Section 1. Goals and Accomplishments

Goal 1: Expand research productivity within the Institute.

- Dr. Todd Anderson completed his 6th year as co-chair of the TTU Radiation and Laser Safety Committee.
- Dr. Todd Anderson completed his 6th year as editor of Environmental Chemistry for "Environmental Toxicology and Chemistry."
- Dr. Todd Anderson completed his 12th year as service as reviewer for the NIH National Library of Medicine Hazardous Substance Databank.
- Dr. Todd Anderson completed his 12th year as chair of the Student Awards Committee for the Environmental Chemistry Division of the American Chemical Society.
- Dr. Todd Anderson and Dr. Stephen Cox served as Arts and Sciences Senator on the TTU Faculty Senate.
- Dr. Todd Anderson served on the South Central Society for Environmental Toxicology and Chemistry Board of Directors as Treasurer.
- Dr. Ken Dixon served on the TTU High Performance Computing Advisory Committee.
- Dr. George Cobb has served for 3 years on the Board of Directors for the Society of Environmental Toxicology and Chemistry.
- Dr. George Cobb served as a guest editor for "Affects of Hurricanes on Coastal Ecosystems" in "Environmental Toxicology and Chemistry."
- Dr. George Cobb served on the TTU Research Committee.
- Dr. Ken Dixon served on the College of Arts and Sciences Tenure and Promotion Committee.
- Dr. Ken Dixon served on the National Academies National Research Council Jefferson Science Fellows Review Panel.
- Dr. Ken Dixon served on a review panel with the Environmental Protection Agency.
- Dr. Weimin Gao participated in the South Plains Regional Science and Engineering Fair as a judge.
- Dr. Jaclyn Canas was invited to participate in an NSF ADVANCE Workshop titled, "Women Evolving Biological Sciences."
- Dr. Jaclyn Canas was chosen as a Faculty Fellow to attend the 2009 American Association of Hispanics in Higher Education.
- Drs. Celine Godard-Codding and Jaclyn Canas co-founded and served as president and vice-president, respectively, of the West Texas Association for Women in Science chapter.
- Dr. Celine Godard-Codding served as program committee chair for the TTU Women in Science Engineering and Medicine 2008 Conference.
- Faculty and Graduate Students from Environmental Toxicology developed and taught a course titled, "Environmental Toxicology" for "Science: It's a Girl Thing" camp.
- Drs. Cox, Presley, Ramkumar, and P. Smith were awarded tenure. In addition, Drs. Cox, Ramkumar, and Smith were promoted to Associate Professor.
- Dr. Cox taught a workshop titled, "Quantitative Approaches in Ecological Research and Education Using R" at the Annual Meeting of the Ecological Society of America.
- Dr. Steve Presley served as Chairman of the Publications Committee of the American Mosquito Control Association.
- Dr. Seshadri Ramkumar served as Organizing Secretary for two major conferences in India.
- Dr. Seshadri Ramkumar served on the editorial boards of three international magazines.
- Dr. Phil Smith served on the Editorial Board of "Environmental Pollution" and as an Associate Editor of "Environmental Toxicology and Chemistry."
- Dr. Seshadri Ramkumar served as vice-chairman for the American Region of the International Textile Educational Consortium.
- Dr. Seshadri Ramkumar served on four committees for the Technical Association of the Pulp and Paper Industry.
- Graduate students John Brausch and Monique Long were presented with awards from Syngentapr Crop Protection. Ms. Long also received an Environmental Chemistry Graduate Student Award from the Division of Environmental Chemistry of the American Chemical Society.
- Graduate students Changxia Shao and Shawna Nations were presented with awards from Waste Control Specialists. Ms. Nations also received the 2008 SETAC/EA Engineering Jeff Black award from the Society of Environmental Toxicology and Chemistry.
Graduate student Jennifer Cole received the Society of Toxicology Colgate-Palmolive Award for "Student Research Training in Alternative Methods.

- Arvind Purushothaman received a $1,000 AATCC Foundation Student Research grant.

**Goal 2:** Increase research opportunities for students.

- Drs. Godard-Codding (PI), Canas, Cox, and E. Smith submitted a proposal to the National Institutes of Health - Bridges to the Doctorate program. This program seeks to establish a bridge for Masters students from Eastern New Mexico University to enroll in doctoral programs at TTU in fields related to the health sciences.
- Dr. Jaclyn Canas was featured in the "Texas Higher Education Coordinating Board Research Development Fund Annual Reports - FY 2008" submitted by Texas Tech University as an example of how to use start-up funds to lead to extramural funding.
- Drs. Canas (PI), Cox, and Brown were awarded $1,080,000 from the National Institutes of Health to implement the "Plains Bridges to the Baccalaureate: Increasing Minorities in Science" program. This program targets minority students from South Plains College and provides research experiences to increase their awareness of and desire for careers in science. It also involved Co-Investigators from other Departments and Colleges.
- Joshua Pierce, TTU-HHMI scholar working with Dr. Jaclyn Canas received a US EPA Greater Opportunities fellowship.
- Twenty two TIEHH graduate students received Travel Awards from the TTU Graduate School to attend and present at scientific conferences.
- Dr. Stephen Cox was invited to a workshop titled, "Quantitative Biology: Curriculum and Institutional Transformation at the Math/Biology Interface" held at the Howard Hughes Medical Institute Headquarters in Chevy Chase, MD.
- Hired Dr. Greg Mayer as a biochemical and molecular toxicologist.
- Hired Dr. Christopher Salice as an ecological toxicologist.
- Hired Dr. Kamaleshwar Singh as a molecular toxicologist.
- Dr. Seshadri Ramkumar had one patent approved, has one pending, and two invention disclosures filed.
- Dr. Phil Smith received a Presidential Citation for exemplary service at the Annual Meeting of the Society of Environmental Toxicology and Chemistry.
- The product "FiberTect", developed by Dr. Seshadi Ramkumar, was granted a patent. FiberTect is used for the decontamination of chemical agents and has enormous potential in both civilian and defense markets. FiberTect was also tested by the Lawrence Livermore National Laboratories against multiple other products and was deemed as the best decontamination wipe of its kind.
Section 2. Universal Quantitative Data

There are no Universal Quantitative Data for this area/unit.
### Section 3a. Quantitative Information

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There is No Area Specific Data in Fall Section.
There is No Area Specific Data in Fiscal Year Section.
Section 3b. Qualitative Information.

There is no qualitative information for the current year.
Commentary:
Faculty within Environmental Toxicology have been implementing specific outcomes assessment at two different levels. First of all, specific outcomes have been developed in each of our core courses. (Our department has a set of core courses that all incoming graduate students must take.) Instruments for evaluating attainment of these outcomes (pre and post instruments) were initiated in the Spring of 2008. These outcomes are critical, not only for these courses, but also because they represent program level outcomes that the faculty feel are important for all graduating students. At the next level, faculty have been discussing the outcomes that distinguish our Masters and Doctoral programs. Much of this discussion started at a Faculty Retreat in October 2008. Graduate level program assessment has several components that are currently implemented. These include qualifying written and oral examinations as well as thesis and dissertation defenses. Discussion is currently focused on possibly moving our qualifying examinations to a standardized format. Although this may provide a measure of assessment that could be evenly applied to all doctoral students, it does remove some of the flexibility that doctoral committees have in fine tuning exams based on research goals. This tradeoff is currently being evaluated. In summary, our past year’s emphasis on expanding our graduate program has paid large dividends, and we look forward to receiving our largest class of incoming graduate students in the Fall of 2009.

Implementation Plan:
We have undergone significant changes in our faculty composition over the last year. We have hired faculty to increase our expertise in molecular toxicology and biotechnology as well as in ecological toxicology. This has allowed us to re-organize our teaching responsibilities to most effectively match faculty to courses that fall within their specific research domain. Moreover, we have focused efforts on expanding our graduate program. Specific plans included organizing a team of current graduate students to host potential applicants for on-site visits. This strategy worked extremely well as every student that visited our campus has agreed to come to TTU in the Fall 2010 semester. As of now, we will have 23 new graduate students for that semester. Finally, we have continued to work to increase awareness of our program on campus. Because of our location, this is vitally important in terms of recruiting TTU graduates as well as in terms of establishing research partnerships with faculty from other departments. As part of this emphasis, Dr. Phil Smith has begun teaching Risk Assessment in Experimental Sciences. In the Fall 2008 semester, the majority of students taking this course were from other departments. In addition, we have continued to work with the Forensics program. Forensics students have been, and are continuing to enroll in our Principles of Toxicology and Statistics courses.