

CURRICULUM VITA

May 2024

Guy Fipps, P.E.

Professor and Extension Agricultural Engineer – Irrigation, Water Management

Department of Biological and Agricultural Engineering

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EDUCATION

B.A. Liberal Arts, University of Texas – Austin, 1977.

B.S. Agricultural Engineering, Texas A&M University, College Station, 1979.

M.S. Biological and Agricultural Engineering, North Carolina State University, Raleigh, 1984.

Ph.D. Biological and Agricultural Engineering, North Carolina State University, Raleigh, 1988.

PROFESSIONAL APPOINTMENTS

2005 – 2006 **Senior Advisor for Water**, Afghan Reconstruction Group, US Embassy-Kabul, US Department of State (temporary, non-career appointment).

2003 - 2012 **Director**, Irrigation Technology Center. Texas A&M University System.

1988 - **Professor and Extension Agricultural Engineer**, Texas A&M University System, College Station. (promotions in 1994 and 1999).

1985 - 1988 **USDA National Needs Fellow**, Department of Biological and Agricultural Engineering, North Carolina State University.

1982-1984 **Graduate Research Assistant**, Department of Biological and Agricultural Engineering, North Carolina State University.

1981 - 1982 **Engineer**, Radian Corporation, Austin, TX.

1980 - 1981 **Research Associate**, Texas Agricultural Experiment Station, Department of Agricultural Engineering, Texas A&M University.

1975-1977 **Peace Corps Volunteer**, Upper Volta (Burkina Faso).

MAJOR PROGRAMS/WEBSITES

The Irrigation Technology Program (<http://itc.tamu.edu>).
Irrigation District Program (<http://idea.tamu.edu>).
Texas A&M School of Irrigation (<http://irrigation.tamu.edu>).
TexasET Network and Web Site (<http://texaset.tamu.edu>).
WaterMyYard Program (<http://WaterMyYard.org>)
South Texas Irrigation Conference (series)
Lower Rio Grande Irrigation Conference (series)
Seminar on Water Rights and Public Policy (occasional series)

MAJOR AWARDS/RECOGNITIONS

National/International

1. Lalit and Aruna Verma Award for Excellence in Global Engagement. ASABE (American Society of Agricultural and Biological Engineering), 2019.
2. Person of the Year. Irrigation Association, 2015.
3. Engineer of the Year. Professional Engineering Institute (PEI) of ASABE, 2014.
4. The 13th Merriam Improved Irrigation Award. USCID (United States Committee on Irrigation and Drainage), 2013.
5. Award for the Advancement of Surface Irrigation. ASABE, 2012.
6. Best Paper Award. International Commission on Irrigation and Drainage. 2011.
7. Metal of Excellence. 10th Mountain Division, US Army, 2006.

State/Texas A&M

1. Team Award for Superior Service. Texas A&M AgriLife Extension Service, 2019.
2. Excellence in Extension Education. Biological and Agricultural Engineering Department, Texas A&M University, 2011, 2016.
3. Blue Legacy Award. Texas Water Advisory Council, 2015.
4. Award for Superior Service. Texas A&M AgriLife Extension Service, 2009.
5. Outstanding Service – Innovative Technologies. Texas Water Commission, 1998.

Other

Special commendation for service in Afghanistan by the Chairman of the Joint Chiefs of Staff, Admiral Mike Mullen, 2010 in a speech at Texas A&M University:

I doubt Dr. Fipps imagined his path as an irrigation engineer and professor here would lead him to become the Senior Advisor for Water in Afghanistan – where body armor, guard towers, and humvees were the norm. Yet by working with the State Department, NGOs, Afghan leaders, and military forces, he dramatically improved water infrastructure throughout Afghanistan. Most of us would agree that water management is not a core military function, but few could argue with Dr. Fipps that his efforts impacted stability and security just as concretely, perhaps even more so, than military force.

INTERNATIONAL EXPERIENCE (selective listing)

1. Design of the water supply and irrigation systems for a 145 ha research/training farm in **Turkmenistan**, funded by the United Nations Development Program. 2017-2019.
2. Independent design evaluation for the Howard Buffet Foundation's 63 multi-user center pivot development project referred to as Nasho in **Rwanda**. Funded through the Conflict and Development Foundation. 2016. Irrigation technology and management support, 2018-2019. Analysis of HDPE pipeline failures and design issues. 2019.
3. Training Specialist – USAID's HSAD (Harmonized Sustainable Agricultural Development) Project, **Iraq**. Preparation and teaching of four, 1-week trainings in Erbil covering Rainfall Capture, Center Pivot Irrigation, Pumps for Irrigation, Extension Methods, and Irrigation Systems, Irrigation Water Quality and Salinity Management – through the Borlaug Institute and ICARDA, 5/13- 3/14.
4. Irrigation Specialist - USAID Inma Project, **Iraq**. Conducting of three subprojects: (1) Rapid Intervention Program - to improve the water management of irrigation schemes, (2) Efficient Center Pivot Irrigation System Demonstration Program, and (3) GIS assistance to the Ministry of Agriculture - for Louise Berger through the Borlaug Institute. Feb-Nov 2012.
5. Water Resource/Irrigation Expert, Five-Year Plan, Ministry of Agriculture, **Rwanda**. Development and prioritization of the 5-year plan for all Ministry of Agriculture programs in irrigation and related water resources, including services, technical support, development and organizational issues. Work was done for the Ministry through the Borlaug Institute. 7-9/13
6. Hydraulic Engineering Specialist - Great Man Made River Project Phase III, **Libya**. Review of the hydraulic assessment needs for the next phase of development– through Willsbros, International. 2/10 - 2/11.
7. Water Management Audit of the Sourou Valley Development Authority, **Burkina Faso**. Evaluation of the capability of the Burkina government to successfully implement a major irrigation development project funded by the Millennium Challenge Corporation - through University of Utah. Sept - Nov 2008.
8. Subject Matter Expert. Civil works project design and evaluation, design and implementation of the \$24.5 M Western Desert Center Pivot Project, Al Anbar Province, **Iraq** – for the US Department of Defense. 2008-2011
9. Consultant for the Task Force for Business Stabilization and Operations in Iraq, US Department of Defense: Member of the Ag Task Force for **Iraq** – in-country assessment of agricultural and water resource development needs suitable for quick intervention by the US military. March 2007.
10. Water Specialist on the USAID Inma project in **Iraq** - Louise Berger. Development of the Inma project plan related to irrigation and soil reclamation. Work conducted in Iraq. August 2007.
11. Development of a Transboundary Water Policy for **Afghanistan** – USAID. Advising the Afghan government, writing a comprehensive international water policy, and identifying priorities for each river basin - through IRD (International Relief and Development, Inc.), April – May 2007.
12. Senior Advisor for Water, US Department of State. One-year assignment in **Afghanistan** located at the US Embassy, Kabul to advise the ambassador, Afghan government, USAID, NGO's and the US Military on water development and policy issues. Successful negotiation of a water data sharing treaty between Tajikistan and Afghanistan. **Afghanistan**. 2005-2006.
13. Consultation for the Chinese Ministry of Science and Technology on irrigation and water resource sustainability in Xinjiang Province, **China**. 2005.
14. Jordan University of Science and Technology (USAID funded project) – development of two graduate level courses in urban and agricultural water demand management designed for both

- students and professionals, and co-teaching the first classes in **Jordan**. 2004.
15. Research into irrigation scheme assessment and rehabilitation, National Irrigation Commission of **Jamaica**. 2001-2005.
 16. Irrigation Needs Assessment for **Trinidad and Tobago** - evaluation of irrigation schemes and on-farm irrigation development needs for the Ministry of Agriculture and Land Resources - as part of a Texas A&M University Project. 1999-2000.
 17. Design of the Guanajuato Center for Research and Assistance in Irrigation (CEAR) - for the Guanajuato Secretary of Agriculture and the University of Guanajuato, **Mexico**. 1997-1998.
 18. Development of a Conceptual Design: The Sinaloa Irrigation Training Center - for INIFAP and the Sinaloa Foundation, **Mexico**. 1997.
 19. Consultant – for the Caspian Pipeline Consortium/Oman Oil Company. Analysis of the potential impact of pipeline construction on irrigated schemes and pressurized irrigation systems in the Krasnodar and Stavropol regions of South **Russia** and design of mitigation measures. 1995.
 20. Technical Advisor, CARE-International, in **Chad**, Africa. Design and evaluation of water and irrigation development projects. 1985.
 21. Peace Corps Volunteer - Wells Specialist, **Upper Volta** (Burkina Faso), West Africa. Construction of large-diameter water wells in the Sahel Region, 1975-1977.

Invited Presentations (International, selected listing)

1. International Conference on Irrigation and Drainage. Universidad Nacional Agraria La Molina, **Peru**. 2015.
2. International Irrigation Symposium, University of Guanajuato, **Mexico**. 2014.
3. AgBusiness Lab: Targeting the Small Farmer Market for Drip, Arusha, **Tanzania**. 2014.
4. US-Turkmenistan Business Forum, **Turkmenistan**. 2013.
5. Chinese Society of Agricultural Engineers Annual Meeting, Jiangnan, **China**. 2013.
6. Water Researches and Techniques Workshop, King Saud University, **Saudi Arabia**. 2011.
7. Special Seminar, University of Naples, **Italy**. 2011.
8. Workshop for USDA Iraqi Borlaug Fellows, Aleppo, **Syria**. 2010.
9. GL-CRSP Livestock Workshop, Kabul, **Afghanistan**. 2009.
10. Symposium on the Internationalization of University Science and Technology Parks, **China**. 2004.
11. International Conference on Water Issues in the Lower Rio Grande Mexico-Texas Border Region, Monterrey, **Mexico**. 2001.
12. National Rangeland Congress, Aquascliente, **Mexico**. 1998.
13. Guanajuato Ag Exposition, Irapauto, **Mexico**. 1998.
14. Sinaloa ExpoAgro'97, Culican, **Mexico**. 1997.
15. International Symposium on Water and Energy Conservation. Tashkent, **Uzbekistan**. 1992.

PROFESSIONAL REGISTRATION/AFFILIATIONS

1. Registered Professional Engineer, State of Texas (certificate number 70876).
2. Texas Agricultural Irrigation Association: Charter Member, Director 1991-1992.
3. American Society of Biological and Agricultural Engineers:
 - a. Associate Editor, Journal of Applied Engineering in Agriculture, 1995- 1997;
 - b. Local Arrangement Chair, ASAE International Conference, San Antonio, 1996;
 - c. Member, Drip Irrigation Committee, 2002 – .
4. American Society of Civil Engineers:
 - a. Member Water Use Committee, 1993- ;

- b. Control Member-Drainage Committee, 1993-1995.
- 5. U.S. Committee on Irrigation and Drainage:
 - Chair: Committee on GIS in Irrigation Projects 2002 - .
- 6. Extension Specialist Association, Chapter Director, 1992-1994.
- 7. Irrigation Association.
- 8. American Geophysical Union.
- 9. Friends of Burkina Faso
 - a. Director, 2004 – 2016 .
 - b. Chair, Technology Committee, 2006 - 2016.

COMMITTEES (partial listing)

Extension

Initiative Team Leader - Water Use Efficiency in Agriculture, 1990-1994.
 Chair - Computer Software Acquisition Committee, 1990-1991.
 Chair - Planning Committee on Tele-Conferences, 1990.
 Coastal Management Committee, 1993-1994.
 Initiative Team Leader - Water Conservation and Quality, 1994-1996.
 Fee-base Programming Committee, 1995-1996.

Biological and Agricultural Engineering Department

Vision Committee, 1989-1992.
 Graduate Programs Committee, 1989-1995.
 Faculty Search Committees (8).
 Natural Resources and Environmental Group, 1994 - .
 Social Committee, 1995-1996
 Computer Committee, 1997-2004
 Facilities and Infrastructure, 2005- .

Texas A&M University System (TAMUS)

Rio Grande River Water Quality Initiative: Focus Group 1994-1995
 Rio Grande Corridor, 1994
 Edwards Aquifer Initiative Committee, 1994-1995.
 Chair, Agricultural Issues, Water Leadership Team
 PET Analysis Committee, Water Leadership Team
 Feed the Future Committee, Texas AgriLife, 2011.
 Internal Advisory Council, Borlaug Institute, 2012-

External Agency

Water Rights and Uses Committee, Texas Water Commission.
 Edwards Aquifer Task Force, Texas Water Commission.
 GIS Rio Grande/Rio Bravo Group (inter agency).
 Arroyo Colorado Science and Technical Advisory Committee, Texas Natural Resources Commission.
 Chair: Western Region Extension Water Use Specialists Association, 1998-2004.
 San Antonio River Authority Advisory Council, 2007- .
 Task Committee on Irrigation Regulations, Texas Commission on Environmental Quality, 2008 –

GRADUATE STUDENTS

Major Professor – Completed

Jalal Basahi	M.S., AGEN, 1993
Dinku Endale	Ph.D., AGEN, 1995
Edwin Wilson	M.S., AGEN, 1997
Jalal Basahi	Ph.D., AGEN, 1998
Bakhtiyor Mukhammadiev	M.E., AGEN, 2000
Azim Nazarov	M.S., AGEN, 2000
Larry Demich	PhD, BAE, 2008
David Smith	M.S. Water Program, 2014

Committee Member-Completed

Michael Schwarz	M.A., Fishery and Wildlife, 1991
Max Alleger	M.S., Fishery and Wildlife, 1992
Kyung Chang	Ph.D., Electrical Engineering, 1993
Alpha Kergna	M.S., AGECE, 1990
Diptish Vartek	M.S., AGEN, 1993
Glenn Turner	M.S., AGEN, 1994
Wesley Newman	M.S., Rangeland Ecology, 1997
Paul Rodique	Ph.D., AGEN, 1998
Byron Neal	M.S., BAE, 1999
Charles H. Fontanier	PhD, SCS, 2014

CURRICULUM DEVELOPMENT

Short Courses/Workshops

(for professional license continuing education requirements)

1. Water Measurement Workshop for Irrigation Districts (8 Hours CEU)
2. Beginning GIS (geographical information systems) for Irrigation Districts (8 hours CEU)
3. Intermediate GIS (geographical information systems) for Irrigation Districts (8 hours CEU)
4. Introduction to Use of GPS (global positioning satellite) Technologies (8 hours CEU)
5. Landscape Irrigation Auditing & Management (16 hours CEU)
6. Irrigation Water Management of Commercial Landscapes (8 hours CEU)
7. Zoning Principles for Landscape Irrigation (8 hours CEU)
8. Introduction to Drip Irrigation (4 hours CEU)
9. Fundamentals of Irrigation System Design (4 hours CEU)
10. Hydraulics Surveying (4 hours CEU)
11. Efficient Irrigation System Design (8 hours CEU)
12. Electrical Wiring and Safety for Irrigation (8 hours CEU)
13. Automated Weather Stations for Irrigation (8 hours CEU)
14. Introduction to Irrigation Design Software (8 hours CEU)
15. Irrigation CAD Workshop (16 hours CEU)
16. Advance Irrigation CAD (8 hours CEU)
17. Landscape Water Budgeting (8 hours CEU)
18. Weather and Sensor-based “Smart” Controllers (8 hours CEU)
19. Permitting of Irrigation with Alternative Water Sources (“Wastewater Irrigation I”) (8 hours CEU)

- CEU)
20. Management of Irrigation with Alternative Water Sources (“Wastewater Irrigation I”) (8 hours CEU)
 21. Landscape Irrigation Design (meets the education requirements for Texas irrigation licensing) (40 hour course).

On-line Short Courses (<http://irrigation.tamu.edu>)

1. On-Farm Water Measurement and Flow Meter Installation (6 hours CEU)
2. Center Pivot Irrigation – Metric Version (8 hours CEU)
3. Center Pivot Irrigation (8 hours CEU)
4. Solar-power for Pumping (4 hours CEU)
5. Wind-power for Pumping (4hours CEU)
6. Electrical Wiring and Safety for Irrigation (8 hours CEU)
7. Landscape Water Budgeting (8 hours CEU)

Graduate Courses

1. Agricultural Water Management (3 hours credit)
2. Urban Water Management (3 hours credit)

FINANCIAL SUPPORT

Contracts and Grants through Texas A&M Engineering and AgriLife Research

1. Addressing Climate Resiliency Post-Harvey in the Houston Area by Strengthening Water Conservation Tools That Build Strong Communities. In cooperation with the Galveston Bay Foundation. USEPA Gulf of Mexico Program. Funding to Extension expected at \$50,000 (entire project: \$296,530). 2019-2022.
2. Creation of IOT Irrigation Control Platform to Enhance Delivery of the WaterMyYard Program, Water Seed grant, Texas A&M University System (as Co-PI), 2019-2021.
3. Nasho Agronomy. Howard Buffet Foundation through the Center on Conflict and Development. \$41,532, 2018-2019.
4. USDA Borlaug Fellow Program-Tunisia. \$39,537, 2018.
5. Creation Of UAV Imaging Platform for Leak Detection in Canals and Pipelines – Phase II, Water Seed grant, Texas A&M University System, \$264,473. 2015, 2017.
6. USDA Borlaug Fellow Training Program – Ukraine. \$35,472, 2015.
7. Analysis of Seepage Losses in HC&S Canal System. USDA. \$41,165, 2014.
8. A New Platform for Maximizing Irrigation Water Use Efficiency under Drought, Reduced Flows and Water Restrictions. Water Seed funding. \$245,000, 2014.
9. Spatial Variability of ET, Rainfall and Other Parameters in Urban Environments as Related to Further Deployment of the *WaterMyYard* Program. Water Seed Funding. \$145,000, 2014.
10. Irrigation and Water Harvesting Training, HSAD Project (contract through ICARDA and the Borlaug Institute). \$235,000 (direct expenditure), 2013.
11. Rapid Assessment Program for irrigation schemes and water user associations, and center pivot training. Inma project in Iraq (contract through Borlaug and Louise Berger). \$379,000. 2012.
12. Western Desert Project - Iraq (US Department of Defense). \$24,500,000, 2010.
13. GIS and District Analysis program in the LRGV, \$54,000 (½ from the College of Ag and Life Sciences, ½ from irrigation districts). 2000.
14. Region M Water Resources Project, Fipps (\$238,000, TAES component \$288,000). Regional Water Planning and determination or potential water savings from agriculture. 1999.

15. Characterization of Conveyance Loss in the Distribution Networks in the Lower Rio Grande Valley of Texas, \$60,000. Bureau of Reclamation. 1998.
16. Lower Rio Grande Valley Integrated Water Resources Plan, Engineering Analysis of Irrigated Agriculture and Irrigation Districts, Lower Rio Grande Development Council, \$100,000 (as PI of Task; \$1.2 million total project). 1998.
17. Development of an Irrigation District Visual System: Phase II. Harlingen Irrigation District. \$5,000. 1996.
18. Soil Moisture and Agricultural Water in a Changing Climate: Coupling a Regional Hydrologic Model with GCM Estimates, National Institute for Global Environmental Change, (CI), \$235,253. 1995-1997.
19. IRDDESS Evaluation, Harlingen Irrigation District, \$1700. 1995.
20. Droplet Impact Measurement Using Piezoelectric Strips, 1 year, \$10,500. 1993.
21. Constructed Wetland Technology for Treatment of Residential (Colonias) and Processing Wastewater, 2 years (CI), \$76,340, REP Project. 1993.
22. Regents Fellowship (PI), \$ 30,000, TAMU. 1992 - 1993.
23. Irrigation Control of White Fly, 1 year (PI), \$9,000. 1992.
24. Irrigation Water Control of White Fly on Peanuts (instrumentation development component), 1 year, \$5,600 (PI), Texas Peanut Board. 1992.
25. Irrigation Drainage Water Quality, 1 year, \$6,200 (PI), Texas Water Resources Institute. 1992.
26. Rio Grande River Water Quality Project (modeling component), 1 year (PI), \$5,000, REP Project. 1992.
27. Evaluation of Peanut Growth Models ©, 2 years, \$30,000, Texas Peanut Board. 1992.
28. Spatial Variability Component of Rio Grande River Project, \$4,000 (PI), REP Project. 1991.

Contracts and Grants – Extension Programming

2013

1. An Analysis and Prioritization System of Unlined Canal Segments for Lining in the Gulf Coast Irrigation Division, Lower Colorado River Authority, \$30,000.
2. Water My Yard Program, Brazos Valley Groundwater Conservation District, \$68,000.
3. Water My Yard Program, North Texas Municipal Water District, March 2013, \$13,005.

2012

1. Rio Grande Basin Initiative - Irrigation Districts \$ 50,000.
2. RGBI - Irrigation Education \$ 75,000.
3. University of Paova, \$2500. Drainmod Analysis Project.
4. Weather Station Fee, north Texas Municipal water district, \$12,000.
5. TexasET Network, San Antonio Water System, \$3,000.

2011

1. TexasET Network weather station fee, SAWS \$10,000.
2. Rio Grande Initiative (excludes indirect costs): Task 1: \$ 120,000; Task 2: \$ 110,000; Task 3: \$ 105,000.
3. Irrigation Troubleshooting fee, Discovery Green, \$3200.

2010

1. TexasET Network weather station fee, San Antonio Water System \$3,000.
2. Rio Grande Initiative (excludes indirect costs): Task 1: \$ 120,000; Task 2: \$110,000; Task 3: \$105,000.
3. Lower Colorado River Authority, Development of an Irrigation Troubleshooting Short Course, \$12,500.

2009

1. TexasET Network weather station fee, San Antonio Water System S \$3,000.
2. Rio Grande Initiative (excludes indirect costs): Task 1: \$ 90,000; Task 2: \$ 73,000; Task 3: \$74,000.

2008

1. Rio Grande Initiative:
 - a. Task 1: \$90,000, Irrigation District Assistance,
 - b. Task 2: \$ 73,000, ITC,
 - c. Task 3: \$ 74,000, Institutional (DMS),
 - d. \$10,000 for aquatic weed research,
 - e. \$25,000 for canal automation projects.
2. Utah State Univ - Water Management Audit, Burkina Faso for the MCC - \$17,000.

2007

Rio Grande Initiative:

- a. Task 1: \$78,000, Irrigation District Assistance,
- b. Task 2: \$ 97,158, ITC,
- c. Task 3: \$ 44,156, Institutional (DMS),
- d. \$10,000 for aquatic weed research,
- e. \$25,000 for canal automation projects.

2006

1. Rio Grande Initiative:
 - a. Task 1: \$150,000, Irrigation District Assistance,
 - b. Task 2: \$ 94,000, ITC,
 - c. Task 3: \$ 94,500, Institutional (DMS),
 - d. \$10,000 for aquatic weed research,
 - e. \$25,000 for canal automation projects.
2. Travel Grant, US Embassy, Tajikistan, \$2500

2005

1. Updating potential water savings in irrigated agriculture for Region M. NRS Engineering, Inc. \$35,436.
2. Sixty day Turfgrass Drought Recovery Study. Chalmers and Fipps (CoPIs), \$125,000. SAWS, Texas Turfgrass Producers.
3. Rio Grande Initiative:
 - a. Task 1: \$150,000, Irrigation District Assistance,
 - b. Task 2: \$ 94,000, ITC,
 - c. Task 3: \$ 94,500, Institutional (DMS).

2004

1. TexasET Network weather station fee, SAWS \$3,000.
2. Rio Grande Initiative:
 - a. Task 1: \$150,000, Irrigation District Assistance,
 - b. Task 2: \$94,000, ITC,
 - c. Task 3: \$ 94,500, Institutional (DMS),
3. Utah State Cooperative Extension. Produce a version of the Landscape Irrigation Auditing software for Utah. \$5,000.
4. Accuwater, Inc. Water budget calculator. \$4000.

2003

1. GIS Technical Assistance 3rd Year Program. LRGV Sugar Growers Association, \$9,600
2. Rio Grande Initiative:
 - a. Task 1: \$145,000, Irrigation District Assistance,

- b. Task 2: \$ 94,000, ITC,
- c. \$ 94,500, Institutional (DMS).

2002

1. TexasET Network weather station fee, SAWS \$3,000.
2. GIS Technical Assistance 2nd Year Program. LRGV Sugar Growers Association, \$9,600 for 1 year.
3. Rio Grande Initiative:
 - a. Task 1: \$145,000, Irrigation District Assistance,
 - b. Task 2: \$ 94,000, ITC,
 - c. Task 3: \$ 94,500, Institutional (DMS),
 - d. Task 4: \$9,000, On farm.

2001

1. Rapid Assessment Tool for Determining Water Savings in Irrigation Districts. Bureau of Reclamation, \$50,000 for 1 year.
2. GIS Technical Assistance Program. LRGV Sugar Growers Association, \$10,280 for 1 year.
3. Weather Station Network Cooperative Project. TCE, \$6,000 (total project \$26,000).
4. Rio Grande Initiative:
 - a. Task 1: \$125,000, Irrigation District Assistance,
 - b. Task 2: \$ 94,000, ITC,
 - c. Task 3: \$ 94,500, Institutional (DMS),
 - d. Task 4: \$ 11,850, On-farm.
 - e. Task 5: \$ 29,488, Urban.

2000

\$37,500 salary and operating for Extension Associate/Landscape Irrigation (TAEX).

1998

1. Integrated Landscape Management 319 Project, TNRCC, (PI), \$ 26,000 (supplemental funding).
2. Texas ET Network and Web Site, TAEX, (PI), \$30,000.
3. Irrigation District GIS Support, Joint funding from eight districts, (PI), \$21,024.
4. Texas ET Network and Web Site and support of Landscape Irrigation Programs, \$15,000, TAEX (SB1 Funding).

1997

1. Upper North Bosque and Seymour Hydraulic Unit Projects - Irrigated cropland component (PI of task), TAEX \$4000.
2. Seco Creek Water Quality Demonstration Project - Irrigated Cropland Component, TAEX (PI of task), \$5000.
3. Water Conservation through Drip Irrigation with Rainfall Capture, TAEX, \$10,000 (CI).

1996

1. Upper North Bosque Hydraulic Unit Project - Irrigated cropland component (PI of task), 1996, TAEX \$4000.
2. Seco Creek Water Quality Demonstration Project - Irrigated Cropland Component, 1996, TAEX (PI of task), \$4000.
3. Non-Point Source Prevention in the Arroyo Colorado Watershed, \$ 38,000. USEPA, TSSWCB (PI) (supplemental funding).
4. Emergency Response for the Lower Rio Grande Valley of Texas, \$60,000, USDA-CSREES (PI).

1995

1. Creating an Urban ET Network, TAEX Initiative Team Grants Program, \$5,000 (PI).
2. List Server/Internet Project, TAEX Initiative Team Grants Program, \$7,500 (CPI).
3. Integrated Landscape Management 319 Project, TNRCC, \$111,000 (PI).

4. Seco Creek Demonstration Project - Irrigation Component, TAEX, \$10,000 (PI).
5. Upper North Bosque River Project - Irrigation Component, TAEX. \$6,000 (PI).
6. Water Conservation and Quality Initiative Team Support Funds, 1995. TAEX. \$5000 (PI).
7. Water Quality and Conservation Initiative Team (PI), 1995, TAEX, \$10,500.

1994

1. Seco Creek Demonstration Project - Irrigation Component, \$26,000.
2. Upper North Bosque River Project - Irrigation Component, \$11,000.
3. Non-Point Source Prevention in the Arroyo Colorado Watershed, \$102,000. USEPA, TSSWCB (PI).

1993

1. Irrigation Water Management in the Lower Rio Grande Valley, 1 year, (PI), \$10,000.
2. Achievements in Water Conservation Through the Landscape Irrigation Auditor Program, 1 year, (CI), \$10,000, TAEX Initiative Team Grant.
3. Demonstrating Efficient Water Use System for Crop Production, 1 year, (CI), \$10,000, TAEX Initiative Team Grant.
4. Evaluation of Subsurface Drip Irrigation for Disposal of Wastewater Effluent, 1 year (CI), \$7,000 TAEX Initiative Team Grant.
5. Demonstrate Water Conserving, Environmentally Sound Methods of Applying Irrigation Water to Reduce the Total Water Demand Placed on the Edwards Aquifer, 1 year (CI), \$25,000, Texas Water Development Board.
6. Landscape Irrigation Auditor Program, 1 year (CI), \$15,000. Texas Water Development Board.
7. Intermittent Sand Filters for Improving Effluent Water Quality of On-Site Wastewater Treatment Systems, 2 years (CI), \$141,019, On-Site Wastewater Treatment Research Council.
8. Seco Creek Water Quality Demonstration Project - Irrigation Component. 1 year (PI), \$15,000.
9. Upper North Bosque River Hydrologic Unit Project - Irrigation Component, 1 year (PI), \$5,000.

1992

1. Irrigation Pumping Plant Efficiency Testing Project (PI), 2 years, \$119,000, Governor's Energy Office.
2. Seco Creek Water Quality Demonstration Project - Irrigation Component, 1 year (PI), \$8,000, TAEX.
3. Upper North Bosque River Hydrologic Unit Project - Irrigation Component, 1 year (PI), \$5,000. TAEX.
Water Use Efficiency in Agriculture - TAEX Initiative Team (PI), 1992, 1 year, \$14,000, TAEX - USDA base support funds.

1991

1. Seco Creek Water Quality Demonstration Project - Irrigated Cropland Component, 1 year (PI), \$8,000, TAEX.
2. Upper North Bosque River Water Quality Demonstration Project - Irrigated Cropland Component, 1 year (PI), \$5,000, TAEX.
3. Presidio Drainage Project (installation of a drainage system) (CI), \$2,500, SCS.
4. Mitigating Irrigation Return Flow (Seco Creek WQ Project - 3 data loggers and sensors) (PI), \$6,000, SCS.
5. Landscape Irrigation Auditor Training Program ©), \$50,000, TWDB and LCRA.
6. Development of a LEPA Short Course (CI), 1990, 1 year, \$5000, TAEX Mini-grant.
7. Computer Software Acquisition (PI), 1991, 1 year, \$2,500, TAEX: USDA base support funds.
8. Water Quality Education (PI), 1991. 1 year, \$5,350, TAEX: USDA base support funds.

1990

1. LEPA Demonstration Project (PI), 3 years, \$5500, Evergreen Underground Water Conservation

District.

2. Irrigation Water Quality Project (PI), 3 years, \$4500, Starr County Soil and Water Conservation District, Starr Produce Company.
3. Seco Creek Water Quality Demonstration Project - Irrigated Cropland Component (PI), 6 months, \$8000, TAEX.
4. Upper North Bosque River Water Quality Demonstration Project - Irrigated Cropland Component (PI), 9 months, \$3000, TAEX.
5. Demonstration and Evaluation of BMP's for Controlling Non-point Source Pollution from Irrigation Return Flows (PI), 1 year, \$5000, TAEX Mini-grant
6. Demonstration Drainage Project, Presidio (CI), 1 year, \$5000, TAEX Mini-grant.
7. Efficient Irrigation of Christmas Trees for Optimum Production (CI), 3 years, \$6000, Texas Christmas Tree Growers Association and TAEX Mini-grant.

1989

1. Monitoring Irrigation Drainage Water Quality in the Lower Rio Grande Valley (PI), 1 year, \$5000, TAEX Mini-grant.
2. LEPA Center Pivot Irrigation (PI), 1 year, \$2000, Evergreen Underground Water Conservation District.
3. Evaluation of LEPA Irrigation Systems on Peanuts, 1 year, \$5000, TAEX Mini-grant.
4. Peanut Production in a Circle for LEPA Irrigation, 1 year, \$4250, TAEX Mini-grant.

PUBLICATIONS

Thesis

1. *Modeling of Lateral Seepage in Relation to the Design of Irrigation and Drainage Systems*. MS Thesis, North Carolina State University, 1988. Major Professor: Wayne Skaggs.
2. *Numerical Solutions to the Richards Equation in Two and Three Dimensions*. PhD Thesis, North Carolina State University, 1988. Major Professor: Wayne Skaggs.

Extension Publications

1. AGEN-PU-067. *Calculating Horsepower Requirements and Sizing Irrigation Supply Lines*. G. Fipps, 2/22.
2. AGEN-PU-208. *Center Pivot Irrigation - the Essential Guide to the Selection, Optimization and Management of Center Pivots – Metric Units*. G. Fipps, 12/21.
3. AGEN-PU-210. *Center Pivot Irrigation - the Essential Guide to the Selection, Optimization and Management of Center Pivots*. G. Fipps, 10/21
4. EB-1667 *Irrigation Water Quality Standards and Salinity Management Strategies*. G. Fipps, 3/21.
5. BN-013 *Surge Flow Irrigation*. G. Fipps, 4/15
6. B-6128 *Measuring Seepage Losses from Canals Using the Ponding Test Method*. E. Leigh and G. Fipps, 1/09
7. B-6165 *Turf Irrigation and Nutrient Management Reference Manual*. G. Fipps, J. McAfee, and D. Smith, 12/05
8. B-6162 *Center Pivot Training Manual*. G. Fipps and L.L. New, 4/05.
9. B-6156, *Irrigation of Sugarcane in Texas*. J. Enciso, B. Wiedenfeld, G. Fipps. 3/05.
10. L-5406 *Maintaining Subsurface Drip Irrigation Systems*. J. Enciso, D. Porter, J. Bordovsky, G. Fipps, 7/04.
11. L-5406S *Maintaining Subsurface Drip Irrigation Systems* (Spanish) J. Enciso, D. Porter, J. Bordovsky, G. Fipps, 7/04.

12. *L-5424 Irrigating Sorghum in South and South Central Texas*, C. Stichler, G. Fipps, 2/03.
13. *B-6150 Irrigation of Forage Crops*, J. Enciso, D. Porter, G. Fipps, P. Colaizzi, 5/04
14. *B-1612 Managing Texas' Groundwater Resources through Groundwater Conservation Districts*, G. Fipps, (major revision), 1/02.
15. *B-6096 Center Pivot Irrigation*, L.L. New and G. Fipps, 4/01
16. *B-1612 Managing Texas' Groundwater Resources through Groundwater Conservation Districts*, G. Fipps, 11/98
17. *B-1667 Irrigation Water Quality Standards and Salinity Management Strategies*, G. Fipps, 1996.
18. *B-6011 Calculating Horsepower Requirements and Sizing Irrigation Supply Pipelines*. G. Fipps. 9/95.
19. *Irrigating Vegetables*. G. Fipps. In: Handbook for Vegetable Production in Texas. S. Cotner, Editor. 1991
20. *B-2422 Chemigation Equipment and Safety*. L.L. New and G. Fipps. 1990.
21. *B-1663 Planning and Operating Orchard Drip Irrigation Systems*. L. New and G. Fipps. 1990; revised 1992.
22. *B-1667 Salinity Management and Irrigation in the Lower Rio Grande Valley*. G. Fipps. 1990.
23. *B-1670 Soil Moisture Management*. G. Fipps. 1990.
24. *B-1691 LEPA Conversion and Management*. L.L. New and G. Fipps. 1990.
25. *B-1652 1990 Chemigation Workbook* (contributing author).

Newsletters (as editor)

1. *WATER - Quality, Conservation, Management*. (Bi-monthly Newsletter), Texas Cooperative Extension. 1989 -1995.
2. *Irrigation Technology Center Newsletter*. Bi-annual. 2002 – 2010
3. *IDEA* (Irrigation District Engineering and Assistance Program) Newsletter. Bi-annual. 2004 – 2010

Extension Conference Proceedings (as editor)

1. Proceedings of the 1990 South Texas Irrigation Conference. January 11, Pearsall, 80 pp. including papers: *Irrigation - How Much and When*, G. Fipps.; *LEPA Conversion and Management*, G. Fipps and L.L. New; *Chemigation Equipment and Safety*, L L. New, G. Fipps.
2. Center Pivot Dealers Workshop Workbook. October 1991. Including papers: *Calculating HP Requirements and Sizing Supply Pipelines*, G. Fipps; *LEPA Conversion and Management*, L. New and G. Fipps.
3. Proceedings of the 1991 South Texas Irrigation Conference. January 15, Hondo, 148 pp. including papers: *Effect of Operating Pressure and Irrigation Efficiency on Pumping Costs*, G. Fipps; *Chemigation with LEPA Center Pivots*, L. L. New, A. Knutson, G. Fipps.
4. Proceedings of the Seminar on Private Water Rights and Public Policy. January 14, 1991, Hondo, 60 pp.
5. Proceedings of the 1993 South Texas Irrigation Conference. January 15, Hondo.
6. Proceedings of the Seminar on Private Water Rights and Public Policy. January 1993, Hondo.
7. Proceedings of the 3rd Seminar on Water Rights and Public Policy. Including paper: *Recent History of the Edwards Aquifer Controversy*. January 1994, Hondo.
8. Proceedings of the 4th South Texas Irrigation Conference, Editor, Hondo. January 1994. Including papers: *Irrigation Pumping Plant Efficiency Testing Results*, B. Neal and G. Fipps; *Improving the Efficiency of Center Pivot Irrigation with LEPA*, G. Fipps and L. New; *Choosing a Center Pivot for Pastures*, G. Fipps.

Special Industry/Commodity Publications (partial listing)

1. *LEPA and Close Drop Spacing: a historic look at how and why this technology was developed.* Irrigation Today: 2 (2), October 2017.
2. *The Future Is Not the Past: Irrigation Research Should Focus on Answering the Basic Questions,* Resource Magazine
3. US Water News, an article on the Texas ET Network and Web Site: *Extension service helps Texans measure ET, schedule irrigation,* April 1999 edition.
4. *A Savings Surge: Brownsville Water Conservation Program Curtails Water Waste, Spreads Out Irrigator's Allotments,* Texas Farmer Stockman 111(2).
5. *Avoiding Common Drip Irrigation Mistakes,* Irrigation Business and Technology, Vol. 5(5), October 1997.
6. *Growing Cantaloupes with Drip Irrigation and Plastic Mulch,* G. Fipps and F. Dainello, Irrigation Journal Volume 46(5), May/June 1996.
7. *Texas Border Battle: Water Rights and Wrongs,* Irrigation Business & Technology, Vol. IV, No. 6, November 1996.
8. *Pumping Plant Efficiencies in South Texas,* Irrigation Business & Technology, Vol. IV, No. 6, November 1996.
9. *LEPA: conversion y manejo,* L. New and G. Fipps, Agricultura de las Americas, Ano 43, No 5, 1994.
10. *Drip under Plastic in the Lower Rio Grande Valley of Texas.* Irrigation Journal, November 1993.
11. *Pros and Cons of Drip under Plastic and Center Pivot Irrigation for Vegetable Production,* South Texas AgriNews, September 1993.
12. *Profiles in Agricultural Irrigation: Efficient Grain Sorghum Irrigation on the Texas High Plains,* G. Fipps and L. L. New, Irrigation Journal: 43(5), July/August 1993.
13. *Improving the Efficiency of Center Pivot Irrigation with LEPA,* G. Fipps and L. L. New, Water International, Fall 1992.
14. *LEPA Center Pivot Irrigation in Texas,* L. L. New and G. Fipps, Agribusiness Worldwide, October 1991.
15. *Choosing a Center Pivot,* Stockman Grass Farmer 49(6), June 1992.
16. *Update on the Edwards Aquifer,* Texas Agricultural Irrigation Association Newsletter, October 1992
17. *TWC Approves Water Conservation Regulations,* Texas Agricultural Irrigation Association Newsletter, December 1992.
18. *Senate Bill Adopted in Edwards Controversy.* Texas Agricultural Irrigation Association Newsletter, 2nd Quarter 1993.
19. *Computer Models to Manage Water in Irrigation Districts,* New Waves 8(4), Dec. 1995.
20. *Lower Rio Grande Irrigation Conference,* Texas Agri News, October 21, 1996.
21. *Texas Irrigated Acreage Fairly Stable,* Southwest Farm Press, Volume 23(14), July 18, 1996.

Published Proceedings Papers

1. Fipps, G. *Status of ET (Evapotranspiration) Networks in the United States.* ASABE/IA 6th Decennial National Irrigation Symposium. December 2021.
2. Swanson, C. and G. Fipps. *Evolution of smart irrigation controllers: A 15 year Texas perspective.* ASABE/IA 6th Decennial National Irrigation Symposium. December 2021.
3. Bonaiti, G. and G. Fipps. *Evaluation of canal liners in the Rio Grande Valley of Texas over 18 Years - Final results and conclusions.* ASABE/IA 6th Decennial National Irrigation Symposium. December 2021.

4. Dufek, Jan, Guy Fipps, Charles Swanson, Robin Murphy. *Preventing Irrigation Canal Breaches Using Small Unmanned Aerial Systems with Multispectral Payload*. 2019 IEEE International Symposium on Safety, Security and Rescue Robotics.
5. Swanson, C. and Fipps, G. *Educating Farmers on the Benefits of LESA and LEPA Center Pivot Irrigation*. ASABE Paper 2189115. ASABE Annual Meeting American Society of Agricultural and Biological Engineers. July 26-29, 2015. New Orleans, Louisiana.
6. Swanson, C. and Fipps, G. *Six Years of Smart Controller Performance in Texas*. ASABE Paper 152143305. Irrigation Association and American Society of Biological and Agricultural Engineers Joint Irrigation Symposium. November 10-11, 2015. Long Beach, California.
7. Swanson, C. and Fipps, G. *Quantifying Water Savings of Homeowner Irrigation Programs*. ASABE Paper 15214384. Irrigation Association and American Society of Biological and Agricultural Engineers Joint Irrigation Symposium. November 10-11, 2015. Long Beach, California
8. Swanson, C., Smith, D. and Fipps, G. 2012. Climate and ET: Do Plant Water Requirements Increase During a Drought. USCID Meeting. Austin, Texas, April 4, 2012.
9. Swanson, C. and Fipps, G. 2012. Evaluation of ET Based “Smart” Controllers During Droughts. ASABE International Meeting, Dallas, TX, July 29-August1, 2012. ASABE paper No. 12-1337022.
10. Swanson, C., Smith, D. and Fipps, G. 2012. Climate and ET: Do Plant water Requirements Increase During a Drought. ASABE International Meeting, Dallas, TX, July 29-August1, 2012. ASABE paper No. 12-1337021.
11. Swanson, C. and Fipps, G. 2012. Evaluation of ET Based “Smart” Controllers During Droughts. Irrigation Association Technical Conference. Orlando, Florida. November 4-5, 2012.
12. Bonaiti G., and G. Fipps, 2012. Methodologies for Analyzing Impact of Urbanization on Irrigation Districts. Proceedings of the USCID Water Management Conference, Irrigated Agriculture Responds to Water Use Challenges — Strategies for Success, Austin, Texas, April 3-6, 2012
13. Bonaiti G., and G. Fipps, 2012. Progress in Developing a Web-based Management System for Irrigation Districts. Presented at the USCID Water Management Conference, Irrigated Agriculture Responds to Water Use Challenges — Strategies for Success, Austin, Texas, April 5, 2012
14. Bonaiti G., and G. Fipps, 2012. Methodologies for Evaluation of Canal Lining Systems. Presented at the USCID Water Management Conference, Irrigated Agriculture Responds to Water Use Challenges — Strategies for Success, Austin, Texas, April 5, 2012
15. Bonaiti G., G. Battistello and G. Fipps, 2012. Effects of SCADA Innovation at the Riviera Berica District in Northern Italy. Presented at the USCID Water Management Conference, Irrigated Agriculture Responds to Water Use Challenges — Strategies for Success, Austin, Texas, April 5, 2012
16. Bonaiti G., M. Gaino, M. Gamba and G. Fipps, 2012. Automation and Control of Irrigation in the Monti Berici Hills in Northern Italy. Presented at the USCID Water Management Conference, Irrigated Agriculture Responds to Water Use Challenges — Strategies for Success, Austin, Texas, April 5, 2012
17. Swanson, C., and G. Fipps. Evaluation of Smart Irrigation Controllers. ASABE International meeting, Louisville, KY. August 8-10, 2011. ASABE paper No. 1111515
18. Swanson, C., and G. Fipps. Evaluation of Smart Irrigation Controllers. Innovation in Irrigation Technical Conference Proceedings. Irrigation Association Annual Expo, San Diego, CA. November 6-8, 2011.
19. Bonaiti G., Fipps G., 2011. Urbanization of Irrigation Districts in the Texas Rio Grande River

- Basin. Proceedings of the USCID Conference, Emerging Challenges and Opportunities for Irrigation Managers - Energy, Efficiency and Infrastructure, April 26-29, Albuquerque, New Mexico
20. Bonaiti G., Fipps G., 2011. Evaluation of the Criteria Irrigation Scheme Soil Water Balance Model in Texas - Initial Results. Proceedings of the Conference World Environmental & Water Resources Congress, May 22-26, Palm Springs, California
 21. Bonaiti G., Fipps G., 2011. Effects of Use of GIS as a Real Time Decision Support System for Irrigation Districts in Texas. Proceedings of the USCID Water Management Conference, The Struggle for Efficiency — Actions and Consequences, November 15-18, San Diego, California
 22. Leigh, E., Bonaiti G., Barroso, M., Fipps G., 2011. Canal Lining Project Evaluation Updates and Methodologies. Abstract and presentation at the USCID Water Management Conference, The Struggle for Efficiency — Actions and Consequences, November 15-18, San Diego, California.
 23. Proceedings of the 2010 USCID Conference on Meeting Irrigation Demands in a Water-Challenged Environment: SCADA and Technology - Tools to Improve Production. Fort Collins. Sept
 - a. Leigh, E., Karimov, A., & Fipps, G. Synthetic Canal Lining Evaluation Project.
 - b. Bonaiti, G., Leigh, E., Karimov, A., & Fipps, G. Flow Calibration of the Bryan Canal Radial Gate at United Irrigation District.
 - c. Karimov, A., Leigh, E., & Fipps, G. . Initiating SCADA Projects in Irrigation Districts.
 24. Swanson, C. Fipps, G. McAfee, J (2009 December). *Evaluation of Uniformity Methods in Landscape Irrigation Auditing*. Presentation at Turf/Landscape Technical Session of 2009 Irrigation Association Expo, San Antonio, TX.
 25. *Use of Geographical Information Systems (GIS) in Defining Municipal Water Supply Networks*. Eric Leigh and Guy Fipps. Proceedings of the Third International Conference on Irrigation and Drainage. San Diego, CA. March 30 - April 2, 2005. Published by the USCID.
 26. *Relationships between Seepage Loss Rates and Canal Condition Parameters for the Rapid Assessment Tool (RAT)*. Henry Milton, Guy Fipps and Eric Leigh. Proceedings of the Third International Conference on Irrigation and Drainage. San Diego, CA. March 30 - April 2, 2005. Published by the USCID.
 27. *Upgrading Existing Database: Recommendations for Irrigation Districts*. David Flahive and Guy Fipps. Proceedings of the Third International Conference on Irrigation and Drainage. San Diego, CA. March 30 - April 2, 2005. Published by the USCID.
 28. *Zarafshan Water District Improvement Project in Uzbekistan*. Azimjon Nazarov, Askarali Karimov and Guy Fipps. Proceedings of the Third International Conference on Irrigation and Drainage. San Diego, CA. March 30 - April 2, 2005. Published by the USCID.
 29. *Demonstration of Gate Control with SCADA Systems in Lower Rio Grande Valley of Texas*. Turan, B., Fipps, G., Leigh, E., & Nazarov, A. Published in the Proceedings of the 2005 USCID Water Management Conference on SCADA and Related Technologies for Irrigation District Modernization. Vancouver, WA. October 26 - 29, 2005. Published by the USCID.
 30. *Development of the Irrigation Conveyance Evaluation Program*. Fipps, G., Leigh, E. Proceedings of the ANCID Annual Conference 2005. Mildura, Victoria, Australia. October 23 - 26, 2005. Published by the ANCID.
 31. *Adapting to Long-term water shortages in the Lower Rio Grande River Basin*. Guy Fipps. Paper presented at the World Water and Environmental Resources Congress, Anchorage, AK, May 15-19. Proceedings published by ASCE.
 32. *Issues and Approaches to Coupling GIS to Irrigation Distribution Network and Seepage Loss Models*. Yanbo Huang , Milton Henry , Guy Fipps. Proceedings of the GIS Workshop, USCID International Conference, May 13, 2003. Phoenix.

33. *GIS as a Tool in Irrigation District and Projects*. Eric Leigh, Guy Fipps. Proceedings of the GIS Workshop, USCID International Conference, May 13, 2003. Phoenix
34. *Irrigation Scheme Rehabilitation Evaluation Procedure for Prioritizing Projects based On Water Savings*. Leigh and Fipps. Proceedings of the World Congress of the ICID, Montreal. July 2002.
35. *Drip Irrigation: What is the State of the Art*. Hanson, Fipps, Martin. Proceedings of the National Irrigation Symposium, Phoenix (Nov 11-16, 2000. Published by the ASAE.:
36. *Potential Evapotranspiration for Irrigation Water Management in Urban landscapes - the San Antonio Experience*. Fipps, Pope. Proceedings of the National Irrigation Symposium, Phoenix (Nov 11-16, 2000. Published by the ASAE.
37. *Progress in developing a GIS-based management system for Irrigation Districts*. Leigh, Fipps. Proceedings of the National Irrigation Symposium, Phoenix (Nov 11-16, 2000. Published by the ASAE.
38. *ET in Hydraulic Modeling of the Rio Grande River in Texas*. G. Fipps and R.J. Brandes; (65) Proceedings of the ASCE/USCID Conference in Ft. Collins June 2000.
39. *Implementation of GIS-based District Management System*. G. Fipps and E. Leigh (55). Proceedings of the ASCE/USCID Conference in Ft. Collins June 2000.
40. *Implementation of an District Management System in the Lower Rio Grande Valley*. G. Fipps and C. Pope. Proceedings of the 14th Technical Conference - 1998, Contemporary Challenges for Irrigation and Drainage. U.S. Committee on Irrigation and Drainage, 338 pp., 1999
41. *Water Shortages and Irrigation in the Lower Rio Grande Valley of Texas*. Proceedings, ERPI Agricultural Technology Alliance, South Padre Island, Nov. 12-14, 1997, Report CR-109983, Industrial and Agricultural Technologies and Services, Palo Alto, CA. Feb. 1998.
42. *Field Evaluations of Improved Irrigation Technologies*, G. Fipps, Hydrological Science and Technology, Vol. 12 (1-4) pp. 127-130, 1996.
43. *Irrigation District Modeling for Water Conservation Planning*, G. Fipps and D. Endale, Hydrological Science and Technology, Vol. 12 (1-4) pp. 131-135, 1996.
44. *Slow Sand Filter Design and Maintenance for Water Treatment in Small Communities*, E.E. Wilson. Hydrological Science and Technology, Vol. 12 (1-4) pp. 137-141, 1996
45. *Modeling Irrigation Strategies and Scheduling in Irrigation Districts*, D.M. Endale and G. Fipps. Proceedings of the International Conference: Evapotranspiration and Irrigation Scheduling, Nov. 3-6, 1996, ASAE. Proceedings of the Water for Texas Conference, Austin, January 1995. Texas Water Resources Institute:
 - a. *Attacking Excessive Water Use in Landscape Irrigation*, D. Smith and G. Fipps;
 - b. *Potential of Constructed Wetland Systems for Onsite Wastewater Treatment*, B. J. Lesikar, G. Fipps and G. A Turner;
 - c. *Managing Water in Irrigation Districts*, D. Endale and G. Fipps.
46. *Micro Irrigation of Vegetables Under Plastic Mulch in the Lower Rio Grande Valley of Texas*, G. Fipps and E. Perez. In the Proceedings of the Fifth International Micro Irrigation Congress, 4/2-6, Orlando. ASAE.
47. Proceedings of the Texas Water '95 Conference, San Antonio, August 15-17, 1995. ASCE:
 - a. *Modeling Irrigation Districts with IRDDESS - A Tool for Conservation and Planning*. D. Endale and G. Fipps.;
 - b. *Potential of Constructed Wetlands Systems for Onsite Wastewater Treatment and Reuse*, B. J. Lesikar, G. Fipps and G. A. Turner;
 - c. *Does Landscape Irrigation Auditing Save Water in Urban Areas?* G. Fipps, D. Smith.
48. Proceedings of the First International Conference on Water Resources Engineering, August 14-18, 1995. San Antonio. ASCE:
 - a. *Wetland Systems for Home Sewage Treatment/Reuse*, B. J. Lesikar, G. A. Turner, G.

Fipps and R. P. Wiedenfeld;

- b. *Irrigation Pumping Plant Energy Use and Potential Savings*, B. Neal and G. Fipps.
49. *Technologies for Reducing Water and Energy Use*. The Proceedings of the International Seminar on Energy Savings, Technologies and Environmental Engineering, Tashkent, Uzbekistan, May 20-24, 1994.
50. *Constructed Wetland Systems for Onsite Wastewater Treatment in the Lower Rio Grande Valley of Texas*, G. A. Turner, B. J. Lesikar. G. Fipps and B. Wiedenfeld. Proceedings of the National Symposium on Protecting Rural America's Water Resources, Washington, DC, Oct. 23-26, 1994.
51. *Improving the Efficiency of Center Pivot Irrigation with LEPA*. Proceedings of the International Seminar on Water Use Efficiency, Mexico City, October 1991.
52. *Six Years of LEPA in Texas - Less Water, Higher Yields*. G. Fipps and L. L. New. Proceedings of the Third National Irrigation Symposium, Phoenix, ASAE Publication 04-90, 1990
53. *Chemigation with LEPA Center Pivots*. L. L. New, A. Knutson and G. Fipps. Proceedings of the Third National Irrigation Symposium, Phoenix, ASAE Publication 04-90. 1990.
54. *LEPA Center Pivot Irrigation In Texas*. G. Fipps and L. L. New. Proceedings of the Conference on Irrigation Research and Development in the 1990s, Lethbridge, Alberta, July 17-20, 1990
55. *Irrigation Water Quality Issues in the Lower Rio Grande Valley*. G. Fipps. Proceedings of the Conference on Irrigation Research and Development in the 1990s, Lethbridge, Alberta, July 17-20, 1990.
56. *Drainage and Erosion Control*. Proceedings of the Texas Blueberry Growers Association Convention, Beaumont, September 21-23, 1989.
57. *Two and Three Dimensional Seepage from Stormwater Infiltration Ponds*. Proceedings of the Symposium on Coastal Water Resources, Wilmington, NC, May 1988.
58. *Numerical Solutions for Drains on a Hillside*. Proceedings of the Third International Workshop on Land Drainage, Columbus, Ohio, December 7-11, 1987.
59. *Fluidized-Bed Combustion and Gasification of Biomass*. W. A. LePori, G. Fipps, et al. Selected papers from the 1980 ASAE National Energy Symposium, Vol. 2, October 1980.

Electronic/Video Media

Web

1. WaterMyYard Program: <http://WaterMyYard.org>
2. Irrigation Technology Program: <http://itc.tamu.edu>
3. Irrigation District Education and Assistance: <http://idea.tamu.edu>
4. Dr. Guy Fipps: <http://gfipps.tamu.edu>
5. Texas A&M School of Irrigation: <http://irrigation.tamu.edu>
6. The Texas ET Network: <http://texaset.tamu.edu>
7. The Arroyo Colorado Water Quality Data Base: <http://arroyo.tamu.edu>

Video (production and script writing responsibilities)

The Arroyo Colorado Project, a 15-minute video summarizing what is known about the water quality of the Arroyo and purpose and activities of the multi-agency Section 319 project.

Integrated Landscape Management, a video news release (1 minute) on BMP's for nutrient and irrigation water management.

Computer Apps/Software

1. TexasET Apps (IOS and Android), 2024.
2. WaterMyYard Apps (IOS and Android), 2021.

3. AppRate (application rate calculator for wastewater disposal). August. 2005.
4. Texas Irrigation Auditing and Scheduling Software (Version 1.0), September 2004.
5. IRDDESS. 1996. Irrigation district simulation model
6. LIAM (Landscape Irrigation Auditing and Management) Software. 1994.
7. TIPPEES (Texas Irrigation Pumping Plant Evaluation Software). 1993. Calculates efficiency and pay-back period for repairs.
8. LIAS (Landscape Irrigation Auditor Software). 1993.
9. Gypsum Block Tracking for Irrigation Scheduling. 1991: Spreadsheet program for use with Lotus 1-2-3 and Quattro Pro. Tracks, graphs and averages block readings for up to 4 fields.
10. COMBO. 1989: Midpoint draw-down during transient drainage events using a combination of analytic solutions.
11. MG3D. 1988: Transient, 3-Dimensional numerical solution to the Richards Equation for combined saturated and unsaturated groundwater flow using finite differences and the multigrid method.
12. GS-SOR. 1987. Transient, Gauss-Seidel solution with successive over-relaxation to the Richards Equation for 3-dimensional combined saturated and unsaturated groundwater flow.
13. FENIS. 1984. Transit, finite element solution to the Richards Equation for combined saturated and unsaturated groundwater flow in 2-dimensions.

Journal/Professional Publications

1. Fipps, Guy, B Kapur, and E Celiktopuz. 2023. "The Role of Mulch Color and Irrigation Level in Reducing Water Stress in Strawberry." *APPLIED ECOLOGY AND ENVIRONMENTAL RESEARCH* 21: 4781–94.
2. Zhang, Lei, Zhao, Xin, Ge, Jiankun, Zhang, Jiaqi, Seydou, Traore, Fipps, Guy and Luo, Yufeng. 2022. Evaluation of Five Equations for Short-Term Reference Evapotranspiration Forecasting Using Public Temperature Forecasts for North China Plain. *Water*. 14. 2888. 10.3390/w14182888.
3. Traore, Seydou, Guy Fipps, Charles Swanson. 2021. Unmanned Aerial Vehicle System, Integrating High-Resolution Sensors for Detecting Leaks in Irrigation Canals. *ICID Journal of Irrigation and Drainage*. In press.
4. Bonaiti, Gabriele and Guy Fipps. 2021. Evaluation of Synthetic Canal Lining Materials in South Texas over 18 Years - Final Results and Conclusions. *ICID Journal of Irrigation and Drainage*.
5. Traore, Seydou, Lei Zhang, Aytac Guvend, Guy Fipps. 2020. Rice yield response forecasting tool (YIELDCAST) for supporting climate change adaptation decision in Sahel. *Agricultural Water Management*, Volume 239, September 2020, 106242.
6. Lei Zhang, Seydou Traore, Jiankun Ge, Yanbin Li, Shunsheng Wang, Ge Zhu, Yuanlai Cui, Guy Fipps. 2019. Impact of future climate change on rice yields using boosted tree regression and artificial neural networks- A case study in Sahel. *Journal of Hydrology*.
7. Lei Zhang, Seydou Traore, Guy Fipps. 2019. Assessment of spatiotemporal variability of reference evapotranspiration and controlling climate factors over decades in China using geospatial techniques. *Ag Water Management*.
8. Wu, X., G. Fipps, F. Zhang, and D. Fu. 2018. Design and Experiment of a Fertilizer Deep Applicator for Twin-row within One Ridge. *Agricultural Mechanization in Asia*, 2018-04.
9. Bonaiti, G., Karimov, A., and Fipps, G., 2018. A Simple Method for Calibrating a Radial Gate for Use as a Flow Measuring Device. *Applied Engineering in Agriculture Journal*, Vol. 34(2): 379-388.

10. Traore, S. Luo Yufeng and G. Fipps. 2017. Gene-Expression Programming for Short-term Forecasting of Daily Reference Evapotranspiration Using Public Weather Forecast Information. *Water Resource Management* 31:4891-4908.
11. Gabriele Bonaitia, Guy Fipps. 2017. Methodology for quantifying impacts of urbanization on the water distribution networks of irrigation districts. *Journal Agricultural Water Management* 176, p. 270-279.
12. Yufeng Luo, Seydou Traore, Xinwei Lyu, Weiguang Wang, Ying Wang, Yongyu Xie, Xiyun Jiao and Guy Fipps. Medium Range Daily Reference Evapotranspiration Forecasting by Using ANN and Public Weather Forecasts, 2015. *Water Resour Manage* 29:3863–3876.
13. Seydou Traore, Yufeng Luo and Guy Fipps. 2015. Deployment of Artificial Neural Network for Short-term Forecasting of Evapotranspiration Using Public Weather Forecast Restricted Messages in Dallas. *Agricultural Water Management*, 163 (2016) 363–379.
14. Yujiang Xiong, Yufeng Luo, Ying Wang, Seydou Traore, Junzeng Xu, Xiyun Jiao, Guy Fipps. 2015 Forecasting daily reference evapotranspiration using Blaney-Criddle model and temperature forecasts. *Archives of Agronomy and Soil Science*. DOI:10.1080/03650340.2015.1083983
15. Huang, Y., G. Fipps, R.E. Lacy and S.J. Thomson. 2011. Landsate Satellite Mutlri-Spectral Image Classification of Land Cover and Land Use Changes for GIS-based Urganiztion Analysis in Irrigation Districts of the Lower Rio Grande Valley of Texas. *Applied and Remote Sensing Journal* 2(1):27-36.
16. Steinke, K., D. Chalmers, J. Thomas, R. White, and G. Fipps. 2010. Drought Response and Recovery Charateristics of St. Augustinegrass Cultivars. *Crop Science* 50:2017-2083, Sept-Oct.
17. Huang, Y. and G. Fipps. (2009). *Developing a Modeling Tool for Flow Profiling in Irrigation Distribution Networks*. *International Journal of Agricultural and Biological Engineering*, 2(3) 1-10. September 2009.
18. Huang, Yambo, Guy Fipps, Stephan J. Maas, and Reginald S. Fletcher. 2009. Airborne remote sensing for detection of irrigation canal leakage. *Journal of Irrigation and Drainage* 59(5): 524-534.
19. *Simulation-based Irrigation Scheduling as a Water Management Tool in Developing Counties*, by D.M. Endale and G. Fipps. *Irrigation and Drainage, the Journal of the International Commission on Irrigation and Drainage*, Vol 50(3), 3 Sept 2001, pp 249-257.
20. Potential Water Savings in Irrigated Agriculture in the Low Rio Grande Basin of Texas. G. Fipps. TWRI TR-183, published by the Texas Water Resources Institute, College Station, August 2001,
21. *Incorporating Water Harvesting into Plasticulture Production of Muskmelon, 'Cucumis melo', var. 'reticulatus L'*. Dainello, F.R., L. Stein, G. Fipps, K. White. *HorTechnology* Jan-Mar 9(1):78-85, 1999.
22. *Measuring Droplet Impact Energy with Piezoelectric Film*, J.M. Basahi, G. Fipps, M.J. McFarland, *Journal of Irrigation and Drainage Engineering*, July/August, 1998.
23. *Field Evaluations of Improved Irrigation Technologies*, G. Fipps, *Hydrological Science and Technology*, Volume 12(1-4), 1996.
24. *Irrigation District Modeling for Water Conservation Planning*, G. Fipps and D. Endale, *Hydrological Science and Technology*, Volume 12(1-4), 1996.
25. *Slow Sand Filter Design and Maintenance for Water Treatment in Small Communities*, E.E. Wilson, G. Fipps, *Hydrological Science and Technology*, Volume 12(1-4), 1996.
26. *Irrigation Return Flow*. Texas State Soil and Water Conservation Board, Temple, 1991.
27. *Simple Methods for Calculating Flow to Drains*. ASCE *Journal of Irrigation and Drainage*, December 1991.
28. *Pond Seepage in Two and Three Dimensions*. Fipps, G. and R. W. Skaggs. *Journal of Hydrology*

- 117:133-151, 1990.
29. *Analysis of Stormwater Infiltration Ponds on the North Carolina Outer Banks*. G. M. Chescheir, G. Fipps, and R. W. Skaggs. Report No. 254, Water Resources Research Institute, University of North Carolina, Raleigh, September 1990.
 30. *Influence of Slope on Subsurface Drainage of Hillsides*. Fipps, G. and R. W. Skaggs. Water Resources Research 25(7):1717-1726. 1989.
 31. *Modeling Three-Dimensional, Combined Saturated and Unsaturated Ground Water Flow Using Multigrids*. Fipps, G. and R. W. Skaggs. Transactions of the ASAE, Vol.32(4):1263-1268, 1989.
 32. *Drains as a Boundary Condition Infinite Elements*. Fipps, G., R. W. Skaggs, and J. L. Nieber. Water Resources Research, Vol.22(11):1613-1623, 1986.
 33. *Effects of Canal Seepage on Drainage to Parallel Drains*. Fipps, G. and R. W. Skaggs. Transactions of the ASAE, Vol.29(5):1278-1283,1986.

Grant/Contract Reports (selected listing)

1. Bonaiti G., and G. Fipps, 2012. Use of GIS as a Real Time Decision Support System for Irrigation Districts. Rio Grande Basin Initiative, Irrigation Technology Center, Texas AgriLife Extension Service.
2. Bonaiti G., and G. Fipps, 2012. Rapid Intervention Program (RIP) - Reference Manual. USAID-Inma Agribusiness Program, Iraq, Rapid Intervention Program Project, Final report
3. Bonaiti G., and G. Fipps, 2012. Regional GIS Support Program. USAID-Inma Agribusiness Program, Iraq, Regional GIS Support Program Project, Final report
4. Swanson, C. And G. Fipps. (2009). *Evaluation of Smart Irrigation Controllers: Initial Bench Testing Results*. (Technical Report 354). College Station: Texas Water Resource Institute.
5. Leigh, E., M. Barroso, and G. Fipps. (2009, March). *Expansion of Urban Area in Irrigation Districts of the Rio Grande River Basin, 1996-2006: A Map Series* (TWRI Report No. EM-105). College Station: Texas AgriLife Extension Service, Texas Water Resources Institute.
6. Karimov, A., E. Leigh, and G. Fipps. (2009, June). *Evaluation of Canal Lining Projects in the Lower Rio Grande Valley of Texas* (TWRI Report No. TR-353). College Station: Texas AgriLife Extension Service, Texas Water Resources Institute.
7. Jennings, D and G Fipps. (2009, August). *Analysis of Land Clearing Needs of the Verano Properties. Report prepared for Verano Inc.* Irrigation Technology Center. 22p.
8. David R. Chalmers, Kurt Steinke, Richard White, James Thomas, and Guy Fipps. *Evaluation of Sixty-Day Drought Survival In San Antonio of Established Turfgrass Species and Cultivars: Year 1*. Progress Report to the San Antonio Water System and the Turfgrass Producers of Texas. December 2006
9. Leigh E and G. Fipps. *Water Loss Test Results: Pipeline Units I-19/I-18, I-7A, and I-22, Hidalgo County Irrigation District No. 2*. June 2007.
10. Leigh, E. and G. Fipps. *Water Loss Test Results: West Main Pipeline of United Irrigation District of Hidalgo County*. March 2007.
11. Leigh, E. and G. Fipps. *Water Loss Test Results: Main 'J' Canal of Delta Lake Irrigation District*. January 2007.
12. *ITC Land Requirements and Options*. Report prepared for the Texas A&M University System. July 16, 2007.
13. *Water Loss Test Results: West Main Canal of United Irrigation District of Hidalgo County*.

- Leigh, E., & Fipps, G. (2006, April). Texas Cooperative Extension.
14. *Overview of Automation Project in Tom Green County Water Control and Improvement District #1*. Nazarov, A.M., Karimov, A., & Leigh, E. (2006, October). Texas Cooperative Extension.
 15. *Evaluation of Sixty-Day Drought Survival in San Antonio of Established Turfgrass Species and Cultivars: Year 1*. Chalmers, D.R., Steinke, K., White, R., Thomas, J., & Fipps, G. (2006, December). Progress Report submitted to San Antonio Water Systems and Turfgrass Producers of Texas. Texas Cooperative Extension.
 16. *Airborne Multi-Spectral Imaging of Canals for Remote Detection of Leaks: Evaluation in the Lower Rio Grande Valley*. Huang, Y., & Fipps, G. (2006, August) Project Report, Texas Cooperative Extension.
 17. *Landsat Satellite Multi-Spectral Image Classification of Land Cover Change for GIS-based Urbanization Analysis in Irrigation Districts: Evaluation in the Lower Rio Grande Valley*. Huang, Y., & Fipps, G. (2006, August). Texas Cooperative Extension.
 18. *Flow Measurement in Bryan Canal of United Irrigation District*. Nazarov, A., Karimov, A., Leigh, E., & Fipps, G. (2006, August). Texas Cooperative Extension.
 19. *Potential Water Savings in Irrigated Agriculture for the Rio Grande Planning Region (Region M), 2005 Update. Final Report submitted to NRS Engineering, Inc. for the Region M Water Planning Group*. May 6, 2005. 37 pp, 34 tables, 4 maps, 11 charts.
 20. *Ponding Test Results, Seepage and Total Losses, North Alamo Main Canal, Hidalgo County Irrigation District No. 2*, Eric Leigh and Guy Fipps, February 4, 2004 (22p). Irrigation Technology Center report.
 21. *Seepage Loss Test Results, the Main Canal, Valley Municipal Utility District No. 2*, Eric Leigh and Guy Fipps, January 21, 2004 (13p). Irrigation Technology Center report.
 22. *Ponding Test Results: Seepage and Total Losses, Secondary Canals 13, 16, and 29, Donna Irrigation District, Hidalgo County No. 1*, Eric Leigh and Guy Fipps, March 30, 2004 (22p). Irrigation Technology Center report.
 23. *Ponding Test Results, Seepage Losses Laterals 8e and 2a-c, Maverick County Water Control and Improvement District No. 1*, Eric Leigh and Guy Fipps, March 30, 2004 (20p). Irrigation Technology Center report.
 24. *Ponding Test Results, Seepage and Total Losses, Main Canal B, Hidalgo County Irrigation District No. 16*, Eric Leigh and Guy Fipps, February 17, 2004 (24p). Irrigation Technology Center report.
 25. *Upgrading Existing Databases, Recommendations for Irrigation Districts*, David Flahive and Guy Fipps, September 21, 2004 (7p). Irrigation Technology Center report.
 26. *The Municipal Water Supply Network of the Lower Rio Grande Valley*, Guy Fipps, February 5, 2004 (25p). Irrigation Technology Center report.
 27. *Irrigation Technology Center, Espada Site Evaluation*, 11/12/05, 2 pages, 4 maps. Irrigation Technology Center report.
 28. *GIS Implementation Program, Year Three Progress Report*. Eric Leigh and Guy Fipps, May 27, 2004. LRGV Sugar Growers.
 29. *Statistical Relationships between Canal Seepage Rates and Canal Condition Parameters for the Rapid Assessment Tool*. Milton Henry and Guy Fipps. Bureau of Reclamation, May 2004.

30. *Measured Seepage Losses of Canal 6 - La Feria Irrigation District Cameron County No. 3.* May 5, 2003. Eric Leigh, Guy Fipps. Irrigation Technology Center report.
31. *Flow Measurement and Structure Assessment.* Report prepared for the Richmond Irrigation District. Eric Leigh, Milton Henry, Guy Fipps. June 30, 2003. Irrigation Technology Center report.
32. *Measured Water Losses of Lateral A in Hidalgo County Irrigation District No. 2.* April 28, 2003. Leigh and Fipps. 22 p., 19 figures, 10 tables. Irrigation Technology Center report.
33. *Demonstration of the Rapid Assessment Tool: Analysis of Canal Conditions in Hidalgo County Irrigation District No. 1.* Feb 5, 2003. Leigh and Fipps. Irrigation Technology Center report.
34. *Demonstration of the Rapid Assessment Tool: Analysis of Water Supply Conditions in the Harlingen Irrigation District.* Jan 7, 2003. Leigh and Fipps. Irrigation Technology Center report.
35. *Development Plan for the Irrigation Technology Center of Texas, Texas A&M University System.* With Beach Ramirez. 2/20/02. Irrigation Technology Center report.
36. *Irrigation District Database Analysis.* Report Prepared for Cameron County Irrigation District No. 2. Flahive and Fipps. Irrigation Technology Center report.
37. *Flow Measurement for Rehabilitation Planning.* Report Prepared for Cameron County Irrigation District No. 2. Leigh & Fipps. Irrigation Technology Center report.
38. *Farm Turnout Flow Recommendations for New Outlets in Cameron County Irrigation District No. 2 .* Faulkner & Fipps
39. *Seepage Loss Test Results In Hidalgo County Irrigation District No. 2.* Leigh & Fipps.
40. *Seepage Loss Test Results In Cameron County Irrigation District No. 2.* Leigh & Fipps.
41. *Irrigation Needs Assessment for Trinidad and Tobago* for a TAES project. 2000.
42. *Characterization of Conveyance Losses in Irrigation Districts of the Lower Rio Grande Valley of Texas* for the Bureau of Reclamation project of the same name (Project No. 98-FG-60-10_0, 1/12, 28pp). 2000.
43. *Potential water savings in irrigated agriculture for the Rio Grande Planning Region (Region M), Final Report* December 22, 2000. Prepared for the Region M Water Planning Group.
44. *The Potential Water Savings from Improvements in Irrigation District Distribution Systems and On-farm Irrigation.* December 1999. Prepared for the Region M Water Resources Plan Project.
45. *Lower Rio Grande Valley Integrated Water Resources Plan - Phase II: Potential Water Savings from Improvements in Irrigation District Distribution Systems and On-farm Irrigation in Hidalgo, Cameron and Willacy Counties.* Report submitted to Perez-Freese and Nickols and the Project Steering Committee, Lower Rio Grande Valley Development Council, September 1998.
46. *Non-point Source Pollution Prevention in the Arroyo Colorado Watershed: Accomplishments of the Texas Agricultural Extension Service,* Report submitted to the Texas State Soil and Water Conservation Board, November 1997.
47. *Evaluation of IRDDESS in the Lower Rio Grande Valley.* A Report submitted to the Harlingen Irrigation District, May 30, 1996. 35 p.
48. *Analysis of the Arroyo Colorado Data Base. Long-term Trends of Water Quality Indicators.* Report submitted to the Texas State Soil and Water Conservation Board. August, 1996. 46 p.
49. *Monitoring Irrigation Drainage Water Quality in the Lower Rio Grande Valley.* Final Project

- Report submitted to TAEX. September 5, 1991.
50. *Demonstration and Evaluation of BMPs for Controlling Non-Point Source Pollution From Irrigation Return Flows*. Final Project Report submitted to TAEX. September 13, 1991.
 51. *Analysis of Stormwater Infiltration Ponds on the North Carolina Outer Banks*. G. M. Chescheir, G. Fipps, and R. W. Skaggs. Report No. 254, Water Resources Research of the University of North Carolina, Raleigh. September 1990.
 52. *Analysis of the New Hope Tributary to Marsh Creek: Technical Report*. G. Fipps. Water Resources Research Institute of the University of North Carolina report to the City of Raleigh. October 21, 1988.
 53. *Technical Analysis of CARE - Chad's Agricultural Development Project: Final Report*. CARE - Chad and USAID, N'Djamena, Chad, and CARE International, New York. April 11, 1985.
 54. *Mississippi Biomass and Solar Development*. G. Fipps et al. Radian Corporation Report to Mississippi Department of Energy and Transportation. December 19, 1981.
 55. *A Texas Biomass Research, Development and Demonstration Planning Document*. G. Fipps. Texas Energy and Natural Resources Advisory Council, Austin. August 31, 1981.
 56. *Reclamation Plan for the Sparta Mine Site in Calhoun County, Arkansas*. S. A. Gavande and G. Fipps. Radian Corporation Report to Shell Oil Co. Houston. April 1981.
 57. *On-Site Energy Production from Agricultural Residues: Final Report*. W. A. LePori, G. Fipps. et al. Texas Energy and Natural resources Advisory Council, Austin. August 31, 1981.

International Reports/Documents (selected listing)

1. Reports for the US Embassy – Kabul, as Senior Advisor for Water
 - a. *Water Related Strategic Concerns and Threats in Afghanistan* (1/06)
 - b. *Water Sector Briefing and Recommendations* (5/06)
 - c. *Evaluation of RAMP Irrigation Projects* (7/06)
 - d. *Analysis of the Karezes of the Gardez Forward Operating Base* (7/06)
 - e. *Advancing US Efforts On Water in Afghanistan* (8/06)
2. *USAID Inma Irrigation and Soil Program: Strategy and Implementation Framework*, August 16, 2007.
3. *Iraq Business Transformation Assessment*; February 23, 2007 - March 9, 2007, Agriculture Team Report, Submitted to: Office of the Deputy Under Secretary for Business Transformation, US Department of Defense, By the Norman Borlaug Institute for International Agriculture, Texas A&M University, March 23, 2007 (consensus report of all 7 task force members).
4. *Transboundary Water Policy of Afghanistan*, Final Draft, prepared for USAID-Kabul. 26 April 2007.
5. *Appendix to the Transboundary Water Policy of Afghanistan: Transboundary Water Issues*, Final Draft, prepared for USAID-Kabul. 26 April 2007.
6. *Afghanistan Mission Report*: Prepared for USAID and IRD, April 20, 2007.
7. *Water Sector Briefing and Recommendations*, Prepared for the US Embassy and USAID, Kabul, Afghanistan, April 15, 2007.
8. *Observations and Recommendations: A Brief Report*, Prepared for the Task Force to Support Business and Stability Ops in Iraq, By Guy Fipps, March 13, 2007.
9. *Final Mission Report: Water Management Audit of the Sourou Valley Development Authority*. Report Submitted to Utah State University and the Millennium Challenge Corporation. October 14, 2008

Book Chapters

1. Fipps, G. *Irrigation*. Texas Almanac 2010- (update for each publication).
2. *Aral Sea Disaster*. Encyclopedia of Water Science Marcel Dekker, Inc., New York. 2003.
3. *Irrigation*. The Texas Almanac, *published by the Dallas Morning News*.
4. *Improving the Efficiency of Center Pivot Irrigation with LEPA*, G. Fipps and L. L. New, in *Efficient Water Use*, Instituto Mexicano De Tecnologia Del Agua, Mexico City, 1993.
5. *Improving the Efficiency of Center Pivot Irrigation with LEPA*, G. Fipps and L. New. Efficient Water Use 1994, editors: H. Garduno and F. Arreguin-Cortes, UNESCO/STLAC, Montevideo, Uruguay (ISBN:92-9089-340-0), 379 p.
6. *Mejoramiento en la Eficiencia de Riego con Pivote Central Empleando LEPA (Aplicacion Precisa con Baja Energia)* G. Fipps, L. New. In *Unso Effivciente del Agua*. Editors: H. Garduno, F. Arreguin-Cortes. UNESCO, 1994.

Project Reports Published by the Texas Water Resources Institute

<http://twri.tamu.edu>

1. Swanson, C. and Fipps, G. Evaluation of Smart Irrigation Controllers: Year 2011 Results. TWRI TR 428, Texas Water Resources Institute, College Station, Texas. June 14, 2012.
2. Bonaiti G., Karimov A., Fipps G., 2011. Evaluation of Canal Lining Projects in the Lower Rio Grande Valley of Texas - 2011 Ratings and Analysis. Rio Grande Basin Initiative, Irrigation Technology Center, Texas AgriLife Extension Service. Texas Water Research Institute Technical Report, TR-412,
3. Leigh, E.W., Barroso, M., & Fipps, G. (2011, January). Reservoir Complex GPS Survey for Hidalgo and Cameron Counties Irrigation District No.9 (TWRI Report No. TR-368).
4. Leigh, E.W., & Fipps, G. (2011, January). Inundation Map of Hidalgo and Cameron Counties Irrigation District No.9's Reservoir Complex (TWRI Report No. TR-369). College Station: Texas AgriLife Extension Service, Texas Water Resources Institute.
5. Swanson, C. Fipps, G. (2010). Evaluation of Smart Irrigation Controllers: Year Two (2009) Results. (TWRI Report No. TR-364). College Station: Texas Water Resource Institute, Texas A&M System.
6. Leigh, E., Fipps, G. (2008, July). *Texas Legislative and Irrigation Districts of the Rio Grande River Basin: A Map Series* (TWRI Report No. EM-102).
7. Leigh, E., Fipps, G. *Water Loss Test Results: Pipeline Units I-19/I-18, I-7A, and I-22, Hidalgo County Irrigation District No. 2* (TWRI Report No. TR-340). 2008, November.
8. Leigh, E., Fipps, G. *Water Loss Test Results: Main 'J' Canal, Delta Lake Irrigation District* (TWRI Report No. TR-327). 2008, November.
9. Leigh, E., Fipps, G. *Water Loss Test Results: West Main Pipeline, United Irrigation District of Hidalgo County* (TWRI Report No. TR-322). 2008, November. Leigh,
10. E., Fipps, G. *Water Loss Test Results: West Main Canal, United Irrigation District of Hidalgo County* (TWRI Report No. TR-329). 2008, November.
11. Leigh, E., Fipps, G. *Water Loss Test Results for Lateral A, Before and After Lining, Hidalgo County Irrigation District No. 2* (TWRI Report No. TR-328). 2008, November.
12. Leigh, E., Fipps, G. *Seepage and Total Losses of North Alamo Main Canal, Hidalgo County Irrigation District No. 2* (TWRI Report No. TR-324). 2008, November.
13. Leigh, E., Fipps, G. *Seepage Loss Test Results, Valley Municipal Utility District No.2* (TWRI Report No. TR-326). 2008, November.
14. Leigh, E., Fipps, G. *Seepage and Total Loss Test Results, Donna Irrigation District* (TWRI Report No. TR-323). 2008, November.
15. Leigh, E., Fipps, G. *Seepage Loss Test Results, Maverick County Water Control and*

- Improvement District No. 1 (TWRI Report No. TR-336). 2008, November.
16. Leigh, E., Fipps, G. *Seepage and Total Losses, Hidalgo County Irrigation District No. 16* (TWRI Report No. TR-325). 2008, November.
 17. Leigh, E., Fipps, G. *Demonstration of the Rapid Assessment Tool (RAT): Harlingen Irrigation District* (TWRI Report No. TR-337). 2008, November.
 18. Leigh, E., Fipps, G. *Demonstration of the Rapid Assessment Tool (RAT): Hidalgo County Irrigation District No 1* (TWRI Report No. TR-333). 2008, November.
 19. Huang, Y., Fipps, G. *Thermal Imaging of Canals for Remote Detection of Leaks: Evaluation in the United Irrigation District* (TWRI Report No. TR-335). 2008, November.

Professional Papers and Presentations (other)

1. Airborne Multispectral Remote Sensing Imaging for Detecting Irrigation Canal Leaks in the Lower Rio Grande Valley. Yanbo Huang and G Fipps. 20th Biennial Workshop on Aerial Photography, Videography, and High Resolution Digital Imagery for Resource Assessment October 4-6, 2005, Weslaco, Texas
2. *Modeling Flows in Irrigation Distribution Networks - Model Description and Prototype*. Yanbo Huang, Guy Fipps. Paper number 032146, Presented at the 2003 ASAE Annual International Meeting, Las Vegas. 27-30 July 2003.
3. *Potential Water Savings and Efficiencies of Irrigation Districts in the Lower Rio Grande Valley of Texas*, Paper presented at the ASCE International Water Resources Engineering Conference, Seattle, August 1999.
4. ASAE Annual International Meeting, Orlando, July 12-16, 1998:
 - a. *Predicting Kinetic Energy Produced by a Sprinkler System with Piezoelectric Film*, Basahi, J.M., G. Fipps, A.L. Kenimer, Paper No. 982097;
 - b. *The Effect of Droplet Impact Energy Produced by a Sprinkler System on Soil Erosion, Runoff and Infiltration Rate*, Basahi, J.M., A.L. Kenimer, G. Fipps, G.J. Sabbagh, Paper No. 982060;
 - c. *Development of a Non-intrusive Torque Measurement System*, E.E. Wilson, G. Fipps, Paper No. 983124.
5. ASCE International Water Resources Conference and Texas Water '95 Conference, San Antonio. August 16-18, 1995:
 - a. *Options for Saline Water Disposal - Irrigation Case Studies*;
 - b. *Drip Irrigation Under Plastic Mulch in Texas*;
 - c. *Is the Arroyo Colorado Polluted?*
6. ASAE Texas Section Meeting, College Station, October 20, 1994:
 - a. *Seco Creek Project Irrigation Programs*;
 - b. *Irrigation Pumping Plant Efficiency Testing Program*, G. Fipps, B. Neal.
7. *A New Look at Pumping Plant Efficiency Testing*. Neal, B. and G. Fipps. Paper presented at the 1994 Summer Meeting of ASAE.
8. *Center Pivot Conversion Methods*. G. Fipps. Presented at the 1993 Western Region Water Use Specialists Meeting, Spokane, June 1993.
9. *Methods for Predicting Horizontal and Radial Flow During Drainage*. G. Fipps and R. W. Skaggs. Paper No. 87-2603 presented at the Winter Meeting of the ASAE, Chicago, December 1987.
10. *An Approximate Method for Quantifying Lateral Seepage*. G. Fipps and R. W. Skaggs. Paper No. 86-2548 presented at the Winter Meeting of the ASAE, Chicago, December 1987.

11. *Application of the Finite Element Method to Field Drainage Problems*. Paper No. 86-2055 presented at the Summer Meeting of the ASAE, San Luis Obispo. July 1986.
12. *An Approximate Method for Quantifying Lateral Seepage to and from Drained Fields*. Chescheir, G. M., G. Fipps and R. W. Skaggs. Paper No. 86-2548 presented at the Winter Meeting of the ASAE, Chicago, December 1986.
13. *Development of a Biomass Research, Development and Demonstration Program for Texas*, G. Fipps. Paper No. 81-3575 presented at the ASAE Winter Meeting, Chicago, December 1981.
14. Irrigation and Drainage Technical Conference, Phoenix, 6/3, *Implementing a District management System in the Lower Rio Grande Valley of Texas*.
15. Water for Texas Conference, Austin, 12/2, *Misconceptions about Efficient Irrigation Technologies and Practices*.