
**HOUSE COMMITTEE ON AGRICULTURE & LIVESTOCK
TEXAS HOUSE OF REPRESENTATIVES
INTERIM REPORT 2006**

**A REPORT TO THE
HOUSE OF REPRESENTATIVES
80TH TEXAS LEGISLATURE**

**RICK HARDCASTLE
CHAIRMAN**

**COMMITTEE CLERK
SHANNON SNEARY**



Committee On
Agriculture & Livestock

November 17, 2006

Rick Hardcastle
Chairman

P.O. Box 2910
Austin, Texas 78768-2910

The Honorable Tom Craddick
Speaker, Texas House of Representatives
Members of the Texas House of Representatives
Texas State Capitol, Rm. 2W.13
Austin, Texas 78701

Dear Mr. Speaker and Fellow Members:

The Committee on Agriculture & Livestock of the Seventy-Ninth Legislature hereby submits its interim report including recommendations and drafted legislation for consideration by the Eightieth Legislature.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Rick L. Hardcastle".

Rick Hardcastle, Chairman

A handwritten signature in black ink, appearing to read "Charles 'Doc' Anderson".

Charles "Doc" Anderson, Vice Chairman

A handwritten signature in black ink, appearing to read "Betty Brown".

Betty Brown, CBO

A handwritten signature in black ink, appearing to read "Lon Burnam".

Lon Burnam

A handwritten signature in black ink, appearing to read "Jessica Farrar".

Jessica Farrar

A handwritten signature in black ink, appearing to read "Abel Herrero".

Abel Herrero

A handwritten signature in black ink, appearing to read "Dora Olivo".

Dora Olivo

Charles "Doc" Anderson
Vice-Chairman

Members: Betty Brown, Lon Burnam, Jessica Farrar, Abel Herrero, Dora Olivo

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INTRODUCTION

At the beginning of the 79th Legislature, the Honorable Tom Craddick, Speaker of the Texas House of Representatives, appointed seven members to the House Committee on Agriculture and Livestock. The committee membership includes the following: Rick Hardcastle, Chairman; Charles "Doc" Anderson, Vice Chairman; Betty Brown; Lon Burnam; Jessica Farrar; Abel Herrero; and Dora Olivo.

During the interim, the Committee was assigned five charges by the Speaker: 1) explore the need for both the Educational Commission for Foreign Veterinary Graduates (ECFVG) program and the Program for Assessment of Veterinary Medical Education (PAVE) for certification of students who graduate from foreign veterinary colleges; 2) assess the need for new rules and regulations to govern non-veterinary practitioners of animal care, specifically equine dentistry, as well as the potential need for veterinary supervision of certain practices; 3) research and determine the potential contributions of Texas agriculture to the energy supply, including examination of the role of ethanol, biodiesel, and biomass; 4) determine if a new comprehensive water conservation program is needed within the Texas State Soil and Water Conservation Board focusing on water conservation and water supply enhancement (Joint Interim Charge with the House Committee on Natural Resources); 5) monitor the agencies and programs under the committee's jurisdiction.

The Committee has completed their hearings. The Agriculture and Livestock Committee has adopted and approved all sections of the final report.

Finally, the Committee wishes to express appreciation to the agencies, associations and citizens who contributed their time and effort on behalf of this report.

HOUSE COMMITTEE ON AGRICULTURE & LIVESTOCK

INTERIM STUDY CHARGES

- CHARGE 1** Explore the need for both the Educational Commission for Foreign Veterinary Graduates (ECFVG) program and the Program for Assessment of Veterinary Medical Education (PAVE) for certification of students who graduate from foreign veterinary colleges.
- CHARGE 2** Assess the need for new rules and regulations to govern non-veterinary practitioners of animal care, specifically equine dentistry, as well as the potential need for veterinary supervision of certain practices.
- CHARGE 3** Research and determine the potential contributions of Texas agriculture to the energy supply, including examination of the role of ethanol, biodiesel, and biomass.
- CHARGE 4** Determine if a new comprehensive water conservation program is needed within the Texas State Soil and Water Conservation Board focusing on water conservation and water supply enhancement. (Joint Interim Charge with the House Committee on Natural Resources)
- CHARGE 5** Monitor the agencies and programs under the committee's jurisdiction.

INTERIM CHARGE 1
ECFVG vs. PAVE

BACKGROUND

Currently, the American Veterinary Medical Association's Council on Education (AVMA COE) accredits veterinary schools. As stated by the AVMA, "The AVMA COE assures that minimum standards in veterinary medical education are met by all AVMA-accredited colleges of veterinary medicine, and that students enrolled in those colleges receive an education which will prepare them for entry-level positions in the profession." The AVMA COE certifies both colleges in the United States as well as foreign schools.

State Veterinary Boards around the United States rely upon this accreditation process to determine if a veterinary graduate should be eligible for licensure. Accreditation makes it easy to ensure that a graduate has received the proper level of education to obtain a license.

Graduates of foreign veterinary schools which are not accredited by the COE to obtain a license to practice from a state board in the United States must pass through one of two certification programs.

ECFVG

The first certification program is the Educational Commission for Foreign Veterinary Graduates (ECFVG) which was established in 1959. Oversight of the ECFVG is the responsibility of the ECFVG, which is an AVMA committee. Staff in the AVMA Education and Research Division assist the Commission and are responsible for the day-to-day operations of the certification program.

The ECFVG program consists of four steps. The first step is application and credentials verification. The second step requires demonstration of English proficiency. The third step is to pass the North American Veterinary Licensing Examination (NAVLE), developed by the National Board of Veterinary Medical Examiners (NBVME). In step four, graduates may choose between a three and a half day hands-on clinical examination called the Clinical Proficiency Examination (CPE), or they may complete a one-year supervised clinical rotation at an accredited veterinary school.

PAVE

The second certification program is the Program for the Assessment of Veterinary Education Equivalence (PAVE). PAVE was established in 2001 by the American Association of Veterinary State Boards (AAVSB). PAVE was established to address a backlog which was occurring in the ECFVG certification program. Graduates who were in the ECFVG program were experiencing waiting periods of 12-18 months before they could complete the clinical exam which occurred at the end of the certification program.

As a result, state licensing boards started to receive pressure to expedite the licensing process. Therefore, the American Association of Veterinary State Boards (AAVSB) decided to create an alternative program to the ECFVG and PAVE was established. The AAVSB is responsible for the administration of the PAVE program. PAVE certificates are currently accepted by 19 state veterinary boards including Texas.

PAVE is similar to the ECFVG program as it consists of four steps as well. Like ECFVG, step one is the application and credentials review, and step two is demonstration of English proficiency. Where the two programs differ is in step three. Step three for the PAVE program requires candidates to pass the Qualifying Examination (QE) administered by the NBVME. The QE is designed to assess knowledge in basic science areas taught in the first three years of an accredited veterinary school, but not covered on the NAVLE. PAVE step four is also a bit different from ECFVG's step four. The PAVE program requires candidates to demonstrate clinical proficiency by completing at least 12 months of evaluated clinical experience at an accredited veterinary school, or by passing the Veterinary Clinical Skills Assessment (VCSA). The VCSA is a hands-on clinical skills examination developed by the NBVME.

NAVLE

The National Board of Veterinary Medical Examiners administers the North American Veterinary Licensing Examination (NAVLE). All veterinarians who wish to practice veterinary medicine in the United States and Canada must pass the NAVLE before becoming licensed to practice. The examination was created in 1998 and replaced prior licensing tests in November 2000. The test consists of 360 clinically relevant multiple choice questions. Individual state licensing boards are responsible for determining the eligibility of candidates to sit for the NAVLE. Foreign graduates must be enrolled in the ECFVG or PAVE program before they may sit for the NAVLE.

DIFFERENCES BETWEEN ECFVG AND PAVE

There were major differences between the two programs originally, but most of those differences have been resolved. The most significant difference between the two programs is the regard with which students and graduates from Ross University and St. George's University are given.

These two universities are located in the Caribbean and their students are primarily American. Neither of these schools is accredited by the COE, nor does either school have a teaching hospital. The two schools have reached agreements with most accredited veterinary schools in the United States to allow their students to participate in fourth year clinical rotations. Texas A&M University currently accepts Ross students, but does not accept St. George's students.

The difference in the two programs occurs with how the programs require the students from these two universities to complete the clinical requirements of their program (step 4 for both programs). The PAVE program allows students from both schools to fulfill its clinical component by completing their fourth year of education at an accredited veterinary school. ECFVG requires these same students to pass its Clinical Proficiency Examination (CPE) before receiving certification. The CPE is a three and a half day, hands-on clinical skills examination. Therefore, the PAVE program is a bit less rigorous for Ross and St. George's students because they are allowed to fulfill their clinical requirements by simply completing their final year of veterinary school at an accredited university.

POSITION OF THE INVOLVED PARTIES

TVMA

The Texas Veterinary Medical Association (TVMA) maintains that this "shortcut" in PAVE has basically taken away any incentive for schools such as Ross and St. George's to become accredited by the COE and could ultimately harm the entire accreditation process. They feel that if there is little or no down side to bypassing the accreditation process, then schools that are currently accredited may not be able to justify the cost of being accredited. And if non-accredited schools only have small hurdles for their students to overcome, then there is no incentive for them to become accredited.

TVMA maintains that schools such as Ross and St. George's should be required to become accredited. If they are not accredited, then their students should provide adequate proof that the education they received is equivalent to that which is received by students at accredited schools. They further believe that the level of testing required of the PAVE program applicants is not adequate to ensure the applicant is qualified to practice veterinary medicine in the United States.

TVMA would support combining the two programs into one certification program. There have been talks between the two organizations of doing this in the past, but to date no resolution has been reached. TVMA believes that combining the two programs into one and adopting the more stringent requirements of ECFVG would be best for the citizens of Texas and the veterinary profession.

TBVME

The Texas Board of Veterinary Medical Examiners (TBVME) is a member of the AAVSB which administers the PAVE program. Therefore, TBVME supports the PAVE program. While there has been much opposition to the PAVE program by the AVMA & the TVMA, the AAVSB & TBVME maintain that the state boards would never participate in a program which would result in lowered licensure standards.

AAVSB & TBVME believe that the state boards are the most appropriate entities to determine equivalency standards and credentials for licensure since the boards, not the professional associations, license and regulate the practice of veterinary medicine and are charged with protecting the public. AVMA is a professional association with different goals and functions.

TBVME maintains that the PAVE program is fully operational and no major hurdles have been encountered. TBVME further maintains that PAVE was developed by state boards, and the focus of the program is qualifying veterinarians for practice. TBVME believes that while both programs are still evolving, both programs are sound. Foreign graduates now have a choice for licensure and may choose the program that best fits their needs.

NBVME

The National Board of Veterinary Medical Examiners (NBVME) is an independent non-profit 501(c) (3) corporation, whose sole purpose is to provide standard examinations that may be used by the states, territories, or dependencies of the United States, or provinces of Canada as part of their licensure procedure for veterinarians. The NBVME is responsible for determining the

content and format of its examinations, and for setting a recommended passing score for each examination. Among the examinations of the NBVME is the North American Veterinary Licensing Examination (NAVLE). All veterinarians are required to pass the NAVLE before they may be licensed to practice veterinary medicine in the United States or Canada. The NBVME also administers the tests for certification used by both the ECFVG and PAVE programs.

The NBVME believes that the interests of the public, the profession and those seeking licensure are best served by having a single certification program. They also believe that, if possible, the administration of such a certification program should be under the control of an independent entity.

RECOMMENDATIONS

There has been discussion between the AVMA and the AAVSB about the possibility of combining the two programs. However, to date no such action has been taken. In the future, should such discussions occur, the Committee would encourage the TBVME to actively participate.

The Committee feels that Texas has been well served by allowing the TBVME to make decisions regarding the qualifications for licensure of veterinarians in the state. If TBVME feels that there is a need for both the ECFVG and PAVE programs for certification of graduates of foreign non-accredited veterinary schools, then the Committee sees no reason to intervene. Therefore, the Committee would recommend no change to the current programs. In the future, should TBVME determine a need to make changes to the program, the Committee will review it at that time.

REFERENCES

American Veterinary Medical Association website: <http://www.avma.org/>. August 2006.

National Board of Veterinary Medical Examiners website: <http://www.nbvme.org/>. August 2006.

Texas Board of Veterinary Medical Examiners' written testimony and handouts provided to the committee. April 25, 2006.

Texas Veterinary Medical Association's written testimony and handouts provided to the committee. April 25, 2006.

**INTERIM CHARGE 2
EQUINE DENTISTRY**

BACKGROUND

The Texas Veterinary Licensing Act (Act) states in chapter 801.002 of the Occupations Code, that the definition of the practice of veterinary medicine includes the following:

"Veterinary medicine" includes veterinary surgery, reproduction and obstetrics, dentistry, ophthalmology, dermatology, cardiology, and any other discipline or specialty of veterinary medicine.

In the state of Texas, only licensed veterinarians are allowed to practice veterinary medicine. The practice of veterinary medicine includes the performance of veterinary services as well as any advertising which would lead a citizen to believe that the person offering those services is legally authorized and qualified to perform those services. While it is clear that the definition of veterinary medicine includes dentistry, there is no specific definition of dentistry in the Act, therefore leaving room for interpretation.

Recently, there has been a problem with lay persons advertising and performing dentistry procedures on horses. Under the Act, this activity constitutes the practice of veterinary medicine without a license. It is important to note that, under current law, horse owners who are not veterinarians can provide dental treatments on their own animals without violating the Act.

Non-veterinarians have performed certain dental procedures on equines for decades, and these primarily included floating teeth. Teeth floating may also be referred to as rasping, and simply means the filing of teeth to ensure a proper bite for the horse. Overtime, horses can develop spurs and sharp edges on their teeth, making it difficult and painful for them to eat. Therefore, it is important for a horse to routinely have their teeth floated. The procedure is done with a dental float, which is basically a metal rasp or file. The float is moved back and forth across the teeth (much like filing a human's finger nails) until the edge of the tooth is smooth.

Until recently, the filing was done with the hand held tool described above. In the past years power tools have begun to be used to float teeth. This has created the need for sedation as most animals will not remain calm while such tools are being used. It is a violation of the law for a non-veterinarian to administer prescription drugs such as the drugs commonly used to sedate equines.

The Texas Board of Veterinary Medical Examiners (TBVME) include in their rules a statement that non-licensees shall not perform "invasive dental procedures." This has been interpreted to mean that the work of a non-veterinarian must remain above the animal's gum-line and prohibits the extraction of teeth and other such invasive procedures. However, many laypersons are performing a number of invasive dental procedures, even advertising such things as the extraction of molars.

Veterinarians are concerned that the practice of equine dentistry by non-veterinarian "dentists" is illegal and may represent a potential threat to the health and welfare of horses, and that there should be some regulation of these lay practitioners. Lay practitioners of equine dentistry

respond that most of them are highly trained and experienced in dental procedures and fill the need of horse owners for their services.

FINDINGS OF TBVME REPORT

On February 19, 2004, the TBVME held a public meeting of the Board to discuss the subject of equine dentistry. As a result of the information gathered in that meeting, and the importance of the issue, the Board appointed a committee to examine the practice of equine dentistry by non-veterinarians and report back to the Board. The Board's report has been completed and will be summarized in this section.

Basic Information Gathered

Although the activities of non-veterinarian dentists (NVDs) appear to be increasing in Texas, there is no way to obtain an exact count of how many NVDs are practicing. There is at least one "school" of equine dentistry in Texas which is called the Texas Institute of Equine Dentistry (TIED). The TIED is located near Weatherford, Texas, and is owned by NVDs.

There are several trade organizations run wholly or partially by NVDs. These include the International Association of Equine Dentists (IAED), the Academy of Equine Dentistry, and the American School of Equine Dentistry (AED). The TIED, IAED, and the AED offer "certifications" to those persons (some of whom are licensed veterinarians) who take courses and pass examinations in equine dentistry. The IAED does not offer courses, but rather formulates and administers the examinations for certification. Approximately 20-30 persons apply annually to test for certification by the IAED.

The TIED offers courses taught by the school's non-veterinarian owners and one licensed veterinarian. Persons who complete the courses and examinations at TIED are eligible for designation as a "Certified Equine Dentist." The TIED offers courses in dental techniques, head and neck anatomy, full body anatomy, and wet laboratory. Completion of the courses over specified periods of time, with appropriate examinations, will enable a student to become a Certified Equine Dentist (Level I), Advanced Equine Dentist (Level II), and Certified Master Equine Dentist (Level III). The veterinarian on staff of the TIED believes that the TIED delivers quality instruction to veterinarians as well as non-veterinarians.

When advertising their services, NVDs routinely use the following designations after their names; "Eq.D" or "M/Eq.D," or "Certified Equine Dentist." This can be misleading to the public because these individuals are actually not legally allowed to practice dentistry as specified in the Act. Also there is currently no regulation or licensure process within the state for these individuals. Therefore, they are not required to adhere to any minimum enforceable standards. Typically the TIED and the IAED skirt the issue of the legality of their operations all together.

Views of NVDs

NVDs argue that they should be allowed to practice based on a number of reasons as follows. Horse owners should have a choice of who works on their animal's teeth. There are not enough veterinarians skilled in equine dentistry to meet the public's need, and in fact some veterinarians refer their clients to NVDs. NVDs usually work under the supervision of or in consultation with veterinarians. Most NVDs are skilled at their profession, having taken courses and having been certified. Clients of NVDs are usually happy with the results and the fees for their services.

The Board agreed with these arguments by NVDs with the exception of the claim that NVDs work under the supervision of or in consultation with veterinarians. The Board found that, in fact, in many cases a NVD does not consult with or work under the supervision of a veterinarian. However, this is not always to the fault of the NVD. Many veterinarians will refer a client to a NVD with little or no supervision or follow-up on the part of the veterinarian.

Even if a veterinarian were to supervise the work of a NVD, these activities would still be illegal under the Act if they involve any diagnosis or surgery or administration of drugs by the NVD. Under the Act, diagnosis, surgery, and administration of sedating drugs are not acts which may be delegated by a veterinarian, even if the delegate is under the supervision of that veterinarian.

Views of Veterinarians

Veterinarians' views on the issue of allowing NVDs to practice equine dentistry are as follows. In most cases, there are veterinarians available who are trained and experienced in equine dentistry. NVDs should not be allowed to practice veterinary medicine in violation of the Veterinary Licensing Act. New and powerful dental tools are now available, and in the wrong hands can cause much damage to a horse's mouth and teeth. The use of sedating and legend drugs (term used to denote veterinary prescription drug) by NVDs may pose a threat to the animals. Veterinarians are licensed and regulated and must meet a minimum standard of care. NVDs are not licensed and regulated and are not required to adhere to any minimum enforceable standards.

Findings of the Board

The Board found that the practice of equine dentistry by NVDs is a growing industry in Texas. Advertising by these NVDs that uses designations like "Eq.D" or "Certified Equine Dentist" may be misleading because it implies special training or recognition by an academic organization which may not be the case.

Oral surgery and possession and administration of sedating drugs by non-licensed persons represent a real threat to the public health and welfare. NVDs are not subject and accountable to any licensing agency. Minimum standards have not been established for lay practitioners of equine dentistry. Because the practice of equine dentistry by NVDs is illegal under current law, enforcement issues related to the practice is requiring more attention and resources of the Board. Cooperation between the Board's investigators and local prosecutors who are willing to pursue cases of practicing veterinary medicine without a license is often lacking because of local case loads and other factors.

The Board found that schools and associations such as TIED and IAED are actually producing NVDs who appear to be highly proficient in their work. The Board found that the training and certification requirements of these organizations appear to be rigorous, up-to-date, and sound.

The Board further stated that, there does appear to be a shortage of veterinarians who are experienced and willing to perform dentistry procedures. This problem is compounded by the fact that formal dentistry training is generally not emphasized in veterinary schools. Therefore, there may be a need for these NVDs but some regulation is required.

OTHER STATES' POLICIES

Based on information compiled by the TBVME as well as the Texas Veterinary Medical Association (TVMA), most other states consider animal dentistry as the practice of veterinary medicine. The practice of equine dentistry by lay persons in these states is considered the illegal practice of veterinary medicine.

A few states have laws which are worth noting as follows.

Arizona

Arizona considers dentistry to be the practice of veterinary medicine. However, an equine dentist can practice if they are certified by either the IAED or the Academy of Equine Dentistry. They must then practice under the supervision of a licensed veterinarian. They must also provide proof to the state veterinary medical board that they are licensed and must provide a written agreement of supervision between themselves and a licensed veterinarian. Even as such, only licensed veterinarians may prescribe and/or administer any drug or medicine.

Louisiana

Louisiana appears to be unique among the states in that Louisiana laws and rules provide for registration of NVDs in much the same manner as some states provide for registered veterinary technicians. Registration is limited to NVDs who are involved in the care and maintenance of horses in the racing industry. Under Louisiana statute, the practice of equine dentistry is narrowly defined to mean "the rasping (floating) of molar, premolar, and canine teeth of equines, and the removal of deciduous incisor and premolar teeth (caps) of equines." Persons are exempt from coverage of the law if they are lay people or registered veterinary technicians who are employed by a licensed veterinarian and who are under the direct supervision of the veterinarian. The Louisiana Veterinary Board is the registering agency for equine dentists, and no examination is required. If an equine dentist does not practice dentistry at a racetrack, he must notify the horse owner's veterinarian prior to commencement of the practice of equine dentistry. With regard to sedation, a registered equine dentist is prohibited from administering, prescribing or recommending any legend drug or controlled substance.

New Hampshire

New Hampshire by rule allows the floating of teeth as an "accepted livestock management practice." The state has successfully cracked down on equine dentists who have advertised their trade.

Oklahoma

Oklahoma includes dentistry as the practice of veterinary medicine. Cease and desist orders are issued against equine dentists, and if the practice persists, an investigation is held, a complaint is issued, and a hearing is held before the Oklahoma Veterinary Board. The Oklahoma Board has had some success with their enforcement program.

Tennessee

Tennessee allows an employee of a veterinarian to float teeth without the physical presence of a veterinarian as long as the employee is functioning under the supervision, control, and responsibility of the veterinarian. The employee must be a salaried employee of the veterinarian and not a contract employee. Floating is defined as "rasping or cutting the long projections or points from the cheek teeth of the equine."

In **South Dakota** and **Ohio**, they are considering allowing NVDs to practice under the supervision of a veterinarian. **Kansas** has included dentistry in the definition of veterinary medicine, and allows NVDs to work under the supervision of a veterinarian.

POSITION OF TVMA & TBVME

TVMA

TVMA suggests the following definition of veterinary dentistry:

The practice of dentistry as it relates to the practice of veterinary medicine means the application or use of any instrument or device to any portion of an animal's tooth, gum, or any related tissue for the prevention, cure or relief of any wound, fracture, injury, disease or other condition of an animal's tooth, gum or related tissue. Dentistry includes, but is not limited to (a) preventive dental procedures, including but not limited to, the removal of calculus, soft deposits, plaque, stains, and floating to shape the teeth above the gum line or the smoothing, filing or polishing of tooth surface above the gum line; and (b) operative dentistry/oral surgery, or any other dental procedure that invades the hard or soft oral tissue or the deliberate extraction of one or more teeth.

TVMA is not opposed to the involvement of non-veterinarians in the practice of equine dentistry. However, TVMA maintains that such individuals should be properly trained, perhaps certified, and supervised by veterinarians. The level of veterinary supervision should be commensurate with the difficulty of each particular procedure. TVMA believes that the laws adopted by Arizona may serve as a good guideline for laws in Texas.

TBVME

The TBVME believes that the practice of dentistry should remain in the hands of veterinarians. The practice of dentistry should be defined in the Veterinary Licensing Act, and teeth floating should specifically be addressed in that definition. TBVME maintains that if the Legislature believes that floating can be done safely by non-veterinarians, the Act could be amended to designate this activity as an "accepted livestock management practice" and thus exempt the

activity from regulation under the Act. TBVME also believes that if legislation is introduced to provide for separate licensing or registration of equine dentists, veterinarians should be involved in the process, and strict standards of practice by the lay dentists should be established. Also lay equine dentists and organizations such as the IAED should be encouraged to offer their knowledge and expertise in the formulation of such regulations.

RECOMMENDATIONS

The Committee feels that these non-veterinary dentists should be regulated and held accountable. A minimum standard of care should be established for these NVDs. Based on all of the information presented, the Committee feels that further study and cooperation should occur between the TBVME and TVMA in order to establish a set of recommended standards and regulations for these non-veterinary equine dentists. Once agreed upon, the two entities should report back to the committee with their recommendations and proposed legislation.

REFERENCES

Texas Board of Veterinary Medical Examiners' Report on Equine Dentistry. June 17, 2004.

Texas Board of Veterinary Medical Examiners' written testimony and handouts provided to the committee. April 25, 2006.

Texas Veterinary Medical Association's written testimony and handouts provided to the committee. April 25, 2006.

**INTERIM CHARGE 3
ALTERNATIVE FUEL**

BACKGROUND

Texas has more renewable energy potential than any other state. Texas has the potential to produce enough renewable energy resources through wind, solar, and biomass to meet all of the state's energy needs. Technologies that are able to transform these resources into affordable energy are now abundantly available and becoming more and more economically viable.

Texas farmers and ranchers have an unprecedented opportunity to not only reduce their own energy costs, but also realize new revenue sources through producing crops for the production of renewable energy. Almost every part of rural Texas enjoys an abundance of renewable energy resources. Therefore, rural communities will benefit, as production plants will be located near the crop production sites.

While Texas has potential to be number one in renewable energy, we are lagging behind other states. Strong incentives for producers of biofuels in several Midwestern states have resulted in numerous ethanol plants already built and in production, while we are still waiting for our first commercial ethanol plant to begin operation here in Texas. The establishment of new renewable energy goals for Texas was a step in the right direction. These goals call for Texas to obtain five percent of its electricity from renewable sources by 2015, and 10 percent by 2025. It is estimated that these goals could result in some \$200 million in new biomass-based revenues for Texas farmers and ranchers. This will also be reinforced by the national effort to obtain 25 percent of the nation's energy from agriculture by 2025.

During recent years, we have entered into a new era of energy awareness due to conflict in the Middle East, the devastating hurricane season of 2005, and soaring gasoline prices. The demand for renewable energy is high and will continue to rise. Texas agriculture can and should play a major role in meeting this demand.

TEXAS FUEL ETHANOL AND BIODIESEL PRODUCTION INCENTIVE PROGRAM

In 2003, the Texas Legislature passed legislation providing a producer incentive to assist fuel ethanol and biodiesel plants in the state. Prior to the establishment of this incentive program, Texas producers were unable to compete in the national market, as most other states provided producer incentives, putting Texas producers at a disadvantage. Since Texas adopted the producer incentive, there are six ethanol facilities planned in the Texas Panhandle, and several biodiesel plants already in production.

Texas Air Quality Challenges

In Texas, currently there are four areas which are designated as Ozone Non-Attainment areas and three areas which are designated as Ozone Near Non-Attainment. The Non-Attainment areas are comprised of the following: Dallas/Fort Worth, Houston/Galveston, Beaumont/Port Arthur, and El Paso. The Near Non-Attainment areas are comprised of the following: Austin/San Antonio, Corpus Christi/Victoria, and Tyler/Longview/Marshall.

The Texas ethanol market increased dramatically with the announcement by major oil companies that they will replace Methyl Tertiary Butyl Ether (MTBE) with ethanol as an oxygenate in all Texas non-attainment cities. According to the Texas Petroleum Marketers and Convenience Store Association, 400-500 million gallons of ethanol per year will be needed to replace MTBE in these reformulated gasoline (RFG) areas. Initially, the ethanol for these markets will be obtained from the Midwest or foreign markets.

Incentive Program Details

Chapter 16 of the Texas Agriculture Code provides for incentive payments to Texas producers of ethanol or biodiesel to facilitate the development of the biofuel industry and improve options for agricultural production in the state. The program is administered by the Texas Department of Agriculture (TDA) in consultation with the Office of the Governor, Economic Development and Tourism.

Producers must register their plants with TDA in order to be eligible to receive a grant under Chapter 16. They must also prove to the satisfaction of TDA, that the plant is capable of producing fuel ethanol or biodiesel, and that the producer has made a substantial, permanent investment in the state. Producers must report their plant's production data to TDA. The reported data should include the following: number of gallons produced, number of gallons imported into Texas, number of gallons sold or blended, and the total value of agriculture products consumed in the plant.

Producers who participate in the biofuel incentive must meet all registration requirements, report their monthly production figures and remit 3.2 cents per gallon produced to TDA. These fees are due quarterly. Eligible producers will then receive 20 cents per gallon of ethanol or biodiesel produced. These payments will be made quarterly and are limited to the first 18 million gallons produced per year per plant and will only be made for the first 10 years the plant is in operation.

TEXAS RENEWABLE ENERGY GROUPS

There are several agencies and groups in Texas working to ensure that Texas becomes a leader in the renewable energy field. These groups include the following:

State Energy Conservation Office

The State Energy Conservation Office (SECO) is a division within the Texas Comptroller of Public Accounts. SECO helps Texas make the most of domestic energy, reduce state and local government energy costs and promote cost-effective clean energy technologies. SECO's mission is to maximize energy efficiency while protecting the environment.

Office of Rural Community Affairs

The Office of Rural Community Affairs (ORCA) has a contract through SECO which provides them with federal funds which allow one staffer to work half time on renewable energy issues. ORCA leverages their rural Texas expertise and connections to assist in bringing more renewable energy projects to Texas. ORCA also serves as the coordinator for the Rural Alliance for Renewable Energy (RARE).

Rural Alliance for Renewable Energy

The Mission of the Rural Alliance for Renewable Energy (RARE) is as follows. RARE is committed to assisting rural Texas communities in developing their renewable energy resources now so that future generations in those communities can prosper. There are significant economic development, security and reliability benefits and opportunities for Texas communities and individuals in the development of renewable energy resources. RARE sponsors a series of forums around the state to help ensure rural citizens in Texas get in on these opportunities.

Texas Renewable Energy Industries Association

The Texas Renewable Energy Industries Association (TREIA) represents over 200 member companies, organizations, agencies and individuals providing products, services and information in the areas of solar electric generation, solar hot water, large and small-scale wind electric generation, biomass electric generation and liquid renewable fuels, geothermal heating and cooling, geothermal electric generation, and sustainable (green) building design and construction. The association is a facilitator of conferences, workshops, seminars, and tours to expose its membership and the public to the latest and most useful renewable energy information.

Agricultural and Food Policy Center

The Agricultural and Food Policy Center at Texas A&M University (AFPC) is a collaboration between the Texas Agricultural Experiment Station, Texas Cooperative Extension, and Texas A&M University. The AFPC mission is as follows: to provide unbiased and objective economic analysis of the impacts for policy alternatives on stakeholders. AFPC is currently working on the development of a Renewable Energy Handbook, which will serve as a guide for entities considering production of ethanol, biodiesel, biogas, wind power, or solar power. Issues discussed include resource availability, technology, financing, infrastructure, marketing, and government policy.

Texas Department of Agriculture

The Texas Department of Agriculture (TDA) serves as the administrator of the Fuel Ethanol and Biodiesel Production Incentive Program for the state of Texas.

RECOMMENDATIONS

In 1995, a report was produced by the Texas Sustainable Energy Development Council entitled "Texas Renewable Energy Resource Assessment; Survey, Overview and Recommendations." After the report was published, the Texas Sustainable Energy Development Council was disbanded. The Committee would recommend that this report be updated, either by the re-creation of the Texas Sustainable Energy Development Council, or through a collaboration of the groups and agencies mentioned above.

The Committee further recommends that Texas continue to seek effective sources of alternative energy. We should also remain diligent in monitoring and adjusting our rules and regulations in order to promote the renewable energy industry in Texas so that we may live up to our potential as a state and become the leader in renewable energy production.

REFERENCES

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Rural Alliance for Renewable Energy website: <http://www.infinitepower.org/rare/index.htm>.
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State Energy Conservation Office website: <http://www.seco.cpa.state.tx.us/>. August 2006.

State Energy Conservation Office's written testimony and handouts provided to the committee.
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INTERIM CHARGE 4
WATER CONSERVATION (JOINT WITH NATURAL RESOURCES)

BACKGROUND

In researching the need for a new comprehensive water conservation program, the committees relied heavily on input from both the Texas State Soil & Water Conservation Board (TSSWCB) and the Texas Water Development Board (TWDB), both of which are involved in numerous agricultural conservation efforts around the state.

Information about TSSWCB

The Texas State Soil and Water Conservation Board (TSSWCB) is a state agency that administers Texas' soil and water conservation law and coordinates conservation and pollution abatement programs throughout the state.

TSSWCB offers technical assistance to the state's 217 soil and water conservation districts (SWCDs). The TSSWCB is the lead Texas agency for planning, implementing, and managing programs and practices for abating agricultural and silvicultural nonpoint source (NPS) pollution. The TSSWCB also administers Technical Assistance and Cost-Share Assistance Programs for natural resource conservation land improvement measures.

The TSSWCB fulfils its responsibilities as the lead agency through its Total Maximum Daily Load, NPS Coastal Management Plan, and Water Quality Management Plan (WQMP) Programs, as well as the Clean Water Act Grant Program funded by the Environmental Protection Agency. The TSSWCB also administers a NPS complaint resolution process, a Poultry WQMP Initiative, and the Texas Brush Control Program. The TSSWCB maintains regional offices in strategic locations in the state to help carry out the agency's water quality responsibilities.

Information about TWDB

The Texas Water Development Board's (TWDB) mission is to provide leadership, planning, financial assistance, information, and education for the conservation and responsible development of water for Texas.

The TWDB provides loans to local governments for water supply projects; water quality projects including wastewater treatment, municipal solid waste management and nonpoint source pollution control; flood control projects; agricultural water conservation projects; and groundwater district creation expenses. The TWDB also provides grants and loans for the water and wastewater needs of the state's economically distressed areas. They provide agricultural water conservation funding and water-related research and planning grants.

The TWDB supports regions in developing their regional water plans that will be incorporated into a statewide water plan for the orderly development, management and conservation of the state's water resources by studying Texas' surface and groundwater resources. The TWDB collects data and conducts studies concerning the fresh-water needs of the state's bays and estuaries. They also administer the Texas Water Bank, which facilitates the transfer, sale or lease of water and water rights throughout the state, and administers the Texas Water Trust, where water rights are held for environmental flow maintenance purposes.

The TWDB further maintains a centralized data bank of information on the state's natural resources called the Texas Natural Resources Information System and manages the Strategic Mapping Program, a Texas-based public and private sector cost-sharing program to develop consistent, large-scale computerized base maps describing basic geographic features of Texas.

COMPREHENSIVE WATER CONSERVATION PROGRAM NEEDS ASSESSMENT

Water Decline Issues

Factors reducing the amount of available surface and groundwater in the state include but are not limited to the following; underground aquifer depletion through agricultural irrigation, less than optimum irrigation systems which use excess surface water, proliferation of brush species, and sedimentation of drinking water reservoirs.

Rural areas of Texas contain only 15 percent of the state's population, but account for 80 percent of the land area. Currently agriculture (and more specifically irrigated agriculture) in these rural areas uses the majority of the freshwater in the state. The value of irrigated crops accounts for more than half of the total value of crops grown in Texas. Groundwater resources provide approximately 75 percent of the water used in irrigation, with surface water supplies accounting for the remaining 25 percent.

The 2007 State Water Plan states that reservoir sedimentation is the primary reason for the decline in surface water availability. Surface water supplies are projected to decrease about 7 percent, from about 9.0 million acre-feet in 2010 to about 8.4 million acre-feet in 2060.

Conservation Implementation Task Force

In the past, there has been a significant amount of effort expended by the state in water conservation planning. The TWDB developed a State Water Plan in 2002, and in 2003 the Legislature established the Water Conservation Implementation Task Force (Task Force).

The Task Force was established to review, evaluate, and recommend optimum levels of water use efficiency and conservation for the state of Texas. The Task Force produced a report to the Legislature and developed and published a manual of Best Management Practices (BMPs) that focus strictly on water conservation.

In its report, the Task Force also recommended that, for on-farm best management practices, the Legislature consider funding a cost-share program to implement water conservation plans (WCPs) on irrigated lands through the State Soil and Water Conservation Board. These plans would be similar to water-quality management plans but would require only those BMPs that have a water conservation component. The Task Force recommendations state that a WCP is a management plan that comprises a collection of BMPs that are appropriate to the agricultural operation. The plan would be developed by the farmer or rancher in cooperation with a planner or technician employed by either the TSSWCB, a soil and water conservation district (SWCD), or the Natural Resource Conservation Service (NRCS). If the WCP were to meet all technical criteria, it would be certified by TSSWCB. For practices that have a cost to implement, farmers and ranchers may be eligible for cost-share assistance if the farmer or rancher agreed to implement and maintain the plan for the expected life of the practices. After an eligible practice

is implemented and implementation is certified by the SWCD, the producer may be eligible to receive cost-share assistance for that practice. To be eligible for cost-share assistance, a plan would need to show verifiable potential water savings.

These plans would be developed and implemented through existing TSSWCB regional offices and SWCDs that currently work with farmers to implement water-quality management plans and administer water-quality cost-share programs. The Task Force estimated that a Conservation Plan cost would average \$10,000 per plan. They recommended that the maximum state cost-share rate would be 75 percent, with a cost-share cap of \$25,000 per plan.

Current Water Conservation Programs at TWDB

The TWDB administers a program for agricultural water conservation funded through the Agricultural Conservation Fund. Through the Agricultural Water Conservation Loan, Grant and Linked Deposit Program, the TWDB provides agricultural water conservation loans to political subdivisions to use for improvements on their facilities or as loans to individuals. The TWDB also provides a linked deposit program for individuals to access TWDB funds through local state depository banks. Through this program, the TWDB may also provide grants to state agencies and political subdivisions for agricultural water conservation programs, including demonstration projects, technology transfers and educational programs.

As part of its grant program, the TWDB administers the Agricultural Water Conservation Demonstration Initiatives. In 2004, the TWDB initiated this program to implement Agricultural Water Conservation Demonstration Initiative projects in several major irrigated areas of the state. The purpose of the Agricultural Water Conservation Demonstration Initiative projects is to evaluate and demonstrate - on a multi-year, long-term basis - the integration of enhanced irrigation water management techniques and diversified farming systems to advance water conservation while maintaining or increasing farm profitability.

Funds available through the Agricultural Conservation Fund are expected to be sufficient to meet only the existing agricultural demonstration initiatives and current annual grant levels.

Current Water Conservation Programs at TSSWCB

The focus of existing programs at the TSSWCB has primarily been on environmental issues targeting water quality, not quantity. These programs include the USDA-NRCS, Environmental Quality Incentives Program (EQIP) as well as the TSSWCB, Water Quality Management Plan Program.

When BMPs have been used by TSSWCB affiliated projects, it has been on a case by case basis and never consolidated into a comprehensive and coordinated conservation plan. If a plan has been developed, it was with water quality as the target rather than water quantity. Many BMPs improve both water quality and water quantity, but existing programs limit implementation due to their water quality priorities. There is no built-in measuring mechanism in current programs that allows for quantifying water savings on the individual farm scale.

The only current water conservation program conducted by the TSSWCB is the Texas Brush Control Program which is funded under the Water Conservation and Enhancement strategy of

TSSWCB's budget. The Brush Control Program is a voluntary program in which landowners may contract with the state for cost-share assistance. Working through local soil and water conservation districts, landowners develop resource management system plans addressing brush control, soil erosion, water quality, wildlife habitat and other natural resource issues.

TSSWCB Suggestions for a Comprehensive Water Conservation Program

The TSSWCB provided many recommendations to the committees for the development of a new comprehensive statewide agricultural water conservation program based on the Task Force Report described above. These recommendations are summarized below.

There is currently no coordinated means for agriculture water users to voluntarily implement conservation measures. There is no agricultural water conservation program which includes technical planning assistance and allows for BMPs to be coordinated in a manner that targets water quantity. There is also no built-in mechanism for quantifying water savings in the agriculture sector.

The development of such a program would allow agricultural and rural areas to achieve and demonstrate water savings, as well as afford opportunities for water rights negotiating.

TSSWCB also suggests that the BMP manual published by the Task Force could serve as the foundation for a coordinated water quantity program. They also suggest that the knowledge gained from the research, education and demonstrations of the TWDB agricultural water conservation programs should be leveraged in any comprehensive water conservation program development.

TSSWCB maintains that the Texas Soil and Water Conservation Districts (SWCDs) possess a system which could serve as the delivery mechanism to deliver the technological support and planning assistance needed by agricultural producers to implement such a comprehensive plan. Currently Texas' Water Quality Management Plan Program makes use of this delivery system, and the network could be easily adapted to serve a complimentary water quantity program.

TSSWCB further maintains that the content of any individual plan would need to be determined by the nature of the land and the activities taking place on that land. The TSSWCB could certify that each plan results in a decrease in water usage, consumption, and/or waste if properly implemented. In a similar manner, TSSWCB currently certifies plans to ensure they are consistent with State Water Quality Standards. The TSSWCB also currently conducts status reviews to ensure that water quality plans are being followed, and these same status reviews could be performed on water conservation plans as a built-in control mechanism.

TSSWCB has stressed the need for partnerships to make such a water conservation plan possible. They believe that these partnerships are vital in identifying appropriate BMPs as well as how best to assemble those practices into a coherent and effective plan. Partnerships would also be vital in educating water users on the benefits of the program to the state as well as assisting in the delivery of the program to potential participants.

TSSWCB would recommend partnerships with the following entities in the following capacities:

1. Determining Technical Criteria Development
 - USDA-NRCS
 - Universities
 - Texas Agricultural Experiment Station
 - Texas Cooperative Extension
2. Strategic Planning and Resource Allocation
 - Texas Water Development Board
 - Texas Department of Agriculture
 - Texas Commission on Environmental Quality
 - Texas Water Resources Institute
 - Texas Parks and Wildlife Department
 - Regional water planning groups
 - Groundwater and irrigation districts
3. Stakeholder Involvement
 - Water Conservation Implementation Task Force

The TSSWCB suggests that funding for such a comprehensive water conservation program could fall under the Water Conservation and Enhancement funding strategy of TSSWCB's budget. Currently the Texas Brush Control Program is the only program funded under this strategy, but the purpose of the strategy is much more broad and could accommodate additional programs that target water conservation and overall enhancement of water supplies.

RECOMMENDATIONS OF THE COMMITTEES

The Committees recommend that the Texas State Soil and Water Conservation Board (TSSWCB) along with the Texas Water Development Board (TWDB) collaborate together in order to further study and develop a proposed water conservation program based on the Task Force's recommendations regarding on-farm BMP implementation cost-share. In studying and developing a proposed program, TSSWCB and TWDB may seek assistance from the following entities:

- USDA-NRCS
- Universities
- Texas Agricultural Experiment Station
- Texas Cooperative Extension
- Texas Department of Agriculture
- Texas Commission on Environmental Quality
- Texas Water Resources Institute
- Texas Parks and Wildlife Department
- Regional water planning groups
- Groundwater and irrigation districts
- Water Conservation Implementation Task Force

The Committees recommend that TSSWCB and TWDB work together to determine what the best delivery structure would be for such a program. Consideration should also be given to the cost of set up of such a program as well as ongoing biennial implementation costs. Specific cost information should include the estimated cost per plan as well as the estimated number of plans to be implemented per year. The possibility of federal matching funds should also be explored.

Pursuant to provisions contained in the Texas Water Code, Chapter 16, Subchapter B, Section 16.022, regarding joint study between the TSSWCB and TWDB on the expansion of conservation efforts, the Committees request that TSSWCB and TWDB report back to the Committees by December 31, 2007.

REFERENCES

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**INTERIM CHARGE 5
AGENCIES**

TEXAS FOREST SERVICE

The Texas Forest Service (TFS) is currently under undo strain due to budget constraints and the phenomenal hurricane and fire seasons which have besieged Texas in the past year. Texas has experienced extreme drought in the past year and there is no end in sight as weather experts expect that trend to continue for several years.

Fire Statistics

The National Oceanic and Atmospheric Association's (NOAA) Storm Prediction Center (SPC) issues extremely critical fire weather warnings for the United States for days where the weather predictions indicate that an area may be in extreme danger of fire outbreaks. In an average year, the SPC issues about 4-8 critical fire weather warnings for the U.S. as a whole. In an active year, that number may be increased to about 10-15. This year, the SPC has issued 11 critical fire weather warnings in Texas alone for the period of time between January 1, 2006 and April 25, 2006.

Wildland fire is not just a rural issue. For the time period between January 1, 2005 and April 22, 2006, there have been 20,174 wildfires. Eighty five percent of these fires occurred less than two miles from a community. For this same time period, these 20,174 wildfires consumed 1,825,512 acres of land, 612 homes, 1,075 outbuildings, 144 vehicles, hundreds of miles of fence, thousands of cattle, and had a total property loss of \$433.7 million. There were 19 human lives lost in these fires, three of which were firefighters.

The 2005-2006 fire bill is costing Texas over \$53 million (as of April 22, 2006) and the year is not complete. TFS appropriation for the 2005-2006 biennium is only \$8 million. In past years, TFS has spent \$100 million in excess of their appropriated budget on wildland fire response. Most of the burden of this cost will fall to either the Legislature to cover in an emergency supplemental appropriations bill or to the Governor's Emergency Management Fund.

When a wildland fire occurs, the first to respond are the local volunteer fire departments (VFDs). Only when the fire gets too large for the VFDs to handle, is the TFS called to respond. In severe years such as these past two, TXDOT and the Texas National Guard usually assist TFS in the fire response, however, this year the National Guard has not been available due to deployment abroad. When the call for assistance spreads these three agencies too thin, then Texas must call on other states to send in assistance. The cost of this national mobilization is very steep.

TFS has developed a Texas Wildfire Protection Plan in which they believe the state could invest in order to save money for the state. Their plan would divide the state into three fire regions consisting of the Western Range Region, the Central Interstate Region, and the Eastern Pineywoods Region. Their cost estimates indicate that if the state would increase their funding by \$20.4 million, they could reduce the loss to wildfires from \$392.7 million to \$74.9 million which would result in a \$317.8 million savings to the state. If the state were to increase their funding to \$56.6 million, they could further reduce that loss to \$32.1 million which would result in a \$360.6 million savings to the state.

RECOMMENDATIONS

The Committee continues to work closely with all of the agencies under its purview. All of the agencies which report to the committee are operating at their expected levels of performance. The Committee would encourage each agency to keep up the good work as they continue to serve the people of the State of Texas.

The Committee would especially like to draw attention to the Texas Forest Service. The Committee believes that the TFS is doing an exemplary job given their current resources and the extreme weather conditions with which they are confronted. For this they should be commended.

The Committee would like to draw the attention of the entire legislative body to the urgency and importance of the issue of the current state of drought and wildfires with which Texas is plagued. The Committee would recommend that when the Legislature returns, serious consideration be given to the Texas Wildfire Protection Plan which has been proposed by the Texas Forest Service.

REFERENCES

Texas Forest Service's written testimony and handouts provided to the committee. April 25, 2006.