized and developed major portions of the National Environmental Health Association's document, The Future of Environmental Health in 1992.

Following the foregoing history of environmental health and protection in New Mexico over the past 42 years, it is appropriate that I also provide some thoughts regarding the evolving nature of environmental health and protection. I presented the following to a Colloquium at the University Of Texas School Of Public Health in February, 1994.

You will note that I use the term "environmental health and protection", rather than environmental health, or environmental protection. I do this because all environmental health and protection programs share a public health goal and are usually based on public health standards. The differences are in their artificial organizational settings. For peculiar territorial reasons, some people term the programs environmental health if they are the responsibility of an agency called a health department and environmental protection if they are not the responsibility of a health department. We should be building and traveling bridges between all the various agencies involved instead of creating terminology and turf barriers.

Concern for the quality of our environment and related public health implications has never been more intense. Political leaders and ordinary citizens, whether liberal, moderate or conservative, express concern over the quality of our environment.

But there is widespread disagreement regarding environmental health and protection priorities, acceptable risk, and organizational issues.

When I first entered the field in 1950 at \$225.00 per month as a county sanitarian, the field, the priorities and organizational settings were much better defined, but much narrower and less complex. The terms "environmental health" or "environmental protection" were not commonly used.

Within a few years after becoming engaged in public health, I began having serious concerns regarding the traditional textbook pattern of organization and delivery of environmental health services at the state and local levels. Had I been the only person having such concerns, I would probably have eventually become frustrated and moved into a different career track. But I found that many of my most respected peers were asking similar questions. I recall useful discussions

with individuals whom I considered to be the nation's environmental health "giants" in various schools of public health, and in state and local health departments, and in the U.S. Public Health Service. Communicating and visiting with such leaders was invaluable in helping me to refine my evolving concepts regarding the future of environmental health at that time.

At this time, several recent national documents which have had some impact on the future of environmental health and protection, as well as relationships with the rest of the public health community. The Institute of Medicine Report on the Future of Public Health provides thoughtful material which should be studied critically by every public and environmental health and protection professional. The emphasis of the report is on personal health, health care, and relationships to the medical community with occasional, though significant reference to the importance of environmental health. Environmental health and protection agencies outside health departments were not visited or included in the IOM study. By relying on inadequate data provided by the Public Health Foundation, the IOM report contributes to the misunderstanding of, and inadequate emphasis on, environmental health and protection by the public health community as well as community and political leaders.

*The IOM document does not provide adequate consideration of the complexity and magnitude of environmental problems facing our nation and the world. Only two of the 22 Committee members were well-known environmental health and protection experts. I do not find that consultation was developed with any of the various national environmental health and protection associations. The IOM Report discusses the important issue of effective relationships with the medical care profession, but is silent on equally essential relationships with planning agencies, transportation authorities, environmental groups, agricultural groups, engineering societies, developers, manufacturers, educators, and economic development officials with whom environmental health and protection programs **must** network and coordinate.*

Healthy People 2000: Disease Prevention and Health Promotion Objectives for the Nation, developed by the U.S. Public Health Service, is another important national report. The first draft of the environmental health component was not only dismal, but counter-productive to the cause of environmental health and protection. There were glaring inadequacies and errors pertaining to professional education, air quality, and hazardous wastes. And a list of the issues ignored in the original draft was, at the same time, a list of many of the priority areas in environmental health and protection. Those issues ignored included: solid waste management, water supply, water pollution, noise pollution, food protection, radiation protection, vector control, institutional and recreational environmental health; as well as the environmental health aspects of energy production, transportation systems, land-use, and resource consumption. And finally, the draft did not include such global environmental health and protection issues as possible global warming and stratospheric ozone depletion, desertification, deforestation, planetary toxification, and over-population.

On behalf of the American Public Health Association Section on Environment, I developed and transmitted a critique regarding specific environmental health and protection inadequacies in

the draft Year 2000 Report to the U.S. Public Health Service Office of Disease Prevention and Health promotion, and had a number of discussions with personnel in that Office. I was pleased with their timely and positive reaction. The environmental health chapter was entirely revised and changes were made that addressed many of my concerns. The environmental health objectives in the final document are certainly not perfect, but they are much improved while still lacking in comprehensiveness.

Some of us thought we had made our point regarding the Year 2000 document prior to the follow-up USPHS conference designed to publicly release the final recommendations. However, the conference provided an instructive case study regarding top level Public Health Service attitudes regarding environmental health and protection. Specifically:

- There was no workshop on environmental health and protection.*
- There was no program participant charged with discussing environmental health and protection.*
- I did not identify any participant from EPA, the nation's leading environmental health and protection agency.*
- Few of the speakers even mentioned public health or environmental health and protection, but chose to discuss "health care." Environmental health and protection does not identify with health care, the one-on-one treatment or rehabilitation of a patient.*
- A film was shown which purported to depict health status in the Year 2000, but not a frame or word thereof was devoted to air, water, wastes, food protection or other environmental health and protection issues.*
- I had called four of the major program participants prior to the conference requesting that they provide some balance, some indication of support, interest, or even recognition of the environmental health objectives. None of them even mentioned the environmental health objectives.*

Perhaps the most significant environmental health experience at the conference was the invited EPA band. And that only served to remind me of the title of the book "And The Band Played On."

*And then another instructive episode occurred following adoption and distribution of the Year 2000 Objectives. The USPHS developed a draft of criteria for selected health status indicators to be used by federal, state, and local health agencies. This was an eight page document which **may** have been useful for disease prevention, health promotion, and health care. However, the PHS had again essentially ignored environmental health, environmental quality, environmental standards, environmental regulations, air quality, water pollution, water supply, food protection,*

solid wastes, hazardous wastes, toxic chemicals, occupational health and safety, noise pollution, radiation, environmental health and protection personnel, environmental health and protection laboratories, and global environmental problems.

Once again, I responded to this draft on behalf of the APHA Section on Environment requesting inclusion of the previously mentioned issues.

To make a long story short, here's the rest of the story. The criteria were finalized and published and did not include any of our recommendations. It is as if some components of the U.S. Public Health Service don't know or care that the environment exists!

Another episode occurred more recently when I developed and transmitted several pages of detailed recommendations to the Council on Education for Public Health so that environmental health and protection education would be improved and emphasized in accredited schools of public health. Thus far, these appear to have been recommendations whose time has not come.

The interest, understanding and emphasis accorded environmental health and protection by many current national public health leaders and groups reminds me of a statement frequently made regarding legislators by one of the Governors for whom I worked. He said, "Blessed are those who expect little, for they shall not be disappointed."

But despite these horror stories, the future of environmental health and protection is bright for those professionals who have the necessary knowledge, skills, demonstrated leadership ability, and understand and participate in the environmental changes which will continue to take place. Those who are inflexible and rely on past accomplishments, the status quo, and organizational turf will be numbered among extinct species.

Risk and Priorities

Environmental health and protection continues to be a matter of local, national and global discussion and debate. Globally, priority issues include species extinction, possible global warming and stratospheric ozone depletion, wastes, desertification, deforestation, planetary toxification and, most importantly, overpopulation. Excessive population contributes to all the foregoing as well as to famine, war, disease, social disruptions, economic woes, and resource and energy shortages.

A 1990 Roper poll found that, in terms of public perception, at least 20% of the public considered hazardous waste sites to be the most significant environmental issue.

But contrary to public perception, the 1990 report of the Environmental Protection Agency's prestigious Science Advisory Board lists ambient air pollutants, worker exposure to chemicals, indoor air pollution and drinking water pollutants as the major risks to human health.

EPA's REDUCING RISK also states that:

"...there is no doubt that over time the quality of human life declines as the quality of natural ecosystems declines....over the past 20 years and especially over the past decade, EPA has paid too little attention to natural ecosystems. The Agency has considered the protection of public health to be its primary mission, and it has been less concerned about risks posed to ecosystems....EPA's response to human health risks as compared to ecological risks is inappropriate because, in the real world, there is little distinction between the two. Over the long term, ecological degradation either directly or indirectly degrades human health and the economy....human health and welfare ultimately rely upon the life support systems and natural resources provided by healthy ecosystems."

As risks to the natural ecology and human welfare, Reducing Risk listed habitat alteration and destruction; species extinction and overall loss of biological diversity; stratospheric ozone depletion; global climate change; herbicides/pesticides; toxics, nutrients, biochemical oxygen demand and turbidity in surface waters; acid deposition and airborne toxics. Among relatively low-risks to the natural ecology and human welfare, the list also included oil spills, groundwater pollution, radionuclides, acid runoff to surface waters, and thermal pollution.

A December 1991 survey conducted by the Institute for Regulatory Policy of nearly 1300 health professionals indicated that:

"Over eighty-one percent (81%) of the professionals surveyed believe that public health dollars for reduction of environmental health risks in the United States are improperly targeted."

Taking all of this into consideration, it must be emphasized that risk assessment and risk communication are among the most critical environmental issues of today and tomorrow. While resources should be allocated to address actual and significant risks, public perception drives the response of elected officials and public agencies. Environmental health and protection practitioners usually have greater expertise in dealing with technical program issues than they do in the realm of risk assessment, risk communication, epidemiology, prioritization, fiscal impacts, agency management, and public policy.

As public health practitioners:

- We should understand the role of science in determining public policy, place a high value on scientific excellence when developing public policy, and recognize the misuse or absence of science in an effort to justify a position or alarm the public.*
- We should recognize that some of the media are frequently a conduit for an abundance of misinformation and a shortage of critical scientific inquiry behind many of the "catastrophe-of-the-week" issues.*

- *We should recognize that if all the alleged environmental catastrophes were scientifically factual, we would have many times the actual morbidity and mortality rates.*

- *We should refute stories which are not based on sound epidemiology, toxicology and risk assessment.*

- *We should question reports which base a problem on finding one anecdotal example, e.g., one cancer patient near a hazardous waste site that capitalizes on appeal to the emotions.*

- *We should beware of individuals and organizations that purport to use "science" to front and further their organizational and political objectives.*

- *We should recognize that peer-reviewed science does not depend on media manipulation, Hollywood personalities, or slick public relations.*

- *We should beware of "predicted" morbidity and mortality figures pulled out of the air by self-styled "experts".*

- *We should be scientifically critical. Too many practitioners are actually only regulators and functionaries, ever ready to accept, promote and enforce the current party line or misinformation.*

- *We should recognize the difference between science based facts and public perception.*

- *We should learn and practice the art of risk communication. Few environmental health and protection professionals understand and practice effective risk communication. Instead, risk communication is erroneously considered to be a speech, a press release, a letter or a leaflet. This is one of the reasons that public perception of risk is at variance with that of scientists.*

- *We should always question, challenge, investigate alternative solutions, and analyze existing and proposed regulations and standards to determine the validity of their scientific base. Existing programs, standards and regulations tend to be magical and take on lives of their own. They are seldom challenged. A standard in motion tends to remain in motion in a straight line unless impeded by an equal and opposite force. Environmental health and protection professionals should provide the scientific "equal and opposite force" to challenge the prevailing understanding of risk when necessary.*

- *We should remember that people tend to overestimate risk from rare but dramatic events, and tend to under-estimate common events such as unintentional injuries and*

deaths, and the slow homicide and suicide caused by tobacco. People disdain changing preconceived notions about risks and priorities, and people are quick to dismiss evidence as erroneous or biased if the information contradicts their preconceived opinions.

· We should understand that many Americans, and even some public health practitioners, seem to exhibit a love of calamity. Some extremists are applauded and profit from false predictions of environmental calamity, some of which becomes translated into public hysteria and public perception, thence into political action, and finally into expensive and unnecessary programs and public policy. Those promoting such hysteria accept no responsibility for their false statements and predictions.

· We should define problems before proposing solutions, and fit the solutions to the problems rather than the problems to the solutions. Some groups seem to consistently have canned solutions waiting for problems.

· We should realize that the proper standard for environmental health and protection is not always "zero-risk", but "net benefit", or "net impact." Zero-risk may not be economically or practically attainable, and the cost of pursuing zero-risk for one issue may preclude resources essential for addressing more important problems and, also leads to unrealistic public expectations.

· We should understand that an unnecessary or poorly designed or overly expensive program becomes even more difficult to stop or alter once a bureaucracy or an industry is developed to promote the program.

· We should develop improved methods to prevent environmental problems, as differed from curative efforts and clean-up. While the field of environmental health and protection identifies with prevention, a preponderance of effort is devoted to solving problems created as a result of earlier decisions and actions taken by the public or private sectors. Therefore, public health personnel must become effectively involved in the planning and design stages of energy production and alternatives, land use, transportation methodologies, facilities construction, and resource utilization; as well as design, development and production of products which may adversely impact human health or delicate ecological balances. Environmental policy must be based on prevention if there is to be any hope of preventing further resource depletion, ecological destruction, and minimizing the health impacts of environmental contaminants.

And finally:

· We should be wary of accepting problems based only on extrapolations and correlations rather than on good epidemiological and toxicological cause-and-effect studies.

If we consider correlations only, we would probably conclude that:

CARROTS WILL KILL YOU! *After all,*

- Nearly all sick people have eaten carrots. Obviously the effects are cumulative.*
- An estimated 99.9% of all people who die from cancer have eaten carrots.*
- 99.9% of people involved in auto accidents ate carrots within 30 days prior to the accident.*
- Some 93.1% of juvenile delinquents come from homes where carrots are served frequently.*
- Among people born in 1849 who later ingested carrots, there has been 100% mortality.*
- All carrot eaters born between 1900 and 1910 have wrinkled skin, have lost most of their teeth, and have brittle bones and failing eyesight, if the ills of eating carrots have not already caused their deaths.*

Additionally, keep in mind that:

STORKS BRING BABIES!

The number of storks in Europe has been decreasing for decades. Concurrently, the European birth rate has also been declining.

Obviously, we would be foolish to accept these correlations as evidence that storks bring babies or carrots cause illness and death. The science of epidemiology attempts to sort out from myriad chance correlations those meaningful ones which might involve cause and effect. However, we all know that epidemiological methods are inherently difficult, that it is not easy to obtain convincing evidence, and that there are many sources of bias.

Organizations

There are many agencies which administer environmental health and protection programs at all levels of government, and there is no standard organizational model for environmental health and protection. Every level of government has numerous agencies with environmental health and protection responsibilities.

At the federal level, these agencies include the Environmental Protection Agency, the Occupational Safety and Health Administration, the U.S. Public Health Service (including the National Institute of Environmental Health Sciences, the Centers for Disease Control, the Indian

Health Service, the Food and Drug Administration, the Agency for Toxic Substances and Disease Registry, and the National Institute for Environmental Health and Safety), the Coast Guard, the Geological Survey, the National Oceanographic and Atmospheric Administration, the Fish and Wildlife Service, the National Marine Fisheries Service, the Nuclear Regulatory Commission, the Corps of Engineers; and the Departments of Transportation, Agriculture, and Housing and Urban Development. Major departments administering proprietary programs include Defense, Energy, and Interior.

Environmental health and protection programs continue to be diversified into state "EPAs" as they were more than 20 years ago at the federal level. State level agencies include health departments, EPAs, and departments of ecology, conservation, environmental quality, natural resources, pollution control, agriculture, atomic energy, and occupational health and safety.

For several years I stated that something like 75% of state environmental health and protection activities are administered by environmental health and protection agencies other than health departments at the state level. A recent study conducted by the Johns Hopkins School of Public Health indicates that I have been wrong. The figure is greater than I have been suggesting --- more like 85% to 90% of state level environmental health and protection activities are administered outside the purview of state health departments.

By comparing state level environmental health and protection expenditures with other public health expenditures as reported by the Public Health Foundation, we find that states spend approximately the same amounts on environmental health and protection as they do on all other public health programs.

Most local environmental health and protection programs are components of local health departments. However, a number of jurisdictions in the western U.S. have established separate environmental health or environmental management departments. Environmental health and protection activities are also administered by such local agencies as public works, housing, planning, solid waste management, special purpose districts, and regional authorities.

The trend to organizationally diversify environmental health and protection programs from health departments will continue in response to public perception of the importance and complexity of the environment, the demands of environmental advocates, and in response to many health departments becoming increasingly involved in health care issues in addition to public health. It is unrealistic to develop working programmatic relationships between water pollution control, for example, and any one of a number of health care treatment and rehabilitation programs. Further, the drift of federal, state and local health departments toward more and more health care (as providers of last resort) may translate into less and less leadership for environmental health within such health departments. The movement of environmental health and protection programs away from health departments is a part of our evolving governmental system. Health department based environmental health professionals have often exhibited a preference for such traditional programs as food protection, liquid waste

disposal, solid waste management and vector control. In spite of public demand for local agency involvement in air, land and water pollution programs there often appears to be a reluctance to acquire the necessary skills and resources to participate what some refer to as environmental protection programs.

However, regardless of the titles or organizational arrangement, the lead agencies for environmental health and protection should be comprehensive in programmatic scope; staffed by personnel having the requisite competencies and leadership skills; have program design and priorities based on sound epidemiology, toxicology and risk assessment data; and have adequate analytical, data, legal and fiscal resources.

Environmental personnel who identify only with traditional health departments may be an endangered species eking out a frustrating existence in a constantly shrinking programmatic environment.

*As separate environmental health and protection organizations are created, every effort should be also made to insure that **all** environmental health and protection programs are transferred, so as not to fragment the environmental health and protection effort itself. Many jurisdictions have rationalized that such programs as food, water supply, and liquid wastes are "health," while air, water pollution and waste programs are not "health." In fact, all such programs share public health goals and are based on public health standards. All such programs should be prioritized together. All require the same type of program methods, laboratory support, legal resources, epidemiology, prioritization, risk assessment, risk communication, risk management, surveillance and data.*

In the future,

- We should collectively understand that organizations, programs and public expectations will not be static.*
- We should realize that there are no final answers; and that problems, organizations, programs, and personnel competency needs will continue to evolve and become more complex.*
- We should remember that many public and environmental "healthers" have mistakenly tended to resist rather than lead changes in programs, organizations, and personnel competencies.*
- We should believe that anything as important as environmental health and protection deserves and demands organizational support, visibility and effectiveness which may translate into organizational diversification and programmatic change; and we must understand that environmental constituents and political leaders frequently demand such change.*

- *We should understand that every community and state has many "health agencies", but that only one is specifically titled a health department.*
- *We should recognize that the cause of environmental health and protection is being served in a variety of agencies.*
- *We should understand that in some jurisdictions, public health is being subsumed by health care, and that it takes a high degree of fantasy to develop a working programmatic relationship between health care (which is the treatment or rehabilitation of a patient under care) and hazardous waste management, or health care and pollution control, or health care and safe drinking water, or health care and food protection, or health care and any other environmental health and protection activity.*
- *We should encourage environmental health and protection professionals to seek key leadership and scientific roles in all types of environmental health and protection agencies.*
- *We should realize that the scope of environmental health and protection interests now embraces ecological issues as a full partner. Whatever long-term health threats may exist, the public also knows that pollution kills fish, dirties the air, creates a foul stench, ruins rivers, destroys recreational areas, and endangers plant and animal life.*
- *We should ensure that schools of public health and other programs educating environmental health and protection personnel are inculcating the competencies to be effective in a wide variety of organization settings. Graduates must be competent not only in the basic public health sciences, but also in analytical skills, communication skills, policy development, program planning skills, cultural skills, financial planning and management skills, and leadership skills. It is also essential that incumbent personnel be "retreaded" with these skills through effective continuing education mechanisms.*

Concluding Thoughts

Managing environmental programs in accordance with legislative and executive branch dictates is comparatively easy. Legislative and executive elected officials, understandably, have their own priorities based on the demands of their constituents.

But to be an effective environmental health and protection leader and impact the relative priorities of environmental health and protection problems based on sound epidemiology, toxicology and risk assessment is extremely difficult and often career threatening. Leadership on the road to improved environmental quality is difficult and hazardous. There are many

potholes in the way of providing effective, priority environmental health and protection services. The journey requires vision and steadfastness of purpose, as it is beset by emotional pressures, tempting comfortable detours, political surprises, and frequently offers no short-term gratification or pay-off. There are few if any rest stops along the way.

Ensuring a quality environment for this and future generations will require the combined efforts of government and the private sector, individual citizens and citizen groups, professional and trade groups, and academia.

The trip will continue to be worth the effort as well as the price!

19. THOMAS E. BACA COMMENTS:

I invited several former New Mexico environmental health and protection officials with whom I had been associated to write material for this manuscript.

I was privileged to be associated with Tom Baca commencing in 1964. Tom became EIA Director of Field Services, EIA Director, environmental consultant, Santa Fe City Manager, Vice President of the University of Arizona, U.S. Department of Defense Deputy Assistant Secretary for Environment commencing in 1990, and Director of Environmental Management for Los Alamos National Laboratories commencing in 1994.

Tom Baca provided the following in 1992.

After graduating from the University of New Mexico in 1964, I was forced to face life and cruel reality by obtaining a job. But where did one who had a major in biology and a minor in chemistry look in 1964? The possibilities were mind boggling. I could teach or I could scan the want ads in hopes of a miracle. I would have enjoyed teaching, but unfortunately this field was saturated with applicants. I was foolish enough to believe in miracles and it worked! As I scanned the Albuquerque Journal classified ads, there it was. 'Wanted - a person with a biological, science or similar background to work as a sanitarian for the Albuquerque Health Department.' I had no idea what a sanitarian was. I applied for the position and, fortunately for me, I was hired. (I really believe that Chief Sanitarian Peter O. Griego hired me because I was from Belen and his wife Emma had relatives in the Belen area.) Peter was a true professional --- a hard driving individual with a vision of environmental health and safety firmly embedded in his character. He was honest to the core, and was determined to make the Albuquerque Health Department the best in the country.

My first interview with Larry Gordon after I was hired was a real shocker. Larry was a giant in my eyes. He was confident, highly motivated, experienced and already, at a very young age, a nationally recognized public figure. After concluding my talk with Larry, he made a statement I will never forget. He said 'Tom, I don't want to see you around here in three years.' I was devastated. I was signing on for life. I expected to work thirty years and retire just like normal people. I asked why and he replied that it was important that I enter graduate school and obtain a Masters of Public Health degree in environmental health and enhance my professional knowledge and skills. I subsequently followed his advice and departed after four years to enter the University of Minnesota School of Public Health. Since then, I continued to follow his philosophy and work pattern. I have managed to broaden my knowledge and experience by changing positions every four to six years. I will always be grateful to Peter and Larry for encouraging me to enter a graduate program in environmental health which prepared me for greater professional challenges and opportunities.

The highlight of my career was the opportunity to grow and develop with truly outstanding professionals, and to participate in a field that is universally recognized as being essential to

survival.

My only dark experience occurred during the administration of Governor Toney Anaya during which time I observed the destructive influence of an inept elected official. Many truly well qualified professionals were permanently affected, and the State of New Mexico is still trying to recover its national prominence in the field of environmental health. I do, however, thank Governor Anaya for one thing. Being fired by an incompetent governor spurred my career into broader areas of environmental management which I could not have achieved had I remained in the Anaya administration.

20. RUSSELL F. RHOADES COMMENTS:

Russell F. Rhoades joined the professional staff of the Albuquerque Environmental Health Department in 1966, entered the military where he was involved in industrial hygiene, graduated from the environmental health program at the University of Minnesota School of Public Health; joined the New Mexico Environmental Improvement Agency where he was Occupational Health and Safety Bureau Chief, Deputy Director, and EIA Director; then was appointed EPA Regional Environmental Services Director for the Dallas Region in 1984.

In 1992, Russ wrote:

Thank you for allowing me the opportunity to offer information for your book Environmental Health and Protection Adventures.

As one of several individuals you mentored, I have many fond memories of my experiences with the Albuquerque Environmental Health Department and the New Mexico Environmental Improvement Agency (EIA). Numerous situations and characters come to mind. For example, there was the attempted downgrading of an Albuquerque restaurant, which, due to the resistance of the giant sized proprietor and his even larger sons, required the assistance of the County Sheriff's Office. While attempting to perform an arrest, the accompanying "Barney Fife" size Deputy Sheriff discovered his handcuffs were not large enough to fit around the proprietor's wrist. At that point we all, proprietor included, piled into the deputy's car enroute to visit the County Sheriff himself, who responded by dispatching an additional deputy to the restaurant to assure that upon our return from the court house, the downgrading would occur as planned.

Then there was the time when I was fresh out of graduate school and giving my first speech to a large audience as New Mexico's new Occupational Health and Safety Director, that the rubber band I was nervously fidgeting with flew off my finger and struck the head of General Electric's Safety Engineer seated in the front row. My task suddenly changed from promoting the need for a statewide health and safety program to convincing the audience that, despite my accident proneness, I was the one to lead the state's efforts.

I particularly recall attempting to convince the Chairman of the New Mexico Environmental Improvement Board, Mr. Roy Walker of Clovis, New Mexico, who was quite proud of his hometown, that we did not need two district offices in the southeast quadrant of the State. I explained the benefits resulting from converting the Clovis Office from a district to a field office reporting directly to Roswell, which was more centrally located and thus the logical choice logistically for the district office. Mr. Walker appreciated the efficiencies and cost savings realized by a consolidation, but believed instead that Clovis should remain the district office with Roswell reporting to it. Mr. Walker disagreed that Clovis should in any way be subordinated to Roswell since the two cities were arch rivals when it came to high school football, and Clovis had historically been the dominant force. While Roy is a grand man and has done much for the State of New Mexico, I don't know to this day that he ever accepted the

realignment we effected despite Clovis' continuing football prowess.

Other recollections abound, but aside from the fine people with whom we worked and served, the most rewarding memories I have were of the many accomplishments we were able to achieve while at EIA. These accomplishments would not have been possible without the necessary authority, resources, and public support. While such support must be derived from the Legislature, it is important to keep in mind that state legislative bodies west of the Mississippi River, with the possible exception of west coast states, are very conservative and are the most powerful of the three branches of government. The New Mexico Legislature was certainly no exception. In fact, the New Mexico Legislature was one of the most conservative relative to environmental issues, particularly during the earlier years when such matters were becoming subject to public scrutiny. Having an economy strongly based in agriculture, mining and the extractive industries, environmental issues were not only considered controversial and contentious, but by some in the New Mexico Roundhouse, regarded as downright "Un-American. Yet, a number of very significant bills were enacted to protect public health, safety and the environment while other proposals which would detract from or undermine such efforts were defeated.

For example, the New Mexico Legislature enacted an Air Quality Act which set the stage for some of the hardest fought, most successful battles among any of the states to protect its air quality and New Mexico's magnificent vistas.

A Water Quality Control Act was also enacted which placed New Mexico in the forefront, not only among states, but ahead of the federal government. Even more profound was New Mexico's early leadership in ground water protection. Both were accomplished absent federal mandate or guidance. By placing constraints on New Mexico dischargers far beyond what such businesses would face in most other states, this act greatly enhanced the protection of New Mexico's ground water resources.

Very early, the New Mexico Occupational Health and Safety Act was enacted, thus enabling the State of New Mexico to pioneer this most controversial of programs. Today, New Mexico is still the only state in the Department of Labor's five state southwest region which administers its own state Occupational Health and Safety Program, in lieu of the federal Occupational Safety and Health Administration.

The New Mexico Legislature enacted legislation requiring the uranium industry to provide for long term financial responsibility so as to assure that untoward problems resulting from uranium mining and milling activities, either during or after cessation of operations, would appropriately be addressed without burdening the state coffers. This occurred at a time when certain legislators, heavily invested in the uranium industry, occupied some of the most powerful leadership positions in the New Mexico Legislature.

New Mexico enacted hazardous waste legislation pursuant to the federal Resource Conservation

Recovery Act (RCRA) in a timely manner. Additionally, each year the New Mexico Legislature funded construction grants-in-aid for development and improvements of local water supply and sewage treatment systems.

While legislative proposals were occasionally introduced to weaken existing environmental health and safety statutes or, in rare cases promote "environmental extremism", such attempts were generally defeated.

Certainly the Environmental Improvement Agency was not successful in prevailing on all legislative issues. And quite often financial support to fully implement some of the enacted measures was lacking. In fact, most disappointing was the Legislature's unwillingness to authorize upgraded salary levels commensurate with the quality of work required.

To say that these few examples among the many environmental measures enacted, cured all ills, is far from true. But these laws were enacted relatively early in the evolution of the national environmental debate, and their implementation has withstood many challenges over time. And most importantly, these laws have provided a substantial measure of public health, safety and environmental protection to the citizens of the state.

So how was it that in dealing with the most conservative of lawmakers, the Environmental Improvement Agency was able to obtain legislation considered of liberal bent which catapulted New Mexico into leadership roles in environmental health and safety? It did not just happen. And as we know, it was not easy. As a matter of fact, I believe that the legislative sessions were by far the most difficult, stressful, tiring and sometimes most outrageous experiences any of us ever faced. But what got us successfully through these sessions year after year and allowed us to prevail on most issues we championed was that the Agency had established credibility, to the extent such was possible in New Mexico state government. Whether legislators agreed with us or hated us, they rarely challenged our integrity, our expertise or our professionalism. Indeed they appeared to be impressed by our ability, either during sessions or throughout the year, to strongly advocate a position yet be responsive to their concerns, as well as willing to explain, educate and work amongst warring factions to resolve issues. Some might call this lobbying but, as we know, state employees were prohibited from such activity. However, we were permitted to offer technical assistance to enhance understanding of legislation. Suffice it then to say that over the years we provided extensive technical assistance to the New Mexico legislative process. This assistance also gained the respect of industry lobbyists and the various interest groups involved.

To be realistic, I believe the support provided by the Legislature was due in part to political expediency, and legislators knowing in their heart of hearts that enacting environmental legislation was the proper thing to do. But I also believe that this level of deference afforded the Agency was, in great measure, due to many legislators perceiving EIA as consistently offering a responsible and balanced approach to the competing developmental and environmental protection interests.

To successfully approach such balance required knowledge, broad perspective, courage and perseverance, which is only possible when organizations are committed to high professional standards and values, an enlightened vision and sound management. Under your direction, the New Mexico Environmental Improvement Agency was a state agency which had defined goals, a clear mission and measurable objectives. The Agency conducted its business responsibly, was accountable, enjoyed a problem solving orientation, and continually strived to improve delivery of services. The Agency was staffed with properly educated professionals enthusiastically committed to protecting public health and the environment. The fact that the Agency was able to attract and keep such professionals for so many years, particularly in view of the poor salary structure, was absolutely remarkable.

The point is that, despite substantial obstacles, the Agency made tremendous strides in protecting public health, safety and the environment as a result of the leadership you provided. I am very proud to have been a part of New Mexico's environmental protection adventures, and am most grateful to you for sharing the opportunity to do so.

DISCLAIMER: **In accordance with 40 CFR, 3.506 this material was written by Russell F. Rhoades in his private capacity. No official support or endorsement by the Environmental Protection Agency or any other agency of the Federal Government is intended or should be inferred.**

21. SARAH B. KOTCHIAN COMMENTS:

I was looking for work in the summer of 1982. The federally funded health agency for which I had been working the last four years had been de-funded, thanks to the new Reagan administration. An acquaintance mentioned that Larry Gordon had just returned to the city as Director of the Environmental Health Department, that he was a wonderful public health leader, and that he might be looking for some help. I called to make an appointment with him. He was indeed in the process of creating an administrative assistant position, he said, and invited me for an interview.

The fact that there wasn't much to notice when I arrived for the interview speaks volumes about the man and his methods. His office was spacious, filled with light. His desk was clean except for a neat stack on the upper right hand corner on top of a desk calendar. The credenza behind him had two more neat, short piles. On the walls, in equal numbers, were the many plaques of recognition he had received, and backpacking pictures in the San Juan Mountains in southwestern Colorado. There were several fly-fishing expeditions recorded in photographs as well. We did not waste much time in getting to the point of the interview. He inquired about my background and asked to see examples of my written work. He indicated that he was looking for someone who could write about the department, do public speaking, and generally handle administrative details for the Director. Following discussion and review of my resume and publications, I asked about the pictures on the wall, since I came from a background of camping, backpacking, and hiking. The enthusiasm in his answers reflected a man who balanced his hard work in environmental health with recreation and pure enjoyment of the natural world. I was to learn later how much of this love of wilderness, the sense of ecology, even his lack of sentimentality about the natural order of things derived from his many years of walking the lands of the Southwest with his parents, and learning about human and animal effects on ecosystems. We finished the interview shortly afterwards, and he said he would contact me. A few weeks later, he called and said I could start on September 13th. "Does that mean I have the job?", I asked. He never was long on words.

I spent my first few weeks on the job reading most of what Larry Gordon had ever written on the subject of environmental health organization, concepts, policies, administration, planning, and essential components. I also reviewed scrapbooks of news clippings from many years, learning about the environmental abuses eliminated, programs begun, problems encountered and recognition received by the department. I began accompanying him on his appointed rounds. He invited me as part of my orientation to attend most city hall and city council meetings. Always, I would ask questions following the meetings about why he had or had not given certain responses. He always took time to explain, incorporating principles of sound environmental health management as he did so. This combination of reading and on-the-job observation and mentoring was a rare and invaluable opportunity. To this day, I don't know of a single individual from whom I could have better learned the basic knowledge, underlying principles, integrity, and perseverance for directing an environmental services agency.

The appearance of his office never changed in the four years we worked in the same building. All of his mail was read and disposed of daily. He dictated almost all of his work. He had no pending work on his desk except for a small stack. Alas, some of the above habits I never completely mastered, much to his continual chagrin. He visited his boss, the city Chief Administrative Officer, almost daily, if only for a few minutes. He believed that frequent communication was the key to avoiding unnecessary misunderstandings and to achieving support for his programs. It worked.

Larry Gordon often knew when an employee was ready for a new challenge, even when he or she did not. There were many times he sent me on a mission for which I felt unprepared. Once he sent me in his place to address a national workshop sponsored by the American Public Health Association (APHA) on the local role in hazardous waste management, a new topic in 1983. On short notice, I had to research the topic, develop a paper and present it to an assembled group of experts in Washington, DC. This was the first of many active involvements with APHA. By that one delegatory act, Larry provided me an opportunity to gain more confidence in the subject matter and in public speaking, and to enter into the national arena of professional public and environmental health involvements which have continued to stimulate, re-inspire and inform my work.

It was through APHA that I came to realize the enormous opportunity I had been given to work with one of the all time great masters in the field. At my first APHA annual meeting in 1983, it seemed that whomever I met exclaimed out loud when they discovered that I was working for THE Larry Gordon. And as I sat in the general session on the opening day and heard the current APHA president give his address, I began to comprehend what it meant for Larry to have been president of the largest public health association in the world. In fact, his APHA Presidential Address which he gave in 1981, "Popullution," not surprisingly, contained ideas more than a decade ahead of their time, now being brought forth again by environmentalists. I returned to Albuquerque with a new appreciation for this public health leader and the opportunity I had to work with and learn from him.

The following are just some of the principles I learned from those years of understudy:

- Public health is the basis of environmental health programs.*
- Environmental health programs should be based on the public health sciences of epidemiology and biostatistics.*
- A programs should only be established after the public health problem is discretely defined and quantified, and the program developed to specifically address that problem.*
- Agencies should hire the best, whether the individuals come from within or outside the agency. Most should have a background in science, so as to be able to understand and explain the basis for standards and regulations to the public and regulated industries, and to have the scientific*

underpinnings upon which to make professional judgments in areas which are not always black and white.

·Once the best are hired, the director should, with confidence, be able to delegate authority and responsibility to the lowest level possible, in order to take advantage of the individual's knowledge and skills and to allow the employee to fully develop his or her own sense of confidence and ability in the field.

·Continued training is essential for all personnel - both specific, specialized scientific training, and general skills training in areas such as writing and public speaking, to insure the competence, effectiveness, and good public image of the employee and the department.

·An attitude of public service is expected and required. Any employee who forgot this was reminded, once. Employees who needed more frequent reminding found that they were no longer in positions of public contact, if indeed they were still with the agency at all.

·Frequent contact with the many publics the agency serves is essential. To this end, Larry Gordon mailed press releases and copies of relevant scientific articles to a lengthy mailing list which included local, state and federal elected officials; board members; citizen constituents, and the media. The department regularly publishes a program guide, an annual report, and many informational materials on the various programs. The department has a policy of open communications with the media. Employees may speak to the media on program matters (but not on policy issues) with which he or she is involved.

·Program managers are expected to be factual in stating the agency's scientific position, even when it might not be politically desirable. In the long run, the agency and staff are respected for their integrity. This belief was borne out by Larry's long tenure in appointed positions normally subject to the whims of political changes.

·Program managers are expected to be "proactive" (a favorite word of Larry's), and anticipate problems and trends in the field. Staff at all levels receive support for identifying problems and developing strategies to address them. The Albuquerque Environmental Health Department maintains its national reputation for forward looking programs. Many graduate and undergraduate environmental health academic programs request copies of the department's program guide for use in their classes, and send student interns from across the country to work in the department for a semester.

·Specific graduate training in public health is highly desirable for all environmental health program managers, and was so encouraged that many promising employees took advantage of the opportunity to attend a school of public health or accredited graduate environmental health program while working for Larry. Thus, the assembly of environmental health leaders inspired to seek a master's degree in public or environmental health spanned four decades.

There could follow many pages of lessons learned. In fact, most of us who are active in the field visit by phone or in writing with Larry on a regular basis to discuss current public and environmental health issues. He remains more active than most "unretired" leaders in pressing for needed improvements and policies at the national level.

Larry was capable of leading people to make life-altering decisions over lunch, or overnight. I would frequently work through the lunch hour. Larry would stop by on his way to the New Mexican restaurant next door to see if I wanted to go for a quick bite. Quick was right. He would often order, eat, and be through within fifteen minutes, all the while asking questions so I was unable to eat my own lunch. Then he would sit there, finished with his meal, arms folded across his chest, and impatiently say, "Don't let me hurry you," while I quickly consumed the rest of my lunch by myself. During one such lunch, he casually remarked that I could never have his job if I did not have a Master of Public Health degree as required by New Mexico statute. I can honestly say that until that day I had never considered that I might some day be the Director of Environmental Health. It was another example of the way in which he challenged people to think beyond the present to a world of greater vision. I discussed it that night with my husband, and the next morning came in to the office reporting that I had decided to pursue the degree. Within two months I was enrolled at the University of Washington School of Public Health extended degree program, which allowed me to take courses while maintaining my position. I completed the degree two years later, writing a master's thesis on The Role of Community Relations in the Siting of Hazardous Waste Facilities. A year after completing my MPH, Larry Gordon was offered and accepted the position of New Mexico Cabinet Secretary for Health and Environment, thus providing the vacancy to which I was promoted in January of 1987. I was about to put into practice the principles I had learned under Larry's mentorship, from participation in APHA and the National Environmental Health Association, and through my master's program in public health.

The department responsibilities continued to grow steadily from 1987 to the present, adding programs without always adding staff. It is important to regularly review all programs to insure that they still address a public health problem and are being administered as effectively and efficiently as possible. I meet several times a year with the management staff to go on a retreat, the purpose of which is to look at the long-range issues facing us and to improve department-wide internal operations. Through such managerial retreats we have implemented initiatives to improve the effectiveness of the clerical pool and the efficiency of the fiscal process, to enhance communications with employees, to upgrade the automated information capability of the department and to involve more staff in long-range planning. Individual divisions of the department also take at least one staff retreat per year, during which time the staff together review each program activity, identify current unresolved issues and future environmental trends which might eventually become the basis for a new program, changes in program design, or changes in priorities. We have implemented many new programs as a result of these retreats, which serve not only to involve staff but to insure that we continue to anticipate and address environmental problems before they become serious and more expensive to address. Such programs include a medical waste consultation program, a small quantity generator hazardous

waste technical assistance program, and the first mandatory program in the nation to forbid wood-burning on nights when a winter air inversion is predicted. Staff are also encouraged to bring forth unaddressed issues in the field at weekly staff meetings, and to keep current on environmental concerns through reading of technical literature and attendance and presentation of papers at professional meetings. The department regularly schedules outside speakers to address the staff on environmental programs at other agencies, both to broaden staff's perspective of the environmental health field and to insure that we maintain linkages with agencies having common interests.

It is important that our program designs are based on the best data available. As a result, we seek opportunities for joint research, the results of which will improve our programs. As examples, we have a cooperative study with the World Health Organization on local pesticide resistance of the mosquito and fly population, and a Cooperative Research and Development Agreement (CRADA) with Sandia National Laboratories to develop and test a portable toxic air emissions monitor.

Staff training continues to be a high priority within the Environmental Health Department. All new employees have the opportunity and the pleasure of visiting and learning about all of the department's programs for an entire week before they are allowed to settle into their job. This insures that they have a comprehensive picture of the agency of which they are a part, lets them meet many of the individuals in other divisions, and makes them better spokespersons for the department in the community because they have an improved understanding of what we do. All employees are requested to write a five-year career plan to share with their division manager, to give the supervisor a better understanding of the employee's aspirations and to suggest opportunities for cross-training within the Department. At the employee's annual evaluation, at which he/she and the supervisor together set objectives for the coming year, an objective is written for the specific training which is sought for the following year, which ideally meets both the division's and the employee's personal interests.

Creating and maintaining linkages with all members of our public is another high priority for the department. We believe that it is impossible to achieve environmental quality by ourselves, and that we must be integrally involved in the prevention of environmental problems through participation in key decisions regarding land use, energy conservation, transportation, and economic development. We continue to take leadership roles to insure that our community has a mass transit system that works, policies that encourage energy and water conservation, and economic development strategies that incorporate environmental considerations in recruitment and siting so that our community will be sustainable in the long run.

Communication with the public continues to be a high priority. In addition to regular press releases about department programs and seasonal problems, and various publications including the program guide and individual program brochures, departmental employees regularly speak to school classes, participate in career days and as science fair judges, give lectures at the local environmental camp and at universities, and give presentations to churches, neighborhoods,

civic organizations, and key business groups such as the Chamber of Commerce and Albuquerque Economic Development Agency. The department presents quarterly community recognition awards to individuals and groups which have helped support the mission of environmental health protection, and a quarterly environmental teacher award to a teacher who has done an outstanding job of creating environmental awareness and community action on the part of the students. The department was the organizer of the group in 1990 which is now called the Earth Day Coalition of New Mexico, which has numerous member organizations, holds year-round events and publishes a newsletter.

As public employees, we work in a political environment. The political world can be acknowledged while not allowing it to prevent articulation of issues that need to be addressed, or the actions that need to be taken. If a program has continually provided public education and outreach and maintained a professional staff, the resulting strong public support will be invaluable in assuring that programs are based on science and protection of the public health. The department's long-standing policy of hiring the best-qualified staff for available positions has served it well in assuring a competent, professional, objective staff which can manage programs as independently as possible from political pressures. The importance of the resulting credibility which is built up over time cannot be underestimated.

The fact that the department is able to offer so much to its citizens is owed largely to the foresight, determination, and persistence of Larry Gordon. His is a legacy that the next generation of environmental health professionals is fortunate to inherit and proud to carry forth.

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