"Serving Texas Since 1893"

TEXAS ANIMAL HEALTH COMMISSION

Agency Workforce Plan

I. AGENCY OVERVIEW

The Texas cattle fever tick, a parasite less than an eighth of an inch in length, played a pivotal role in the 1893 creation of the Livestock Sanitary Commission, which in 1959 was renamed the Texas Animal Health Commission (TAHC). Since that time, TAHC and the United States Department of Agriculture (USDA) have worked cooperatively with livestock producers on animal health issues in furtherance of the agency's vision, mission, and philosophy.

Thirteen Commissioners appointed by the Governor, representing all segments of the livestock industry and the public, oversee and guide the agency's activities. The Governor designates the Chair.

The Commissioners appoint an Executive Director who supervises the agency's activities. The TAHC operating budget is prepared and approved by the Commissioners on an annual basis, whereas the TAHC Legislative Appropriations Request (LAR) is prepared and submitted to the Legislative Budget Board and Governor's Office for Budget, Planning, and Policy during the summer of each even-numbered year as part of the Strategic Planning and LAR processes. The State Legislature approves the operating budget and LAR and establishes policy which is implemented and executed by TAHC under the direction of the Executive Director and the Commissioners.

TAHC has specific statutory authority and responsibility to control and eradicate any disease or agent of transmission that threatens the livestock and poultry of Texas, as outlined in Chapters 161 through 168 of the Texas Agriculture Code, Vernon's Annotated Texas Statutes. The agency is vested with the responsibility of protecting all livestock, domestic animals, and domestic fowl from diseases stated in the statutes, or recognized as maladies by the veterinary profession. TAHC is authorized to act to eradicate or control any disease or agency of transmission for any disease that affects livestock, exotic livestock, domestic animals, domestic fowl, and exotic fowl, regardless of whether or not the disease is communicable. In order to perform these duties and responsibilities, TAHC is authorized to control the sale and distribution of veterinary biologics, except rabies vaccine; regulate the entry of livestock, domestic animals, and domestic fowl into the state; and, control the movement of livestock.

An increased awareness of the threat of agroterrorism attack, as well as the impact of natural disasters on animals, has expanded the agency's role in emergency

management. The Governor added TAHC to the State Emergency Management Council in 2001 and to the Homeland Security Council in 2005. Because of TAHC's expertise in animal health, the State Coordinator of Emergency Management designated TAHC as the state's lead agency for all animal issues involving emergencies, including natural and man-made disasters and acts of agroterrorism, as well as naturally occurring animal disease outbreaks. TAHC also participates on the Emergency Management Steering Committee (formerly called the Texas Emergency Response Team), a joint effort between TAHC and USDA to prepare for and respond to foreign animal disease outbreaks and other disasters.

The TAHC workforce is comprised of field inspectors, veterinarians, veterinary epidemiologists, laboratory personnel, and administrative staff.

TAHC is funded by a combination of state general revenue funds and federal funds, primarily from USDA. For the 2008 – 2009 Biennium, TAHC has an authorized workforce of 209 full-time equivalent employees (FTEs). Riders in the General Appropriations Act provide contingency authority for TAHC to add additional FTEs to the extent that federal funds are allocated for salary costs; none of these contingent FTEs count against the agency FTE cap. Included within the FTE cap are seven fully federally funded laboratory positions serving the State-Federal laboratory system.

As Texas hones its competitiveness in the global food market, TAHC programs support animal agriculture, focusing on the control and eradication of domestic diseases such as brucellosis, tuberculosis, and Aujeszky's/pseudorabies and ensuring the basic infrastructure to reduce the risk of newly emerging diseases, foreign animal diseases and exotic pests.

Efficient and effective surveillance is supported by a modern and competent laboratory system. Veterinarians and Veterinary Epidemiologists oversee the diagnosis of diseases and assure appropriate tracing of the movement of exposed or infected animals to determine the origin of infection and minimize the transmission of disease.

At the height of the cattle brucellosis eradication campaign, more than 350 employees worked for the TAHC. Most of them were animal health inspectors who tested cattle for brucellosis. In the past decade, the TAHC has dropped its full-time equivalent workforce by more than 30 percent, while maintaining a basic infrastructure of cross-trained staff capable of handling a variety of diseases and species of animals.

Despite the reduction in agency staffing and funding over the past decade, TAHC's role in animal agriculture in Texas continues to expand and become more complex, particularly in light of its growing role related to emergency management. Within the constraints of our current human and financial resources, TAHC faces difficult decisions to prioritize its animal disease control and eradication programs, emergency management preparation and response events, and emerging diseases to determine which of those programs competing for limited resources to conduct at optimum level and which programs will be conducted at less than optimum levels. Continued escalation of the current fever tick outbreak in South Texas cattle and wildlife could require an increase in workforce personnel which would have to be requested as an exceptional item.

A. Agency Vision, Mission, Philosophy

Vision

Through the cooperative efforts of the Texas Animal Health Commission, animal producers, and allied industry groups, the animal population of Texas is healthy and secure.

Mission
The mission of the Texas Animal Health Commission is:

- to protect the animal industry from, and/or mitigate the effects of domestic, foreign and emerging diseases;
- to increase the marketability of Texas livestock commodities at the state, national and international level;
- to promote and ensure animal health and productivity;
- to protect human health from animal diseases and conditions that are transmissible to people; and,
- to prepare for and respond to emergency situations involving animals by conducting agency business in a responsive, cooperative and transparent manner.

Philosophy
The Texas Animal Health Commission will carry out its mission with honesty, openness and efficiency. We will use the best available resources, technology and trained personnel to achieve the agency goals. We will listen to and respect the opinions and concerns of the people of Texas. We will encourage and promote open communication between all parties. We will strive to continuously develop new, or enhance existing relationships among government, industry, and private citizens to realize our vision of a healthy and secure animal population in Texas.

B. Strategic Goal, Objective, and Strategies

Goal
To protect and enhance the health of Texas animal populations, facilitating productivity and marketability while sustaining reduced human health risks.

Objective
To minimize the impact of disease on Texas animal populations by maintaining or reducing known levels of diseases; and, to enhance preparedness for emergency response by increasing the staff activities devoted to emergency preparedness annually.

Strategy
Monitor, control and/or eradicate diseases and infestations through statewide field based animal health management and assurance programs.

Strategy
Provide epidemiological expertise, serological testing, microbiological confirmation, and parasite identification services for diseases and parasitisms of regulatory importance to the animal agriculture industries in Texas.

Strategy
Promote voluntary compliance with legal requirements by providing education/information, and to resolve violations through effective use of legal enforcement and compliance activities.

C. Impact of Growing Animal Health Programs on TAHC Strategies

New animal health management programs, existing animal health programs, and increased regulatory requirements, at both the federal and state levels, are expected to

impact agency workload priorities and workforce structure over the next five years. TAHC must manage limited state and federal resources appropriated to the agency for a growing list of animal health programs, projects, and initiatives. The following list is not exhaustive and is intended only to provide a high-level view of the many programs impacting TAHC's resource and workforce needs.

TAHC Direct Strategy Animal Health Programs (including epidemiology, laboratory diagnostic support, and legal and compliance support)

1. **Animal Disease Control and Eradication Programs**

   a. Bovine Diseases

   i. Brucellosis. Few Texans recall the economic impact or public health risk that brucellosis or "Bangs" presented only two decades ago. Twelve years ago Texas had 230 brucellosis infected herds. Because of the hard work of Texas livestock producers, TAHC, and USDA-APHIS, the U.S. Department of Agriculture announced that Texas had achieved cattle brucellosis-free status on February 1, 2008. While the disease has been eradicated in the state, Texas must remain diligent in its surveillance efforts until the state has been classified as "free" for a number of years. To comply with the national brucellosis program standard, the agency will continue First Point Testing, a costly but necessary program, for at least two years to ensure the state maintains its free status. Additionally, swine brucellosis is prevalent in feral swine populations across the state. This disease can be transmitted from swine to cattle. Cattle are considered to be dead-end hosts for swine brucellosis, however, the cattle that contract the disease will be reactors on the cattle brucellosis test. Therefore, swine brucellosis in cattle complicates the cattle brucellosis surveillance program and may result in testing cattle herds to ensure that the herd is not infected with cattle brucellosis.

   ii. Tuberculosis. Tuberculosis is a bacterial infection that can cause lesions in the lungs, lymph nodes or other internal organs. It can affect many mammalian species in addition to cattle, including bison, goats, deer, camels, antelope, and humans. In June 2002, Texas lost its Tuberculosis Accredited Free Status which had allowed Texas producers to move cattle interstate with fewer restrictions and lower expense. Texas once again received its Accredited Free Status from the U.S. Department of Agriculture on October 3, 2006, which allows Texas producers to move cattle interstate with fewer restrictions and at lower expense. The TAHC is working to prevent the reintroduction of cattle tuberculosis from Mexico and from other states that are experiencing infection, in order to maintain Texas' Accredited Free status.

   iii. Johne's Disease. Johne's disease (pronounced "yo-knees") is a chronic and incurable intestinal infection of cattle and other ruminants. It spreads silently, primarily to calves. Symptoms do not begin until years after infection. Johne's is caused by the bacterium

Mycobacterium avium subspecies *paratuberculosis*. It is found in the small intestines, lymph nodes, uterus, milk, and feces. Animals are usually infected in the first few months of life by ingesting contaminated milk, water, or feed. Fetuses can also be infected in utero. The disease is diagnosed by either blood or fecal tests, or at necropsy.

iv. Bovine Spongiform Encephalopathy (BSE). BSE, commonly referred to as "Mad Cow Disease", is a chronic, fatal degenerative disease affecting the central nervous system of cattle. The disease belongs to a family of diseases known as the transmissible spongiform encephalopathies (TSEs). BSE was first diagnosed in 1986 in Great Britain. Since then, all but about 5,800 of the world's 189,000 cases have been detected in Great Britain. Epidemiological data suggest that BSE in Great Britain is a common-source epidemic involving animal feed containing contaminated meat and bone meal as a protein source. The causative agent is suspected to be from either scrapie-affected sheep or cattle with a previously unidentified TSE. Changes in rendering practices in the late 1970's to early 1980's may have potentiated the agent's survival in meat and bone meal. On August 4, 1997, the Food and Drug Administration (FDA) established regulations that prohibit the feeding of most mammalian proteins to ruminants.

In May 2003, the disease was diagnosed in the state of Washington (in a cow of Canadian origin); in June 2005, the disease was detected in a domestically-born cow in the United States, and a second domestic case was diagnosed in the U.S. in March 2006. There are indications that BSE is the causative agent for a new variant of Creutzfeldt-Jakob Disease in humans, that has been confirmed in 204 persons worldwide since 1995.

b. Avian Diseases

i. Avian Influenza (AI). The AI virus can cause clinical illness of widely variable severity in chickens, quail, ducks, geese, and guinea fowl, as well as a variety of other birds. There are many AI strains, and these are classified into low pathogenic (LPAI) and highly pathogenic (HPAI) forms, based on their ability to cause severe illness. Most AI strains are LPAI and typically cause mild clinical signs in infected birds. LPAI virus strains, however, are capable of mutating to HPAI viruses under field conditions. HPAI may be an extremely infectious. In rare cases, some strains may pose a danger to human health.

TAHC incurred costs of over $350,000 for overtime, travel, supplies, testing costs in responding to an outbreak of LPAI in Weimar and Carmine in the summer of 2002; no federal cooperative was available for that outbreak. An HPAI occurred in Texas in 2004 and an LPAI outbreak occurred in 2005. Both outbreaks were contained to small areas and both were successfully eradicated.

If AI mutated and became infectious to humans, the Texas Department of State Health Services (DSHS) would be the lead agency; TAHC would continue to address disease in poultry, with advice from DSHS on human safety measures.

ii. Exotic Newcastle Disease (END). END is a foreign animal disease in the United States and is considered the most infectious disease of birds and poultry. A death rate up to 100 percent can occur in exposed and infected poultry flocks. An outbreak of END occurred in the El Paso area in April, 2003. Eradicating the outbreak and conducting widespread disease surveillance involved hundreds of hours of TAHC staff time. As a foreign animal disease, the costs of overtime, travel, supplies and testing were covered under a federal cooperative agreement.

iii. Pullorum-Typhoid (PT). PT is caused by the bacteria *Salmonella pullorum* and can cause up to 100 percent death loss in infected birds and poultry. Fowl typhoid is caused by a different salmonella bacteria than the type which causes typhoid fever in humans. In April, 2004, a flock in Missouri was diagnosed with Pullorum. Prior to diagnosis, chicks that were offspring from that flock had been shipped to Texas. These potentially exposed birds were managed to assure that infection was not allowed to become established in the flocks that received the chicks. To prevent the introduction of disease, it is critical to know the health status of flocks from which birds or chicks originated. Reputable hatchers and breeders voluntarily enroll in the National Poultry Improvement Plan (NPIP) program and maintain high health standards for their flocks.

iv. Infectious Laryngotracheitis (ILT). ILT is a contagious respiratory disease affecting fowl, pheasants, and turkeys which is characterized by gasping, neck extension and conjunctivitis (inflammation of the membrane around the eye).

v. Fowl Registration Program. During the 2003 Legislative session, House Bill 2328 was passed and signed into law. It required TAHC to develop a registration program for fowl sellers, distributors and transporters who do not participate in recognized poultry or fowl disease surveillance programs. The regulations related to this program are found in Title 4 Part 2, Chapter 54 of the Texas Administrative Code.

Permit fees are based on the size or type of poultry activity and permits are good for one year from the date of issue. Size of

operations are verified either prior to initial registration or at the time of renewal. Inspections are documented on official TAHC forms; those fowl businesses in noncompliance may be subjected to criminal or administrative penalties.

TAHC is currently involved in a Live Bird Market (LBM) working group which includes state poultry industry leaders. The group is considering possible rule-making requirements for this emerging industry in Texas to help prevent the introduction of Avian Influenza or other infectious poultry diseases through these outlets. Presently, TAHC field staff monitors and inspects these facilities for compliance with "unofficial" agreements to ensure the continued viability of the poultry industry in the state.

c. Swine Diseases

i. Brucellosis. Swine brucellosis and Aujeszky's disease, also known as pseudorabies (PRV) are the primary diseases of concern and economic consequence to Texas swine producers. Swine brucellosis, a zoonotic disease (transmissible from animal to man) of significance in the state, is caused by the *Brucella suis* bacteria. Sows may abort or give birth to weak piglets; the disease can move through a swine herd quickly because boars may transmit the disease during breeding. The majority of swine brucellosis-infected herds have been found to be in the state's operations that are exposed to feral swine, or in facilities involving multiple owners in a single location. Infected boars, which can transmit the disease, are sometimes loaned or relocated by these herd owners, complicating disease detection, control and eradication.

Blood samples are collected from sows and boars at livestock markets and slaughter facilities, and tests for both diseases are conducted at TAHC laboratories. While Texas' commercial production swine industries are considered free of brucellosis and PRV, both diseases are endemic in feral swine populations.

ii. Aujeszky's/Pseudorabies (PRV). This disease, most often known as pseudorabies, is not related to rabies. It is caused by a herpes virus. In very young animals mortality may approach 100% due to central nervous system involvement, while feeder pigs may exhibit primarily respiratory problems. Pregnant sows may abort and older swine may have only flu-like symptoms. Survivors are lifelong carriers of the disease. The commercial swine industry in Texas has been considered pseudorabies-free since 2004. In Texas' transitional swine, infection now is limited to about 15 or fewer infected herds per year, but the epidemiological tracing can lead to the need to test hundreds of small swine herds. In some cases, the infection also is related to feral or wild swine.

USDA is working with states and the commercial swine industry to develop and implement a new strategy to reduce potential spill-over of brucellosis and PRV in feral swine or from transitional swine

herds into commercial production swine. TAHC is responsible for implementing a national strategy in Texas.

iii. Classical Swine Fever (CSF). CSF, also known as hog cholera, is a highly contagious viral disease of swine. CSF was eradicated from the US in the 1970s. The disease is present in Mexico and many other countries in the world. It is considered a foreign animal disease in the U.S. Feral swine could serve as a reservoir for the disease. TAHC is conducting surveillance activities.

iv. Waste Food Feeder Permit Program. Texas law, House Bill 3673, effective September 1, 2001, prohibits Texas pigs from being fed food waste that contains meat or meat scraps. Furthermore, it is against the law to provide meat or meat scrap products for swine feeding purposes. When the feeding law went into effect in 2001, more than 611 swine producers were registered with the TAHC to feed food waste. Nearly seven out of ten of these producers fed meat scraps to their swine, which was permissible until September 1, 2001, provided the products were cooked thoroughly on the producer's premise prior to being fed to the animals. With the change in Texas law, swine producers who feed food waste have been prohibited from feeding meat products or meat scraps.

The TAHC now allows the feeding of unrestricted waste foods, such as vegetables, fruit, dairy items, or baked goods. About 300 facilities in Texas currently are permitted to feed swine these products, and the permits must be renewed every two years. In 2008, TAHC passed rules requiring the testing of all waste-feeder swine for PRV and brucellosis by agency personnel prior to the permits being granted. TAHC and USDA-APHIS/VS personnel continue to make site inspections on a regular basis to ensure livestock health. Details of the program are contained in Title 4, Part 2, Chapter 55.3 of the Texas Administrative Code.

Potential reduction in USDA funding and/or a decrease in USDA manpower to help conduct the food waste feeder inspections could require TAHC to expend more resources than currently allocated to ensure the program is adequately managed.

v. Feral Swine Holding Facility Permit Program. This program was developed to facilitate the legal capture and removal of feral swine; no fees are associated with the program and details of the program are contained in Title 4, Part 2, Chapter 55.9 of the Texas Administrative Code. Current regulations require that feral swine trapped on a premise must test negative for brucellosis and pseudorabies within 30 days before being moved to a game preserve or site for hunting. An accredited veterinarian must draw the blood samples for the tests, at the owner's expense. The tests are not required if the swine are taken directly to a slaughter facility or to a livestock market for sale or slaughter. At the livestock market, the feral swine must be held for isolation, under quarantine, and be moved only to slaughter with a permit issued by the TAHC

animal health inspector. The TAHC's feral swine regulations are intended to prevent the spread of brucellosis and PRV. Additional rules are being considered by the TAHC for feral swine as a result of Sunset legislation passed during the 80th Legislative Session.

d. Equine Diseases

i. Equine Infectious Anemia (EIA). EIA is the primary disease of concern for horses, donkeys, asses, and other equine and is a potentially fatal disease. The virus destroys red blood cells and is spread by blood-to-blood contact, not through close proximity. Therefore, the virus can be transmitted from an infected equine to an uninfected equine by biting flies, the use of unsterilized or contaminated medical instruments, through blood transfusion, or any other situation where infected blood is transferred to a susceptible animal. Under current regulations equine that enter the state, undergo change of ownership, or are commingled with other equine must have had a negative EIA test within the past 12 months. EIA positive equine must be isolated for life or destroyed. USDA is currently trying to develop a national EIA program, which if implemented, would likely impact TAHC laboratory processes, enforcement of interstate movement of equine, and other necessary diagnostic field activities, including testing of high risk equine populations in Texas done by TAHC staff or through a fee basis partnership with veterinary practitioners.

ii. Vesicular Stomatitis (VS). VS is a painful blistering disease of livestock, such as horses, sheep, swine and deer. The viral disease appears spontaneously and sporadically in the southwestern US and is thought to be transmitted by sand flies and black flies. Signs of VS—which include blisters, open sores or erosions in an animal's mouth, on the muzzle, teats or hooves--mimic those of foot-and-mouth disease (FMD), an extremely dangerous and highly contagious foreign animal disease that can affect cattle, sheep, swine and deer, but not horses. Laboratory testing is needed to differentiate between VS and FMD, or to determine if the animals had contact with a toxic plant or poison.

iii. West Nile Virus (WNV). WNV is an encephalitic disease and can cause death in a significant number of infected horses. An effective vaccine is available for use in horses. Because WNV affects humans, as well as birds and other animals, the Zoonotic Branch of the Texas Department of State Health Services (DSHS) is the lead agency in dealing with this disease.

e. Sheep and Goat Diseases

i. Scrapie. Scrapie is a fatal, degenerative disease affecting the central nervous system of sheep and goats. It is among a number of diseases classified as transmissible spongiform encephalopathies (TSEs). Infected flocks that contain a high percentage of susceptible animals can experience significant death and production losses. Over a period of years the number of infected animals increases, and the age at onset of clinical signs decreases, making these flocks economically unviable. Female animals sold from infected flocks spread scrapie to other flocks. The presence of scrapie in the United States prevents the export of breeding stock, semen, and embryos to some other countries.

Texas is a participant in the USDA national scrapie eradication program which includes identification of premises that have sheep or goats, individual animal identification, quarantine and depopulation of infected and high-risk animals, genetic testing to determine susceptibility of animals in an infected flock, and live animal testing of exposed animals in an infected flock. The workload in Texas for this program has increased dramatically in the last two years. It is anticipated that the USDA will develop a more intensive scrapie eradication program for goats by 2010. Since Texas leads the nation in its goat population, an enhanced goat scrapie program will certainly increase TAHC staff responsibilities as it relates to testing goats.

ii. Brucellosis. As with other species, brucellosis - *Brucella ovis* - is a disease that can impact sheep and goat herds.

iii. Tuberculosis. As with other species, tuberculosis is a disease that can impact sheep and goat herds.

f. Exotic Livestock Diseases

i. Chronic Wasting Disease (CWD). CWD is a transmissible spongiform encephalopathy (TSE) of deer and elk (cervids) in North America. The disease is endemic in wild white-tail and mule deer and elk in areas of Wyoming and Colorado and has been found in wild deer or elk in at least five other states and in Canada. The disease has not been found in either wild or domestic cervidae in Texas, even though significant surveillance has been accomplished over the past several years.

Currently, the CWD program is a voluntary status program. USDA is in the process of developing guidelines and interstate movement for a national CWD program. TAHC staff is involved in an industry working group that is considering rule-making related to CWD surveillance in elk. Passage of any elk surveillance rules will impact agency involvement in this program.

ii. Brucellosis. As with other species, brucellosis is a disease that can impact many subspecies of cervidae.

iii. Tuberculosis. As with other species, tuberculosis is a disease that can impact cervidae.

g. Animal Disease Surveillance and Reporting

i. Emerging Diseases (equine viral arteritis, monkeypox, etc.). As some diseases are controlled or eliminated, others come to the forefront. Exotic diseases are introduced to the United States and become endemic. One recent example is West Nile Virus. It is critical that TAHC has the tools to recognize emerging diseases and that it has the capability to address such diseases in host species. Such action by TAHC is related to emergency management in that specialized training will be essential for surveillance, disease investigation, disease diagnosis, and disease management.

ii. Zoonotic Diseases and Public Health. TAHC has partnered with other state and federal agencies to address the needs of Texas producers and emergency management issues.

h. Texas Fever Ticks. The cattle fever tick, known as the *Boophilus annulatus*, and the southern cattle tick, *B. microplus*, are capable of carrying a protozoa, or minute blood parasite. When the tick feeds on cattle, it injects this protozoa into the bloodstream. The protozoa attacks red corpuscles, causing acute anemia, an enlarged spleen and liver, and rapid death in up to 90 percent of the affected cattle. The disease caused by the protozoa *Babesia bovis* or *Babesia bigemia* is known as "Cattle Fever."

The Cattle Fever Tick Eradication Program (CFTEP) is a cooperative program between TAHC and USDA-APHIS-VS to ensure that fever ticks do not become reestablished in Texas or the rest of the country; USDA estimates that if the fever tick were to become reestablished in the Southeastern US, approximately $460 million dollars worth of meat and milk would be lost annually. The fever tick program's cost-benefit ratio is $120 worth of benefit for every $1 spent.

Since the inception of TAHC, the agency has worked in concert with USDA and the cattle industry to eradicate the cattle fever tick from Texas and has established a permanent quarantine zone along the Texas-Mexico border to prevent reintroduction of the fever tick into its historic ranges. The Tick Force, comprised of TAHC and USDA personnel, has continued to identify new infested premises within and along the quarantine zone that runs along the Rio Grande. In 2007, the TAHC expanded the fever tick quarantine zone to include three temporary quarantine areas where fever ticks had been detected. The quarantines were set up in a contiguous area of Maverick, Dimmit and Webb Counties, and in Starr and Zapata counties. In April 2008, the temporary quarantine area in Starr County was enlarged by another 24,000 acres, after fever ticks were located outside the quarantined area. TAHC will

continue to increase participation in this program due to the recent accelerated introduction of fever ticks and the subsequent increase in the detection of affected premises throughout the region and other parts of the state.

The national Strategic Plan for the Fever Tick program for 2006 – 2011 has not been funded. On March 19, 2008, the USDA announced that $5.2 million of a $13 million request would be made available to control the outbreaks of fever ticks occurring outside the permanent quarantine zone between Texas and Mexico, enough only to address the program's most dire needs. At the end of May, 2008, the number of fever tick infested premises in Texas had increased to 124. This number is an historic high, since the Alice fever tick outbreak in the early 1970s. It is likely that additional infested premises will be identified. TAHC anticipates that significant support for budget and manpower increases will be needed in order to achieve the necessary funding to regain control of fever ticks and drive them back across the Rio Grande.

i. Anthrax. Anthrax is a reportable disease and TAHC is to be notified of confirmed and suspected cases. It is a naturally occurring disease with worldwide distribution. Grazing animals such as cattle, sheep, goats, exotic and domestic deer, and horses ingest anthrax bacteria when they consume contaminated grass. By the time the animal displays signs of disease, including staggering, trembling, convulsions, or bleeding from body openings, death usually follows. Domestic and wild swine are fairly resistant to anthrax, and although they may become ill, some of these animals recover fully. When an anthrax outbreak begins, veterinarians confirm the initial cases through laboratory tests conducted by the Texas Veterinary Medical Diagnostic Laboratory in College Station. Subsequent outbreaks are to be expected and may be diagnosed clinically based on disease signs and sudden death loss.

j. Other Diseases and Parasites (scabies, lice, screw worms, etc.). TAHC staff also work to keep pests, like scabies, lice, and screwworms from reoccurring as major livestock health hazards.

2. Emergency Management**.** All agency field offices, laboratories, and their personnel are an integral part of the overall state emergency management system; TAHC Area Management and field personnel are the primary links to local planning and response activities. TAHC is a member of State Emergency Management Council and of the Homeland Security Council, and participates in activities conducted by the State Operations Center (SOC), the 24 Disaster District Committees (DDC), and Animal Issues Branches of state incident management teams, if requested.

a. Animal Disease Preparedness. TAHC regularly updates the state's Foreign and Emerging Animal Diseases (FEAD) Response Plan in order to assure that response processes will enable the agency to rapidly and effectively respond to disease incursions or bio-terrorism threats. TAHC has also assisted in developing a non-disease state animal emergency plan and is working with other emergency management personnel to develop local animal health emergency response plans. TAHC regularly

and periodically participates in, or conducts, test exercises to improve emergency response capabilities.

b. ***Animal Disease Response.*** During the past several years, TAHC has responded to numerous foreign animal disease outbreaks, including Exotic Newcastle disease (END), Monkey Pox, highly-pathogenic avian influenza (HPAI), bovine spongiform encephalopathy (BSE); and malignant catharral fever (MCF). Additionally, TAHC has responded to two emerging or sporadic diseases – vesicular stomatitis virus (VSV) and low-pathogenic avian influenza (LPAI). TAHC and USDA have collaborated in conducting more than 100 foreign animal disease (FAD) investigations during the past two years while maintaining a 24-hour on-call capability for the public to report suspicious animal health situations. Meanwhile, the TAHC has continued to perform routine inspections, disease surveillance, control, and eradication activities.

c. ***Natural and Man-made Disaster Preparedness.*** Appointed to State Emergency Management Council in 2001 and to the Homeland Security Council in 2005, TAHC participates in activities conducted by the SOC managed by the Governor's Division of Emergency Management (GDEM). TAHC personnel participate, with USDA Animal and Plant Health Inspection Service (USDA-APHIS) personnel, to prepare for and respond to foreign animal disease outbreaks as well as other naturally-occurring and man-made disasters. TAHC also facilitates a quarterly meeting of the Emergency Management Steering Committee (EMSC) to prepare and plan for disease and non-disease disaster events.

d. ***Natural and Man-made Disaster Response.*** The Chief of the Governor's Division of Emergency Management (GDEM) has designated TAHC as the lead agency on the State Emergency Management Council for all animal issues during emergencies, including natural and man-made disasters, acts of agroterrorism, and naturally-occurring animal disease outbreaks. Examples of TAHC's role in emergency management include identifying owners of displaced animals; assisting local jurisdictions with restraint and/or capture of displaced livestock; establishing quarantines; disposing of carcasses; coordinating the evacuation and sheltering of animals, including pets; consulting with federal, state, and local officials on animal and public health concerns; and addressing chemical or biological agroterrorism issues. During fiscal year (FY) 2006, the TAHC staff was involved in animal evacuation and carcass disposal activities related to Hurricanes Rita and Katrina as well as the wildfires in the Texas Panhandle. During FY 2007 TAHC specifically participated in the Governor's Hurricane Katrina evacuation after-action review process, and as a result, assumed a leadership role in creating the animal portion of Texas' newly-developed state hurricane response plan titled, *Appendix 9 – Evacuation and Shelter Plan–Animal Care*. TAHC also participated in the state's response to Hurricane Dean during the same timeframe.

e. ***Agroterrorism.*** Agroterrorism is the malicious use of plant or animal pathogens to cause devastating disease in the agriculture sector. It may take the form of hoaxes and threats intended to create public fear of such events. Because agriculture – and livestock in particular – accounts for a

significant percentage of Texas' economy, a large-scale outbreak of a disease, such as foot-and-mouth disease, could seriously affect the state's economic health. Even the suspicion of the presence of certain diseases could result in such negative affects. Because Texas has the largest livestock industry in the country, an animal health emergency would have a significant impact on the U.S. agricultural economy as well. Economic effects could include international and interstate export bans, higher food prices, a drastic increase in demand, increased testing and regulatory requirements, and losses of billions of dollars in revenue. TAHC is a member of the Texas Critical Infrastructure/Key Resources Protection (CI/KR) Council along with a number of key Texas agriculture stakeholders.

f. Emerging Diseases. It is critical that TAHC has the tools to quickly recognize emerging diseases, pests, infestations, or threats, and that it has the capability to address such situations as appropriate. This is particularly critical since an emerging situation (i.e., a new form of an old disease) may not be initially recognized without an effective surveillance capability, thereby slowing the needed response.

3. Laboratories, Epidemiology, and Diagnostics**.** USDA-APHIS-VS and TAHC have developed and maintained a premier animal health laboratory system with state-of-the-art equipment operated by qualified, expert personnel to support state and federal cooperative programs. The TAHC laboratory system is a national leader in many aspects of brucellosis, tuberculosis and pseudorabies testing; over three-and one-half million samples were processed in FY 2007. Laboratory technicians and microbiologists run complex tests on blood, milk, and tissue samples, and identify pests such as ticks, mites and fly larvae, providing TAHC veterinarians and epidemiologists with scientific tools for diagnosing disease.

4. National Animal Identification System**.** The National Animal Identification System (NAIS) is a modern, streamlined information system that helps producers and animal health officials respond quickly and effectively to disease outbreaks or animal health events in the United States. The NAIS program - a voluntary State-Federal-Industry partnership - is beneficial because it helps to protect U.S. livestock and poultry from disease spread, maintain consumer confidence in our food supply, and retain access to domestic and foreign markets. USDA and TAHC are not requiring participation in the program. NAIS can help producers protect the health and marketability of their animals - but the choice to participate is theirs.

Animal owners who are interested in taking part in NAIS may participate in premises registration only, premises registration and animal identification, or all three components when the program is fully operational.

Approximately 31,680 Texas premises have been registered as of June, 2008. TAHC staff will need to continue outreach and training efforts to explain the national program to Texas premise owners in order to register the estimated 200,000 Texas premises within the benchmarks and timelines established by USDA.

II. Current Workforce Profile (Supply Analysis)

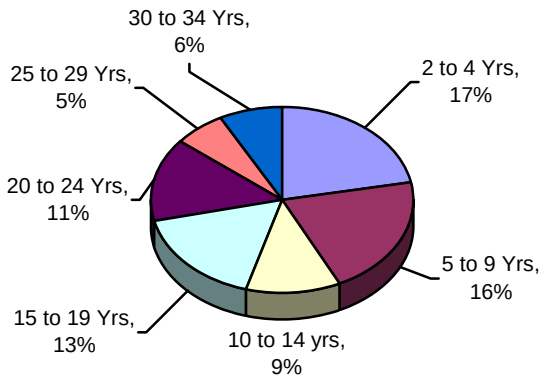
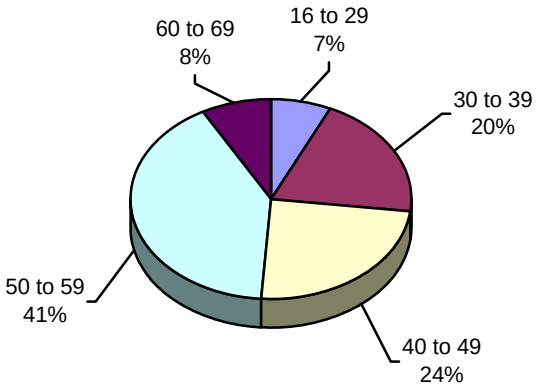
A. Critical Workforce Skills

To fulfill the mission of the TAHC, employees must have a variety of necessary skills appropriate to their job functions.

✓Large-animal veterinarians ✓Epidemiological experts ✓Animal emergency response planning staff ✓Microbiologists and laboratory tech staff ✓Staff who have experience and expertise in the safe and effective evaluation and handling of livestock ✓Personnel with GIS knowledge/GPS skills ✓Financial/Accounting professionals ✓Experienced and knowledgeable support staff		✓Computer programmers, systems analysts, database administrators and webmasters ✓Staff skilled in customer service ✓Staff experienced in promulgating and enforcing rules and regulations ✓Grant writers ✓Interagency, interstate, and international relations staff ✓Project managers ✓Skilled managers and supervisors ✓Staff skilled and experienced in communication with industry representatives

B. Workforce Demographics

The following charts profile the agency's workforce for fiscal year 2007. TAHC's workforce is comprised of sixty-two percent males and thirty-eight percent females. Seventy-three percent of employees are forty years of age or older, and forty-four percent of employees have at least ten years of service with the agency.

FY 2007 TAHC Tenure	FY 2007 TAHC Employee Age Breakdown
	

The following table compares the percentage of African American, Hispanic American, and Female TAHC employees for fiscal year 2007. The TAHC has been working to

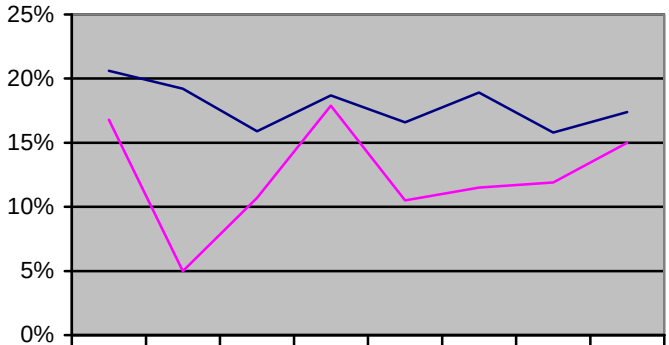
address the under-representation of African American, Hispanic American, and female employees by expanding its targeted recruitment resources.

JOB CATEGORY	African American TAHC %	African American State %	Hispanic American TAHC %	Hispanic American State %	Females TAHC %	Females State %
Officials/Administration	**0.0%**	**6.6%**	**0.0%**	**14.2%**	**16.7%**	**37.3%**
Professional	**6.6%**	**5.3%**	**69.6%**	**13.4%**	**19.2%**	**53.2%**
Technical	**8.4%**	**12.4%**	**12.5%**	**20.2%**	**62.5%**	**53.8%**
Administrative Support	**5.9%**	**11.2%**	**27.5%**	**24.1%**	**86.1%**	**64.7%**

C. Employee Turnover

Based on turnover statistics published by the State Auditor's Office for voluntary separations, involuntary separations, and retirements by agency including interagency transfers, the TAHC has a history of maintaining a turnover rate that is below the state's overall turnover rate, as illustrated in the following graph.

Turnover Rate Comparison: TAHC Versus Statewide



	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Statewide	20.60	19.20	15.90	18.70	16.60	18.90	15.80	17.40
TAHC	16.80	5.00%	10.70	17.90	10.50	11.50	11.90	15.00

Although the agency's overall turnover rate is reasonable and consistently below the statewide turnover rate, TAHC has begun to lose long-tenured staff with specialized skills and knowledge that are critical to its success in managing the health of Texas' livestock and poultry. The common reasons cited by TAHC separating employees have been "better pay/benefits," "no or little career advancement opportunities," and "retirement."

As shown in the following table for FY 2007 compiled from State Auditor's Office data contained in its E-Class application, the greatest area of turnover was with employees who have less than 2 years of service with the agency. This factor is consistent with the state overall. The next greatest area of turnover for TAHC was with employees who have from 25 to 29 years of service, or employees who have reached retirement eligibility. The table below shows the tenure breakdown as compared with state government as a whole.

Agency Tenure	TAHC Turnover Rate	State Turnover Rate
Less than 2 years	23.38%	34.6%
2-4 years	13.5%	11.7%
5-09 years	17.8%	9.8%
10-14 years	..0%	8.0%
15-19 years	6.8%	7.1%
20-24 years	0%	9.3%
25-29 years	21.8%	13.7%
30 to 34 years	18.6%	24.5%

D. Retirement Eligibility

TAHC continues to face the challenge of losing many of its long-tenured staff to retirement, and we expect this trend to continue through the next 5 to 10 years. With a projection of 45% of its authorized FTE's eligible to retire over that period of time, the agency must plan strategies for filling these vacancies with knowledgeable and skilled personnel.

III. Future Workforce Profile (Demand Analysis)

The United States Department of Agriculture, Animal and Plant Health Inspection Service (USDA-APHIS), is placing increased regulatory demands on Texas and other states that are facing critical animal health disease issues. In addition, the livestock industry in the State of Texas is setting high expectations for the TAHC to initiate stepped-up disease surveillance and regulatory enforcement on all disease programs. As a result, our animal health inspectors and veterinarians will become even more important to the economic viability of the livestock and poultry industries in Texas. It is critical for the TAHC to be able to recruit, hire and retain highly-skilled personnel to occupy these positions.

It is also clear that the TAHC must address the issues of competitive salaries and career ladders in order to mitigate the rate of loss of critical staff to other governmental agencies and to the private sector. Succession plans for retaining critical knowledge, skills, and abilities as long-tenured staff retires is also a major issue for the agency.

A. Critical Functions

- The TAHC needs to be able to attract and retain large animal veterinarians and veterinarians trained in epidemiology, a specialty area where a nation-wide shortage exists. Large animal veterinarians are becoming scarce as vet schools are graduating more students who opt to go into companion animal practice. A study done by the Association of American Veterinary Colleges indicated that fewer than ten percent of veterinarian students across the country are going into food-animal jobs. Experts say that twice that number will be needed to fill the vacancies that exist. In order to attract and retain large animal veterinarians and epidemiologists, the agency must pay at or above similar jobs in Texas state government, other states, USDA-APHIS, and comparable private entities for similar jobs.
- The emphasis of TAHC's animal health inspectors, veterinarians, and epidemiologists is shifting from a program geared toward cattle brucellosis and tuberculosis eradication to one that encompasses a variety of species (cattle, hogs, sheep and goats, horses, chickens and poultry, deer, exotic hoofstock, and exotic animals) and a variety of diseases (Johnes, pseudorabies, scrapie, equine infectious anemia, avian influenza, laryngotracheitis, chronic wasting disease, etc.) The ability, willingness, and knowledge to work with a variety of species and diseases are expanding requirements.
- Adequate funding is needed to update and maintain agency career ladders. Without viable career ladders, it will become increasingly difficult to attract and retain qualified staff to perform animal health-related, administrative, laboratory, and support staff duties and responsibilities within the agency.
- It is imperative that the agency keep up-to-date with technological changes for animal disease tracking. Therefore, the agency must be able to recruit, hire, and retain staff who have the knowledge and expertise to understand, trouble-shoot, and update these technologies.
- Expert managerial skills and abilities are needed to continue strong leadership within the agency,
- Agency microbiologists and technicians must be equipped with state-of-the-art laboratory equipment in order for the agency to fulfill its mission of animal disease, detection, surveillance and eradication. Laboratory staff must receive pay that is comparable with the labor market and be trained to operate the equipment effectively.
- To be able to capitalize on funding that is available from various sources, including the Federal government, the agency must have skilled grant writers to assist us in securing needed funding.
- Each biennium the agency is asked to provide additional services and to handle new projects, many times without additional funding or funding sources. To ensure that these projects are accomplished with maximum efficiency, the agency needs to train or employ staff with project management skills and expertise.
- The need for animal emergency management planners to help the local jurisdictions develop sound animal emergency response plans will continue and grow in the future.

B. Expected Workforce Changes

- Due to the agency's increasing role in emergency management, all TAHC staff must be trained and ready to undertake new roles and responsibilities when animal emergencies arise. To do so, staff must be adequately trained in utilizing the federal government's incident command structure and be able to activate the structure to prevent or minimize loss of life or damage to property and/or natural resources as a result of either human or natural-phenomena caused events,
- A smaller ratio of veterinary and epidemiology staff-to-animal health inspectors is needed to be able to adequately manage domestic and foreign animal disease. With the growing list of animal species and disease types with which all staff must be knowledgeable, the veterinary and epidemiology role will dramatically increase.
- Animal health inspectors' and veterinarians' duties are evolving in another way also. Technological changes are occurring rapidly, with increased technological usage of Global Positioning Systems (GPS), Global Information Systems (GIS), laptop computers, hand-held tag-reading devices, etc. While these technological changes should aid field staff in the efficient and effective performance of duties, these are new skill sets that have been added to their jobs. It is expected that technological changes will continually alter their duties and responsibilities in the future.
- Field staff must be able to effectively communicate with market owners and livestock producers, and to educate them on agency rules and state/federal laws pertaining to sale, movement, quarantine and disposal of livestock, poultry and exotic animals. This new skill set has become increasingly important during the last several years and will continue its importance in the future.
- Staff skilled in effective grant-writing will be crucial to ensure the agency is awarded funding from federal sources to perform the duties and responsibilities required of staff.
- Retirements of long-tenured staff with vast institutional knowledge of the workings of the agency and the livestock/poultry industry in Texas will leave the agency with knowledge gaps in its workforce

C. Anticipated Increases in Number of Employees Needed

- Additional FTEs may be needed to adequately perform the agency's emergency management duties and responsibilities.
- Additional information technology staff will be needed to plan, implement, trouble-shoot, and train staff to utilize new and evolving technologies.
- The increased responsibilities of the field inspectors, veterinarians, and epidemiologists due to new and emergency animal diseases and the livestock/poultry growth rate in Texas may increase the number of staff needed.
- Because of the continued complexities involved in recognizing, categorizing and effectively planning for eradication efforts of new and emerging animal disease, more veterinary and epidemiological staff will be required to face future demands.

- The continued effort to fight fever ticks in south Texas is stretching agency human and financial resources to its limit. With no end in sight, the agency may be forced to request a funding and FTE increase for this endeavor.
- The agency will also have to hire more people or outsource required EM activities related to "credentialing" of first responders, as currently directed by DHS.

D. Future Workforce Skills Needed

- Risk analysis and risk management skills for Epidemiologists.
- GIS development and GPS skills.
- Expertise in new and emerging diseases and foreign animal diseases.
- Safe and effective techniques for tissue and blood sample collection.
- Use of state-of-the-art laboratory equipment and diagnostic techniques.
- Use and maintenance of personal protective equipment to safeguard against highly infectious emerging diseases.
- Development and delivery of public information presentations.
- Collaboration, negotiation, and public relations skills.
- Strategic planning and business plan development and implementation.
- Supervisory and general management skills.

IV. GAP ANALYSIS

A. Anticipated Shortage of Workers

The agency's current FTE authorization may not be sufficient to address the increasing workload and expanding functions. Veterinarians and epidemiologists will be needed in greater numbers as the Texas Animal Health Commission's role in dealing with new and emerging animal diseases evolve. The agency's involvement in emergency response for the state of Texas continues to grow beyond the current FTE allocations in that area. Laboratory staff and administrative support staff will need to be hired in sufficient numbers to meet regulatory and statutory requirements.

The continued effort to fight fever ticks in south Texas is stretching agency human capital to its limit. With no end in sight, the agency may be forced to request additional personnel for this endeavor.

Our ability to recruit and retain the needed staff will continue to be limited by the agency's state and federal funding.

B. Critical Skills Shortage

- Veterinarians, epidemiologists, laboratory staff, and animal health inspectors must develop increased skills and knowledge to work with new and emerging disease issues, to communicate with various producers and industry groups about the agency's programs, and must demonstrate skill in publicly addressing a variety of audiences.
- All staff will need to develop new technological skills to work with increasingly sophisticated databases and software, and GIS/GPS equipment.
- Management staff will need to enhance strategic planning skills and to develop skills in business process planning and execution.
- Grant writing skills for select staff will be required in the future.

- All staff must be familiar with and practiced in the use of an incident command structure so the agency will be ready and capable of fulfilling its emergency management demands that will be required.

V. STRATEGY DEVELOPMENT

TAHC will work toward achieving the following goals intended to address workforce competency gaps and the overall anticipated shortage of staff.

A. Organizational Structure

Goal: Ensure that staff is allocated appropriately to cover workload demands.
Action Steps:

- Analyze current allocation and geographic distribution of workers.
- Develop strategic reallocation or redistribution of workers based on analysis and projection of future mission priorities.
- Maintain a cost-effective management-to-staff ratio to ensure maximum productivity and accountability of workers.

B. Recruitment and Retention Strategies

Goal: Target key recruitment resources to attract qualified candidates, especially in those areas of under-representation in the agency's workforce.
Action Steps:

- Consider the establishment of externship opportunities for veterinary medicine and agricultural science students.
- Identify and contact potential resources for minority recruitment in all areas of the state.
- Identify factors that prevent the agency from competing with other employers and develop strategies to address those factors.

Goal: Maintain workplace quality-of-life and develop succession plans.
Action Steps:

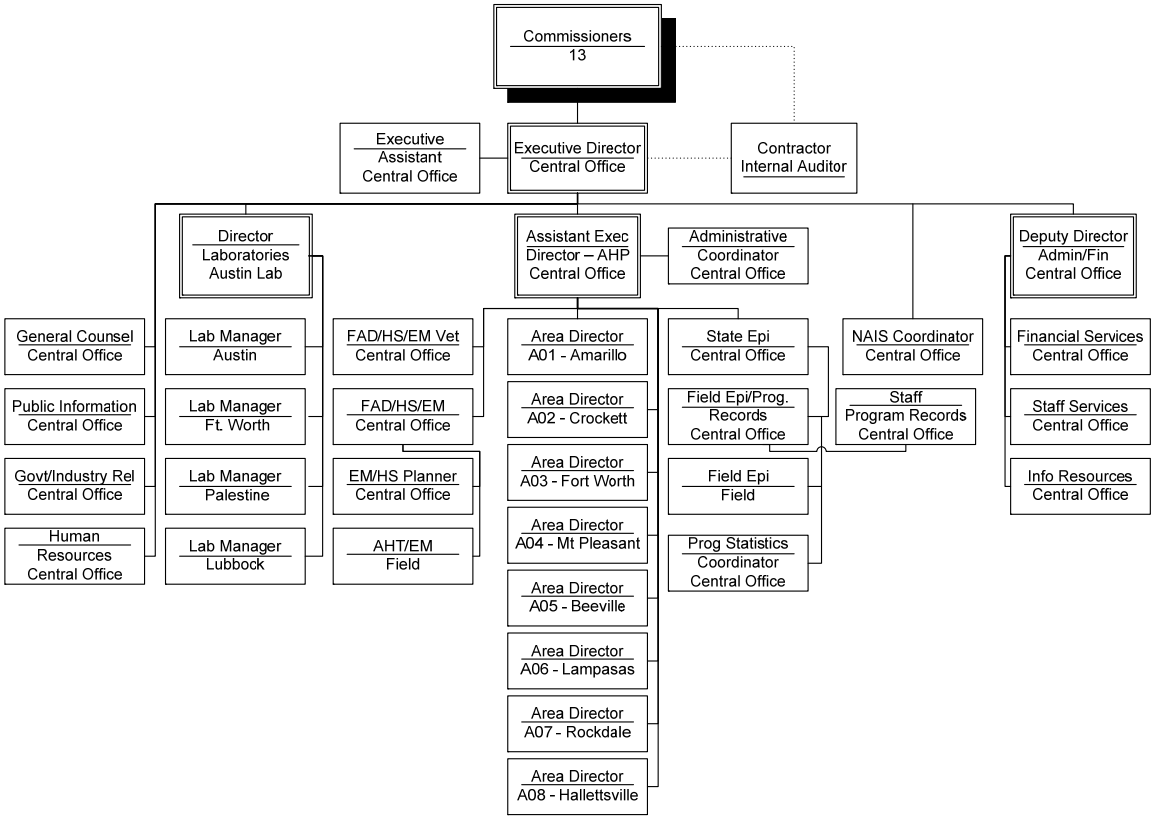
- Continue to participate in the Survey of Organizational Excellence; analyze results and develop strategies to address areas needing improvement.
- Analyze reasons for employee turnover and identify trends.
- Update human resources policies and practices to address the findings of these analyses.
- Provide supervisory skills training.
- Identify positions for which succession planning is critical; focus skills and knowledge training on potential successors.
- Strive for salary parity with other state and federal agencies and the private sector.
- Consistently award merit salary actions for exceptional work performance.

C. Career Development and In-Service Training Programs

Goal: Ensure that staff is equipped with necessary and appropriate skills and knowledge to most effectively accomplish the agency's mission.
Action Steps:

- Provide training opportunities for veterinarians to achieve required continuing education units for veterinary licensing; to achieve designated epidemiologist status in a number of diseases; and, to update knowledge and skills in new and emerging animal diseases.

- Support and encourage staff attendance at job-relevant conferences and training programs.
- Establish specific job requirements for necessary skills development.
- Based on identified skill requirements, allow employees to utilize the purchased on-line training tool, *Mindleaders*.
- Conduct in-house management conferences to focus on leadership skills development and application.
- Encourage employees who seek new challenges by assigning special projects and providing cross-training.
- Ensure that TAHC managers participate in both internal and external seminars to enhance and further develop managerial skills.

VI. Current Organizational Chart

Texas Animal Health Commission
Fiscal Year 2008