



College Station, TX

City Hall
1101 Texas Ave
College Station, TX 77840

Meeting Agenda - Final

City Council Regular

Monday, May 13, 2019

6:00 PM

City Hall Council Chambers

1. Call to Order, Pledge of Allegiance, Invocation, Consider Absence Request.

Presentation

- Presentation of The Arts Council - College Arts Scholarship Winners
- Presentation proclaiming May as National Bike Month
- Presentation proclaiming May 19th – 25th as National Public Works Week

Hear Visitors: During this time a citizen may address the City Council on any item which does not appear on the posted Agenda. Registration forms are available in the Office of the City Secretary. This form should be completed and returned to the office by 5:30 PM on the day of the Council meeting. Upon stepping to the podium the speaker must state their name and city of residence, including the state of residence if the city is located out of state. Speakers are encouraged to identify their College Station neighborhood or geographic location. Each speaker's remarks are limited to three minutes. A group of five or more may register at the Office of the City Secretary by 5:30 PM on the day of the meeting and designate an individual to speak for 10 minutes on their behalf. All signers must be in attendance when the speaker is introduced and may not speak individually during Hear Visitors. A speaker who wishes to include computer-based information while addressing the Council must provide the electronic file to the City Secretary by noon on the day of the Council meeting. During presentations a series of timer lights will change from green to yellow and an alarm will sound after two and one-half or nine and one-half minutes to signal thirty seconds remaining. When time expires the timer light will change to red, the final alarm will sound, and the speaker must conclude the remarks. The City Council will listen and receive the information presented by the speaker, ask staff to look into the matter, or place the issue on a future agenda. Topics of operational concerns shall be directed to the City Manager. Comments should not personally attack other speakers, Council or staff.

Consent Agenda

At the discretion of the Mayor, individuals may be allowed to speak on a Consent Agenda Item. Individuals who wish to address the City Council on a consent agenda item not posted as a public hearing shall register with the City Secretary prior to the Mayor's reading of the agenda item. Registration forms are available in the lobby and at the desk of the City Secretary.

2. Presentation, discussion, and possible action on consent agenda items which consists of ministerial or "housekeeping" items required by law. Items may be removed from the

consent agenda by majority vote of the Council.

- 2a. [19-0247](#) Presentation, discussion, and possible action on minutes for:
- April 25, 2019 Workshop
 - April 25, 2019 Regular

Sponsors: Smith

Attachments: [WKSHPO42519 DRAFT Minutes](#)
[RM042519 DRAFT Minutes](#)

- 2b. [19-0178](#) Presentation, discussion, and possible action regarding the award of RFP 19-028, Annual Electric System Construction and Maintenance Labor, to two (2) vendors for a total amount of \$1,500,000. The two vendors are Kasparian Underground, LLC dba H&B Contractors for a not to exceed amount of \$600,000 and Primoris T&D Services LLC for a not to exceed amount of \$900,000.

Sponsors: Crabb

Attachments: [19-028 Evaluation - Council Summary](#)

- 2c. [19-0214](#) Presentation, discussion, and possible action to approve a contract amendment to the Employee Health Clinic contract between the City of College Station and CHI St. Joseph Health to extend the agreement term through December 31, 2019, to align with the City's benefit plan year.

Sponsors: Pond

Attachments: [Employee Health Clinic Agreement First Amendment](#)

- 2d. [19-0220](#) Presentation, discussion, and possible action regarding a resolution adopting the Emergency Management Plan (EMP) dated May 2019.

Sponsors: McMahan

Attachments: [EMP Resolution 5-1-19](#)
[EMP May 2019 Exhibit A](#)

- 2e. [19-0222](#) Presentation, discussion, and possible action regarding a resolution adopting the Mitigation Action Plan titled "Mitigating Risk: Protecting Brazos County from All Hazards 2019-2024."

Sponsors: McMahan

Attachments: [Mitigation Action Plan 2019-2024 Exh A](#)
[Mitigation Action Plan Resolution 5-1-19](#)

- 2f. [19-0223](#) Presentation, discussion, and possible action regarding a resolution reappointing Brian Hilton as the Emergency Management Coordinator.

Sponsors: McMahan

Attachments: [TDEM Form 147 College Station.pdf](#)
[EMC Resolution 5-1-19](#)

- 2g. [19-0224](#) Presentation, discussion, and possible action on a construction contract with Jamail and Smith Construction, LP, in the amount of \$153,394.92 for construction at three parks: Lincoln Recreation Center basketball pavilion structure painting and repairs, installing a water drinking fountain, court resurfacing, and lighting upgrades; the installation of water drinking fountains at Lick Creek Park; and concrete pads for bench installations at Cove of Nantucket Park.

Sponsors: Schmitz

Attachments: [Lick Creek Revised Proposal](#)
[Nantucket Revised Proposal](#)
[Rec Center Revised](#)

- 2h. [19-0227](#) Presentation, discussion, and possible action on a change order in the amount of \$9,925 to the TriTech Subscription Service, License and Use Agreement related to the police CAD/RMS project.

Sponsors: Menon

Attachments: [Change Order CADRMS](#)

- 2i. [19-0229](#) Presentation, discussion, and possible action regarding the renewal of a contract with Brazos Valley Softball Umpires Association to provide officiating services for City athletic leagues, programs and tournaments in an amount not to exceed \$125,000 per year.

Sponsors: Schmitz

Regular Agenda

Individuals who wish to address the City Council on an item posted as a Public Hearing shall register with the Office of the City Secretary. Registration forms are available in the Office of the City Secretary. This form should be completed and returned to the office by 5:30 PM on the day of the Council meeting. Upon stepping to the podium the speaker must state their name and city of residence, including the state of residence if the city is located out of state. Speakers are encouraged to identify their College Station neighborhood or geographic location. Each speaker's remarks are limited to three minutes. A group of five or more may register at the Office of the City Secretary by 5:30 PM on the day of the meeting and designate an individual to speak for 10 minutes on their behalf. All signers must be in attendance when the speaker is introduced and may not speak individually during that Public Hearing. A speaker who wishes to include computer-based information while addressing the Council must provide the electronic file to the City Secretary by noon on the day of the Council meeting. During presentations a series of timer lights will change from green to yellow and an alarm will sound after two and one-half or nine and one-half minutes to signal thirty seconds remaining. When time expires the timer light will change to

red, the final alarm will sound, and the speaker must conclude the remarks. If Council needs additional information from the general public after the Public Hearing is closed some limited comments may be allowed at the discretion of the Mayor. Comments should not personally attack other speakers, Council or staff.

1. [19-0243](#) Presentation, discussion, and possible action on an ordinance authorizing the issuance of up to \$82,000,000 in principal amount of "City of College Station, Texas Certificates of Obligation, Series 2019"; delegating the authority to certain City Officials to execute certain documents relating to the sale of the certificates; approving and authorizing instruments and procedures relating to the certificates; and enacting other provisions relating to the subject.

Sponsors:

Leonard

Attachments:

[Certificates of Obligation Coversheet-2019](#)

[Ordinance \(CO\) \(ver 1\)](#)

[POS-College Station Series 2019](#)

2. [19-0209](#) Public Hearing, presentation, discussion, and possible action regarding a resolution of the City Council, authorizing the establishment of Public Utility Easements for the Huntington Sanitary Sewer Trunk Line Project within 2.079 acre and 0.079 acre portions of College Station greenways located generally east of Lakeway Drive and north of William D. Fitch Parkway, plus the City Council determination that the use of greenway property is allowable and that no other feasible or prudent alternative exists for the Public Utility Easements for the project, and that all reasonable planning measures have been taken to minimize the harm to such greenways.

Sponsors:

Bridges

Attachments:

[Change in Use Resolution](#)

[Exhibit A - Metes & Bounds and Exhibits](#)

[Map - Huntington Sewer Trunk Line](#)

3. [19-0210](#) Presentation, discussion, and possible action regarding an appointment to the Parks and Recreation Board.

Sponsors:

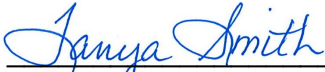
Smith

4. Presentation, possible action, and discussion on future agenda items and review of standing list of Council generated agenda items: A Council Member may inquire about a subject for which notice has not been given. A statement of specific factual information or the recitation of existing policy may be given. Any deliberation shall be limited to a proposal to place the subject on an agenda for a subsequent meeting.

5. Adjourn.

The City Council may adjourn into Executive Session to consider any item listed on this agenda if a matter is raised that is appropriate for Executive Session discussion. An announcement will be made of the basis for the Executive Session discussion.

I certify that the above Notice of Meeting was posted at College Station City Hall, 1101 Texas Avenue, College Station, Texas, on May 9, 2019 at 5:00 p.m.



City Secretary

This building is wheelchair accessible. Persons with disabilities who plan to attend this meeting and who may need accommodations, auxiliary aids, or services such as interpreters, readers, or large print are asked to contact the City Secretary's Office at (979) 764-3541, TDD at 1-800-735-2989, or email adaassistance@cstx.gov at least two business days prior to the meeting so that appropriate arrangements can be made. If the City does not receive notification at least two business days prior to the meeting, the City will make a reasonable attempt to provide the necessary accommodations.

Penal Code § 30.07. Trespass by License Holder with an Openly Carried Handgun.

"Pursuant to Section 30.07, Penal Code (Trespass by License Holder with an Openly Carried Handgun) A Person Licensed under Subchapter H, Chapter 411, Government Code (Handgun Licensing Law), may not enter this Property with a Handgun that is Carried Openly."

Codigo Penal § 30.07. Traspasar Portando Armas de Mano al Aire Libre con Licencia.

"Conforme a la Seccion 30.07 del codigo penal (traspasar portando armas de mano al aire libre con licencia), personas con licencia bajo del Sub-Capitulo H, Capitulo 411, Codigo de Gobierno (Ley de licencias de arma de mano), no deben entrar a esta propiedad portando arma de mano al aire libre."



Legislation Details (With Text)

File #: 19-0247 **Version:** 1 **Name:** Minutes
Type: Minutes **Status:** Agenda Ready
File created: 5/7/2019 **In control:** City Council Regular
On agenda: 5/13/2019 **Final action:**
Title: Presentation, discussion, and possible action on minutes for:
• April 25, 2019 Workshop
• April 25, 2019 Regular
Sponsors: Tanya Smith
Indexes:
Code sections:
Attachments: [WKSHP042519 DRAFT Minutes](#)
[RM042519 DRAFT Minutes](#)

Date	Ver.	Action By	Action	Result
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Presentation, discussion, and possible action on minutes for:

- April 25, 2019 Workshop
- April 25, 2019 Regular

Relationship to Strategic Goals:

- Good Governance

Recommendation(s): Approval

Summary: N/A

Budget & Financial Summary: None

Attachments:

- April 25, 2019 Workshop
- April 25, 2019 Regular

MINUTES OF THE CITY COUNCIL WORKSHOP
CITY OF COLLEGE STATION
APRIL 25, 2019

STATE OF TEXAS §
 §
COUNTY OF BRAZOS §

Present:

Karl Mooney, Mayor

Council:

Bob Brick
Jerome Rektorik
Linda Harvell
Eliador Vessali
John Nichols
Dennis Maloney

City Staff:

Bryan Woods, City Manager
Jeff Capps, Assistant City Manager
Carla Robinson, City Attorney
Tanya Smith, City Secretary
Ian Whittenton, Deputy City Secretary

1. Call to Order and Announce a Quorum is Present

With a quorum present, the Workshop of the College Station City Council was called to order by Mayor Mooney at 4:01 p.m. on Thursday, April 25, 2019 in the Council Chambers of the City of College Station City Hall, 1101 Texas Avenue, College Station, Texas 77840.

2. Executive Session

In accordance with the Texas Government Code §551.071-Consultation with Attorney, and §551.074-Personnel, the College Station City Council convened into Executive Session at 4:01 p.m. on Thursday, April 25, 2019 in order to continue discussing matters pertaining to:

A. Consultation with Attorney to seek advice regarding pending or contemplated litigation; to wit:

- Kathryn A. Stever-Harper as Executrix for the Estate of John Wesley Harper v. City of College Station and Judy Meeks; No. 15,977-PC in the County Court No. 1, Brazos County, Texas; and
- McCrory Investments II, LLC d/b/a Southwest Stor Mor v. City of College Station; Cause No. 17-000914-CV-361; In the 361st District Court, Brazos County, Texas
- City of College Station v. Gerry Saum, Individually, and as Independent Executrix of the Estate of Susan M. Wood, Deceased; Cause No. 17-002742-CV-361; In the 361st District Court, Brazos County, Texas
- Carrie McIver v. City of College Station; Cause No. 18-003271-CV-85; In the 85th District Court, Brazos County, Texas

B. Deliberation on the appointment, employment, evaluation, reassignment, duties, discipline, or dismissal of a public officer; to wit:

- Council Self-Evaluation
- City Manager

The Executive Session recessed at 5:13 p.m.

3. Reconvene from Executive Session and take action, if any.

No action was taken.

4. Presentation, discussion, and possible action, and a joint meeting of the Planning and Zoning Commission and the City Council, regarding the 2018 and 2019 Planning & Zoning Commission's Plan of Work.

Jane Kee, P&Z Chair called to order the P&Z Commission joint meeting at 5:16 p.m.

Jane Kee, P&Z Chair, presented an update on accomplishments related to the 2018 Plan of Work and the recommended 2019 Plan of Work. The Commission's Plan of Work is updated and reported annually to seek input and concurrence from the Council. Following discussion of the draft Plan of Work in the joint meeting, the Commission may adopt the Plan by majority vote of the members present.

Council directed the P&Z Commission to move forward with what has been presented.

Jane Kee, P&Z Chair closed the P&Z Commission joint meeting at 5:38 p.m.

5. Presentation, possible action and discussion on items listed on the consent agenda.

No items were pulled from Consent for clarification.

6. Presentation, discussion, and possible action regarding the Thomas Park Improvements Master Plan Options.

David Schmitz, Parks and Recreation Director, stated that staff designed the Thomas Park Improvements Master Plan, laying out various options identifying additional amenities for the linear corridor of Thomas Park. Each amenity is listed with an opinion of probable construction costs. The recent Parks and Recreation Survey showed the top three amenities for Thomas Park were:

1. New Swimming Pool
2. Splash Pad
3. Dog Park

At the April 9th 2019 Parks and Recreation Advisory Board meeting Paul Dyson made a motion to spend the one million set aside by Council on the covered tennis court, a dog park and 2 covered picnic tables on the North end of Thomas Park and Ann Hays seconded the motion. A vote was called with seven (7) in favor, one (1) opposed, and one (1) abstention. The motion passed.

Mayor Mooney recessed the Workshop at 6:04 p.m.

Workshop reconvened at 8:30 p.m.

Council would like to see a comprehensive strategic plan for the entirety of Thomas Park, keeping in mind that the budgeted FY19 funds may be added to additional funds in a FY20 budget. Majority of the Council concurred with a decreased speed limit, cover areas, parking, maintenance and additions, and possibly a pool included in a future strategic plan but do not wish to see a dog park nor a splash pad.

7. Council Calendar

Council reviewed the calendar.

8. Discussion, review, and possible action regarding the following meetings: Animal Shelter Board, Annexation Task Force, Arts Council of Brazos Valley, Architectural Advisory Committee, Arts Council Sub-committee, Audit Committee, Bicycle, Pedestrian, and Greenways Advisory Board, Bio-Corridor Board of Adjustments, Blinn College Brazos Valley Advisory Committee, Brazos County Health Dept., Brazos Valley Council of Governments, Brazos Valley Economic Development Corporation, Bryan/College Station Chamber of Commerce, Budget and Finance Committee, BVSWMA, BVWACS, Compensation and Benefits Committee, Experience Bryan-College Station, Design Review Board, Economic Development Committee, FBT/Texas Aggies Go to War, Gulf Coast Strategic Highway Coalition, Historic Preservation Committee, Interfaith Dialogue Association, Intergovernmental Committee, Joint Relief Funding Review Committee, Landmark Commission, Library Board, Metropolitan Planning Organization, Parks and Recreation Board, Planning and Zoning Commission, Research Valley Technology Council, Regional Transportation Committee for Council of Governments, Sister Cities Association, Spring Creek Local Government Corporation, Transportation and Mobility Committee, TAMU Economic Development, TAMU Student Senate, Texas Municipal League, Twin City Endowment, Walk with the Mayor, YMCA, Youth Advisory Council, Zoning Board of Adjustments, (Notice of Agendas posted on City Hall bulletin board).

Councilmember Vessali reported on BVWACS.

Councilmember Rektorik reported on EDC.

Mayor Mooney reported on Gulf Coast Strategic Highway Coalition.

9. Adjournment

There being no further business, Mayor Mooney adjourned the workshop of the College Station City Council at 9:41 p.m. on Thursday, April 25, 2019.

Karl Mooney, Mayor

ATTEST:

Tanya Smith, City Secretary

MINUTES OF THE REGULAR CITY COUNCIL MEETING
CITY OF COLLEGE STATION
APRIL 25, 2019

STATE OF TEXAS §
 §
COUNTY OF BRAZOS §

Present:

Karl Mooney, Mayor

Council:

Bob Brick
Jerome Rektorik
Linda Harvell
Elianor Vessali
John Nichols
Dennis Maloney

City Staff:

Bryan Woods, City Manager
Jeff Capps, Assistant City Manager
Carla Robinson, City Attorney
Tanya Smith, City Secretary
Ian Whittenton, Deputy City Secretary

Call to Order and Announce a Quorum is Present

With a quorum present, the Regular Meeting of the College Station City Council was called to order by Mayor Mooney at 6:13 p.m. on Thursday, April 25, 2019 in the Council Chambers of the City of College Station City Hall, 1101 Texas Avenue, College Station, Texas 77840.

1. Pledge of Allegiance, Invocation, consider absence request.

Presentation and recognition for the Brazos Valley Groundwater Conservation District to present Pebble Creek Country Club with the 2018 "Groundwater Conservationist of the Year Award" for Commercial Irrigation.

Alan Day and Megan Haas with the BV Groundwater Conservation District, announced that the Pebble Creek Country Club had achieved the 2018 "Groundwater Conservationist of the Year Award" for Commercial Irrigation. A plaque was presented to Justin London with the Pebble Creek Country Club.

Presentation proclaiming May 5-11, 2019 as Drinking Water Awareness Week.

Mayor Mooney presented the proclamation and proclaimed May 5-11, 2019 as Drinking Water Awareness Week. Present to accept the proclamation was Jennifer Nations, Water Services Program Coordinator.

Presentation proclaiming April 22-26, 2019 as National Community Development Week.

Mayor Mooney presented the proclamation and proclaimed May 5-11, 2019 as National Community Development Week. Present to accept the proclamation were Debbie Eller, Director of Community Services; Gus Roman, Assistant Director of Community Services; David Brower, Community Development Analyst; Brian Piscacek, Assistant to City Manager/Special Project; and Raney Whitwell, Code Enforcement Officer.

Presentation proclaiming May 5-11, 2019 as Municipal Clerk's Week.

Mayor Mooney presented a proclamation to the City Secretary's Office on behalf of all Municipal Clerk's, proclaiming May 5-11, 2019 as Municipal Clerks Week, and for the vital services they perform all their exemplary dedication to the communities they represent.

Hear Visitors Comments

Elianor Vessali, College Station, came before Council to honor the service and sacrifice of Air Force Airman 1st Class, Corey C. Owens.

Suzanne Drolesky, College Station, submitted written comments on her concerns with Thomas Park.

Diane Davis, College Station, came before council because she does not understand why the city is considering other options when the citizens voted in a recent survey in favor of a new pool in Thomas Park.

Anthony Foote, College Station, came before Council stated his concerns with having a dog park in Thomas Park. He believes the open park has never been a problem with owners and their dogs, plus the area is too small for a dog park.

Rachel Smith, College Station, came before Council to state her concerns about eliminating Thomas Pool and the need to reinvest in the neighborhood and replace the pool.

Patsy Johnson, College Station, came before Council to give her analysis of a 2018 survey which showed support for replacing the pool at Thomas Park and should have given stronger direction to the overall renovations at Thomas Pool.

Carrie Morgan, College Station, submitted written comments on her concerns with Thomas Park.

Paul Morgan, College Station, submitted written comments on his concerns with Thomas Park.

Melissa McIlhaney, College Station, came before Council stating she moved to this neighborhood because of Thomas Park and its pool. She is also of the opinion that homes in the neighborhood have large yards and the area does not need a dog park.

Mary Saslow, College Station, came before Council and stated she was on the Parks Board 40 years ago, and the decisions that were made directly influenced not only this park but future parks. She explained that there are many memories made at good parks and a new pool here would benefit the community.

Tom Dew, College Station, stated he has been a resident of the area adjacent to the proposed dog park for 30 years and he is opposed to the dog park but in favor of repairs to existing facilities and a new pool. He also has concerns about the current speed limit around the perimeter of the park.

Glenn Pruitt, College Station, stated his concerns about the lighted tennis and basketball courts. He feels the crime level will increase and the city needs to look at decreasing the speed limit around Thomas Park

CONSENT AGENDA

2a. Presentation, possible action, and discussion of minutes for:

- **April 11, 2019 Workshop Meeting**
- **April 11, 2019 Regular Meeting**

2b. Presentation, discussion, and possible action on approving an annual blanket purchase order for the purchase of repair parts and repair labor for fire trucks from Lonestar Freightliner Group, LLC through the BuyBoard Purchasing Cooperative. Estimated annual expenditure: \$180,000.

2c. Presentation, discussion, and possible action regarding Change Order Number 1 to the Graham Road Substation in the amount of \$352,269.84 and revising the date of substantial completion from October 1, 2019 to January 31st, 2020.

2d. Presentation, discussion, and possible action regarding approval of a renewal of a service contract between the City of College Station and All Around Tree Service, Inc., for an annual amount not to exceed \$150,000 for landscaping, tree trimming and removal services.

2e. Presentation, discussion, and possible action regarding a construction contract in the amount of \$281,998 with Bayer Construction Electrical Contractors, Inc. for the installation of a traffic signal at the intersection of Barron Road and Alexandria Avenue.

2f. Presentation, discussion, and possible action on Ordinance No. 2019-4087 amending Chapter 8, "Business" Article VII, "Secondhand Dealers" of the Code of Ordinances relating to secondhand dealers.

2g. Presentation, discussion, and possible action to consider Ordinance No. 2019-4088 amending Chapter 40, "Utilities", of the Code of Ordinances of the City of College Station, Texas, by amending Division 5: Drought Contingency and Water Emergency Plan in its entirety.

2h. Presentation, discussion, and possible action to consider Resolution No. 04-25-19-2h to adopt an updated Water Conservation Plan, as required by TWDB and TCEQ.

2i. Presentation, discussion, and possible action regarding Ordinance No. 2019-4089 amending: (A) Chapter 2, "Administration," Article VI, "Boards And Commissions," Division 2, "Historic Preservation Committee," Section 2-170, "Membership," and Division 4, "Parks and Recreation Advisory Board," Section 2-226, "Creation; Membership;" (B) Chapter 103, "Buildings and Building Regulations," Article II, "Administration and Enforcement," Division 2, "Construction Board of Adjustment and Appeals; Appeals and Variances,"

Section 103-45, “Membership and Conflict of Interest;” and (C) Appendix A, “Unified Development Ordinance,” Article 1, “General Provisions,” Section 2.6, “Bicycle, Pedestrian, and Greenways Advisory Board,” Subsection B, “Membership and Terms,” 2, “Terms,” and Article 2, “Development Review Bodies,” Section 2.2, “Planning and Zoning Commission,” Subsection B, “Membership and Terms,” 2, “Terms,” and 3, “Term Limits,” and Section 2.5, “Design Review Board,” Subsection B, “Membership and Terms,” of the Code of Ordinances of the City of College Station, Texas, to stagger appointments to City Boards And Committees in order to allow the City Council to make annual appointments.

MOTION: Upon a motion made by Councilmember Rektorik and a second by Councilmember Nichols, the City Council voted seven (7) for and none (0) opposed, to approve the Consent Agenda. The motion carried unanimously.

REGULAR AGENDA

Mayor Mooney pulled Regular Agenda Item # 6 out of order to be presented first on the agenda.

6. Presentation, discussion, and possible action regarding the appointment of City Council, Planning & Zoning Commission, and citizen representatives to the Comprehensive Plan Evaluation Committee.

Justin Golbabai, Planning and Development, provided a brief overview of the Comprehensive Plan Evaluation Committee (CPEC) that will serve as the steering committee for the Comprehensive Plan 10-Year review process and will provide direction in the development of the Comprehensive Plan 10-Year Evaluation and Appraisal Report.

At the March 21st Planning & Zoning Commission Retreat the Commission recommended that the CPEC consist of three City Council members, three P&Z Commissioners, and five citizens, including one Extraterritorial Jurisdiction (ETJ) representative. On April 18, 2019, the Commission considered recommendations for P&Z member appointments.

Council increased the citizen’s members to seven (7) representatives; six (6) citizens and one (1) ETJ member.

Councilmembers representatives are: John Nichols, Linda Harvell, and Elianor Vessali

MOTION: Upon a motion made by Councilmember Nichols and a second by Councilmember Rektorik, the City Council voted seven (7) for and none (0) opposed, to approve the P&Z recommendation of Dennis Christianson, Elizabeth Cunha, Jeremy Osborne and an alternate, Joe Guerra, as the P&Z representatives to the Comprehensive Plan Evaluation Committee. The motion carried unanimously.

MOTION: Upon a motion made by Councilmember Maloney and a second by Councilmember Rektorik, the City Council voted seven (7) for and none (0) opposed, to appoint Brian Bochner, Keith Brimley, Michael Buckley, Clint Cooper, Lisa Halperin, Julie Schultz and ETJ – Shana Elliott to the Comprehensive Plan Evaluation Committee. The motion carried unanimously.

1. Public Hearing, presentation, discussion, and possible action regarding Ordinance No. 2019-4090 amending the Comprehensive Plan - Future Land Use and Character Map from Estate

to Restricted Suburban for approximately 13 acres, generally located at 1402 Bird Pond Road and 1404 Bird Pond Road.

Rachel Lazo, Planning and Development, stated that the applicant has requested an amendment to the Comprehensive Plan's Future Land Use and Character Map from Estate to Restricted Suburban as a step toward permitting a residential subdivision on approximately 13 acres located south of the adjacent Bird Pond Estates. The subject property and properties to the north and east are primarily designated Estate on the Comprehensive Plan Future Land Use and Character Map, while the properties to the south and west across Rock Prairie Road are designated Restricted Suburban. Mrs. Lazo explained that the proposed amendment shifts the existing Restricted Suburban designation further to the north to encompass all of the subject property. Further amendments to allow more intense land uses in this area are discouraged due to a limited future street network and utility constraints in this area, as well as to retain the existing rural character anticipated by the Comprehensive Plan.

Staff believes there is limited opportunity to expand the Restricted Suburban land use further east due to the majority of the area being comprised of either large amounts of floodplain or existing estate and rural homes. The request neither furthers, nor limits the general goals of the Comprehensive Plan. However, the amendment limits more specific goals stated as a part of Growth Area III which indicates a desire to protect the prevailing rural character of this area.

The Planning and Zoning Commission considered this item on April 4, 2019 and voted 6-0 to recommend approval. Staff also recommends approval.

At approximately 7:30 p.m., Mayor Mooney opened the Public Hearing.

There being no comments, the Public Hearing was closed at 7:30 p.m.

MOTION: Upon a motion made by Councilmember Maloney and a second by Councilmember Nichols, the City Council voted seven (7) for and none (0) opposed, to adopt Ordinance No. 2019-4090 amending the Comprehensive Plan - Future Land Use and Character Map from Estate to Restricted Suburban for approximately 13 acres, generally located at 1402 Bird Pond Road and 1404 Bird Pond Road. The motion carried unanimously.

2. Public Hearing, presentation, discussion, and possible action regarding Ordinance No. 2019-4091 amending Appendix "A", "Unified Development Ordinance," Section 4.2 "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas by changing the zoning district boundaries from E Estate to PDD Planned Development District on approximately 13 acres of land, generally located at 1402 Bird Pond Road and 1404 Bird Pond Road.

Rachel Lazo, Planning and Development, stated that this request is to rezone approximately 13 acres located at 1402 and 1404 Bird Pond Road from E Estate to PDD Planned Development District with a base zoning district of RS Restricted Suburban. She explained that for consistency, the Concept Plan includes Restricted Suburban-sized lots for the portion of the development adjacent to the developing Waterford Heights Subdivision, and Estate-style lots adjacent to the existing Bird Pond Estates (Area 1 on the Concept Plan). As provided by the applicant, the stated purpose and intent of the requested PDD is "to provide single-family Restricted Suburban lots to meet the high demand for lots near the Medical District which will have more urban land uses." The applicant offers the

following as community benefits to off-set the requested modification: less dense Estate-style lots in Area 1 on the Concept Plan to allow for a transition to the abutting established Bird Pond Estates subdivision.

The modification requested, RS Restricted Suburban, is proposed as the base zoning district with a modification to not connect the proposed development to the existing projection of Yellow Tanger Court from Bird Pond Estates. The developer has requested this modification in response to the desires of the Bird Pond Estates Homeowners Association, as detailed in the accompanying letter of support from the HOA.

Staff is recommending denial of this modification request. The subject tract was originally planned as Phase 3 of the Bird Pond Estates subdivision, but never constructed. Yellow Tanger Court stubs to the subject tract from Bird Pond Estates and Crystal Lane projects from Waterford Heights currently under construction as shown below.

The Planning and Zoning Commission considered this item on April 4, 2019 and voted 6-0 to recommend approval of the PDD and associated Concept Plan, including a proposed street extension modification. Staff also recommends approval of the PDD Planned Development District zoning, but believes the street extension should be made.

At approximately 7:44 p.m., Mayor Mooney opened the Public Hearing.

Sid Hodges, College Station, stated he is not in favor of opening up his neighborhood by connecting Bird Pond Estates and Crystal Lane projects from Waterford Heights.

Bob Yancy, College Station, came before Council asking for approval of the change of the zoning district boundaries from E Estate to PDD Planned Development District located at 1402 Bird Pond Road and 1404 Bird Pond Road.

There being no comments, the Public Hearing was closed at 7:50 p.m.

MOTION: Upon a motion made by Councilmember Vessali and a second by Councilmember Rektorik, the City Council voted seven (7) for and none (0) opposed, to adopt Ordinance No. 2019-4091 amending Appendix "A", "Unified Development Ordinance," Section 4.2 "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas by changing the zoning district boundaries from E Estate to PDD Planned Development District on approximately 13 acres of land, generally located at 1402 Bird Pond Road and 1404 Bird Pond Road, as submitted and with the P&Z recommendations. The motion carried unanimously.

3. Presentation, discussion, and possible action on approving a Professional Architectural & Engineering Contract with Wantman Group, Inc. in the amount of \$188,035, to complete a Northgate District Study and Plan to Address Operational Challenges.

Debbie Eller, Community Services Director, stated that this contract will allow the City to hire Wantman Group, Inc. to complete a study of the Northgate District. Big Red Dog Engineering, a division of Wantman Group, Inc., will be performing the work and was selected from six (6) responses received through a Request for Qualifications process.

There are four elements to the proposed project approach:

- Identify locations within the Northgate District that have the potential for improved mobility and operations.
- Identify additional uses for the public realm that could serve as vibrant centers of activity for the Northgate District. Parks, plazas, and open space networks can serve to create stronger connections within the area. Analyze key periods during different times/days of the week to understand the differing conditions and operations that the Northgate District experiences.
- To improve public safety and accessibility, locate opportunities to improve and address lighting, landscaping, and solid waste needs in the Northgate District while considering the use and implementation of wireless broadband connectivity.
- Provide a set of cost estimates, along with funding strategies, potential quick-build options, and a priority project list for short-term, near-term, and long-term implementation.

MOTION: Upon a motion made by Councilmember Nichols and a second by Mayor Mooney, the City Council voted seven (7) for and none (0) opposed, to approve a Professional Architectural & Engineering Contract with Wantman Group, Inc. in the amount of \$188,035; to complete a Northgate District Study and Plan to Address Operational Challenges. The motion carried unanimously.

4. Presentation, discussion, and possible action on a construction contract with Thalle Construction Company, Inc. in the amount of \$10,932,672.50 for the construction of the Lick Creek Trunk Line Project and Resolution No. 04-25-19-04 Declaring Intention to Reimburse Certain Expenditures with Proceeds from Debt.

Emily Fisher, Assistant Director of Public Works, stated that this project includes the construction of a 48-inch and 54-inch PVC sanitary sewer line from the Lick Creek WWTP, north, to W.D. Fitch. The 54-inch sewer line extends from the Lick Creek WWTP north through Lick Creek Park up to the southern boundary of the Pebble Creek golf course. The sewer line will reduce to a 48-inch line and continue north through the Pebble Creek golf course to tie onto an existing 48-inch line just north of W.D. Fitch. Two pipe material options were bid with the project, PVC and Fiberglass Reinforced Pipe. PVC was chosen based on the significant cost savings as compared to Fiberglass Reinforced pipe. This line has been identified in the wastewater master plan and in the future will carry diverted flows from Carter Creek WWTP to the Lick Creek plant.

MOTION: Upon a motion made by Councilmember Nichols and a second by Councilmember Rektorik, the City Council voted seven (7) for and none (0) opposed, to approve a construction contract with Thalle Construction Company, Inc. in the amount of \$10,932,672.50 for the construction of the Lick Creek Trunk Line Project and Resolution No. 04-25-19-04 Declaring Intention to Reimburse Certain Expenditures with Proceeds from Debt. The motion carried unanimously.

5. Presentation, discussion, and possible action regarding the approval to purchase \$460,396.34 of shelving from Lone Star Furnishings on Buy Board Contract #503-16, with project funds, as a portion of the furnishings for the newly renovated Larry J. Ringer Library.

Erica Wozniak, state that the Larry J. Ringer renovation project budgeted \$875,000 to purchase the necessary furnishings for the newly renovated building. The shelving requested by the library staff, at a cost of \$460,396.34, has a lead time of 12 weeks. Staff is requesting approval to purchase this item now in order to meet the project completion date, and a request to purchase the remaining

furnishings will be presented to council at a later date. The total cost of all of the requested furniture is within the budgeted amount of \$875,000.

MOTION: Upon a motion made by Councilmember Harvell and a second by Councilmember Brick, the City Council voted seven (7) for and none (0) opposed, to approve the purchase of \$460,396.34 for shelving from Lone Star Furnishings on Buy Board Contract #503-16, with project funds, as a portion of the furnishings for the newly renovated Larry J. Ringer Library. The motion carried unanimously.

Regular Agenda Item # 6 was moved to the first item of the regular agenda items.

7. Presentation, possible action, and discussion on future agenda items and review of standing list of Council generated agenda items: A Council Member may inquire about a subject for which notice has not been given. A statement of specific factual information or the recitation of existing policy may be given. Any deliberation shall be limited to a proposal to place the subject on an agenda for a subsequent meeting.

Councilmember Maloney requested a future agenda item on water rates for residential and commercial and how these integrate with groundwater conservation.

Councilmember Vessali requested a future agenda item on “clawback” provisions in our staff education and training as well as a presentation on the education and training budgets for departments.

8. Adjournment.

There being no further business, Mayor Mooney adjourned the Regular Meeting of the City Council at 8:23 p.m. on Thursday, April 25, 2019.

Karl Mooney, Mayor

ATTEST:

Tanya Smith, City Secretary



Legislation Details (With Text)

File #:	19-0178	Version:	1	Name:	Annual Electric System Construction & Maintenance Labor Contracts
Type:	Contract	Status:		Status:	Consent Agenda
File created:	4/5/2019	In control:		In control:	City Council Regular
On agenda:	5/13/2019	Final action:		Final action:	
Title:	Presentation, discussion, and possible action regarding the award of RFP 19-028, Annual Electric System Construction and Maintenance Labor, to two (2) vendors for a total amount of \$1,500,000. The two vendors are Kasparian Underground, LLC dba H&B Contractors for a not to exceed amount of \$600,000 and Primoris T&D Services LLC for a not to exceed amount of \$900,000.				
Sponsors:	Timothy Crabb				
Indexes:					
Code sections:					
Attachments:	19-028 Evaluation - Council Summary				

Date	Ver.	Action By	Action	Result
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Presentation, discussion, and possible action regarding the award of RFP 19-028, Annual Electric System Construction and Maintenance Labor, to two (2) vendors for a total amount of \$1,500,000. The two vendors are Kasparian Underground, LLC dba H&B Contractors for a not to exceed amount of \$600,000 and Primoris T&D Services LLC for a not to exceed amount of \$900,000.

Relationship to Strategic Goals: (Select all that apply)

- Core Services and Infrastructure

Recommendation(s):

Staff recommends awarding contract 19300477 to Kasparian Underground, LLC dba H&B Contractors in the amount of \$600,000 and Contract 19300478 to Primoris T&D Services, LLC in the amount of \$900,000, for a total not to exceed amount of \$1,500,000. The contract award to Primoris T&D Services, LLC is contingent upon the City receiving acceptable payment and performance bonds within 10 business days after contract award by City Council.

Summary:

The Annual Electric System Construction & Maintenance Labor Contract is for supplemental labor and equipment to construct the required electric distribution line extensions and conversions and to provide for the necessary maintenance of the City's electric distribution system for a twelve (12) month period. Estimated unit quantities for this bid were based on 2018 work performed by the former contractor and were used to determine the annual estimate for labor costs.

Eight (8) competitive proposals were received on March 21, 2019, in response to RFP 19-028. The RFP was structured to allow contracts to be awarded by section (overhead, underground and related

services) or as a single contract. Electric staff evaluated the proposals and ranked them based on the requirements listed in the RFP. After completing the evaluations, staff recommends splitting the award as follows:

Underground Facilities and Additional Services:

Contract 19300477 - Kasparian Underground, LLC dba H&B Contractors	\$600,000
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Overhead Facilities and Related Services:

Contract 19300478 - Primoris T&D Services, LLC*	\$900,000*
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Total Award Amount	\$1,500,000
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Both contracts will be for a one (1) year term with two (2) possible one (1) year renewals.

*The contract award to Primoris T&D Services, LLC is contingent upon the City receiving acceptable payment and performance bonds within 10 business days after contract award by City Council.

Reviewed and Approved by Legal: Yes

Budget & Financial Summary:

Funds for labor in these contracts are budgeted in the Electric Capital Improvements and Maintenance Projects Funds and will be expensed as work is assigned.

Attachments:

RFP 19-028 Ranking Summary

Contracts are available for review in the City Secretary's office

RFP 19-028
Annual Electric System Construction and Maintenance Labor

RFP# 19-028 Evaluation - Round 1 - Average

Round One Evaluations:	Maximum Points	H&B	Kasparian Underground LLC	L.E.Meyers	Line Tech	M C Dean	Primoris	White Fish
Contractor and Subcontractor Experience & Qualifications	30	21.40	27.00	24.60	25.00	23.60	27.80	21.60
Contractor Current Work Schedule/Record	30	18.60	26.20	22.20	24.20	24.80	27.00	21.20
Contractor Safety Record	20	19.60	15.20	16.00	16.40	15.80	14.60	17.80
Contractor and Subcontractor References	10	5.40	9.20	8.20	8.80	8.40	9.40	8.60
Contractor Key Personnel	5	1.80	4.60	3.40	4.60	4.00	4.60	4.00
Contractor Financial Resources	5	1.00	3.80	4.60	2.00	4.60	4.80	3.40
Total Points	100	67.80	86.00	79.00	81.00	81.20	88.20	76.60
Points Rank		7.00	2.00	5.00	4.00	3.00	1.00	6.00
Averaged Rank		6.80	2.50	4.30	4.10	3.40	1.90	5.00
Overhead Bid		y		y	y	y	y	y
Underground Bid		y	y	y	y	y		y
Service Bid		y	y	y	y	y		y

RFP 19-028
Annual Electric System Construction and Maintenance Labor

RFP# 19-028 Evaluation - Round 2

Round Two Evaluations: Overhead	Maximum Points	H&B	Kasparian Underground LLC	L.E.Meyers	Line Tech	M C Dean	Primoris	White Fish
Contractor and Subcontractor Experience & Qualifications	15				12.50	11.80	13.90	
Contractor Current Work Schedule/Record	15				12.10	12.40	13.50	
Contractor Safety Record	5				4.10	3.95	3.65	
Contractor and Subcontractor References	5				4.40	4.20	4.70	
Proposed Construction Contract Amount	60				36.66	60.00	57.00	
Total Points	100				69.76	92.35	92.75	
Points Rank					3.00	2.00	1.00	

Round Two Evaluations: Underground	Maximum Points	H&B	Kasparian Underground LLC	L.E.Meyers	Line Tech	M C Dean	Primoris	White Fish
Contractor and Subcontractor Experience & Qualifications	15		13.50		12.50	11.80		
Contractor Current Work Schedule/Record	15		13.10		12.10	12.40		
Contractor Safety Record	5		3.80		4.10	3.95		
Contractor and Subcontractor References	5		4.60		4.40	4.20		
Proposed Construction Contract Amount	60		60.00		30.98	36.54		
Total Points	100		95.00		64.08	68.89		
Points Rank			1.00		3.00	2.00		

Round Two Evaluations: Services	Maximum Points	H&B	Kasparian Underground LLC	L.E.Meyers	Line Tech	M C Dean	Primoris	White Fish
Contractor and Subcontractor Experience & Qualifications	15		13.50		12.50	11.80		
Contractor Current Work Schedule/Record	15		13.10		12.10	12.40		
Contractor Safety Record	5		3.80		4.10	3.95		
Contractor and Subcontractor References	5		4.60		4.40	4.20		
Proposed Construction Contract Amount	60		60.00		15.36	25.69		
Total Points	100		95.00		48.46	58.04		
Points Rank			1.00		3.00	2.00		



Legislation Details (With Text)

File #:	19-0214	Version:	1	Name:	Employee Health Clinic Contract Amendment
Type:	Contract	Status:		Status:	Consent Agenda
File created:	4/22/2019	In control:		In control:	City Council Regular
On agenda:	5/13/2019	Final action:		Final action:	
Title:	Presentation, discussion, and possible action to approve a contract amendment to the Employee Health Clinic contract between the City of College Station and CHI St. Joseph Health to extend the agreement term through December 31, 2019, to align with the City's benefit plan year.				
Sponsors:	Alison Pond				
Indexes:					
Code sections:					
Attachments:	Employee Health Clinic Agreement First Amendment				

Date	Ver.	Action By	Action	Result
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Presentation, discussion, and possible action to approve a contract amendment to the Employee Health Clinic contract between the City of College Station and CHI St. Joseph Health to extend the agreement term through December 31, 2019, to align with the City's benefit plan year.

Relationship to Strategic Goals:

- Financially Sustainable City

Recommendation(s): Staff recommends approval of the contract amendment.

Summary: In June 2016, the City contracted with CHI St. Joseph to provide Employee Health Clinic Operations and Management Services for City of College Station employees, retirees, and dependents enrolled in the City's self-funded group health insurance plan. The original contract term was defined as a three-year agreement with one additional three-year renewal term. The not-to-exceed amount of the contract was \$465,688.60, which included all costs for facilities, personnel, equipment and supplies.

This proposed amendment extends the current contract term, originally set to expire June 6, 2019, to December 31, 2019. The purpose of this extension is to align the contract term with the City's benefit plan year which runs from January 1 through December 31. With the extension of the term, the not-to-exceed amount has been adjusted to \$722,227.19 to account for seven (7) additional months of operation expenses.

Budget & Financial Summary: Funds are available and budgeted in the Employee Benefits Fund.

Legal Review: Yes

Attachments: Employee Health Clinic Agreement First Amendment

**FIRST AMENDMENT TO
THE EMPLOYEE HEALTH CLINIC AGREEMENT
BETWEEN THE CITY OF COLLEGE STATION AND CHI ST. JOSEPH HEALTH**

WHEREAS, the **City of College Station**, a Texas home-rule municipal corporation, (the "City") entered into Employee Health Clinic Agreement No. 16300427 (the "Agreement") with **CHI St. Joseph Health** ("St. Joseph") on June 10, 2016; and

WHEREAS, the Agreement will expire under its terms on June 9, 2019; and

WHEREAS, the City desires to extend the Agreement's term to align with the City's benefit plan year which occurs January 1st of each year and runs until December 31st of the same year; and

WHEREAS, St. Joseph is agreeable to extending the term of the Agreement to expire December 31, 2019, in order to align with the end of the City's 2019 benefit plan year; and

WHEREAS, the parties acknowledge that extending the Agreement may increase the not to exceed amount to be paid under the Agreement; and

WHEREAS, in order to extend the Agreement's term and not to exceed amount as stated above, the parties have agreed to amend the Agreement as set out below;

NOW THEREFORE, for and in consideration of the recitation above and the covenants expressed herein below, the parties agree to amend the Agreement as follows:

- A. The first paragraph in Section 7 of the Agreement is amended in its entirety to read as follows:

"7. Compensation for Services. The City agrees to pay St. Joseph up to the following annual not to exceed amount as compensation for services provided under this Agreement and as reimbursement of all actual costs and expenses incurred by St. Joseph under this Agreement. Except in the event of a duly authorized change order or modification approved by the City in writing, as provided in this Agreement, and in consideration of St. Joseph providing all services in conformity with this Agreement, the City shall pay to St. Joseph an annual amount not to exceed **FOUR HUNDRED SIXTY-FIVE THOUSAND SIX HUNDRED EIGHTY-EIGHT AND 60/100 Dollars (\$465,688.60)**; provided, however, that with the extension of the third year of the term of this Agreement to expire December 31, 2019, as provided in Paragraph C. below, the amount not to exceed is **SEVEN HUNDRED TWENTY-TWO THOUSAND TWO HUNDRED TWENTY-SEVEN AND 19/100 Dollars (\$722,227.19)**.

- B. The remainder of Section 7 shall remain unchanged and in full force and effect.

- C. The first paragraph in Section 12 of the Agreement is amended in its entirety to read as follows:

"12. Term and Termination. Unless terminated as provided herein, the Agreement shall be effective as of the date of the last signature that makes the Agreement fully executed, and shall continue until December 31, 2019. The Agreement may be renewed for one (1) additional three (3) year term by mutual written agreement of the parties at least sixty (60) days before the Agreement's expiration. St. Joseph and the City shall meet to review this Agreement for potential renewal at least ninety (90) days before the Agreement's expiration. This Agreement may be terminated as follows:"

- D. The remainder of Section 12 shall remain unchanged and in full force and effect.
- E. All other terms and conditions of the Agreement shall remain unchanged and in full force and effect.

CHI ST. JOSEPH HEALTH

By: [Signature]
Printed Name: Deon Park
Title: President
Date: 4/10/19

CITY OF COLLEGE STATION

By: _____
City Manager
Date: _____

APPROVED:

City Attorney
Date: _____

CFO/Assistant City Manager
Date: _____

Legislation Details (With Text)

File #:	19-0220	Version:	1	Name:	Emergency Management Plan Resolution
Type:	Resolution	Status:		Status:	Consent Agenda
File created:	4/23/2019	In control:		In control:	City Council Regular
On agenda:	5/13/2019	Final action:		Final action:	
Title:	Presentation, discussion, and possible action regarding a resolution adopting the Emergency Management Plan (EMP) dated May 2019.				
Sponsors:	Jonathan McMahan				
Indexes:					
Code sections:					
Attachments:	EMP Resolution 5-1-19 EMP May 2019 Exhibit A				

Date	Ver.	Action By	Action	Result
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Presentation, discussion, and possible action regarding a resolution adopting the Emergency Management Plan (EMP) dated May 2019.

Relationship to Strategic Goals:

- Good Governance
- Financially Sustainable City
- Core Services and Infrastructure
- Neighborhood Integrity
- Diverse Growing Economy
- Improving Mobility
- Sustainable City

Recommendation(s): Staff recommends acceptance of the resolution

Summary: The Emergency Management Program was established by City Ordinance #3180, dated May 18, 2009, to provide a consistent approach to the effective management of situations involving natural disasters, man-made disasters or terrorism.

It is our responsibility to protect public health and safety and preserve property from the effects of hazardous events. We have the primary role in identifying and mitigating hazards, preparing for and responding to, and managing the recovery from emergency situations that affect our community.

The Emergency Management Plan (EMP) outlines the roles and responsibilities of City staff and departments.

Budget & Financial Summary: None

Attachments: Emergency Management Plan (EMP) and Resolution

RESOLUTION NO. _____

A RESOLUTION OF THE CITY OF COLLEGE STATION ADOPTING AND APPROVING THE BRAZOS COUNTY INTERJURISDICTIONAL EMERGENCY MANAGEMENT PLAN (EMP) FOR BRAZOS COUNTY, TEXAS A&M UNIVERSITY, THE CITIES OF COLLEGE STATION, BRYAN, AND WIXON VALLEY.

WHEREAS, the Emergency Management Program was established by City Ordinance #3180, dated May 18, 2009 providing a consistent approach to effective management of situations involving natural disasters, man-made disasters or terrorism; and

WHEREAS, it is the City's responsibility to protect public health and safety and preserve property from the effects of hazardous events. The City has the primary role in identifying and mitigating hazards, preparation and response and recovery management from emergency situations affecting our community, and

WHEREAS, the EMP outlines the roles and responsibilities of City staff; and

WHEREAS, the City Council for the City of College Station, Texas desires to adopt the EMP dated May 2019.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COLLEGE STATION, TEXAS

PART 1: That the City Council hereby adopts and approves the EMP dated May 2019 as attached in Exhibit A.

PART 2: That this resolution shall take effect immediately from and after its passage.

ADOPTED this ____ day of _____, 2019.

ATTEST:

APPROVED:

City Secretary

Mayor

APPROVED:

City Attorney

EXHIBIT A

**EMP FOR BRAZOS COUNTY, TEXAS A&M UNIVERSITY, THE CITIES OF
COLLEGE STATION, BRYAN, AND WIXON VALLEY**

EMERGENCY MANAGEMENT PLAN

FOR

**BRAZOS COUNTY, TEXAS A&M
UNIVERSITY AND THE CITIES OF
BRYAN, COLLEGE STATION, KURTEN
AND WIXON VALLEY**

MAY 2019

APPROVAL & IMPLEMENTATION

The Brazos County Interjurisdictional Emergency Management Plan

This emergency management plan is hereby approved. This plan is effective immediately and supersedes all previous editions.



County Judge, Brazos County

4/9/19

Date

Mayor, City of Bryan

Date

Mayor, City of College Station

Date

Mayor, City of Kurten

Date

Mayor, City of Wixon Valley

Date

Executive V.P for Finance & Operations, Texas A&M University

Date

RECORD OF CHANGES

Basic Plan

Change #	Date of Change	Change Entered By	Date Entered

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BASIC PLAN

I. AUTHORITY

A. Federal

1. Robert T. Stafford Disaster Relief & Emergency Assistance Act, (as amended), 42 U.S.C. 5121
2. Emergency Planning and Community Right-to-Know Act, 42 USC Chapter 116
3. Emergency Management and Assistance, 44 CFR
4. Hazardous Waste Operations & Emergency Response, 29 CFR 1910.120
5. Homeland Security Act of 2002
6. Homeland Security Presidential Directive. *HSPD-5*, Management of Domestic Incidents
7. Homeland Security Presidential Directive, *HSPD-3*, Homeland Security Advisory System
8. National Incident Management System
9. National Response Plan
10. National Strategy for Homeland Security, July 2002
11. Nuclear/Radiological Incident Annex of the National Response Plan
12. Presidential Policy Directive 8: National Preparedness

B. State

1. Government Code, Chapter 418 (Emergency Management)
2. Government Code, Chapter 421 (Homeland Security)
3. Government Code, Chapter 433 (State of Emergency)
4. Government Code, Chapter 791 (Inter-local Cooperation Contracts)
5. Health & Safety Code, Chapter 778 (Emergency Management Assistance Compact)
6. Executive Order of the Governor Relating to Emergency Management
7. Executive Order of the Governor Relating to the National Incident Management System
8. Administrative Code, Title 37, Part 1, Chapter 7 (Division of Emergency Management)
9. *The Texas Homeland Security Strategic Plan*, Parts I and II, December 15, 2003
10. *The Texas Homeland Security Strategic Plan*, Part III, February 2004

C. Local

1. College Station City Ordinance # 3180, dated May 18, 2009.
2. Bryan City Ordinance # 621, dated August 11, 1986.
3. Wixon Valley City Ordinance # 108, dated August 7, 1987.
4. Kurten City Ordinance #11, dated March 27, 2003
5. Brazos County Commissioner's Court Order dated October 8, 1984.
6. Interjurisdictional Joint Resolution # 9-25-97-6-b among the County of Brazos and the Cities of College Station, Bryan, Kurten and Wixon Valley dated August 15, 1997; and September 16, 2003.
7. Inter-local Agreements & Contracts. See the summary in Attachment 6.

II. PURPOSE

This Basic Plan outlines our approach to emergency operations, and is applicable to the County and Cities. It provides general guidance for emergency management activities and an overview of our methods of mitigation, preparedness, response, and recovery. The plan describes our emergency response organization and assigns responsibilities for various emergency tasks. This plan is intended to provide a framework for more specific functional annexes that describe in more detail who does what, when, and how. This plan applies to all local officials, departments, and agencies. The primary audience for the document includes our chief elected official(s), other elected officials and university administrators, the emergency management staff, department and agency heads and their senior staff members, leaders of local volunteer organizations that support emergency operations, and others who may participate in our mitigation, preparedness, response, and recovery efforts.

III. EXPLANATION OF TERMS

A. Acronyms

AAR	After Action Report
ARC	American Red Cross
CFR	Code of Federal Regulations
DDC	Disaster District Committee
DHS	Department of Homeland Security
EMC	Emergency Management Coordinator
EOC	Emergency Operations or Operating Center
FBI	Federal Bureau of Investigation
FEMA	Federal Emergency Management Agency, an element of the U.S. Department of Homeland Security
Hazmat	Hazardous Material
HSPD-5	Homeland Security Presidential Directive 5
ICP	Incident Command Post
ICS	Incident Command System
IP	Improvement Plan
JFO	Joint Field Office
JIC	Joint Information Center
JIS	Joint Information System
NIMS	National Incident Management System
NRP	National Response Plan
OSHA	Occupational Safety & Health Administration
PIO	Public Information Officer
SOGs	Standard Operating Guidelines
SOPs	Standard Operating Procedures
SOC	State Operations Center
TSA	The Salvation Army
VOADs	Volunteer Organizations Active in Disasters

B. Definitions

1. Area Command (Unified Area Command). An organization established (1) to oversee the management of multiple incidents that are each being managed by an ICS organization or (2) to oversee the management of large or multiple incidents to which several Incident Management Teams have been assigned. Sets overall strategy and priorities, allocates critical resources according to priorities, ensures that incidents are properly managed, and ensures that objectives are met and strategies followed. Area Command becomes Unified Area Command when incidents are multijurisdictional.
2. Disaster District. Disaster Districts are regional state emergency management organizations mandated by the Executive Order of the Governor relating to Emergency Management whose boundaries parallel those of Highway Patrol Districts and Sub-Districts of the Texas Department of Public Safety.
3. Disaster District Committee. The DDC consists of a Chairperson (the local Highway Patrol captain or command lieutenant), and agency representatives that mirror the membership of the State Emergency Management Council. The DDC Chairperson, supported by committee members, is responsible for identifying, coordinating the use of, committing, and directing state resources within the district to respond to emergencies.
4. Emergency Operations Center. Specially equipped facilities from which government officials exercise direction and control and coordinate necessary resources in an emergency situation.
5. Public Information. Information that is disseminated to the public via the news media before, during, and/or after an emergency or disaster ensuring the needs of the whole community are addressed.
6. Emergency Situations. As used in this plan, this term is intended to describe a *range* of occurrences, from a minor incident to a catastrophic disaster. It includes the following:
 - a. Incident. An incident is a situation that is limited in scope and potential effects. Characteristics of an incident include:
 - 1) Involves a limited area and/or limited population.
 - 2) Evacuation or in-place sheltering is typically limited to the immediate area of the incident.
 - 3) Warning and public instructions are provided in the immediate area, not community-wide.
 - 4) One or two local response agencies or departments acting under an incident commander normally handle incidents. Requests for resource support are normally handled through agency and/or departmental channels.
 - 5) May require limited external assistance from other local response agencies or contractors.
 - 6) For the purposes of the NRF, incidents include the full range of occurrences that require an emergency response to protect life or property.

- b. Emergency. An emergency is a situation that is larger in scope and more severe in terms of actual or potential effects than an incident. Characteristics include:
- 1) Involves a large area, significant population, or important facilities.
 - 2) May require implementation of large-scale evacuation or in-place sheltering and implementation of temporary shelter and mass care operations.
 - 3) May require community-wide warning and public instructions.
 - 4) Requires a sizable multi-agency response operating under an incident commander.
 - 5) May require some external assistance from other local response agencies, contractors, and limited assistance from state or federal agencies.
 - 6) The EOC will be activated to provide general guidance and direction, coordinate external support, and provide resource support for the incident.
 - 7) For the purposes of the NRF, an emergency (as defined by the Stafford Act) is "any occasion or instance for which, in the determination of the President, Federal assistance is needed to supplement State and local efforts and capabilities to save lives and to protect property and public health and safety, or to lessen or avert the threat of catastrophe in any part of the United States."
- c. Disaster. A disaster involves the occurrence or threat of significant casualties and/or widespread property damage that is beyond the capability of the local government to handle with its organic resources. Characteristics include:
- 1) Involves a large area, a sizable population, and/or important facilities.
 - 2) May require implementation of large-scale evacuation or in-place sheltering and implementation of temporary shelter and mass care operations.
 - 3) Requires community-wide warning and public instructions.
 - 4) Requires a response by all local response agencies operating under one or more incident commanders.
 - 5) Requires significant external assistance from other local response agencies, contractors, and extensive state or federal assistance.
 - 6) The EOC will be activated to provide general guidance and direction, provide emergency information to the public, coordinate state and federal support, and coordinate resource support for emergency operations.
 - 7) For the purposes of the NRF, a *major disaster* (as defined by the Stafford Act) is any catastrophe, regardless of the cause, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster federal assistance.
- d. Catastrophic Incident. For the purposes of the NRF, this term is used to describe any natural or manmade occurrence that results in extraordinary levels of mass casualties, property damage, or disruptions that severely affect the population, infrastructure, environment, economy, national morale, and/or government functions. An occurrence of this magnitude would result in sustained national impacts over prolonged periods of time and would immediately overwhelm local and state capabilities. All catastrophic incidents are *Incidents of National Significance*.
7. Hazard Analysis. A document published separately from this plan that identifies the local hazards that have caused or possess the potential to adversely affect public health and safety, public or private property, or the environment.

8. Hazardous Material (Hazmat). A substance in a quantity or form posing an unreasonable risk to health, safety, and/or property when manufactured, stored, or transported. The substance, by its nature, containment, and reactivity, has the capability for inflicting harm during an accidental occurrence. Is toxic, corrosive, flammable, reactive, an irritant, or a strong sensitizer, and poses a threat to health and the environment when improperly managed (Includes toxic substances, certain infectious agents, radiological materials, and other related materials such as oil, used oil, petroleum products, and industrial solid waste substances).
9. Incident of National Significance. An actual or potential high-impact event that requires a coordinated and effective response by and appropriate combination of federal, state, local, tribal, nongovernmental, and/or private sector entities in order to save lives and minimize damage and provide the basis for long-term communication recovery and mitigation activities.
10. Inter-local agreements. Arrangements between governments and/or organizations, either public or private, for reciprocal aid and assistance during emergency situations where the resources of a single jurisdiction or organization are insufficient or inappropriate for the tasks that must be performed to control the situation. Commonly referred to as mutual aid agreements.
11. Stafford Act. The Robert T. Stafford Disaster Relief and Emergency Assistance Act authorizes federal agencies to undertake special measures designed to assist the efforts of states in expediting the rendering of aid, assistance, emergency services, and reconstruction and rehabilitation of areas devastated by disaster.
12. Standard Operating Guidelines. Approved methods for accomplishing a task or set of tasks. SOGs are typically prepared at the department or agency level.

IV. SITUATION AND ASSUMPTIONS

A. Situation

Brazos County is exposed to many hazards, all of which have the potential for disrupting the community, causing casualties, and damaging or destroying public or private property. A summary of our major hazards is provided in Figure 1. More detailed information is provided in our Hazard Analysis, published separately.

Figure 1

HAZARD SUMMARY

	Likelihood of Occurrence*	Estimated Impact on Public Health & Safety			Estimated Impact on Property		
Hazard Type:	(See below)	Limited	Moderate	Major	Limited	Moderate	Major
Natural							
Drought	LIKELY	LIMITED			LIMITED		
Earthquake	UNLIKELY	LIMITED			LIMITED		
Flash Flooding	LIKELY	MODERATE			MODERATE		
Flooding (river)	LIKELY	MODERATE			MODERATE		
Hurricane	UNLIKELY	LIMITED			LIMITED		
Subsidence	UNLIKELY	LIMITED			LIMITED		
Tornado	UNLIKELY	MAJOR			MAJOR		
Wildfire	LIKELY	MODERATE			MODERATE		
Winter Storm	UNLIKELY	MODERATE			LIMITED		
Infectious Disease	UNLIKELY	MODERATE			MODERATE		
Technological							
Dam Failure	UNLIKELY	MODERATE			MODERATE		
Energy/Fuel Shortage	OCCASIONAL	MODERATE			LIMITED		
Hazmat/Oil Spill (fixed site)	OCCASIONAL	MODERATE			MODERATE		
Hazmat/Oil Spill (transport)	LIKELY	MODERATE			MODERATE		
Major Structural Fire	HIGHLY LIKELY	MODERATE			MAJOR		
Nuclear Facility Incident	UNLIKELY	MODERATE			MODERATE		
Water System Failure	OCCASIONAL	MODERATE			MODERATE		
Electrical System Failure	LIKELY	MODERATE			MODERATE		
Aircraft Incident	UNLIKELY	LIMITED			LIMITED		
Security							
Civil Disorder	UNLIKELY	MODERATE			MODERATE		
Enemy Military Attack	UNLIKELY	MAJOR			MAJOR		
Terrorism	UNLIKELY	MAJOR			MAJOR		
Active Shooter	UNLIKELY	MAJOR			MODERATE		
* Likelihood of Occurrence: Unlikely, Occasional, Likely, or Highly Likely							

B. Assumptions

1. Brazos County will continue to be exposed to and subject to the impact of the hazards described above and as well as lesser hazards and others that may develop in the future.
2. It is possible for a major disaster to occur at any time and at any place. In many cases, dissemination of warning to the public and implementation of increased readiness measures may be possible. However, some emergency situations occur with little or no warning.
3. Outside assistance will be available in most emergency situations, affecting our county. Since it takes time to summon external assistance, it is essential for us to be prepared to carry out the initial emergency response on an independent basis.

4. Proper mitigation actions, such as floodplain management and fire inspections and building inspections, can prevent or reduce disaster-related losses. Detailed emergency planning, training of emergency responders and other personnel, and conducting periodic emergency drills and exercises can improve our readiness to deal with emergency situations.

V. CONCEPT OF OPERATIONS

A. Objectives

The objectives of our emergency management program are to protect public health and safety and preserve public and private property.

B. General

1. It is our responsibility to protect public health and safety and preserve property from the effects of hazardous events. We have the primary role in identifying and mitigating hazards, preparing for and responding to, and managing the recovery from emergency situations that affect our community.
2. It is impossible for government to do everything that is required to protect the lives and property of our population. Our citizens have the responsibility to prepare themselves and their families to cope with emergency situations and manage their affairs and property in ways that will aid the government in managing emergencies. We will assist our citizens in carrying out these responsibilities by providing public information and instructions prior to and during emergency situations.
3. Local government is responsible for organizing, training, and equipping local emergency responders and emergency management personnel, providing appropriate emergency facilities, providing suitable warning and communications systems, and for contracting for emergency services. The state and federal governments offer programs that provide some assistance with portions of these responsibilities.
4. To achieve our objectives, we have organized an emergency management program that is both integrated (employs the resources of government, organized volunteer groups, and businesses) and comprehensive (addresses mitigation, preparedness, response, and recovery). This plan is one element of our preparedness activities.
5. This plan is based on an all-hazard approach to emergency planning. It addresses general functions that may need to be performed during any emergency situation and is not a collection of plans for specific types of incidents. For example, Annex A (Warning) addresses techniques that can be used to warn the public during any emergency situation, whatever the cause.
6. Departments and agencies tasked in this plan are expected to develop and keep current standard operating procedures that describe how emergency tasks will be performed. Departments and agencies are charged with ensuring the training and equipment necessary for an appropriate response are in place.

7. This plan is based upon the concept that the emergency functions that must be performed by many departments or agencies generally parallel some of their normal day-to-day functions. To the extent possible, the same personnel and material resources used for day-to-day activities will be employed during emergency situations. Because personnel and equipment resources are limited, some routine functions that do not contribute directly to the emergency may be suspended for the duration of an emergency. The personnel, equipment, and supplies that would normally be required for those functions will be redirected to accomplish emergency tasks.
8. We have adopted the National Incident Management System (NIMS) in accordance with the President's Homeland Security Directive (HSPD)-5. Our adoption of NIMS will provide a consistent approach to the effective management of situations involving natural or man-made disasters, or terrorism. NIMS allows us to integrate our response activities using a set of standardized organizational structures designed to improve interoperability between all levels of government, private sector, and nongovernmental organizations.
9. This plan, in accordance with the National Response Framework (NRF), is an integral part of the national effort to prevent, and reduce America's vulnerability to terrorism, major disasters, and other emergencies, minimize the damage and recover from attacks, major disasters, and other emergencies that occur. In the event of an Incident of National Significance, as defined in HSPD-5, we will integrate all operations with all levels of government, private sector, and nongovernmental organizations through the use of NRF coordinating structures, processes, and protocols.

C. Operational Guidance

We will employ the six components of the NIMS in all operations, which will provide a standardized framework that facilitates our operations in all phases of emergency management. Attachment 7 provides further details of the NIMS.

1. Initial Response. Our emergency responders are likely to be the first on the scene of an emergency situation. They will normally take charge and remain in charge of the incident until it is resolved or others who have legal authority to do so assume responsibility. They will seek guidance and direction from our local officials and seek technical assistance from state and federal agencies and industry where appropriate.
2. Implementation of ICS
 - a. The first local emergency responder to arrive at the scene of an emergency situation will implement the incident command system and serve as the incident commander until relieved by a more senior or more qualified individual. The incident commander will establish an incident command post (ICP) and provide an assessment of the situation to local officials, identify response resources required, and direct the on-scene response from the ICP.

- b. For some types of emergency situations, a specific incident scene may not exist in the initial response phase and the EOC may accomplish initial response actions, such as mobilizing personnel and equipment and issuing precautionary warning to the public. As the potential threat becomes more clearly and a specific impact site (or sites) identified, an incident command post may be established, and direction and control of the response transitioned to the Incident Commander.

3. Source and Use of Resources.

- a. We will use our own resources, all of which meet the requirements for resource management in accordance with the NIMS, to respond to emergency situations, purchasing supplies and equipment if necessary, and request assistance if our resources are insufficient or inappropriate. §418.102 of the Government Code provides that the county should be the first channel through which a municipality requests assistance when its resources are exceeded. If additional resources are required, we will:
 - 1) Summon those resources available to us pursuant to inter-local agreements. See Attachment 6 to this plan
 - 2) Summon emergency service resources that we have contracted for. See Attachment 6.
 - 3) Request assistance from volunteer organizations active in disasters.
 - 4) Request assistance from industry or individuals who have resources needed to deal with the emergency situation.
- b. When external agencies respond to an emergency situation within our jurisdiction, we expect them to conform to the guidance and direction provided by our incident commander, which will be in accordance with the NIMS.

D. Incident Command System (ICS)

- 1. We intend to employ ICS, an integral part of the NIMS, in managing emergencies. ICS is both a strategy and a set of organizational arrangements for directing and controlling field operations. It is designed to effectively integrate resources from different agencies into a temporary emergency organization at an incident site that can expand and contract with the magnitude of the incident and resources on hand. A summary of ICS is provided in Attachment 7.
- 2. The incident commander is responsible for carrying out the ICS function of command -- managing the incident. The four other major management activities that form the basis of ICS are operations, planning, logistics, and finance/administration. For small-scale incidents, the incident commander and one or two individuals may perform all of these functions. For larger incidents, a number of individuals from different departments or agencies may be assigned to separate staff sections charged with those functions.
- 3. An incident commander using response resources from one or two departments or agencies can handle the majority of emergency situations. Departments or agencies participating in this type of incident response will normally obtain support through their own department or agency.

4. In emergency situations where other jurisdictions or the state or federal government are providing significant response resources or technical assistance, it is generally desirable to transition from the normal ICS structure to a Unified or Area Command structure. This arrangement helps to ensure that all participating agencies are involved in developing objectives and strategies to deal with the emergency. Attachment 7 provides additional information on Unified and Area Commands.

E. ICS - EOC Interface

1. For major emergencies and disasters, the Emergency Operations Center (EOC) will be activated. When the EOC is activated, it is essential to establish a division of responsibilities between the incident command post and the EOC. A general division of responsibilities is outlined below. It is essential that a precise division of responsibilities be determined for specific emergency operations.
2. The incident commander is generally responsible for field operations, including:
 - a. Isolating the scene.
 - b. Directing and controlling the on-scene response to the emergency situation and managing the emergency resources committed there.
 - c. Warning the population in the area of the incident and providing emergency instructions/information to them.
 - d. Determining and implementing protective measures (evacuation or shelter-in-place) for the population in the immediate area of the incident and for emergency responders at the scene.
 - e. Implementing traffic control arrangements in and around the incident scene.
 - f. Requesting additional resources from the EOC.
3. The EOC is generally responsible for:
 - a. Providing resource support for the incident command operations.
 - b. Issuing community-wide warning.
 - c. Issuing instructions and providing information to the general public.
 - d. Organizing and implementing large-scale evacuation.
 - e. Organizing and implementing shelter and mass care arrangements for evacuees.
 - f. Coordinating traffic control for large-scale evacuations.
 - g. Requesting assistance from the State and other external sources.
4. In some large-scale emergencies or disasters, emergency operations with different objectives may be conducted at geographically separated scenes. In such situations, more than one incident command operation may be established. If this situation occurs, a transition to an Area Command or a Unified Area Command is desirable, and the allocation of resources to specific field operations will be coordinated through the EOC.

F. State, Federal & Other Assistance

1. State & Federal Assistance

- a. If local resources are inadequate to deal with an emergency situation, we will request assistance from the State. State assistance furnished to local governments is intended to supplement local resources and not substitute for such resources, including mutual aid resources, equipment purchases or leases, or resources covered by emergency service contracts. As noted previously, cities must request assistance from their county before requesting state assistance.
- b. Requests for state assistance should be made to the Disaster District Committee (DDC) Chairperson, who is located at the Department of Public Safety District Office in Bryan, TX. See Appendix 3 to Annex M (Resource Management) for a form that can be used to request state assistance. In essence, state emergency assistance to local governments begins at the DDC level and the key person to validate a request for, obtain, and provide that state assistance and support is the DDC Chairperson. A request for state assistance must be made by the chief elected official (the County Judge/Mayor(s)) or designee and may be made via Star III board in WEBEOC, electronically (email), telephone or fax. The DDC Chairperson has the authority to utilize all state resources within the district to respond to a request for assistance, with the exception of the National Guard. Use of National Guard resources requires approval of the Governor.
- c. The Disaster District staff will forward requests for assistance that cannot be satisfied by state resources within the District to the State Operations Center (SOC) in Austin for action.

2. Other Assistance

- a. If resources required to control an emergency situation are not available within the State, the Governor may request assistance from other states pursuant to a number of interstate compacts or from the federal government through the Federal Emergency Management Agency (FEMA).
- b. For major emergencies and disasters for which a Presidential declaration has been issued, federal agencies may be mobilized to provide assistance to states and local governments. The *National Response Framework (NRF)* describes the policies, planning assumptions, concept of operations, and responsibilities of designated federal agencies for various response and recovery functions. The *Nuclear/Radiological Incident Annex of the NRF* addresses the federal response to major incidents involving radioactive materials.
- c. FEMA has the primary responsibility for coordinating federal disaster assistance. No direct federal disaster assistance is authorized prior to a Presidential emergency or disaster declaration, but FEMA has limited authority to stage initial response resources near the disaster site and activate command and control structures prior to a declaration and the Department of Defense has the authority to commit its resources to save lives prior to an emergency or disaster declaration.

- d. See Annex J (Recovery) for additional information on the assistance that may be available during disaster recovery.
- e. The NRP applies to Stafford and non-Stafford Act incidents and is designed to accommodate not only actual incidents, but also the threat of incidents. Therefore, NRP implementation is possible under a greater range of incidents.

G. Emergency Authorities

1. Key federal, state, and local legal authorities pertaining to emergency management are listed in Section I of this plan.
2. Texas statutes and the Executive Order of the Governor Relating to Emergency Management provide local government, principally the chief elected official, with a number of powers to control emergency situations. If necessary, we shall use these powers during emergency situations. These powers include:
 - a. Emergency Declaration. In the event of riot or civil disorder, the County Judge and/or Mayor(s) may request the Governor to issue an emergency declaration for this jurisdiction and take action to control the situation. Use of the emergency declaration is explained in Annex U (Legal).
 - b. Disaster Declaration. When an emergency situation has caused severe damage, injury, or loss of life or it appears likely to do so, the County Judge and/or Mayor(s) may by executive order or proclamation declare a local state of disaster. The County Judge and/or Mayor(s) may subsequently issue orders or proclamations referencing that declaration to invoke certain emergency powers granted the Governor in the Texas Disaster Act on an appropriate local scale in order to cope with the disaster. These powers include:
 - 1) Suspending procedural laws and rules to facilitate a timely response.
 - 2) Using all available resources of government and commandeering private property, subject to compensation, to cope with the disaster.
 - 3) Restricting the movement of people and occupancy of premises.
 - 4) Prohibiting the sale or transportation of certain substances.
 - 5) Implementing price controls.

A local disaster declaration activates the recovery and rehabilitation aspects of this plan. A local disaster declaration is required to obtain state and federal disaster recovery assistance. See Annex U (Legal) for further information on disaster declarations and procedures for invoking emergency powers.

- c. Authority for Evacuations. State law provides a County Judge or Mayor with the authority to order the evacuation of all or part of the population from a stricken or threatened area within their respective jurisdictions.

H. Actions by Phases of Emergency Management

1. This plan addresses emergency actions that are conducted during all four phases of emergency management.

- a. Mitigation

We will conduct mitigation activities as an integral part of our emergency management program. Mitigation is intended to eliminate hazards, reduce the probability of hazards causing an emergency situation, or lessen the consequences of unavoidable hazards. Mitigation should be a pre-disaster activity, although mitigation may also occur in the aftermath of an emergency situation with the intent of avoiding repetition of the situation. Our mitigation program is outlined in Annex P (Mitigation).

- b. Preparedness

We will conduct preparedness activities to develop the response capabilities needed in the event an emergency. Among the preparedness activities included in our emergency management program are:

- 1) Providing emergency equipment and facilities.
- 2) Emergency planning, including maintaining this plan, its annexes, and appropriate SOGs.
- 3) Conducting or arranging appropriate training for emergency responders, emergency management personnel, other local officials, and volunteer groups who assist us during emergencies.
- 4) Conducting periodic drills and exercises to test our plans and training.

- c. Response

We will respond to emergency situations effectively and efficiently. The focus of most of this plan and its annexes is on planning for the response to emergencies. Response operations are intended to resolve an emergency situation while minimizing casualties and property damage. Response activities include warning, emergency medical services, firefighting, law enforcement operations, evacuation, shelter and mass care, emergency public information, search and rescue, as well as other associated functions.

- d. Recovery

If a disaster occurs, we will carry out a recovery program that involves both short-term and long-term efforts. Short-term operations seek to restore vital services to the community and provide for the basic needs of the public. Long-term recovery focuses on restoring the community to its normal state. The federal government, pursuant to the Stafford Act, provides the vast majority of disaster recovery assistance. The recovery process includes assistance to individuals, businesses, and to government and other public institutions.

Examples of recovery programs include temporary housing, restoration of government services, debris removal, restoration of utilities, disaster mental health services, and reconstruction of damaged roads and bridges. Our recovery program is outlined in Annex J (Recovery).

VI. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES

A. Organization

1. General

Most departments and agencies of local government have emergency functions in addition to their normal day-to-day duties. During emergency situations, our normal organizational arrangements are modified to facilitate emergency operations. Our governmental organization for emergencies includes an executive group, emergency services group, and a support services group. Attachment 3 depicts our emergency organization.

2. Executive Group

The Executive Group provides guidance and direction for emergency management programs and for emergency response and recovery operations. The Executive Group includes the County Judge, Mayor(s), City Manager(s), University Executive(s), and Emergency Management Coordinator(s).

3. Emergency Services

Emergency Services include the Incident Commander and those departments, agencies, and groups with primary emergency response actions. The incident commander is the person in charge at an incident site.

4. Emergency Support Services

This group includes departments and agencies that support and sustain emergency responders and also coordinate emergency assistance provided by organized volunteer organizations, business and industry, and other sources.

5. Volunteer and Other Services

This group includes organized volunteer groups and businesses that have agreed to provide certain support for emergency operations.

B. Assignment of Responsibilities

1. General

For most emergency functions, successful operations require a coordinated effort from a number of departments, agencies, and groups. To facilitate a coordinated effort, elected and appointed officials, departments and agency heads, and other personnel are assigned primary responsibility for planning and coordinating specific emergency functions. Generally, primary responsibility for an emergency function will be assigned to an individual from the department or agency that has legal responsibility for that function or possesses the most appropriate knowledge and skills. Other officials, departments, and agencies may be assigned support responsibilities for specific emergency functions. Attachment 4 summarizes the general emergency responsibilities of local officials, department and agency heads, and other personnel.

2. The individual having primary responsibility for an emergency function is normally responsible for coordinating preparation of and maintaining that portion of the emergency plan that addresses that function. Plan and annex assignments are outlined in Attachment 5. Listed below are general responsibilities assigned to the Executive Group, Emergency Services, Support Services, and other Support Agencies. Additional specific responsibilities can be found in the functional annexes to this Basic Plan.

3. Executive Group Responsibilities

- a. The County Judge and/or Mayor(s) and/or University Executives will:

- 1) Establish objectives and priorities for the emergency management program and provide general policy guidance on the conduct of that program.
- 2) Monitor the emergency response during disaster situations and provides direction where appropriate.
- 3) With the assistance of the Public Information Officer (PIO) and the Joint Information Center (JIC), keep the public informed during emergency situations.
- 4) With the assistance of the legal staff, declare a local state of disaster, request the Governor declare a state of emergency, or invoke the emergency powers of government when necessary (except University Executives).
- 5) Request assistance from other local governments or the State when necessary
- 6) Direct activation of the EOC.

- b. The County Judge, Mayor(s), City Manager(s), University Assistant VP for Safety and Security and EMC(s) will:

- 1) Implement the policies and decisions of the governing body relating to emergency management.
- 2) Organize the emergency management program and identifies personnel, equipment, and facility needs.
- 3) Assign emergency management program tasks to departments and agencies.
- 4) Ensure that departments and agencies participate in emergency planning, training, and exercise activities.

- 5) Coordinate the operational response of local emergency services.
- 6) Coordinate activation of the EOC and supervise its operation.

c. The Emergency Management Coordinator(s) will:

- 1) Serve as the staff advisor to our County Judge, Mayor(s), and City Manager(s) on emergency management matters.
- 2) Keep the County Judge, Mayor(s), and City Manager(s), as well as our governing body apprised of our preparedness status and emergency management needs.
- 3) Coordinate local planning and preparedness activities and the maintenance of this plan.
- 4) Prepare and maintain a resource inventory.
- 5) Arrange appropriate training for local emergency management personnel and emergency responders.
- 6) Coordinate periodic emergency exercises to test our plan and training.
- 7) Manage the EOC, develop procedures for its operation, and conduct training for those who staff it.
- 8) Activate the EOC when required.
- 9) Perform day-to-day liaison with the state emergency management staff and other local emergency management personnel.
- 10) Coordinate with organized volunteer groups and businesses regarding emergency operations.

4. Common Responsibilities.

All emergency services and support services will:

- a. Provide personnel, equipment, and supplies to support emergency operations upon request.
- b. Develop and maintain SOGs for emergency tasks.
- c. Provide trained personnel to staff the incident command post and EOC and conduct emergency operations.
- d. Provide current information on emergency resources for inclusion in the Resource List in Appendix 1 to Annex M (Resource Management).
- e. Report information regarding emergency situations and damage to facilities and equipment to the Incident Commander or the EOC.

5. Emergency Services Responsibilities.

a. The Incident Commander will:

- 1) Manage emergency response resources and operations at the incident site command post to resolve the emergency situation.
- 2) Determine and implement required protective actions for response personnel and the public at an incident site.

b. Warning.

- 1) Primary responsibility for this function is assigned to the Police Chief(s) and/or County Sheriff who, with assistance from the EMC(s), will prepare and maintain Annex A (Warning) to this plan and supporting SOGs.
- 2) Emergency tasks to be performed include:
 - a) Receive information on emergency situations.
 - b) Alert key local officials of emergency situations.
 - c) Disseminate warning information and instructions to the public through available warning systems ensuring the needs of the whole community are addressed.
 - d) Disseminate warning and instructions to special facilities such as schools and hospitals.

c. Communications.

- 1) Primary responsibility for this function is assigned to the Police Chief(s) and/or County Sheriff who, with assistance from the EMCs, will prepare and maintain Annex B (Communications) to this plan and supporting SOGs.
- 2) Emergency tasks to be performed include:
 - a) Identify the communications systems available within the local area and determine the connectivity of those systems, and ensure their interoperability.
 - b) Develop plans and procedures for coordinated use of the various communications systems available in this jurisdiction during emergencies.
 - c) Determine and implement means of augmenting communications during emergencies, including support by volunteer organizations.

d. Radiological Protection.

- 1) Primary responsibility for this function is assigned to the Fire Chief(s) who, with assistance from the EMCs, will prepare and maintain Annex D (Radiological Protection) to this plan and supporting SOGs.
- 2) Emergency tasks to be performed include:
 - a) Maintain inventory of radiological equipment.
 - b) Ensure response forces include personnel with current training in radiological monitoring and decontamination.
 - c) Respond to radiological incidents and terrorist incidents involving radiological materials.
 - d) Make notification concerning radiological incidents to state and federal authorities.

e. Evacuation.

- 1) Primary responsibility for this function is assigned to the Police Chief(s) and/or Sheriff who, with assistance from the EMCs, will prepare and maintain Annex E (Evacuation) to this plan and supporting SOGs.
- 2) Emergency tasks to be performed include:
 - a) Identify areas where an evacuation has occurred, or may in the future, and determine of population at risk.
 - b) Perform evacuation planning for known risk areas to include route selection and determination of traffic control requirements.
 - c) Develop simplified planning procedures for ad hoc evacuations.
 - d) Determine emergency public information requirements.
 - e) Perform evacuation planning for special needs facilities (schools, hospitals, nursing homes, and other institutions) and/or review plans prepared by the facility as requested.

f. Firefighting.

- 1) Primary responsibility for this function is assigned to the Fire Chief(s) who, with assistance from the EMCs, will prepare and maintain Annex F (Firefighting) to this plan and supporting SOGs.
- 2) Emergency tasks to be performed include:
 - a) Fire prevention activities.
 - b) Fire detection and control.
 - c) Hazardous material and oil spill response.
 - d) Terrorist incident response.
 - e) Evacuation support.
 - f) Post-incident reconnaissance and damage assessment.
 - g) Fire safety inspection of temporary shelters.
 - h) Prepare and maintain fire resource inventory.

g. Law Enforcement.

- 1) Primary responsibility for this function is assigned to the Police Chief(s) and/or Sheriff who, with assistance from the EMCs, will prepare and maintain Annex G (Law Enforcement) to this plan and supporting SOGs.
- 2) Emergency tasks to be performed include:
 - a) Maintenance of law and order.
 - b) Traffic control.
 - c) Terrorist incident response.
 - d) Provision of security for vital facilities, evacuated areas, and shelters.
 - e) Access control for damaged or contaminated areas.
 - f) Warning support.

- g) Post-incident reconnaissance and damage assessment.
- h) Prepare and maintain law enforcement resource inventory.

h. Health and Medical Services.

- 1) Primary responsibility for this function is assigned to the Public Health Office, who with assistance from the EMCs, will prepare and maintain Annex H (Health & Medical Services) to this plan and supporting SOGs.
- 2) Emergency tasks to be performed include:
 - a) Coordinate health and medical care and EMS support during emergency situations.
 - b) Public health information and education.
 - c) Inspection of food and water supplies.
 - d) Develop emergency public health regulations and orders.
 - e) Coordinate collection, identification, and interment of deceased victims.

i. Direction and Control.

- 1) Primary responsibility for this function is assigned to the County Judge and/or Mayor(s) and/or designated University Executives and EMCs who will prepare and maintain Annex N (Direction & Control) to this plan and supporting SOGs.
- 2) Emergency tasks to be performed include:
 - a) Direct and control our local operating forces.
 - b) Maintain coordination with neighboring jurisdictions and the Disaster District in Bryan, Texas.
 - c) Maintain the EOC in an operating mode or be able to convert the designated facility space into an operable EOC rapidly.
 - d) Assign representatives, by title, to report to the EOC and develops procedures for crisis training.
 - e) Develop and identify the duties of the staff, use of displays and message forms, and procedures for EOC activation.
 - f) Coordinate the evacuation of areas at risk.

j. Hazardous Materials & Oil Spill.

- 1) The primary responsibility for this function is assigned to the Fire Chief(s) who, with assistance from the EMCs will prepare and maintain Annex Q (Hazardous Material & Oil Spill Response) to this plan and supporting SOGs.
- 2) Emergency tasks to be performed include:
 - a) In accordance with OSHA regulations, establish ICS to manage the response to hazardous materials incidents.
 - b) Establish the hazmat incident functional areas (e.g., Hot Zone, Warm Zone, Cold Zone, etc.)

- c) Determine and implement requirements for personal protective equipment for emergency responders.
- d) Initiate appropriate actions to control and eliminate the hazard in accordance with established hazmat response guidance and SOGs.
- e) Determine areas at risk and which public protective actions, if any, should be implemented.
- f) Apply appropriate firefighting techniques if the incident has, or may, result in a fire.
- g) Determines when affected areas may be safely reentered.

k. Search & Rescue.

- 1) The primary responsibility for this function is assigned to the Fire Chief(s) who, with assistance from the EMCs, will prepare and maintain Annex R (Search and Rescue) to this plan and supporting SOGs.
- 2) Emergency tasks to be performed include:
 - a) Coordinate and conduct search and rescue activities.
 - b) Identify requirements for specialized resources to support rescue operations.
 - c) Coordinate external technical assistance and equipment support for search and rescue operations.

l. Terrorist Incident Response.

- 1) Primary responsibility for this function is assigned to the Police Chief(s) and/or Sheriff who, with assistance from the EMCs, will prepare and maintain Annex V (Terrorist Incident Response) to this plan and supporting SOGs.
- 2) Emergency tasks to be performed include:
 - a) Coordinate and carry out defensive anti-terrorist activities, including criminal intelligence, investigation, protection of facilities, and public awareness activities.
 - b) Coordinate and carry out offensive counter-terrorist operations to neutralize terrorist activities.
 - c) Carry out terrorism consequence operations conducted in the aftermath of a terrorist incident to save lives and protect public and private property.
 - d) Ensure required notification of terrorist incidents is made to state and federal authorities.

6. Support Services Responsibilities.

a. Shelter and Mass Care.

- 1) Primary responsibility for this function is assigned to the EMCs who will prepare and maintain Annex C (Shelter and Mass Care) to this plan and supporting SOGs.
- 2) Emergency tasks to be performed include:

- a) Perform emergency shelter and mass care planning.
- b) Coordinate and conduct shelter and mass care operations with our other departments, relief agencies, and volunteer groups.

b. Public Information.

- 1) Primary responsibility for this function is assigned to the Chief Elected Officials and County, City and/or Texas A&M University Public Information Officers who, with assistance from the EMCs will prepare and maintain Annex I (Public Information) to this plan and supporting SOGs.
- 2) Emergency tasks to be performed include:
 - a) Establish a Joint Information Center (JIC).
 - b) Conduct on-going hazard awareness and public education programs.
 - c) Pursuant to the Joint Information System (JIS), compile and release information and instructions for the public during emergency situations and respond to questions relating to emergency operations.
 - d) Provide information to the media and the public during emergency situations.
 - e) Arrange for media briefings.
 - f) Compiles print and photo documentation of emergency situations.

c. Recovery.

- 1) Primary responsibility for this function is assigned to the EMCs and/or Finance Director(s) and Tax Assessor. The EMCs will prepare and maintain Annex J (Recovery) to this plan and supporting SOGs.
- 2) Emergency tasks to be performed include:
 - a) Establish and train a damage assessment team using local personnel. Coordinate the efforts of that team with state and federal damage assessment personnel who may be dispatched to assist us.
 - b) Assess and compile information on damage to public and private property and needs of disaster victims and formulate and carry out programs to fill those needs.
 - c) If damages are beyond our capability to deal with, compile information for use by our elected officials in requesting state or federal disaster assistance.
 - d) If we are determined to be eligible for state or federal disaster assistance, coordinate with state and federal agencies to carry out authorized recovery programs.

d. Public Works & Engineering.

- 1) Primary responsibility for this function is assigned to the County Engineer and/or City Public Works Director(s) who, with assistance from the EMC, will prepare and maintain Annex K (Public Works & Engineering) to this plan and supporting SOGs.

2) Emergency tasks to be performed include:

- a) Protect government facilities and vital equipment where possible.
- b) Assess damage to streets, bridges, traffic control devices, and other public facilities.
- c) Direct temporary repair of vital facilities.
- d) Restore damaged roads and bridges.
- e) Restore waste treatment and disposal systems.
- f) Arrange for debris removal.
- g) General damage assessment support.
- h) Building inspection support.
- i) Provide specialized equipment to support emergency operations.
- j) Support traffic control and search and rescue operations.

e. Utilities.

- 1) Primary responsibility for this function is assigned to the Public Utilities Director(s) who, with assistance from the EMCs, will prepare and maintain Annex L (Energy and Utilities) to this plan and supporting SOGs.

2) Emergency tasks to be performed include:

- a) Prioritize restoration of utility service to vital facilities and other facilities.
- b) Arrange for the provision of emergency power sources where required.
- c) Identify requirements for emergency drinking water and portable toilets to the department or agency responsible for mass care.
- d) Assess damage to, repair, and restore public utilities.
- e) Monitor recovery activities of privately owned utilities.

f. Resource Management.

- 1) Primary responsibility for this function is assigned to the EMCs, who will seek guidance and assistance as needed from Human Resources Directors, Finance Directors and Purchasing Officials. The EMCs will prepare and maintain Annex M (Resource Management) to this plan and supporting SOGs.

2) Emergency tasks to be performed include:

- a) Maintain an inventory of emergency resources.
- b) During emergency operations, locates supplies, equipment, and personnel to meet specific needs.
- c) Maintain a list of suppliers for supplies and equipment needed immediately in the aftermath of an emergency.
- d) Establish emergency purchasing procedures and coordinate emergency procurements.
- e) Establish and maintain a manpower reserve and coordinate assignment of reserve personnel to departments and agencies that require augmentation.
- f) Coordinate transportation, sorting, temporary storage, and distribution of resources during emergency situations.
- g) Establish staging areas for resources, if required.

- h) During emergency operations, identify to the Donations Management Coordinator those goods, services, and personnel that are needed.
- i) Maintain records of emergency-related expenditures for purchases and personnel.

g. Human Services.

- 1) Primary responsibility for this function is assigned to the EMCs, who will seek guidance and assistance as needed from local volunteer groups and/or organized disaster relief agencies. EMCs will prepare and maintain Annex O (Human Services) to this plan and supporting SOGs.
- 2) Emergency tasks to be performed include:
 - a) Identify emergency feeding sites.
 - b) Identify sources of clothing for disaster victims.
 - c) Secure emergency food supplies.
 - d) Coordinate the operation of shelter facilities, whether operated by local government, local volunteer groups, or organized disaster relief agencies such as the American Red Cross.
 - e) Coordinate special care requirements for disaster victims such as the aged, functional and access needs individuals, and others.
 - f) Coordinate the provision of disaster mental health services to disaster victims, emergency workers, and/or others suffering trauma due to the emergency incident/disaster.

h. Hazard Mitigation.

- 1) The primary responsibility for this function is assigned to the EMCs, who with assistance from the Hazard Mitigation Coordinator, will prepare and maintain Annex P (Hazard Mitigation) to this plan and supporting SOGs.
- 2) Emergency tasks to be performed include:
 - a) Maintain the local Hazard Analysis.
 - b) Identify beneficial pre-disaster hazard mitigation projects and seek approval from local officials to implement such projects.
 - c) In the aftermath of an emergency, determine appropriate actions to mitigate the situation and coordinate implementation of those actions.
 - d) Coordinate and carry out post-disaster hazard mitigation program.

i. Transportation.

- 1) The primary responsibility for this function is assigned to the EMCs and Transportation Director(s)/Supervisor(s) who will prepare and maintain Annex S (Transportation) to this plan and supporting SOGs.
- 2) Emergency tasks to be performed include:

- a) Identifies local public and private transportation resources and coordinates their use in emergencies.
- b) Coordinates deployment of transportation equipment to support emergency operations.
- c) Establishes and maintains a reserve pool of drivers, maintenance personnel, parts, and tools.
- d) Maintains records on use of transportation equipment and personnel for purpose of possible reimbursement.

j. Donations Management.

- 1) The primary responsibility for this function is assigned to The Salvation Army, who, with assistance from the EMC(s), will prepare and maintain Annex T (Donations Management) to this plan and supporting SOGs. The United Way of the Brazos Valley will be tasked with soliciting and managing financial donations.
- 2) Emergency tasks to be performed include:
 - a) Compile resource requirements identified by the Resource Management staff.
 - b) Solicit donations to meet known needs.
 - c) Establish and implement procedures to receive, accept or turn down offers of donated goods and services, and provide instructions to donors of needed goods or services.
 - d) In coordination with the Resource Management staff, establish a facility to receive, sort, and distribute donated goods.

k. Legal.

- 1) The primary responsibility for this function is assigned to the City Attorney and/or County Attorney and/or Texas A&M University System Office of General Council who, with assistance from the EMC(s), will prepare and maintain Annex U (Legal) to this plan and supporting SOGs.
- 2) Emergency tasks to be performed include:
 - a) Advise local officials on emergency powers of local government and procedures for invoking those measures.
 - b) Review and advise our officials on possible legal issues arising from disaster operations.
 - c) Prepare and/or recommend legislation to implement the emergency powers that may be required during and emergency.
 - d) Advise local officials and department heads on record-keeping requirements and other documentation necessary for the exercising of emergency powers.

- l. Department and agency heads not assigned a specific function in this plan will be prepared to make their resources available for emergency duty at the direction of their chief elected official(s).

7. Volunteer & Other Services.

- a. Volunteer Groups. The following are local volunteer agencies that can provide disaster relief services and traditionally have coordinated their efforts with our local government:

- 1) HEART OF TEXAS Chapter of the American Red Cross, office is located in Bryan and Waco, Texas.

Provides shelter management, feeding at fixed facilities and through mobile units, first aid, replacement of eyeglasses and medications, provision of basic clothing, and limited financial assistance (if available) to those affected by emergency situations. The Red Cross also provides feeding for emergency workers.

- 2) The Salvation Army.

Provides emergency assistance to include: mass and mobile feeding, temporary shelter, counseling, missing person services, medical assistance, and the warehousing and distribution of donated good including food clothing, and household items. Also provides referrals to government and private agencies for special services.

- 3) Southern Baptist Convention Disaster Relief.

Provides mobile feeding units staffed by volunteers. Active in providing disaster childcare, the agency has several mobile childcare units. Can also assist with clean-up activities, temporary repairs, reconstruction, counseling, and bilingual services.

- 4) ARES/RACES.

The Amateur Radio Emergency Service/Radio Amateur Civil Emergency Service provides amateur radio support for emergency operations, including communications support in the EOC.

- b. Business Support.

The following businesses have agreed to provide support for emergency operations as indicated:

- 1) Sanderson Farms, Inc.
- 2) HEB
- 3) Lowes
- 4) Home Depot
- 5) Walmart

VII. DIRECTION AND CONTROL

A. General

1. The County Judge and/or Mayor(s) is responsible for establishing objectives and policies for emergency management and providing general guidance for disaster response and recovery operations, all in compliance with the NIMS. During disasters, the CEO(s) may carry out those responsibilities from the EOC.
2. The EMC(s) will provide overall direction of the response activities of all our departments. During major emergencies and disaster, he/she will normally carry out those responsibilities from the EOC.
3. The EMC(s) will manage the EOC.
4. The Incident Commander, assisted by a staff sufficient for the tasks to be performed, will manage the emergency response at an incident site.
5. During emergency operations, department heads retain administrative and policy control over their employees and equipment. However, personnel and equipment will carry out mission assignments directed by the incident commander. Each department and agency is responsible for having its own operating procedures to be followed during response operations, but interagency procedures, such as common communications protocol, may be adopted to facilitate a coordinated effort.
6. If our own resources are insufficient or inappropriate to deal with an emergency situation, we may request assistance from other jurisdictions, organized volunteer groups, or the State. The process for requesting State or federal assistance is covered in section V.F of this plan; see also the Request for Assistance form in Annex M, Appendix 3. External agencies are expected to conform to the general guidance and direction provided by our senior decision-makers.

B. Emergency Facilities

1. Incident Command Post. Except when an emergency situation threatens, but has not yet occurred, and those situations for which there is no specific hazard impact site (such as a severe winter storm or area-wide utility outage), an incident command post or command posts will be established in the vicinity of the incident site(s). As noted previously, the incident commander will be responsible for directing the emergency response and managing the resources at the incident scene.
2. Emergency Operating Center (EOC). When major emergencies and disasters have occurred or appear imminent, we will activate our EOC, which is located in Bryan, TX near the Brazos County Courthouse.
3. The following individuals are authorized to activate the EOC:

- a. County Judge and/or Mayor(s)
- b. City Manager(s) and/or the EMC(s)
- c. TAMU President, TAMU Emergency Management Director and/or TAMU EMC

4. The general responsibilities of the EOC are to:

- a. Assemble accurate information on the emergency situation and current resource data to allow local officials to make informed decisions on courses of action.
- b. Working with representatives of emergency services, determine and prioritize required response actions and coordinate their implementation.
- c. Provide resource support for emergency operations.
- d. Suspend or curtail government services, recommend the closure of schools and businesses, and cancellation of public events.
- e. Organize and activate large-scale evacuation and mass care operations.
- f. Provide emergency information to the public.

5. Representatives of those departments and agencies assigned emergency functions in this plan will staff the EOC. EOC operations are addressed in Annex N (Direction and Control). The interface between the EOC and the incident command post is described in paragraph V.E above.

6. Our alternate EOC is located at Kyle Field Command, 756 Houston Street, on the Texas A&M University Campus in College Station, TX. This facility will be used if our primary EOC becomes unusable.

7. We have a mobile command and control vehicle, operated by the City of Bryan Fire Department, which may be used as an incident command post.

C. Line of Succession

1. The line of succession for the County Judge is:

- a. County Judge
- b. County Judge Pro-Tem
- c. County Commissioners (in order of their seniority on the Commissioners' Court)

2. The line of succession for the Mayor is:

- a. Mayor
- b. Mayor Pro-Tem
- c. City Council Members (in order of their seniority on the City Council)

3. The line of succession for the City Manager(s) is:

- a. City Manager

- b. Deputy/Assistant City Manager
 - c. Assistant City Manager (City of College Station); Public Works Director (City of Bryan)
4. The line of succession for the Texas A&M Vice-President for Finance and Administration is:
- a. Executive V.P. for Finance & Operations
 - b. Associate V.P. for Safety & Security
 - c. Texas A&M University Emergency Management Coordinator
5. The line of succession for the Emergency Management Coordinator is:
- a. Emergency Management Coordinator
 - b. Deputy EMC or Assistant EMC
 - c. EMC from our interjurisdictional partners; Fire Chief or Asst. Fire Chief (City of Bryan)
6. The lines of succession for each of our department and agency heads shall be in accordance with the SOGs established by those departments and agencies.

VIII. READINESS LEVELS

- A. Many emergencies follow some recognizable build-up period during which actions can be taken to achieve a gradually increasing state of readiness. We use a four-tier system. Readiness Levels will be determined by the Mayors and/or County Judge or, for certain circumstances, the Emergency Management Coordinator. General actions to be taken at each readiness level are outlined in the annexes to this plan; more specific actions will be detailed in departmental or agency SOPs/SOGs.
- B. The following Readiness Levels will be used as a means of increasing our alert posture.
- 1. Level 4: Normal Conditions
 - a. Emergency incidents occur and local officials are notified. One or more departments or agencies respond to handle the incident; an incident command post may be established. Limited assistance may be requested from other jurisdictions pursuant to established inter-local agreements.
 - b. The normal operations of government are not affected.
 - 2. Level 3: Increased Readiness
 - a. Increased Readiness refers to a situation that presents a greater potential threat than "Level 4" but poses no immediate threat to life and/or property. Increased readiness actions may be appropriate when the situations like the following occur:
 - 1) Tropical Weather Threat. A tropical weather system has developed that has the potential to impact the local area. Readiness actions may include regular situation monitoring, a review of plans and resource status, determining staff availability and placing personnel on-call.

- 2) Tornado Watch indicates possibility of tornado development. Readiness actions may include increased situation monitoring and placing selected staff on alert.
 - 3) Flash Flood Watch indicates flash flooding is possible due to heavy rains occurring or expected to occur. Readiness actions may include increased situation-monitoring, reconnaissance of known trouble spots, deploying warning signs.
 - 4) Wildfire Threat. During periods of extreme wildfire threat, readiness actions may include deploying additional resources to areas most at risk, arranging for standby commercial water tanker support, conducting daily aerial reconnaissance, or initiating burn bans.
 - 5) Mass Gathering. For mass gatherings with or without previous history of problems, readiness actions may include reviewing security, traffic control, fire protection, and first aid planning with organizers and determining additional requirements.
- b. Declaration of "Level 3" will generally require the initiation of the "Increased Readiness" activities identified in each annex to this plan.
3. Level 2: High Readiness
- a. High Readiness refers to a situation with a significant potential and probability of causing loss of life and/or property. This condition will normally require some degree of warning to the public. Actions could be triggered by severe weather warning information issued by the National Weather Service such as:
- 1) Tropical Weather Threat. A tropical weather system may impact the local area within 72 hours. Readiness actions may include continuous storm monitoring, identifying worst-case decision points, increasing preparedness of personnel and equipment, updating evacuation checklists, verifying evacuation route status, and providing the public information for techniques to protect homes and businesses on the evacuation routes.
 - 2) Tornado Warning. Issued when a tornado has actually been sighted in the vicinity or indicated by radar and might strike in the local area. Readiness actions may include activating the EOC, continuous situation monitoring, and notifying the public about the warning.
 - 3) Flash Flood Warning. Issued to alert persons that flash flooding is imminent or occurring on certain streams or designated areas, and immediate action should be taken. Readiness actions may include notifying the public about the warning, evacuating low-lying areas, opening emergency shelters to house evacuees, and continuous situation monitoring.
 - 4) Winter Storm Warning. Issued when heavy snow, sleet, or freezing rain are forecast to occur separately or in a combination. Readiness actions may include

preparing for possible power outages, putting road crews on stand-by to clear and/or sand the roads, and continuous situation monitoring.

- 5) Mass Gathering. Civil disorder with relatively large-scale localized violence is imminent. Readiness actions may include increased law enforcement presence, putting hospitals and fire departments on alert, and continuous situation monitoring.

- b. Declaration of a "Level 2" will generally require the initiation of the "High Readiness" activities identified in each annex to this plan.

4. Level 1: Maximum Readiness

- a. Maximum Readiness refers to situation that hazardous conditions are imminent. This condition denotes a greater sense of danger and urgency than associated with a "Level 2" event. Actions could also be generated by severe weather warning information issued by the National Weather Service combined with factors making the event more imminent.

- 1) Tropical Weather Threat. The evacuation decision period is nearing for an approaching tropical weather system that may impact the local area. Readiness actions may include continuous situation monitoring, full activation of the EOC, recommending precautionary actions for special facilities, pre-positioning emergency personnel and equipment for emergency operations, and preparing public transportation resources for evacuation support.

- 2) Tornado Warning. A tornado has been sighted close to a populated area or is moving toward a populated area. Readiness actions may include taking immediate shelter and putting damage assessment teams on stand-by.

- 3) Flash Flood Warning. Flooding is imminent or is occurring at specific locations. Readiness actions may include evacuations, putting rescue teams on alert, sheltering evacuees and/or others displaced by the flooding and continuous monitoring of the situation.

- 4) Mass Gathering. Civil disorder is about to erupt into large-scale and widespread violence. Readiness actions may include having all EMS units on stand-by, all law enforcement present for duty, notify the DDC that assistance may be needed and keep them apprised of the situation, and continuous situation monitoring is required.

- b. Declaration of "Level 1" will generally require the initiation of the "Maximum Readiness" activities identified in each annex to this plan.

IX. ADMINISTRATION AND SUPPORT

A. Agreements and Contracts

1. Should our local resources prove to be inadequate during an emergency, requests will be made for assistance from other local jurisdictions, other agencies, and industry in accordance with existing mutual-aid agreements and contracts and those agreements and contracts entered into during the emergency. Such assistance may include equipment, supplies, or personnel. All agreements will be entered into by authorized officials and should be in writing whenever possible. Agreements and contracts should identify the local officials authorized to request assistance pursuant to those documents.
2. In an effort to facilitate assistance pursuant to mutual aid agreements, our available resources are identified.
3. The agreements and contracts pertinent to emergency management (that we are a party to) are summarized in Attachment 6.

B. Reports

1. Hazardous Materials Spill Reporting. If we are responsible for a release of hazardous materials of a type or quantity that must be reported to state and federal agencies, the department or agency responsible for the spill shall make the required report. See Annex Q (Hazardous Materials and Oil Spill Response) for more information. If the party responsible for a reportable spill cannot be located, the Incident Commander shall ensure that the required report(s) are made.
2. Initial Emergency Report. This short report should be prepared and transmitted by the EOC when an on-going emergency incident appears likely to worsen and we may need assistance from other local governments or the State. See Annex N (Direction and Control) for the format and instructions for this report.
3. Situation Report. A daily situation report should be prepared and distributed by the EOC during major emergencies or disasters. See Annex N (Direction and Control) for the format of and instructions for this report.
4. Other Reports. Several other reports covering specific functions are described in the annexes to this plan.

C. Records

1. Record Keeping for Emergency Operations

Our local governments are responsible for establishing the administrative controls necessary to manage the expenditure of funds and to provide reasonable accountability and justification for expenditures made to support emergency operations. This shall be done in accordance with the established local fiscal policies and standard cost accounting procedures.

- a. Activity Logs. The Incident Command Post and the EOC shall maintain accurate logs recording key response activities, including:
 - 1) Activation or deactivation of emergency facilities.
 - 2) Emergency notifications to other local governments and to state and federal agencies.
 - 3) Significant changes in the emergency situation.
 - 4) Major commitments of resources and/or requests for additional resources from external sources.
 - 5) Issuance of protective action recommendations to the public.
 - 6) Evacuations.
 - 7) Casualties.
 - 8) Containment or termination of the incident.
- b. Incident Costs. All departments and agencies shall maintain records summarizing the use of personnel, equipment, and supplies during the response to day-to-day incidents to obtain an estimate of annual emergency response costs that can be used as in preparing future department or agency budgets.
- c. Emergency or Disaster Costs. For major emergencies or disasters, all departments and agencies participating in the emergency response shall maintain detailed records of costs for emergency operations to include:
 - 1) Personnel costs, especially overtime costs
 - 2) Equipment operations costs
 - 3) Costs for leased or rented equipment
 - 4) Costs for contract services to support emergency operations
 - 5) Costs of specialized supplies expended for emergency operations

These records may be used to recover costs from the responsible party or insurers or as a basis for requesting financial assistance for certain allowable response and recovery costs from the state and/or federal government.

2. Preservation of Records

- a. In order to continue normal government operations following an emergency situation or disaster, vital records must be protected. These include legal documents as well as property and tax records. The principal causes of damage to records are fire and water; therefore, essential records should be protected accordingly. Each agency responsible for preparation of annexes to this plan will include protection of vital records in its SOPs/SOGs.
- b. If records are damaged during an emergency situation, we will seek professional assistance to preserve and restore them.

D. Training

It will be the responsibility of each agency director/department head to ensure that agency personnel, in accordance with the NIMS, possess the level of training, experience, credentialing, currency, physical and medical fitness, or capability for any positions they are tasked to fill.

E. Consumer Protection

Consumer complaints regarding alleged unfair or illegal business practices often occur in the aftermath of a disaster. Such complaints will be referred to the County and/or City Attorney, who will pass such complaints to the Consumer Protection Division of the Office of the Attorney General.

F. Post-Incident and Exercise Review

The EMCs are responsible for organizing and conducting a critique following the conclusion of a significant emergency event/incident or exercise. The After Action Report (AAR) will entail both written and verbal input from all appropriate participants. An Improvement Plan will be developed based on the deficiencies identified, and an individual, department, or agency will be assigned responsibility for correcting the deficiency and a due date shall be established for that action.

X. PLAN DEVELOPMENT AND MAINTENANCE
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A. Plan Development

The County Judge, Mayors and TAMU V.P. for Finance and Administration are responsible for approving and promulgating this plan.

B. Distribution of Planning Documents

1. The County Judge and Mayors, with assistance from the EMCs, shall determine the distribution of this plan and its annexes. In general, copies of plans and annexes should be distributed to those individuals, departments, agencies, and organizations tasked in this document. Copies should also be set-aside for the EOC and other emergency facilities.
2. The Basic Plan should include a distribution list (See Attachment 1 to this plan) that indicates who receives copies of the basic plan and the various annexes to it. In general, individuals who receive annexes to the basic plan should also receive a copy of this plan, because the Basic Plan describes our emergency management organization and basic operational concepts. In some cases, the plan may be distributed electronically or via the internet.

C. Review

The Basic Plan and its annexes shall be reviewed annually by local officials. The EMCs will establish a schedule for annual review of planning documents by those tasked in them.

D. Update

1. This plan will be updated based upon deficiencies identified during actual emergency situations and exercises and when changes in threat hazards, resources and capabilities, or government structure occur.
2. The Basic Plan and its annexes must be revised or updated by a formal change at least **every five years**. Responsibility for revising or updating the Basic Plan is assigned to the EMCs. Responsibility for revising or updating the annexes to this plan is outlined in Section VI.B, Assignment of Responsibilities, as well as in each annex. For details on the methods of updating planning documents as well as more information on when changes should be made, refer to Chapter 3 of the Texas Division of Emergency Management (TDEM) *Local Emergency Management Planning Guide* (TDEM-10).
3. Revised or updated planning documents will be provided to all departments, agencies, and individuals tasked in those documents.
4. §418.043(4) of the Government Code provides that TDEM shall review local emergency management plans. The process for submitting new or updated planning documents to TDEM is described in Chapter 6 of the TDEM-10. The Brazos County EMC is responsible for submitting copies of planning documents to our TDEM Plans Section for review. This may be done electronically.

ATTACHMENTS:

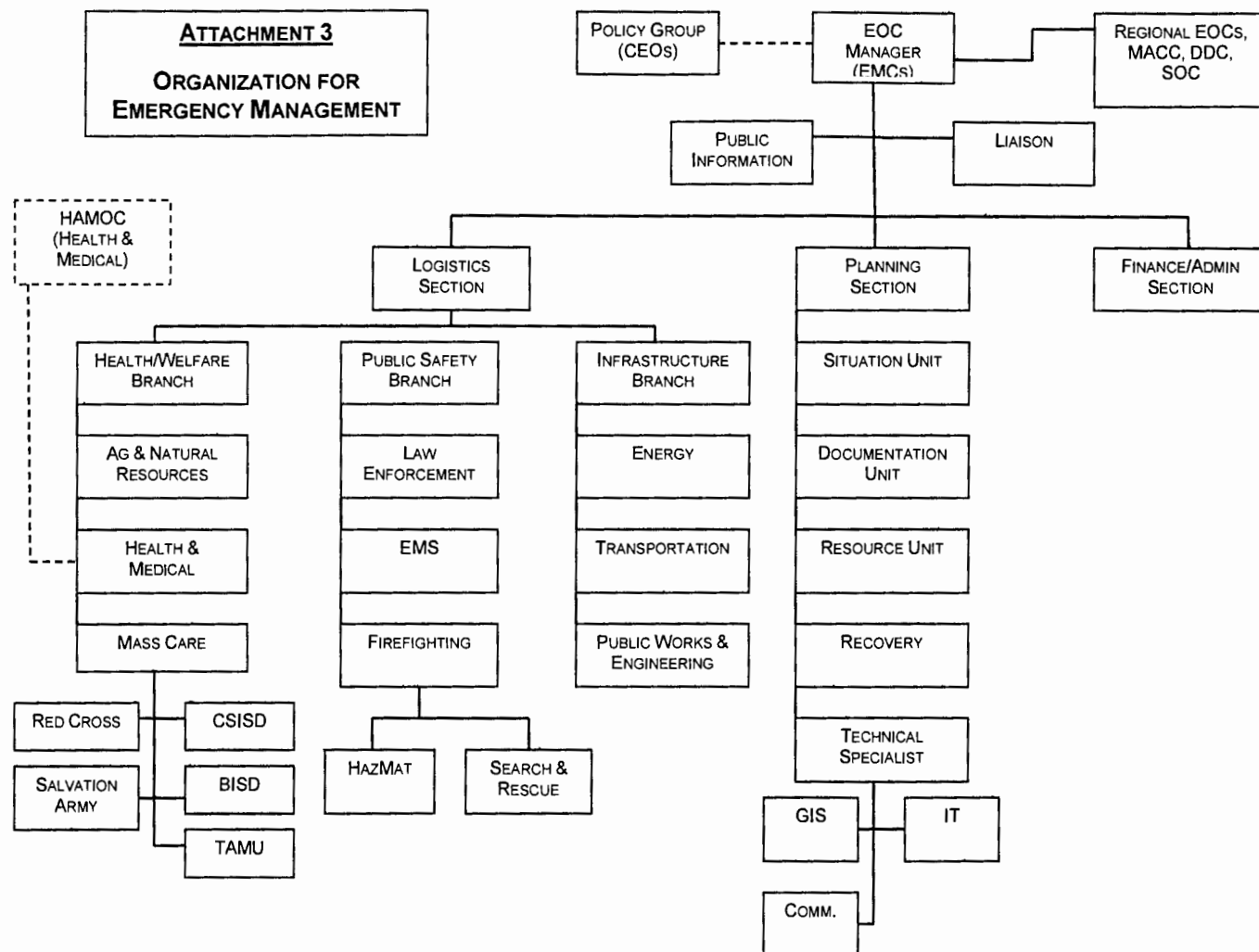
1. Distribution List
2. References
3. Organization for Emergencies
4. Functional Responsibility Matrix
5. Annex Assignments
6. Summary of Agreements & Contracts
7. National Incident Management System

ATTACHMENT 1 - DISTRIBUTION LIST WILL BE DISTRIBUTED ELECTRONICALLY THROUGH THE BRAZOS COUNTY EMERGENCY MANAGEMENT WEBSITE

<u>Jurisdiction/Agency Plan</u>	<u>Basic Plan</u>	<u>Annexes</u>
EOC	Yes	All
County Judge/Mayors	Yes	All
City Managers	Yes	All
Each County Commissioner	Yes	All
EMCs	Yes	All
City Secretary/Asst. to the Judge	Yes	All
County Sheriff	Yes	All
Police Chiefs	Yes	All
Each Constable	Yes	All
Fire Chiefs/Fire Marshals	Yes	All
Community Supervision	Yes	All
County Health Officer	Yes	All
Finance Directors/Tax Assessor	Yes	All
City Public Works Directors/County Engineer	Yes	All
Public Utilities Directors	Yes	All
Human Resources Directors	Yes	All
County/City Attorneys	Yes	All
Justices of the Peace	Yes	All
RACES Group	Yes	All
St Joseph's Hospital	Yes	All
College Station Medical Center	Yes	All
The Physician's Center	Yes	All
Scott & White	YES	All
County/City Animal Control	Yes	All
ISD Transportation Directors	Yes	All
Independent School Districts	Yes	All
Brazos County L.E.P.C.	Yes	All
American Red Cross	Yes	All
The Salvation Army	Yes	All
Victim Relief Ministries	Yes	All
Brazos Valley Transit Authority	Yes	All
TDEM District Coordinator	Yes	All
D.P.S. Captain, Bryan	Yes	All
Brazos Valley V.O.A.D	Yes	All

ATTACHMENT 2 REFERENCES

1. Texas Department of Public Safety, Texas Division of Emergency Management, *Local Emergency Management Planning Guide*, TDEM-10
2. Texas Department of Public Safety, Texas Division of Emergency Management, *Disaster Recovery Manual*
3. Texas Department of Public Safety, Texas Division of Emergency Management, *Mitigation Handbook*
4. FEMA, Independent Study Course, IS-288: *The Role of Voluntary Organizations in Emergency Management*
5. FEMA, *Comprehensive Preparedness Guide (CPG-101)*
6. U. S. Department of Homeland Security, *National Response Plan*
7. 79th Texas Legislature, *House Bill 3111*



ATTACHMENT 4
EMERGENCY MANAGEMENT FUNCTIONAL RESPONSIBILITIES

	Warning	Communications	Shelter & Mass Care	Radiological Protection	Evacuation	Firefighting	Law Enforcement	Health & Medical	Public Information	Recovery	Public Works & Engineering	Utilities	Resource Management	Direction & Control	Human Services	Hazard Mitigation	Hazmat & Oil Spill Response	Search & Rescue	Transportation	Donations Management	Legal	Terrorist Incident Response
Co. Judge/Mayor/Univ Exec	S	S	S	S	S	S	S	S	P	S	S	S	S	P	S	S	S	S	S	S	S	S
Asst. to County Judge/City Manager/Asst. VP Safety Security									S	S			S							S		
EMC	S	C	P	C	S	C	C	C	C	P	C	C	P	C	P	P	C	C	P	S	C	C
Law Enforcement	P	P	S	S	P	S	P						S	S	S		S	S		S		P
Fire Service	S	S	S	P	S	P							S	S		S	P	P		S		S
Public Works/Univ. Facilities		S	S	S	S		S			S	P	S	S	S		S	S	S				S
Utilities		S								S		P	S	S		S	S			S		S
Health & Medical Services			S	S	S			P					S	S	S		S	S	S	S		S
Human Services			S		S								S		S	S				S		S
Community Services			S	S	S								S	S	S					S		S
Human Resources													S							S		
Tax Assessor/Finance Dir.										S			S			S				S		
Transportation/ISD			S		S								S		S		S		S			S
City/County Attorney's Office/TAMUS OGC					S								S			S				S	P	S
Search & Rescue					S									S				S				S
Salvation Army																				P		
American Red Cross			S																			

P – INDICATES PRIMARY RESPONSIBILITY
S – INDICATES SUPPORT RESPONSIBILITY
C – INDICATES COORDINATION RESPONSIBILITY

**ATTACHMENT 5
ANNEX ASSIGNMENTS**

ANNEX	ASSIGNED TO:
Annex A: Warning	Police Chiefs/County Sheriff
Annex B: Communications	Police Chiefs/County Sheriff
Annex C: Shelter & Mass Care	American Red Cross/EMCs
Annex D: Radiological Protection	Fire Chiefs
Annex E: Evacuation	Police Chiefs/County Sheriff
Annex F: Firefighting	Fire Chiefs/Fire Marshal
Annex G: Law Enforcement	Police Chiefs/County Sheriff
Annex H: Health and Medical Services	County Health Authority
Annex I: Public Information	CEOs/PIOs
Annex J: Recovery	EMCs
Annex K: Public Works & Engineering	Public Works Directors/County Engineer
Annex L: Utilities	Public Utilities Directors
Annex M: Resource Management	EMCs
Annex N: Direction & Control	CEOs/EMCs
Annex O: Human Services	EMCs
Annex P: Hazard Mitigation	EMCs
Annex Q: Haz-Mat & Oil Spill Response	Fire Chiefs
Annex R: Search & Rescue	Fire Chiefs
Annex S: Transportation	EMCs
Annex T: Donations Management	The Salvation Army
Annex U: Legal	City/County Attorneys
Annex V: Terrorist Incident Response	Police Chiefs/County Sheriff

ATTACHMENT 6 SUMMARY OF AGREEMENTS & CONTRACTS

Agreements

Brazos County and the cities within Brazos County have Mutual Aid Agreements in place with all jurisdictions in our 7-county region (Brazos Valley Region).

Contracts

Brazos County has no pre-positioned contracts for emergency management activities, but has numerous vendor agreements through our Purchasing Department that will be used as needed during any disaster/event.

ATTACHMENT 7 NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS) SUMMARY
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A. BACKGROUND

1. NIMS is a comprehensive, national approach to incident management that is applicable to all jurisdictional levels and across functional disciplines. This system is suitable across a wide range of incidents and hazard scenarios, regardless of size or complexity. It provides a flexible framework for all phases of incident management, as well as requirements for processes, procedures, and systems designed to improve interoperability.
2. NIMS is a multifaceted system that provides a national framework for preparing for, preventing, responding to, and recovering from domestic incidents.

B. COMPONENTS

1. Command and Management. The incident management structures employed by NIMS can be used to manage emergency incidents or non-emergency events such as celebrations. The system works equally well for small incidents and large-scale emergency situations. The system has built-in flexibility to grow or shrink depending on current needs. It is a standardized system, so personnel from a variety of agencies and geographic locations can be rapidly incorporated into a common management structure.
 - a. Incident Management System. A system that can be used to manage emergency incidents or non-emergency events such as celebrations.

1) FEATURES OF ICS

ICS has a number of features that work together to make it a real management system. Among the primary attributes of ICS are:

- a) Common Terminology. ICS requires the use of common terminology, such as the use of standard titles for facilities and positions within an organization, to ensure efficient and clear communications.
- b) Organizational Resources. All resources including personnel, facilities, major equipment, and supply items used to support incident management activities must be "typed" with respect to capability. This typing will minimize confusion and enhance interoperability.
- c) Manageable Span of Control. Span of control should ideally vary from three to seven. Anything less or more requires expansion or consolidation of the organization.
- d) Organizational Facilities. Common terminology is used to define incident facilities, the activities conducted at these facilities, and the organizational positions that can be found working there.

- e) Use of Position Titles. All ICS positions have distinct titles.
- f) Reliance on an Incident Action Plan. The incident action plan, which may be verbal or written, is intended to provide supervisory personnel a common understanding of the situation and direction for future action. The plan includes a statement of objectives, organizational description, assignments, and support material such as maps. Written plans are desirable when two or more jurisdictions are involved, when state and/or federal agencies are assisting local response personnel, or there has been significant turnover in the incident staff.
- g) Integrated Communications. Integrated communications includes interfacing disparate communications as effectively as possible, planning for the use of all available systems and frequencies, and requiring the use of clear text in communications.
- h) Accountability. ICS is based on an orderly chain of command, check-in for all responders, and only one supervisor for each responder.

2) UNIFIED COMMAND

- a) Unified Command is a variant of ICS used when there is more than one agency or jurisdiction with responsibility for the incident or when personnel and equipment from a number of different agencies or jurisdictions are responding to it. This might occur when the incident site crosses jurisdictional boundaries or when an emergency situation involves matters for which state and/or federal agencies have regulatory responsibility or legal requirements.
- b) ICS Unified Command is intended to integrate the efforts of multiple agencies and jurisdictions. The major change from a normal ICS structure is at the top. In a Unified command, senior representatives of each agency or jurisdiction responding to the incident collectively agree on objectives, priorities, and an overall strategy or strategies to accomplish objectives; approve a coordinated Incident Action Plan; and designate an Operations Section Chief. The Operations Section Chief is responsible for managing available resources to achieve objectives. Agency and jurisdictional resources remain under the administrative control of their agencies or jurisdictions but respond to mission assignments and direction provided by the Operations Section Chief based on the requirements of the Incident Action Plan.

3) AREA COMMAND

- a) An Area Command is intended for situations where there are multiple incidents that are each being managed by an ICS organization or to oversee the management of large or multiple incidents to which several Incident Management Teams have been assigned. Area Command becomes Unified Area Command when incidents are multijurisdictional.

- b) The organization of an Area Command is different from a Unified Command in that there is no operations section, since all operations are conducted on-scene, at the separate ICPs.
- 4) **Multiagency Coordination Systems.** Multiagency coordination systems may be required for incidents that require higher level resource management or information management. The components of multiagency coordination systems include facilities, equipment, EOCs, specific multiagency coordination entities, personnel, procedures, and communications; all of which are integrated into a common framework for coordinating and supporting incident management.
- 5) **Public Information.** The NIMS system fully integrates the ICS Joint Information System (JIS) and the Joint Information Center (JIC). The JIC is a physical location where public information staff involved in incident management activities can co-locate to perform critical emergency information, crisis communications, and public affairs functions. More information on JICs can be obtained in the DHS *National Incident Management System Plan*, dated March 2004.
- 6) **Preparedness.** Preparedness activities include planning, training, and exercises as well as certification of response personnel, and equipment acquisition and certification. Activities would also include the creation of mutual aid agreements and Emergency Management Assistance Compacts. Any public information activities such as publication management would also be preparedness activities.
- 7) **Resource Management.** All resources, such as equipment and personnel, must be identified and typed. Systems for describing, inventorying, requesting, and tracking resources must also be established.
- 8) **Communications and Information Management.** Adherence to NIMS specified standards by all agencies ensures interoperability and compatibility in communications and information management.
- 9) **Supporting Technologies.** This would include any technologies that enhance the capabilities essential to implementing the NIMS. For instance, voice and data communication systems, resource tracking systems, or data display systems.
- 10) **Ongoing Management and Maintenance.** The NIMS Integration Center provides strategic direction and oversight in support of routine review and continual refinement of both the system and its components over the long term.



Legislation Details (With Text)

File #:	19-0222	Version:	1	Name:	Mitigation Action Plan Resolution
Type:	Resolution	Status:		Status:	Consent Agenda
File created:	4/23/2019	In control:		In control:	City Council Regular
On agenda:	5/13/2019	Final action:		Final action:	
Title:	Presentation, discussion, and possible action regarding a resolution adopting the Mitigation Action Plan titled "Mitigating Risk: Protecting Brazos County from All Hazards 2019-2024."				
Sponsors:	Jonathan McMahan				
Indexes:					
Code sections:					
Attachments:	Mitigation Action Plan 2019-2024 Exh A Mitigation Action Plan Resolution 5-1-19				

Date	Ver.	Action By	Action	Result
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Presentation, discussion, and possible action regarding a resolution adopting the Mitigation Action Plan titled "Mitigating Risk: Protecting Brazos County from All Hazards 2019-2024."

Relationship to Strategic Goals:

- Good Governance
- Financially Sustainable City
- Core Services and Infrastructure
- Neighborhood Integrity
- Diverse Growing Economy
- Improving Mobility
- Sustainable City

Recommendation(s): Staff recommends approval of the resolution

Summary: This plan is a five-year blueprint for the future, aimed at making communities in Brazos County disaster resistant by reducing or eliminating the long-term risk of loss of life and property from the full range of natural disasters. It meets the requirements of the Disaster Mitigation Act of 2000 (P.L. 106-390); Section 44 of the Code of Federal Regulations, Part 201.6 and Part 206; and State of Texas Division of Emergency Management standards.

An open public process was established to provide multiple opportunities for all sectors in Brazos County to become involved in the planning process and make input during its drafting stage.

Budget & Financial Summary: None

Attachments: Resolution

Mitigation Action Plan titled "Mitigating Risk: Protecting Brazos County from All Hazards 2019-2024."

Brazos County Hazard Mitigation



Mitigating Risk: Protecting Brazos County from All Hazards

2019-2024



Department of Emergency Management
110 N. Main Street Suite 100
Bryan, Texas 77803

PURPOSE AND PROCESS OF DEVELOPMENT

This updated document, "Mitigating Risk: Protecting Brazos County from All Hazards, 2019 – 2024," was prepared by the jurisdictions within Brazos County. The participating entities in the planning area of the Brazos County Hazard Mitigation Plan include Brazos County, the Cities of Bryan, College Station, Kurten, Wixon Valley and Texas A&M University. These will be referred to as "Brazos County and participating entities", "participating entities" or the "planning area".

This plan is a five-year blueprint for the future, aimed at making communities in Brazos County, to include all of the planning area; disaster resistant by reducing or eliminating the long-term risk of loss of life and property from the full range of natural disasters. It meets the requirements of the Disaster Mitigation Act of 2000 (P.L. 106-390); Section 44 of the Code of Federal Regulations, Part 201.6 and Part 206; and State of Texas Division of Emergency Management standards. An open public process was established to provide multiple opportunities for all sectors in Brazos County and participating entities to be involved in the planning process and provide input during its drafting stage.

HAZARDS FACING THE PLANNING AREA

The plan identifies and assesses the potential impact of nine natural hazards that threaten Brazos County and participating entities. Hazards were identified based on a review of historical records, national data sources, existing plans and reports, and discussions with local, regional, and national experts. The list of hazards that may threaten Brazos County and the participating entities are:

Floods

Droughts

Fires

Severe Winter Storms

Tornadoes

Hail

Thunderstorms

Dam failures

Excessive Heat

MITIGATION VISION

A vision statement, 6 goals, and 21 objectives were developed to guide the participating entities in the planning area in reducing or eliminating the long-term risk of loss of life and property from the full range of natural disasters. The mitigation vision for Brazos County and participating entities incorporates:

An informed citizenry aware of the risks they face and the measures that can be taken to protect their families, homes, workplaces, communities and livelihoods from the impact of disasters.

Local governments and regional entities that are capable of hazard-mitigation planning and project implementation, and of leveraging state, federal, and private resources for investments in mitigation.

Intergovernmental coordination and cooperation on mutual issues of concern related to floodplain management and hazard mitigation.

A commitment to locate buildings outside hazardous areas and to promote building methods that result in structures able to withstand the natural hazards that threaten them.

The integration of mitigation into routine budgetary decisions and planning for future growth and development in the planning area, making disaster resistance an integral part of the livability and sustainability of the county.

GOALS, OBJECTIVES AND ACTIONS

The overall goal of this plan is to reduce or eliminate the long-term risk of loss of life and property damage in Brazos County and participating entities from the full range of disasters. Individual goals are:

GOAL 1. Develop new, and upgrade existing capabilities for identifying the need for and implementing hazard mitigation activities.

GOAL 2. Generate support for and increase public awareness of the need for hazard mitigation.

GOAL 3. Increase awareness of public officials, community and business leaders of the need for hazard mitigation, and support actions to protect public health and safety.

GOAL 4. Promote resource-sharing and increase coordination and cooperation among governmental entities in conducting hazard mitigation activities.

GOAL 5. Mitigate damage to and losses of new and existing real property.

GOAL 6. Promote sustainable growth.

Twenty-one objectives in support of these goals are presented in Section 3.

Mitigation Actions

This plan sets forth mitigation actions and action plans to be carried out by Brazos County and the participating entities to reduce the risks to these hazards facing the planning area. Each action statement includes a description of the action, estimated costs, benefits, the responsible organization for implementing the action, an implementation schedule, priority, and potential funding sources. Some actions are directed at reducing the risk from a single hazard, such as flooding. Others pertain to multiple hazards or all nine hazards. The hazards differ in important ways, such as in their predictability, length of warning time, speed of onset, magnitude, scope, duration of impact, and the possibilities of secondary impacts.

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SECTION 1: PURPOSE AND ORGANIZATION OF THE PLAN

PURPOSE

The Brazos Valley Council of Governments (BVCOG) is made up of the seven-county Brazos Valley region that consists of Brazos, Burleson, Grimes, Leon, Madison, Robertson and Washington Counties, as well as incorporated cities and several unincorporated communities in those counties. Its boundaries are based on geographic features, economic market areas, labor markets, commuting patterns and media coverage areas. The BVCOG was established in 1966 and is charged by the Texas legislature with addressing regional issues and opportunities.

BVCOG's goal is to create and enhance partnerships among local governments, private businesses and service organizations to collaboratively plan for and maintain the highest quality of life in the Brazos Valley. The organization provides, in consultation with and through the cooperation of the local elected officials, housing, health, workforce, and senior services programs throughout the Brazos Valley. The council also administers the regional 9-1-1 plan, community and economic development programs, criminal justice planning and grants, Homeland Security planning and grants, and solid waste planning and grants.

Brazos County and participating entities developed the update to the comprehensive Hazard Mitigation Plan for planning area.

Entities participating in this Hazard Mitigation Action Plan include Brazos County, Texas A&M University, and the cities of Bryan, College Station, Wixon Valley, and Kurten.

Role of this Plan

This Hazard Mitigation Action Plan was prepared by the Hazard Mitigation Team, on behalf of the six participating entities. It is intended as a blueprint for future hazard mitigation, defined as "any sustained action taken to reduce or eliminate the long-term risk to human life and property from all hazards." The plan is designed to help build sustainable communities that, when confronted by natural disasters, will sustain fewer losses and recover more quickly. It is also intended to:

Minimize disruption to Brazos County communities following a disaster;

Streamline disaster recovery by articulating actions to be taken before a disaster strikes, to reduce or eliminate future damage;

Serve as a basis for future funding that may become available through grants and technical assistance programs offered by state or federal governments. The plan will enable Brazos County and participating entities to take advantage of rapidly developing mitigation grant opportunities as they arise; and ensure that Brazos County and participating entities maintain their eligibility for the full range of future federal disaster relief. Certain forms of federal mitigation assistance for projects will be available only to cities and counties that have a FEMA-approved hazard mitigation plan in place.

ORGANIZATION

The executive summary is at the beginning of the plan. Sections 1 and 2 of this plan address how it was prepared and who was involved in planning. Section 3 articulates the vision, mitigation goals, and objectives that guided the development of the plan. The goals are general guidelines that articulate a desired end state. They are expressed as policy statements of global visions. Objectives are specific, measurable, and define the strategies or implementation steps to attain the identified goals. Section 4 profiles the planning area's geography, population, land use and development trends in the planning area. Section 5 identifies the major natural hazards that have affected and may again affect planning area and describes the people and property at risk from these hazards.

Sections 6 through 14 discuss each of the natural hazards that affect the planning area. The plan addresses why each hazard is a threat and profiles each hazard in terms of its severity of impact, frequency of occurrence, hours of warning time, and existing warning systems. If the hazard has a geographic boundary, it is identified and mapped if possible. Data on the property and number of people at risk from each hazard are presented, along with the history of hazard events in Brazos County and participating entities.

Section 15 discusses previously implemented mitigation actions. These include federal projects such as the Federal Emergency Management Agency's Public Assistance projects, Hazard Mitigation Grant Program projects, and other federal mitigation projects; and the U.S. Army Corps of Engineers' (USACE) studies, plans, and projects. It also includes plans, studies and projects of the Texas Water Development Board, and local plans, ordinances, and inspection and permitting processes.

Section 16 contains actions to be undertaken by each participating entity to mitigate the hazards identified in Sections 6 to 14. Mitigation action plans describe each mitigation action, the hazard addressed, the estimated costs, benefits, organization responsible for overseeing implementation, implementation schedule, objectives the action is designed to achieve, priority, and potential funding sources. Section 17 discusses plan maintenance procedures, including how the plan is to be implemented, maintained and evaluated, and how the public will continue to be involved.

Appendix A defines acronyms used in this plan. Appendix B reports the results of a web-based hazard survey to elicit information from the public on issues of concern about hazard mitigation. Appendix C identifies members of the local hazard mitigation team who updated this plan. Appendix D identifies the critical facilities in the planning area. Appendix E will contain the resolutions adopted by jurisdictional authorities when the plan is approved and the resolutions are adopted.

SECTION 2: THE PLANNING PROCESS

PREPARATION OF THE PLAN

This document was prepared by the Hazard Mitigation Team, in coordination with Brazos County and the participating entities. It was developed in accordance with the provisions of the Disaster Mitigation Act of 2000 (Public Law 106-390), the Pre-Disaster Mitigation Grant Program, Federal Regulations (44 CFR 206), and the planning standards adopted by the Texas Division of Emergency Management. The hazard mitigation planning process for Brazos County and participating entities was started in January 2016 and a draft was completed for submission to the State in March 2018.

Entity Participation

This updated plan covers Brazos County, Cities Bryan, College Station, Kurten, Wixon Valley and Texas A&M University. The entities all participated during the update process. Each entity contributed during the update process by:

Forming a new local Hazard Mitigation Team (HMT) with representatives from their jurisdiction, including numerous local Emergency Management Coordinators.

Attended kick-off meetings, mitigation workshops and public meetings.

Reviewed and analyzed the existing plan and updated each section, as necessary.

Provided an updated risk assessment for their jurisdiction.

Discussed the status of previous action items and provided new mitigation actions.

Devised a way to keep the plan maintained from 2019-2024.

Open Public Process

An open public process was established to give Brazos County and the participating entities an opportunity to become involved in the planning process and make their views known. Neighboring jurisdictions, federal and state agencies, businesses, Texas A&M University, non-profit organizations and the public participated in the process.

Each participating entity, established a Hazard Mitigation Team composed of broad-based representatives of cities and the county. A list of team members is provided at Appendix C. The Hazard Mitigation Team members from each jurisdiction participated actively throughout the planning process. They attended a kick-off workshop in the county, attended additional mitigation workshops in the county, updated mitigation actions and devised a way to keep the plan current from 2019-2024. Non-participating jurisdictions were notified about the planning effort and invited to participate. They were given the opportunity to attend a kick-off meeting, public meetings and the mitigation workshops and to fill out the Hazard Mitigation Survey Form.

A mitigation workshop was held November 2nd and 4th, 2015, and a kick-off meeting was held in Brazos Community Operations Center (CEOC) on July 28, 2016. A stakeholders meeting was held December 11, 2017. County commissioners, mayors, city council members, academia, elected officials, city managers, floodplain managers, emergency management coordinators, fire marshals, police chiefs, sheriffs, county engineers, building officials and inspectors, and other interested officials were invited to the kick-off meeting and subsequent workshops.

At the workshop, TDEM provided a briefing on the FEMA hazard mitigation planning requirements and the respective roles and responsibilities of the local jurisdictions. An opportunity was provided for Brazos County and participating entities officials to discuss how they would like to approach the planning process throughout the county.

A public meeting was held November 8, 2018 to inform the public about the planning process and solicit their ideas and recommendations. A second public meeting for Brazos County and participating entities will be held after FEMA's review of the draft plan.

A Hazard Survey was developed to solicit opinions from the public about hazards of concern. The Hazard Surveys were distributed to the public during public outreach opportunities, via jurisdictional websites, local media partners, and social media. The survey provided a mechanism to gain input from agencies, businesses, academia, non-profit organizations, and other interested parties. A total of 653 responses were received. The responses are summarized in Appendix B.

Identify Hazards

Profiles of hazards were prepared to show their severity of impact, frequency of occurrence, seasonal patterns, warning time, cascading potential, and applicable warning systems.

Assess Risks

The characteristics and potential consequences of each hazard were assessed to determine how much of the planning area could be affected and the potential effects on local assets.

An inventory was taken of "at risk" populations, buildings, infrastructure and lifelines, and commercial facilities in the planning area classified as "critical" or "special" or housing hazardous materials. A list of critical facilities is provided in Appendix D.

The Hazard Identification and Risk Assessment sections were revised continually throughout the update process to ensure completeness. Nine hazards that have the potential or probability to affect Brazos County and participating entities were identified based on a review of historical records, national data sources, existing plans and reports, and discussions with local, regional, state, federal and national experts.

Develop Mitigation Strategies

Based on a review of the vision statement, goals, and priorities of the previous plan with the local elected officials and the Hazard Mitigation Team, it was determined that the vision statement, goals, and objectives are still relevant and should remain the same. These goals and

objectives will reduce or eliminate the long-term risk to life and property from hazards. The goals are general guidelines that articulate a desired end state. They are expressed as policy statements of global visions. Objectives are specific, measurable, and define the strategies or implementation steps necessary to attain the identified goals. The vision statement, goals, and objectives are presented in Section 3 of this plan.

Hazard Mitigation Team (HMT) members reviewed various documents, reports and plans, including Capital Improvement Plans for Bryan and College Station, Brazos County Emergency Operations Plans, Building Codes and Floodplain Maps. Additionally, a hazard survey was circulated throughout the county through city and county websites. Citizens were asked to rank hazards and propose mitigation projects based on their observations. Some surveys were returned to the Emergency Operations Center for review and discussion by the Hazard Mitigation Team.

In addition, local floodplain ordinances from participating jurisdictions were studied and the HMT discussed whether local floodplain management could be strengthened in an effort to improve mitigation. The HMT discussed if safety would be improved with the addition of freeboard requirements for building permits. Freeboard is defined as the additional amount of height above a flood elevation at which a structures' lowest floor must be elevated to. The HMT also reviewed local building codes to determine if stronger ordinances would help strengthen new buildings from some hazards, such as tornadoes. Section 15 and the hazard-specific sections of the plan summarize the findings from the studies, plans, reports and technical information. Other sources of the information included the Federal Emergency Management Agency, USACE, the Insurance Services Office, the U.S. Fire Administration, the National Oceanic and Atmospheric Administration, the Texas Water Development Board, the Texas Commission on Environmental Quality, the State Comptroller, the Texas State Data Center, and the Texas Division of Emergency Management. Section 15 and the hazard-specific sections of the plan summarize the findings from the studies, plans, reports and technical information.

An inclusive and structured process was used to develop and prioritize mitigation actions for this Hazard Mitigation Plan. It included the following steps:

A vision statement, mitigation goals and objectives were formulated to reduce or eliminate the long-term risk to human life and property from each hazard.

Mitigation team members considered the benefits that would result from the mitigation actions versus the cost of those projects. For those actions in which the benefits could be quantified, an economic evaluation was one factor that helped team member's select one mitigation action from among many competing ones. Cost-effectiveness of actions was considered as each team member developed their final list of mitigation actions. Economic considerations were part of the community's analysis of the comprehensive range of specific mitigation actions and projects being considered.

Each participating entity did a review of benefits and costs for the mitigation actions/projects. The review of benefits and costs considered: 1) how many people will be affected; 2) what size of an area will be affected; and 3) which critical facilities will be affected. Then, the following questions were answered:

Are costs reasonable compared with the size of the problem and probable benefits?

Does the project make sense for the overall community?

Each mitigation action/project was ranked based on the following criteria:

Does this project address multiple goals and objectives outlined in this plan?

Does this project impact a large percentage of the population or involve multiple participating entities?

Will project result in life safety and/or property protection?

Does the project address multiple hazards?

Is funding available?

Is the project cost effective (future benefits exceed cost)?

Each criteria was given a score between 0 to 4 and the overall mitigation action/project score was a summation of criteria scores. Each mitigation action/project was categorized as low (0 – 8), medium (9 – 16), or high (17 – 24) based on its overall score.

Participants received a briefing on the risk assessment results and identified any unique hazards for the entity's planning area that varied from those hazards affecting the planning area as a whole. Participants discussed potential mitigation actions to identify any that might be relevant to the risks they face in jurisdiction and to solicit ideas.

Implement the Plan and Monitor Progress

A formal process was established at the workshops to ensure that the plan is implemented and remains an active and relevant document. Plan maintenance is addressed in Section 17.

PUBLIC INVOLVEMENT

Because public involvement is critical to the success of hazard-mitigation planning, public input was sought in several ways. Public input was solicited during the drafting stage, upon development of the draft, and prior to adoption of the plan. The public also was given the opportunity to provide comments, input into the planning process, and discuss other issues of concern to the entire planning area.

A public meeting was held at the CEOC November 8, 2018 to inform the public about the planning process and solicit their ideas and recommendations. Announcements of the public meeting were distributed to the media and civic organizations, as well as being posted to Facebook, Twitter, jurisdictional websites, and displayed in public places. Members of the general public, residents, local businesses, community leaders, educators, representatives of neighboring jurisdictions and private and non-profit groups were invited to attend and participate. A second public meeting for Brazos County and participating entities will be held after FEMA's review of the draft plan.

The county-wide public meetings provided an opportunity for the public to give input in the planning process during the drafting stage. The public was also provided an opportunity to comment on the draft plan prior to its submission to the Texas Division of Emergency Management and FEMA.

A Hazard Survey was made available to the public and was distributed at the public meetings. The survey sought information from citizens about hazards that have affected them and recommendations for action to reduce future risks. A total of 653 responses were received. The survey results provided an important source of information for use in formulating mitigation actions. Survey results appear in Appendix B.

Finally, the draft of this plan was made available on the Brazos County Department of Emergency Management website (www.bcdem.org/plans) for public review and comment. Each participating jurisdiction made a copy of the plan available for public inspection and review and formally solicited public review and comment prior to their governing bodies' adoption of the plan. A copy of each resolution adopting the plan will be in Appendix E after the participating jurisdictions each adopt the plan.

PARTNERS IN PLANNING

Hazard Mitigation Teams

The Hazard Mitigation Team (HMT), which had a central role throughout the planning process, was composed of local officials throughout Brazos County and participating entities. For a complete list of the HMT, see Appendix C.

The local Hazard Mitigation Team (HMT) was comprised of various members of the communities and local government with wide-ranging expertise. In addition to Emergency Managers, membership included Floodplain Administrators, Risk Managers, Public Works Supervisors, Code Enforcement Agents, Public Health Officers and Urban/Regional Planners. Mitigation projects were discussed and weighted, then considered for inclusion in the Mitigation Action Plan. Members attended planning meetings as well as public meetings to discuss hazards in the planning area.

The HMT was chaired by the Emergency Management Coordinator for Brazos County. Representatives were invited from the participating entities by the Emergency Management Coordinators for each entity, to meet in a central location to discuss the mitigation plan and the update process. Talking points, slide shows and hand-out materials were provided during the meetings. Discussions were held on mitigation planning, the update process, and what hazards impact each of the participating entities. The HMT discussed which new hazards, if any, should be included in the plan and if any hazards should be removed from the plan. Mitigation actions for the 2012-2017 update needed to be reviewed and updates given on each action. The HMT then discussed ideas for new mitigation projects which will need to be included in the updated plan.

The HMT laid the groundwork for the plan, examined risk in county jurisdictions, sought the participation of stakeholders and the public, and articulated the mitigation actions and action plans presented in the document. The team, in short, served as the primary vehicle through which to share information, invite active participation, and coordinate the plan's development, implementation, and maintenance within participating jurisdictions.

Federal and state agencies guidance and data were utilized in the planning process. These included the Federal Emergency Management Agency of the Department of Homeland Security, the USACE, the Texas Division of Emergency Management, the Texas Water Development Board, the Texas Department of Transportation, and the Texas A&M Forest Service. Weather event data were provided by the National Weather Service and the National Oceanic and Atmospheric Association (NOAA). The Mitigation Section of the Texas Department of Emergency Management reviewed the plan and provided input and guidance, which assisted the team in developing the plan.

Hazard mitigation team members assessed their capabilities, examined previous mitigation efforts, and developed mitigation actions. Throughout the process, they reached out to police and fire departments, emergency medical services, code enforcement entities, floodplain managers, neighboring jurisdictions, local businesses, community leaders, educators and other private and non-profit organizations to inform them of the planning process and seek their views.

Updated Plan Participation

This Hazard Mitigation Action Plan was created in 2005 and updated in 2012. This 2019 update covers Brazos County and the participating entities.

As part of the update process, a local Hazard Mitigation Team (HMT) was formed and tasked with reviewing and updating each section of the plan, as necessary.

The process by which the HMT undertook to determine whether a section warranted an update began with the HMT reviewing the 2012 version of the plan. Local team members were then tasked to review and analyze the information that pertained to their local planning area. The HMT would then determine if that data needed to be updated based on whether it contained outdated information or, in the case of mitigation actions, had already been accomplished. Likewise, sections of the 2012 plan that did not warrant an update were not revised in this 2019 version.

The following is a summary of the sections that were updated by the Hazard Mitigation Team:

The Executive Summary and Section 1: *Purpose and Organization of the Plan* was updated to reflect changes in the plans development. In keeping with the 2012 Version, this update reflects a continuing focus on Brazos County and participating entities.

Section 2: *The Planning Process* was updated to reflect the local planning process undertaken by Brazos County and participating entities. This includes the formation of the local Hazard Mitigation Team to review and analyze each section of the plan.

Section 3: *Mitigation Vision, Goals, and Objectives* were not revised by the Hazard Mitigation Team (HMT). The HMT discussed the vision, goals, and objectives of the original version of the plan and felt they were still valid. The team voted to keep the vision, goals and objectives the same for this version of the plan.

Section 4: *Brazos County Planning Area at a Glance* reflects a focus on the planning area.

Section 5: *Hazards the Planning Area Faces and What's at Risk* reflects a focus on Brazos County and the participating entities.

Sections 6-14 contain the risk assessment for each of the nine hazards listed in the plan and was revised as necessary to reflect any changes to the risks that can affect the planning area. The HMT discussed the hazards listed in the original plan and decided not to include the chapter on hurricanes. The hazards the participating entities experience during hurricanes is covered in the chapters for flood, tornadoes, hail, and thunderstorms. The chapter on thunderstorms includes information on windstorms and lightning hazards. The team then discussed the man-made hazards listed in the plan and voted again to eliminate the four (4) man-made hazards of energy pipeline failures, hazardous materials incidents, nuclear power plant accidents and terrorism. These four man-made hazards were eliminated because they are difficult to mitigate with the available federal mitigation funds, and because they are not required by Section 44 of the Code of Federal Regulations, Part 201.6(c)(2)(i), which requires a risk assessment for all natural hazards that can affect the participating entities.

Section 15: *Previous Mitigation Actions* discusses mitigation actions supported by federal and state agencies, and local programs relating to building and fire codes and floodplain management ordinances. This section was revised to reflect any updated building and fire codes, and floodplain ordinances that were re-adopted since the original version of the plan.

Section 16: *Mitigation Actions* contains actions to be undertaken by each of the participating entities to mitigate the hazards identified in Sections 6 through 14. This section was reviewed and analyzed by the HMT to review previous actions, identify any previous actions items from the original plan that could be deferred to this updated plan, and to include new action items to help achieve the vision, goals and objectives listed in Section 3.

Section 17: *Plan Implementation and Maintenance Procedures* discusses the plan maintenance procedures and was revised to reflect how Brazos County and the participating entities will maintain, update and evaluate the plan during the next five years.

SECTION 3: MITIGATION VISION, GOALS, AND OBJECTIVES

VISION

The mitigation vision for the planning area is:

Intergovernmental coordination and cooperation on mutual issues of concern related to hazard mitigation and disaster preparedness;

Local governments and regional entities with high levels of capability for hazard mitigation planning and project implementation, leveraging state, federal and private resources for investments in mitigation;

An informed citizenry aware of the risks they face and the measures that can be taken to protect their families, homes, workplaces, communities and livelihoods from the impact of disasters;

Build structures outside of hazardous areas and ensure built to withstand the natural hazards that threaten them;

Communities integrating hazard mitigation concerns into routine planning and budgetary decisions and plans for future growth and development; with disaster resistance an integral part of the livability and sustainability of the region.

GOALS AND OBJECTIVES

***Overall Goal:** To reduce or eliminate the long-term risk of loss of life and property damage in the planning area from the full range of natural disasters.*

The following mitigation goals and objectives, from the previous version of this plan, were re-evaluated by the Hazard Mitigation Team in 2012 and determined to remain valid and effective.

GOAL 1. Build the capability for carrying out hazard mitigation activities.

Objective 1.1 Encourage education and training for personnel involved in hazard mitigation to develop high levels of expertise.

Objective 1.2 Ensure, to the extent feasible, adequate levels of staffing for hazard mitigation activities.

Objective 1.3 Create and foster partnerships to help communities reduce their exposure to hazards.

Objective 1.4 Focus on identifying and obtaining federal, state, and private-sector funds available for hazard mitigation.

Objective 1.5 Upgrade operational systems and facilities that support hazard mitigation.

GOAL 2. Heighten public awareness and support for hazard mitigation.

Objective 2.1 Ensure that communication between disaster personnel and the public in advance of and during hazard events is adequate in content and coverage.

Objective 2.2 Inform area citizens about the full range of natural and man-made hazards they face, and the need for guarding against injury and loss of life caused by those hazards.

Objective 2.3 Devise programs to educate the public about how to prevent or reduce the loss of life or property from all hazards, including specific actions that can be taken.

GOAL 3. Increase awareness of public officials, community and business leaders of the need for hazard mitigation, and support actions to protect public health and safety.

Objective 3.1 Encourage the adoption of appropriate hazard mitigation measures by local governments, businesses, institutions, and individuals, and communicate information about specific, effective actions they can take.

Objective 3.2 Ensure that communication among disaster personnel and public officials in advance of and during hazard events is adequate in content and coverage.

Objective 3.3 Focus on protecting particularly vulnerable areas during hazard events (e.g., hospitals, nuclear reactors, areas crossed by fuel transmission lines).

GOAL 4. Promote resource-sharing and increase coordination and cooperation among governmental entities in conducting hazard-mitigation activities.

Objective 4.1 Improve and expand communication and coordination within and among federal, state, and local governments and the Brazos Valley Council of Governments in mitigating hazards.

Objective 4.2 Identify and map critical facilities and take action to ensure that critical facilities and services can continue to operate in disaster situations.

Objective 4.3 Create hazard-specific and general hazard-mitigation partnerships among Brazos Valley counties, cities, the Brazos Valley Council of Governments and other stakeholders.

GOAL 5. Mitigate damage to and losses of new and existing real property.

Objective 5.1 Protect public infrastructure and private buildings from known hazards.

Objective 5.2 Support methods, codes, and ordinances that reduce threats to existing and new development and ensure that citizens are not unnecessarily exposed to potential hazards.

Objective 5.3 Reduce repetitive losses to the NFIP.

Objective 5.4 Protect against financial losses caused by hazard events through liberal application of insurance coverage.

GOAL 6. Promote sustainable growth.

Objective 6.1 Promote beneficial uses of hazardous areas while expanding open space and recreational opportunities.

Objective 6.2 Incorporate hazard mitigation into long-range planning, budgeting and development activities.

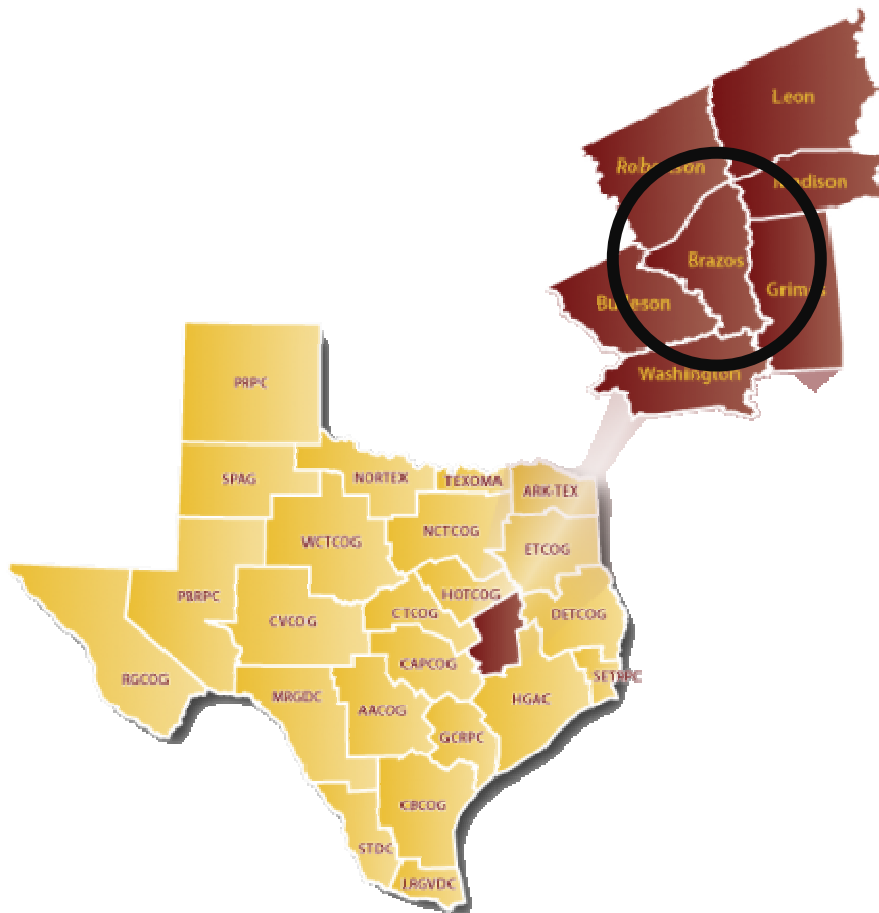
Objective 6.3 Prevent creation of future hazards to life and property.

SECTION 4: BRAZOS COUNTY PLANNING AREA AT A GLANCE

GEOGRAPHY

The planning area claims 588 square miles of southeast central Texas between the Navasota River and the Brazos River for which it was named. Brazos County includes four incorporated cities: Bryan, College Station, Kurten, and Wixon Valley. Rolling prairie and woodlands that rise 200 to 350 feet above sea level characterize the county. Businesses throughout the county are involved in higher education, defense electronics, research, medical, agriculture, and varied manufacturing. Information is included in this section about the population and demographics of the county, as well as information about businesses in the county (higher education, agriculture, minerals, housing, economic development, and tourism).

Figure 4-1. Brazos County in the Brazos Valley Region



BRAZOS COUNTY, TX



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Table 4-1. Demographics of planning area

General Demographics		
	Totals	Percent
Total Population	209,896	
Male	106,391	50.69%
Female	103,505	49.31%
White Only	155,512	74.09%
Black/African American	22,208	10.58%
American Indian/Alaskan Native	874	0.42%
Asian	12,608	6.01%
Native Hawaiian/Pacific Islander	71	0.03%
Other Race	12,507	5.96%
Two or More Races	6,116	2.91%

Figure 4-3. Gender Composition of Planning area

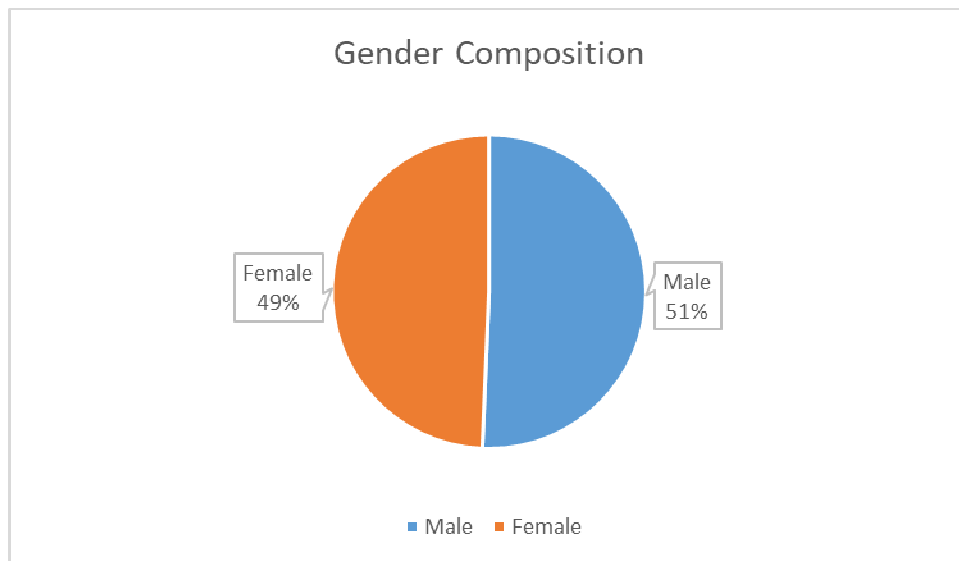
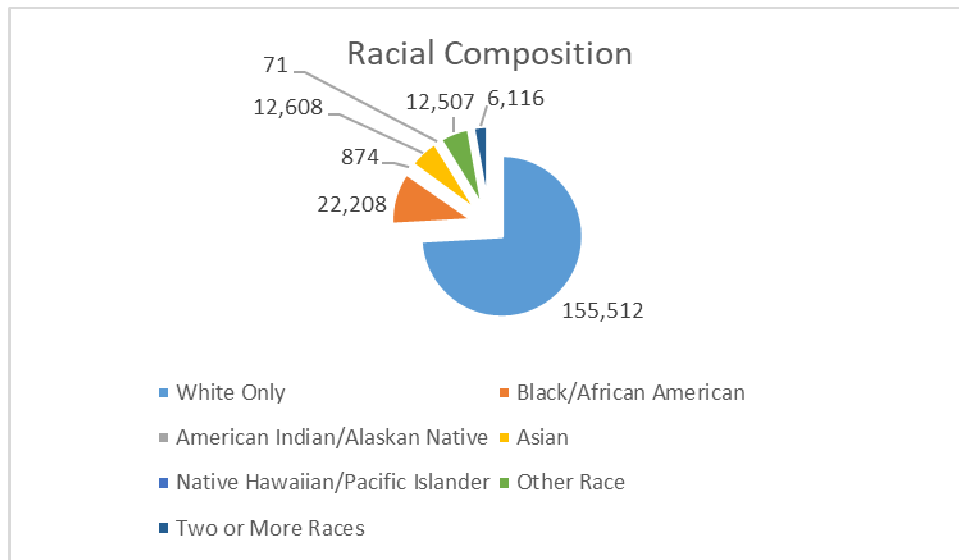


Figure 4-4. Racial Composition of Planning area



HIGHER EDUCATION

Texas A&M University, located in College Station, was the state's first public institution of higher education. It was opened on Oct. 4, 1876 as the Agricultural and Mechanical College of Texas. The school owes its origin to the Morrill Act of 1862, which established the nation's land-grant college system. The initials "A" and "M" are a link to the university's past; they no longer represent any specific words as the school's curriculum has grown to include not only agriculture and engineering, but architecture, business, education, geosciences, liberal arts, medicine, science, and veterinary medicine. The university's enrollment includes 66,425 students.

Blinn College is a two-year institution with its main campus in Brenham. It is the oldest county owned junior college in Texas and began in Washington County. Blinn College serves a 13 county service area and also has campuses in Bryan and Schulenburg in Fayette County.

Table 4-2. Higher Education Institutions

Institution	Location	Enrollment Fall 2016	Number of Faculty
Texas A&M University	College Station	66,425	3,995*
Blinn College	Bryan**	12,338	~750

**Faculty includes professors, associate professors, assistant professors, other faculty, and teaching assistants.*

Source: Texas A&M University

***Main campus in Brenham (Washington County)*

LAND USE

The U.S. Department of Agriculture conducts a census of agricultural uses of land. The 1,412 farms in the planning area averaged about 212 acres in size. Of this about 62,733 acres of the total farmland, were devoted to harvested crops. Of the harvested cropland, about 5,563 acres were irrigated.

Table 4-3. Agricultural Land Use in Brazos County, 2012

County	Number of Farms	Ave. Size of Farm (acres)	Harvested Cropland (acres)	Irrigated Land (acres)
Brazos	1,412	212	62,733	5,563

Source: US Department of Agriculture, Census of Agriculture

Farms in the area covered by the planning area produce a wide variety of agricultural products with cattle being the most common.

Table 4-4. Agricultural Products in Brazos County

County	Agricultural Products	Annual Value
Brazos	Cattle, poultry, cotton, hay, horses and horticulture.	\$95 million

Source: Texas Almanac

In terms of minerals, oil is produced in each of the seven counties making up the BVCOG. Table 4-4 lists the chief minerals found in the planning area.

Table 4-5. Minerals in Brazos County

County	Minerals
Brazos	Sand, gravel, lignite, gas, oil

DEVELOPMENT TRENDS

Although building of new structures will continue throughout the planning area, primary focus of construction will be the Bryan/College Station Metropolitan Statistical Area (MSA) which includes all of planning area and which accounts for about 57 percent of the population in the BVCOG region. Pressure on the housing stock is greater in Brazos County and participating

entities, than in the other counties because of the very high percentage of housing units that are occupied.

Table 4-6. Housing Units in Brazos County, as of 2016

County	Total Housing Units	Percent of Housing Units Occupied
Brazos	83,504	91 %

Source: U.S. Census

The primary impetus for development is, of course, population growth. The Texas State Data Center projects continued moderate growth for the Bryan/College Station MSA, 8.6 percent between 2002 and 2010 and 10.9 percent between 2010 and 2020. However, the Texas Water Development Board forecasts a much steeper climb in population, 24.7 percent and 14.2 percent over the same two periods. If the Water Board's numbers are closer to what actually occurs, residential development will pose an especially difficult challenge for the two adjoining cities. Since the previous plan approval, the population within Brazos County has increased by approximately 7% and the number housing units have increased by nearly 30%. There has also been an increase in commercial structures and roadways to support the growing population. While the completion of some mitigation actions from the previous plan have reduced the vulnerability for each jurisdiction, such continued growth will put pressure on using land in high hazard areas in each jurisdiction. Thus, such growth may increase the vulnerability within each jurisdiction.

Local governments are also working to develop the economic potential of the area and bring high quality jobs to the MSA. They are working hard to develop commercial research opportunities. Table 4-8 contains the name, telephone number and e-mail address of the economic development organization for Brazos County.

Table 4-7. Number and Value by Property Type in Planning Area, as of 2016

	Residential		Rental		Commercial		Industrial	
	Number	Value (\$1,000)	Number	Value (\$1,000)	Number	Value (\$1,000)	Number	Value (\$1,000)
Bryan	18,653	\$2,682,007	1,2722	\$778,219	1,804	\$1,957,137	81	\$120,778
College Station	19,909	\$4,564,110	1,947	\$2,183,466	994	\$2,532,657	5	\$36,052
Kurten	112	\$9,642	0	0	10	\$3,979	0	0
Wixon Valley	59	\$8,007	0	0	22	\$8,067	0	0
Unincorporated	45,516	\$8,961,868	3,280	\$2,975,321	3,238	\$4,688,558	119	\$201,834

Source: Brazos County Appraisal District

Table 4-8. Regional Economic Development Organization

County	Organization Name	Telephone Number	E-Mail Address
Brazos	Brazos Valley Economic Development Corp*	979-260-1755	mprochaska@researchvalley.org

*website: www.researchvalley.org

Although all of the communities in the planning area are projected to grow in population, the cities of Bryan/College Station are the only metropolitan areas in the planning area and hence will face the most severe development challenges and thus pressure will increase to build in areas that are hazard-prone. Several of the smaller towns and communities will, however, deal with similar problems of maintaining the quality of life during periods of growth and paying for new schools, roads, and other types of infrastructure.

As part of the five-year plan update, depending upon resource availability, a review will be undertaken of development trends in each jurisdiction and vulnerability. Also as part of the five-year plan update, depending upon resource availability, a review will be undertaken for each hazard of the type and number of existing and future buildings, infrastructure and critical facilities within each hazard area, and an estimate will be undertaken of the vulnerability of critical facilities and infrastructure in terms of potential dollar losses from each hazard. Also depending upon resource availability, land uses and development trends will also be re-examined, including the types of development occurring, location, expected intensity, and pace by land use for each jurisdiction. This will help complete and improve future vulnerability assessment efforts. Based on the analysis, a summary of vulnerability will be provided for the participating entities.

COMMUNITIES DESIGNATED FOR SPECIAL CONSIDERATION

The State of Texas requires that hazard mitigation plans identify any Small and Impoverished Communities in the planning area. These communities may receive special consideration in some federal and state grant programs.

According to the established criteria, Small and Impoverished Communities 1) have a population less than 3,000 and are not a remote area within the corporate boundaries of a larger city and 2) are economically disadvantaged, with residents having an average per capita annual income not exceeding 80 percent of the national per capita income and a local unemployment rate that exceeds by one percentage point or more the most recently reported national unemployment rate.

At this time, there are no small and impoverished communities within the planning area.

SECTION 5: HAZARDS THE PLANNING AREA FACES AND WHAT'S AT RISK

RISK ASSESSMENT METHODOLOGIES

A risk assessment evaluated the probability of occurrence of a hazard event and the potential associated losses in Brazos County and participating entities. The resulting loss estimates are a starting point from which to evaluate mitigation measures if a real hazard event occurs. The loss estimates also are intended to support mitigation decision-making. It is important to note, however, that loss estimates calculated during the risk assessment used available data and methodologies and are approximate. The estimates should be used to understand relative risks from hazards and potential losses and are not intended to predict precise results. Uncertainties are inherent in any loss-estimation methodology and arise, in part, from incomplete scientific knowledge about natural hazards and their effects on the built environment. Uncertainties also result from approximations and simplifications (such as incomplete or outdated inventory, demographic, or economic parameter data) that are necessarily used during a comprehensive analysis. These data can result in a range of uncertainty in loss estimates, perhaps at a factor of two or more. In addition, a variety of previous studies and reports were reviewed for additional risk data.

PEOPLE AND PROPERTY AT RISK

Hazard identification consists of defining the study area in terms of scale and coverage and collecting and compiling a list of prevalent hazards in the planning area to help narrow the focus of the analysis.

Figure 5-1 below shows the extent of the planning area, as well as the population density distribution at the county level (based on Census 2010). Table 5-1 provides the types of critical facilities. Figure 5-2 is a map of critical facilities in the planning area. Detailed lists of critical facilities, identified by county, can be found in Appendix D.

Figure 5-1. Population Density Distribution Map for the Planning Area

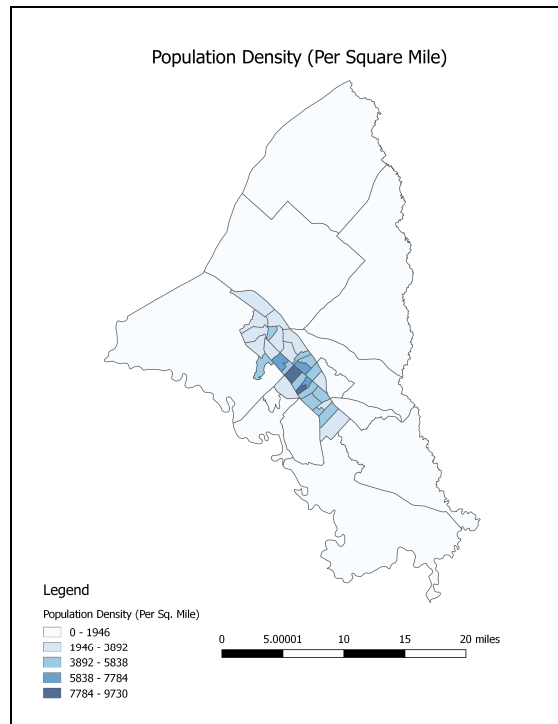


Table 5-1. Social Vulnerability Indicators for the Planning Area

Social Vulnerability Indicators		
	Totals	Percent
Under 5	13,235	6.31%
65 and Over	17,225	8.21%
Non-White	48,268	23.00%
Persons in Poverty ¹	52,652	26.98%
Persons over 25: Less than High School ²	15,385	14.36%
Single Parent Households with Children ³	11,551	15.24%
Vacant Housing Units ⁴	5,408	6.48%
Mobile Homes, RVs, Boats, Etc ⁴	7,707	9.23%

¹ Persons in poverty is based on persons whose income-to-poverty threshold ration is 0.99 and below. The percentage is based on the total population for whom poverty status has been determined.

² The percentage of persons with less than a high school education is based on the total population of persons over the age of 25.

³ Single parent households with children are the total households with only a male or female parent. The percentage is based on the total number of households.

⁴ The percentage of vacant housing units and mobile homes/recreational vehicles/boats/etc. are based on the total housing units.

The maps that follow are representative of the geographical locations that have populations with higher vulnerabilities. For instance, educating all county residents about multiple ways into and out of their residence. This is particularly important when Brazos County and the entire planning area experiences heavy rain incidents with localized flooding.

Figure 5-2. Social Vulnerability Map for the Planning Area

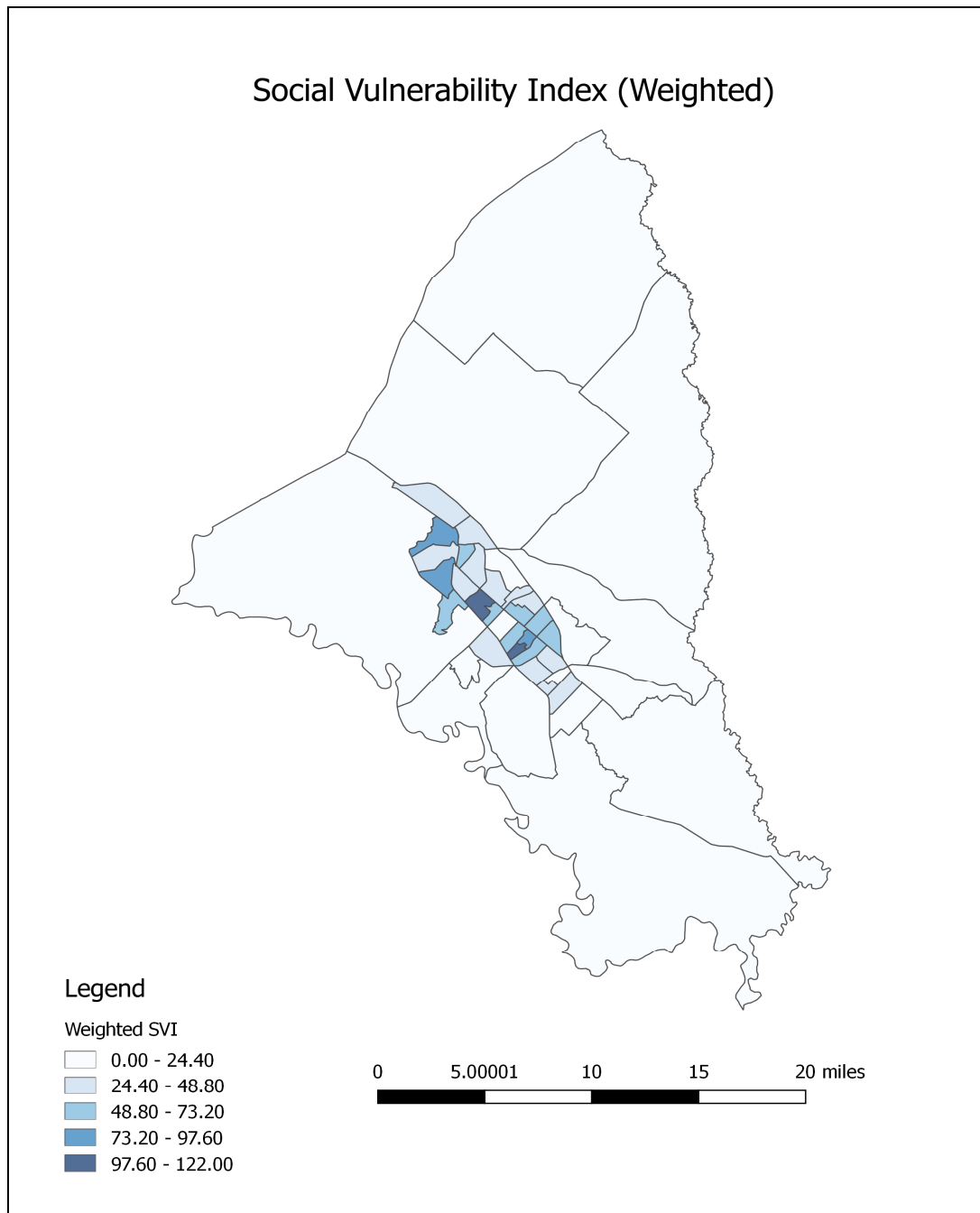


Figure 5-3. Total Population Map for the Planning Area

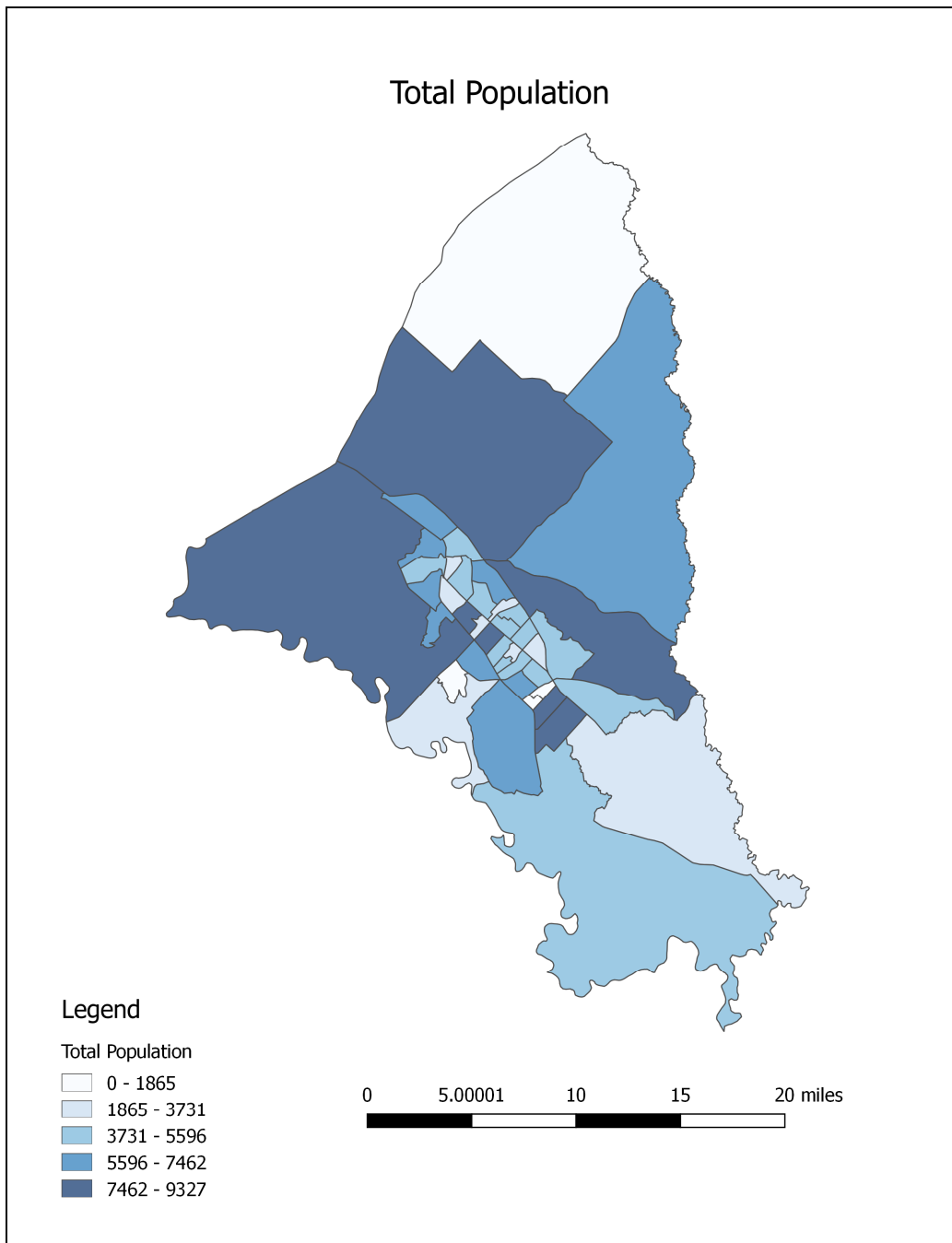


Figure 5-4. Population 65 and Over Map for the Planning Area

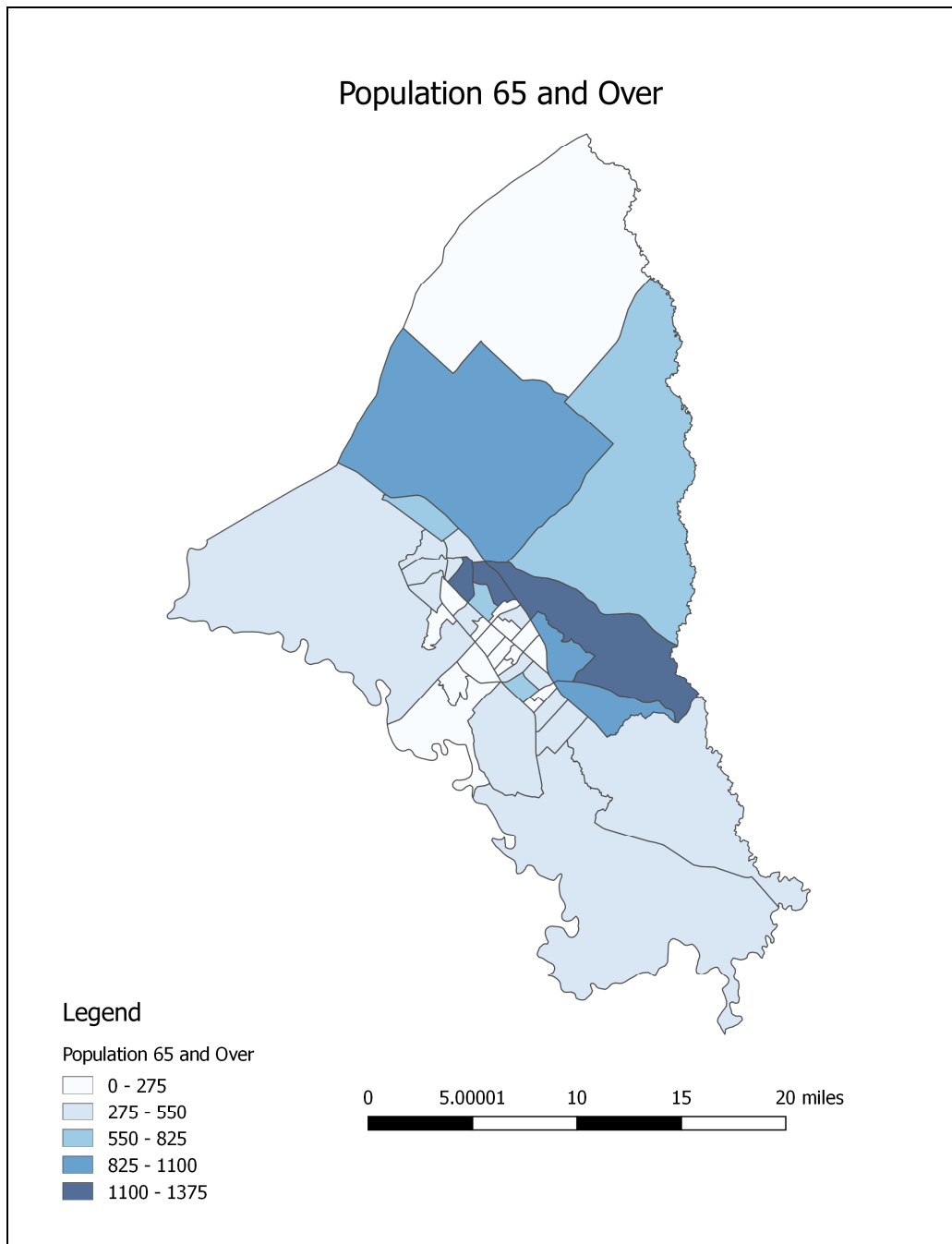


Figure 5-5. Population of Persons in Poverty Map for the Planning Area

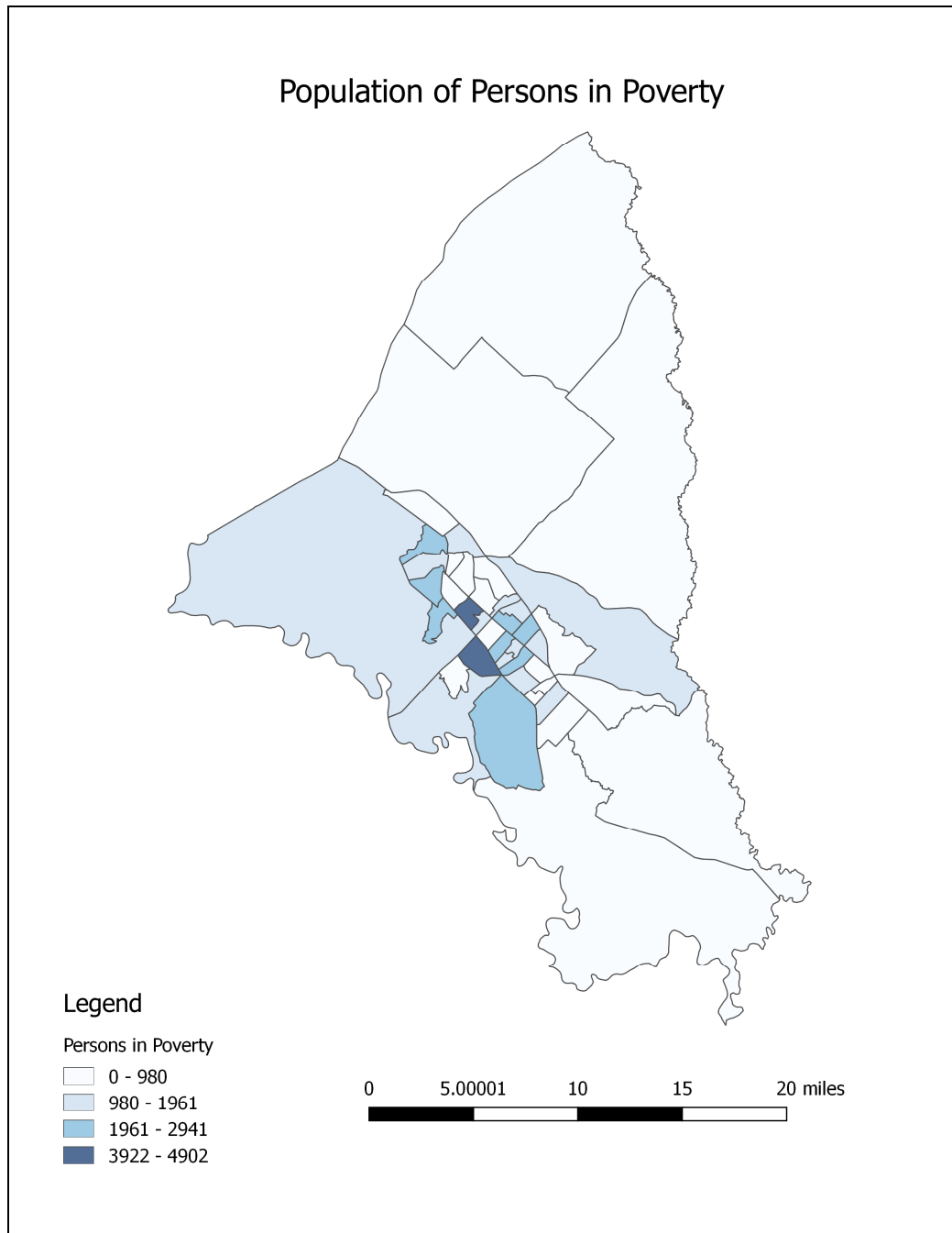


Figure 5-5. Persons Living in Mobile or Other Homes Map for the Planning Area

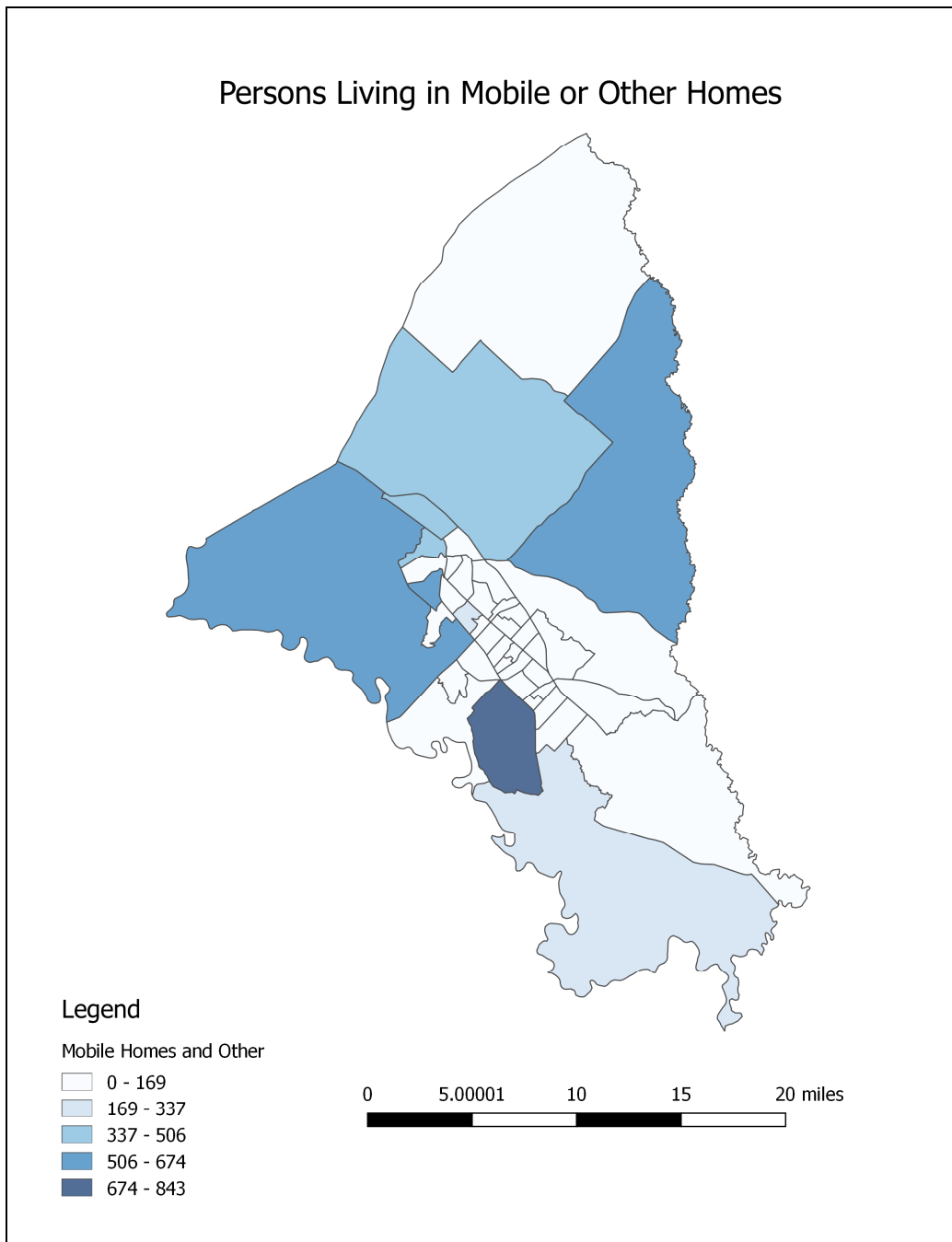


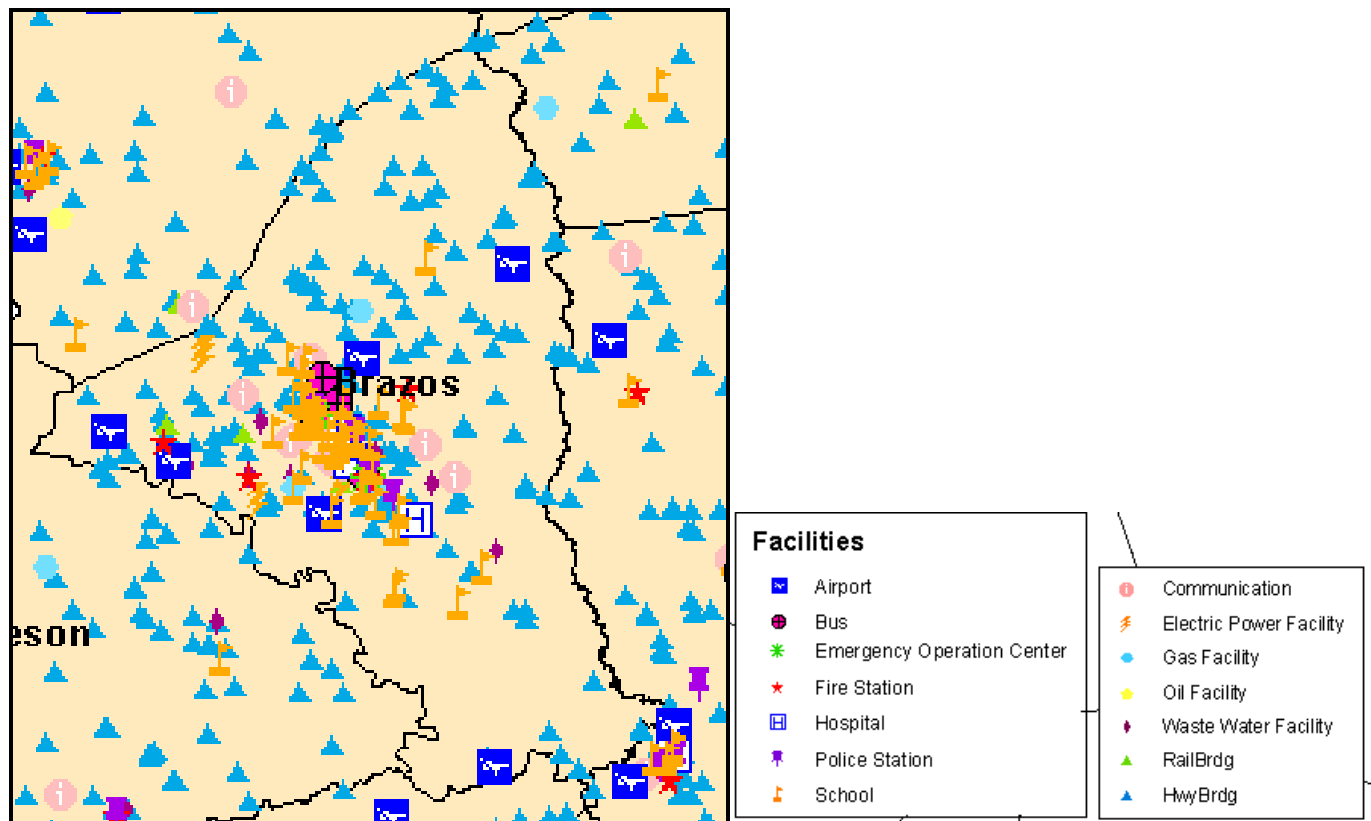
Table 5-2. Critical Facilities by Type in the Planning Area

Jurisdiction	Infrastructure and Lifelines			
	Oil Pipe (km)	Gas Pipe (km)	Highway (km)	Railroad (km)
Brazos	375.9	1,819.9	216.4	113.2

	Brazos County	Bryan	College Station	Texas A&M University	Wixon Valley
Airport		1		1	
Bus		2		1	
City Hall		1	1		1
Communication		6	1	1	
Courthouse	1				
Electric		1	1	2	
Emergency		1		1	
Fire Station	12	5	6		
Highway	6		2		
Medical		2	3	1	
Police Station	1	2	1	1	
School	1	32	16		
Wastewater		3	2	2	

	Multiple Jurisdictions
Highway	14
Railway Bridge	2

Figure 5-6. Critical Facilities Distribution Map for the Planning Area



HAZARDS OF CONCERN

Based on input such as historical data, public perception, and technical requirements, the following hazards (listed alphabetically) were considered for analysis:

Dam failures
 Drought
 Excessive Heat
 Fires
 Floods
 Hail
 Severe Winter Storms
 Thunderstorms
 Tornadoes

HISTORICAL DISASTER DECLARATIONS

Of the 1,037 major disaster declarations in the 50 states, the District of Columbia, and nine U.S. territories between 1972 and 2010, the State of Texas, at 84, claims the highest number of presidential disaster declarations for any state or territory. Presidential disaster declarations and Small Business Administration declarations for Brazos County and participating entities are identified in Table 5-3. Since 1965, there have been five Presidential Disaster and five Small Business Administration Declarations for Brazos County and the participating entities.

Table 5-3. Disaster Declarations in the Planning Area

County	Year	Disaster Number	Primary Incident Type	Presidential Declaration	SBA Declaration
Brazos	1991	930 DR	Flood	Yes	Yes
Brazos	1994	1041 DR	Flood	Yes	Yes
Brazos	2005	1606 DR	Hurricane	Yes	Yes
Brazos	2008	1791 DR	Hurricane	Yes	Yes
Brazos	2016	4272 DR	Flood/Tornado	Yes	Yes

ECONOMIC AND SOCIAL LOSSES

Risk (vulnerability) assessments are presented, whenever possible, in terms of annualized losses. The annualized data are useful for three reasons:

Contribution of potential losses from all future disasters is accounted for with this approach.

Results in this form from different hazards are readily comparable and, hence, easier to rank.

For purposes of evaluating mitigation alternatives, use of annualized losses is the most objective approach.

Annualized losses for hazards where the parametric approach is used are computed in a three-step process:

Compute / estimate losses for a number of scenario events with different return periods (e.g., 10-year, 100-year, 200-year, 500-year)

Approximate the probability versus loss curve through curve fitting

Calculate the area under the fitted curve to obtain annualized losses.

Computations of loss predictions from the other hazards that used a statistical approach are based primarily on observed historical losses.

Impact on Critical and Essential Facilities

Hazard mitigation plans often focus on critical facilities vulnerable to hazards simply because it is usually most cost-effective to mitigate the assets that are the most important to the community. These could be facilities critical to emergency operations, or ones that house important government functions or vulnerable populations, or ones simply deemed important to the community for their economic or cultural value. Consequently, these facilities are considered high-priority when evaluating structures for the purpose of increasing their disaster resistance.

Critical and essential facilities include:

Facilities critical to normal and emergency response operations in the planning area (fire stations, police stations, and the EOC)

Infrastructure and facilities critical to community survivability or continuity of community services (transportation facilities; post offices; radio station and other communication facilities; electrical transmission and distribution; water and wastewater treatment),

Facilities needed to assist vulnerable populations during and after a disaster (schools, hospitals, residential care facilities), and

Facilities in which key government functions take place (sheriff's office, county courthouse, town halls).

In general, for most of the hazards addressed in this study, the potential for significant damage exists primarily at critical facilities located in flood-prone areas. Critical facilities that happen to be in the tornado path or nearby energy pipelines where incidents could occur also may sustain considerable damage.

HAZARD RANKING

Based on the priority risk index in Table 5-4 below, the hazards in the planning area are:

Floods

Thunderstorms

Drought

Urban and Wildland Fire

Dam Failure – except Wixon Valley and Kurten

Hail

Excessive Heat

Winter Storm

Tornado

UNIQUE HAZARDS

This plan is a multi-jurisdictional plan developed to address common risks faced by Brazos County and the participating entities. Members of the Hazard Mitigation Team conducted an assessment of risks their entity faces in comparison to the other communities in the planning area.

CONCLUSIONS

Tables 5-4 and 5-5 on the following page provides an overall summary of the planning area's vulnerability to hazards. Table 5-4 provides the definitions utilized in the priority risk index (PRI). Table 5-5 provides the ratings of the priority risk index. The PRI as a function of probability, special extent, impact, duration of incident, and warning time. For each participating entity, each hazard was given a rating of *1 to 4 (with 1 being the lowest)* within each area.

Section 201.6(c)(2)(iii) of FEMA regulations indicate that for multi-jurisdictional plans, the risk assessment must assess each participating entity's risks where they vary from the risks facing the entire planning area. These ratings were developed based on the best acceptable data and will be updated during the five-year plan review and update process.

Table 5-4. Definitions for the Priority Risk Index

PRI Category	Degree of Risk			Assigned Weighting Factor
	Level	Criteria	Index Value	
Probability	Unlikely	Less than 1% annual probability	1	30%
	Possible	Between 1 and 10% annual probability	2	
	Likely	Between 10 and 100% annual probability	3	
	Highly Likely	100% annual probability	4	
Impact (Impact is subdivided into 3 categories: social impact, property impact, and CIKR impact)	Minor	Very few injuries, if any. Only minor property damage and minimal disruption on quality of life. Temporary shutdown of critical facilities.	1	30%
	Limited	Minor injuries only. More than 10% of property in affected area damaged or destroyed. Complete shutdown of critical facilities for more than one day.	2	
	Critical	Multiple deaths/injuries possible. More than 25% of property in affected area damaged or destroyed. Complete shutdown of critical facilities for more than one week.	3	
	Catastrophic	High number of deaths/injuries possible. More than 50% of property in affected area damaged or destroyed. Complete shutdown of critical facilities for 30 days or more	4	
Spatial extent	Negligible	Less than 1% of area affected	1	20%
	Small	Between 1 and 10% of area affected	2	
	Moderate	Between 10 and 50% of area affected	3	
	Large	Between 50 and 100% of area affected	4	
Warning Time	More than 24 hours	Self-explanatory	1	10%
	12 to 24 hours	Self-explanatory	2	
	6 to 24 hours	Self-explanatory	3	

	Less than 6 hours	Self-explanatory	4	
Duration	Less than 6 hours	Self-explanatory	1	10%
	Less than 24 hours	Self-explanatory	2	
	Less than one week	Self-explanatory	3	
	More than one week	Self-explanatory	4	

Source: Brazos County Hazard Mitigation Team (adapted from North Carolina Emergency Management Division)

Table 5-5. Priority Risk Index by Planning Entity

	PROBABILITY	EXTENT	IMPACT					DURATION	WARNING	PRI
			Social Impact		Property Impact	CIKR Impact		Incident Exposure	TIME	
	Probability	Spatial Extent	Historical Human	Possible Human	Extent of Damage	Duration of Shutdown	Average Impact	Duration of Exposure	Warning Time	Priority Risk Index
Weights	0.3	0.2					0.3	0.1	0.1	
Brazos County	<i>P1: Prob</i>	<i>S1: Extent</i>	<i>H1: Extent</i>	<i>H2: Number</i>	<i>Pr1: Extent</i>	<i>CI1: Shutdown</i>	<i>Severity</i>	<i>D1: Duration</i>	<i>W1: Warning</i>	<i>PRI</i>
Flood	3	3	2	4	4	2	3.00	3	3	3
Drought	3	4	1	1	2	1	1.25	4	1	2.575
Urban and Wildland Fires	4	1	1	1	2	1	1.25	1	4	2.275
Winter Storms	1	4	2	1	1	1	1.25	2	3	1.975
Tornados	1	2	1	3	3	3	2.50	1	4	1.95
Hail	3	2	1	1	2	1	1.25	1	4	2.175
Thunderstorms	4	3	1	1	2	1	1.25	2	3	2.675
Dam Failure	1	2	1	4	4	4	3.25	3	3	2.275
Excessive Heat	1	4	2	2	1	1	1.50	4	1	2.05
City of Bryan	<i>P1: Prob</i>	<i>S1: Extent</i>	<i>H1: Extent</i>	<i>H2: Number</i>	<i>Pr1: Extent</i>	<i>CI1: Shutdown</i>	<i>Severity</i>	<i>D1: Duration</i>	<i>W1: Warning</i>	<i>PRI</i>
Flood	3	3	2	4	4	2	3.00	3	3	3
Drought	3	4	1	1	2	1	1.25	4	1	2.575
Urban and Wildland Fires	4	1	1	1	2	1	1.25	1	4	2.275
Winter Storms	1	4	2	1	1	1	1.25	2	3	1.975
Tornados	1	2	1	3	3	3	2.50	1	4	1.95
Hail	3	2	1	1	2	1	1.25	1	4	2.175
Thunderstorms	4	3	1	1	2	1	1.25	2	3	2.675
Dam Failure	1	2	1	4	4	4	3.25	3	3	2.275
Excessive Heat	1	4	2	2	1	1	1.50	4	1	2.05
City of College Station	<i>P1: Prob</i>	<i>S1: Extent</i>	<i>H1: Extent</i>	<i>H2: Number</i>	<i>Pr1: Extent</i>	<i>CI1: Shutdown</i>	<i>Severity</i>	<i>D1: Duration</i>	<i>W1: Warning</i>	<i>PRI</i>
Flood	3	3	2	4	4	2	3.00	3	3	3
Drought	3	4	1	1	2	1	1.25	4	1	2.575
Urban and Wildland Fires	4	1	1	1	2	1	1.25	1	4	2.275
Winter Storms	1	4	2	1	1	1	1.25	2	3	1.975
Tornados	1	2	1	3	3	3	2.50	1	4	1.95
Hail	3	2	1	1	2	1	1.25	1	4	2.175
Thunderstorms	4	3	1	1	2	1	1.25	2	3	2.675
Dam Failure	1	2	1	4	4	4	3.25	3	3	2.275
Excessive Heat	1	4	2	2	1	1	1.50	4	1	2.05
City of Kurten	<i>P1: Prob</i>	<i>S1: Extent</i>	<i>H1: Extent</i>	<i>H2: Number</i>	<i>Pr1: Extent</i>	<i>CI1: Shutdown</i>	<i>Severity</i>	<i>D1: Duration</i>	<i>W1: Warning</i>	<i>PRI</i>
Flood	3	3	2	4	4	2	3.00	3	3	3
Drought	3	4	1	1	2	1	1.25	4	1	2.575
Urban and Wildland Fires	4	1	1	1	2	1	1.25	1	4	2.275
Winter Storms	1	4	2	1	1	1	1.25	2	3	1.975
Tornados	1	2	1	3	3	3	2.50	1	4	1.95
Hail	3	2	1	1	2	1	1.25	1	4	2.175
Thunderstorms	4	3	1	1	2	1	1.25	2	3	2.675
Dam Failure	0	0	0	0	0	0	0.00	0	0	0
Excessive Heat	1	4	2	2	1	1	1.50	4	1	2.05
City of Wixon Valley	<i>P1: Prob</i>	<i>S1: Extent</i>	<i>H1: Extent</i>	<i>H2: Number</i>	<i>Pr1: Extent</i>	<i>CI1: Shutdown</i>	<i>Severity</i>	<i>D1: Duration</i>	<i>W1: Warning</i>	<i>PRI</i>
Flood	3	3	2	4	4	2	3.00	3	3	3
Drought	3	4	1	1	2	1	1.25	4	1	2.575
Urban and Wildland Fires	4	1	1	1	2	1	1.25	1	4	2.275
Winter Storms	1	4	2	1	1	1	1.25	2	3	1.975
Tornados	1	2	1	3	3	3	2.50	1	4	1.95
Hail	3	2	1	1	2	1	1.25	1	4	2.175
Thunderstorms	4	3	1	1	2	1	1.25	2	3	2.675
Dam Failure	0	0	0	0	0	0	0.00	0	0	0
Excessive Heat	1	4	2	2	1	1	1.50	4	1	2.05
TAMU	<i>P1: Prob</i>	<i>S1: Extent</i>	<i>H1: Extent</i>	<i>H2: Number</i>	<i>Pr1: Extent</i>	<i>CI1: Shutdown</i>	<i>Severity</i>	<i>D1: Duration</i>	<i>W1: Warning</i>	<i>PRI</i>
Flood	3	1	1	4	4	4	3.25	2	2	2.475
Drought	1	4	1	1	1	1	1.00	4	1	1.9
Urban and Wildland Fires	2	1	1	1	1	1	1.00	1	1	1.3
Winter Storms	1	4	1	1	1	1	1.00	2	1	1.7
Tornados	1	3	1	3	3	3	2.50	2	4	2.25
Hail	2	3	1	1	1	1	1.00	1	3	1.9
Thunderstorms	3	4	1	1	1	1	1.00	1	3	2.4
Dam Failure	1	1	1	4	4	4	3.25	1	1	1.675
Excessive Heat	1	4	1	1	1	1	1.00	4	1	1.9

The hazard-event profiles relevant to Brazos County and the participating entities reveal historic hazard trends and provide a reference point for understanding the potential effects of future hazard events. A review of historic data helps to evaluate hazard-event profiles and answer questions: How often may a particular disaster occur? Who and where are most likely to be affected? How bad can it get?

Sections 6 through 14 of this plan contain reviews of the historical frequency of occurrence and/or loss and damage estimates, by hazard, in the planning area.

Each section discusses why the hazard is a threat, profiles the hazard, identifies areas at risk to hazards that have distinct geographic boundaries, identifies the people and property at risk, and summarizes the history of hazard events and potential damages and losses.

The results of this study are useful in at least three ways:

Improving our understanding of the risk associated with the natural hazards in the planning area through better understanding of the complexities and dynamics of risk, how levels of risk can be measured and compared, and the myriad factors that influence risk. An understanding of these relationships is critical in making balanced and informed decisions on managing the risk.

Providing a baseline for policy development and comparison of mitigation alternatives. The data used for this analysis present a current picture of risk in the planning area. Updating this risk "snapshot" with future data will enable comparison of the changes in risk with time. Baselines of this type can support the objective analysis of policy and program options for risk reduction in the region.

Comparing the risk among the natural hazards addressed. The ability to quantify the risk to all these hazards relative to one another helps in a balanced, multi-hazard approach to risk management at each level of governing authority. This ranking provides a systematic framework to compare and prioritize the very disparate natural hazards that are present in the planning area. This final step in the risk assessment provides the necessary information for the Mitigation Planning Committee to craft a mitigation strategy to focus resources on only those hazards that pose the most threat to the region.

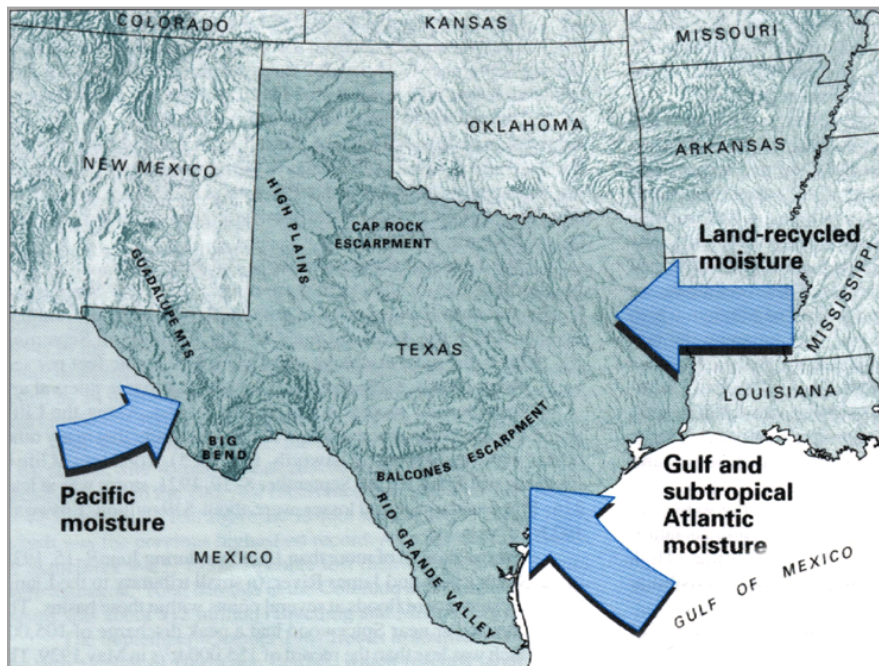
WHY FLOODS ARE A THREAT

Unique Geographic and Atmospheric Conditions

Texas, according to *American Hazardscapes: The Regionalization of Hazards and Disasters* published by the National Academy Press, consistently outranks other states in deaths and damage from floods. This is due to the location and size of the state. Texas is second in casualties and damages from hurricanes and tropical storms.

The state's vulnerability is the result of several factors: miles of Gulf of Mexico coastline; proximity to the Pacific Ocean off the west coast of Mexico; geographical location near the Rocky Mountains of Colorado and Arizona; the high-altitude jet stream; and nearness to the unique West Texas "dry line," a shifting, invisible atmospheric separation of dry desert air from the moist Gulf air. These factors create a breeding ground for the big storms of spring and fall that spawn tornadoes and suck up Gulf or Pacific moisture that feed the heavy rains that cause flash flooding. All these geographic factors cause Texas to experience extensive, annual storms. Figure 6-1 shows the state's vulnerability to damaging storms. Flooding takes many forms in the planning area.

Figure 6-1. Texas Sources of Moisture



Flash Flooding

Most flash flooding is caused by slow-moving thunderstorms, by thunderstorms repeatedly moving over the same area, or by heavy rains from hurricanes and tropical storms. Flash floods can occur within a few minutes or after hours of excessive rainfall. Often there is no warning that flash floods are coming.

Flash flooding can pose a deadly danger to residents of the planning area. A number of roads run through low-lying areas that are prone to sudden and frequent flooding during heavy rains. Motorists often attempt to drive through barricaded or flooded roadways. It takes only 18-to-24-inches of water moving across a roadway to carry away most vehicles. Floating cars easily get swept downstream, making rescues difficult and dangerous.

Riverine Flooding

Riverine flooding is natural and inevitable. It is the overbank flooding of rivers and streams, typically resulting from large-scale weather systems that generate prolonged rainfall over a wide geographic area. Some river floods occur seasonally when winter or spring rainfalls fill river basins with too much water, too quickly. Torrential rains from decaying hurricanes or tropical systems can also produce river flooding.

Urban Flooding

Urban flooding occurs as land is converted from fields or woodlands to roads, buildings and parking lots and when the natural land loses its ability to absorb rainfall. Urbanization changes the natural hydrologic systems of a basin, increasing runoff two to six times over what would occur on natural terrain. During periods of urban flooding, streets can become swift moving rivers, while highway underpasses and underground parking garages can become death traps as they fill with water.

HAZARD PROFILE

Major flooding and flash flooding events can have a substantial severity of impact to the Brazos County and the participating entities. They can cause multiple deaths, completely shut down facilities for thirty days or more, and cause more than fifty percent of affected properties to be destroyed or suffer major damage.

The frequency of occurrence of flooding in the planning area is likely.

The extent of flooding in Brazos County and participating entities, can be water depths from between one and four feet deep in structures located in the identified flood hazard area.

Brazos County and participating entities have infrastructure and critical facilities that are vulnerable to floods. There are also residential structures that are vulnerable to flooding, and mitigation actions regarding those structures are addressed in Section 16 of this plan.

Flooding occurs in seasonal patterns. Thunderstorms form when warm, moist air collides with cooler, drier air. Since these masses tend to come together during the transition from summer to winter, most thunderstorms and resulting flooding occur during the spring (April, May and June) and fall (October, November, and December).

HISTORY OF FLOODING

Flood events in the planning area reported to the National Weather Service are listed in Table 6-1.

Table 6-1. Reported Flood Events, January 1, 1994, to September 1, 2017

Type	Location	Date	Deaths	Injuries	Property Damage (\$)	Crop Damage (\$)
Flash flooding	Brazos	10/16/1994	0	0	\$5.0M	\$50K
Flash flooding/ flood	Brazos	12/15/1994	0	0	50K	5K
Flash flood	Bryan/ College Station	09/21/1995	0	0	5K	0
Flash flood	Countywide	02/20/1997	0	0	5K	0
Flash flood	North Portion	10/13/1997	0	0	5K	0
Flash flood	College Station	01/06/1998	0	0	5K	0
Flash flood	College Station	10/17/1998	0	0	5K	0
Flooding, riverine	County	10/17/1998	1	0	0	0
Flash flood	College Station	10/18/1998	0	0	2K	0
Flash flood	Countywide	10/18/1998	0	0	15K	0
Flooding, riverine	County	11/12/1998	0	0	0	0
Flash flood	Countywide	11/02/2000	0	0	1.0M	0
Flash flood	Countywide	11/03/2000	0	0	25K	0
Flash flood	Countywide	11/03/2000	0	0	25K	0
Flash flood	Countywide	11/03/2000	0	0	1.0M	0

Flash flood	Countywide	09/09/2001	0	0	50K	0
Flash flood	Bryan	07/14/2002	0	0	20K	0
Flash flood	Countywide	11/04/2002	0	0	95K	0
Flash flood	Countywide	02/20/2003	0	0	8K	0
Flash flood	Bryan	05/13/2004	0	0	250K	0
Flash flood	College Station	06/15/2004	0	0	55K	0
Flash flood	Bryan	06/30/2004	0	0	15K	0
Flash flood	Countywide	11/22/2004	0	0	0	0
Flash flood	Bryan	05/01/2007	0	0	130K	0
Flash flood	Countywide	12/15/2007	0	0	5K	0
Flash flood	Bryan	04/25/2009	0	0	1K	0
Flash flood	Bryan	06/09/2010	0	0	1K	0
Flash flood	College Station	06/09/2010	0	0	0	0
Flash flood	College Station	06/09/2010	0	0	0	0
Flash flood	College Station	06/09/2010	0	0	0	0
Flash flood	College Station	06/09/2010	0	0	0	0
Flash flood	College Station	02/03/2012	0	0	100K	0
Flash flood	Bryan (Edge)	02/03/2012	0	0	2K	2K
Flash flood	Bryan	05/09/2013	0	0	10K	0
Flash flood	College Station	09/28/2013	0	0	0	0
Flash flood	Bryan	06/25/2014	0	0	0	0
Flash flood	College Station	07/17/2014	0	0	50K	0
Flash flood	Bryan	09/12/2014	0	0	3K	0
Flash flood	Bryan	05/25/2015	0	0	5K	0
Flash flood	Bryan	10/24/2015	0	0	0	0
Flash flood	College Station	12/27/2015	0	0	0	0

Flash flood	County Wide	05/26/2016	0	0	100K	0
Flood	County Wide	08/24/2017- 08/28/2017	0	0	TBD	0

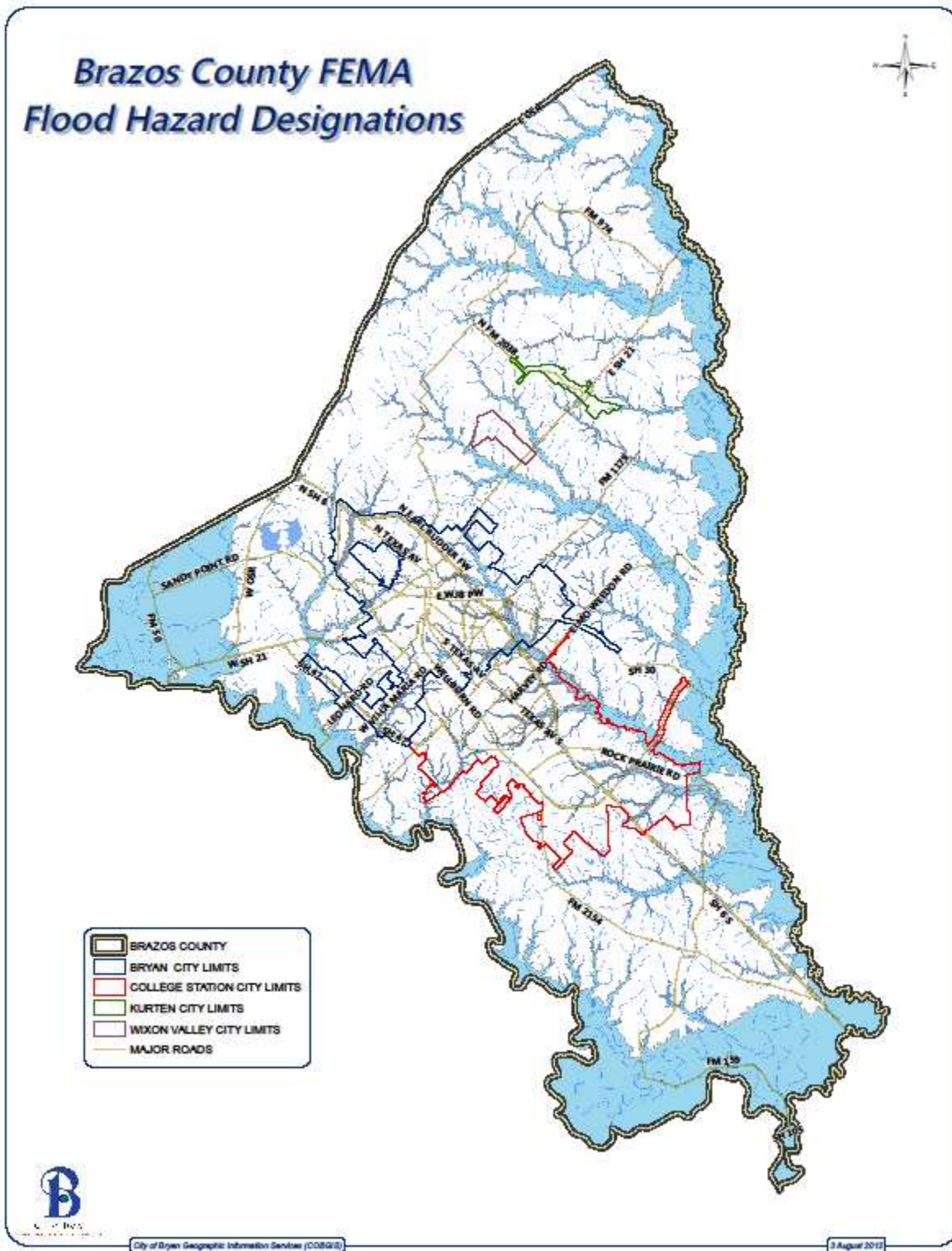
LOCATION OF HAZARDOUS AREAS

Flood-hazard areas are determined using statistical analyses of records of riverflow, storm tides, and rainfall; information obtained through consultation with communities; floodplain topographic surveys; and hydrological and hydraulic analyses. FEMA's Flood Insurance Rate Maps (FIRMs) identify areas subject to flood hazard. These include Special Flood Hazard Areas, which are defined as areas that will be inundated by a flood event having a one-percent chance of being equaled or exceeded in any given year. The one-percent-annual-chance flood is also referred to as the base flood or 100-year flood. Moderate flood-hazard areas are also shown on the FIRM, and are the areas between the limits of the base flood and the two-tenths of a percent-annual-chance (or 500-year) flood.

The location of flood hazard areas for Brazos County and participating entities are shown in Figure 6-2. Flooding is primarily located along the Brazos River on the west side of the county and along the Navasota River on the east side of the county. Depths of flood waters can range from one to four feet deep along the Brazos River and one to three feet deep along the Navasota River.

Figure 6-2 on the following page depicts the flood zones throughout the planning area, where there is potential for damage to property and loss of life.

Figure 6-2. Riverine Flooding Potential for the Planning Area



NFIP PROGRAM PARTICIPATION

Flood insurance offered through the National Flood Insurance Program (NFIP) is the best way for home and business owners to protect themselves financially against the ravages of flooding.

According to FEMA, jurisdictions participate in the NFIP by adopting and enforcing floodplain management ordinances to reduce future flood damage. In exchange, the NFIP makes federally backed flood insurance available to homeowners, renters, and business owners in these communities. Community participation in the NFIP is voluntary.

Brazos County, cities of Bryan, College Station, and Wixon Valley are currently the jurisdictions within the county that participate in the NFIP. It should be noted that Wixon Valley participates in the NFIP but has no floodplain within the city limits. There is no floodplain within the city limits of Kurten that would require participation in the NFIP. However, the City of Kurten has identified the desire to participate in the NFIP as one of their projects to mitigate for flooding.

These jurisdictions maintain their continued NFIP compliance in several ways, including:

- Requiring all new development in the identified flood hazard area to be permitted

- Requiring revisions to existing structures in the identified flood hazard area to be permitted

- Requiring Elevation Certificates to be submitted as part of the permitting process

- Persons looking to purchase flood prone property are being advised of the flood hazard area through credited hazard disclosure measures

- Continued preservation of open space in the floodplain

- Acquisition of existing structures from the floodplain

- Keeping track of building improvements and repairs to structures located in the identified flood hazard area

- Continued enforcement of stream dumping regulations

The cities of Bryan, College Station, and Wixon Valley participate in the NFIP's Community Rating System (CRS). This voluntary incentive program recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. Additional activities are verified annually and community success is translated into ratings which equal policy holder discounts.

For more information regarding the floodplain management ordinance of each community, see Section 15.

Table 6-2. National Flood Insurance Program, Policies and Losses for the Planning Area (as of 5/31/2018)

Community	Policies in Effect	Total Coverage in Thousands	Total Losses	Dollars Paid, Historical
Brazos County	236	\$68,635	34	\$1,155,567
Bryan	673	\$168,691	280	\$4,406,382
College Station	641	\$202,581	185	\$1,082,188

PEOPLE AND PROPERTY AT RISK

To assess flood risk, flood areas were modeled for 100-year and 500-year events. Flood depth was estimated at the pixel level for affected areas, along with proportion of the area affected within the census block. Table 6-3 shows the estimated buildings and people at risk to flooding.

Because detailed information was not available to calculate potential losses due to flood, it is assumed that in a worst-case-scenario event, all exposed areas would be impacted and the exposed values would equal the potential losses.

Table 6-3. Potential Wet Exposure for 100-Year Flood (Riverine Flooding)

	Residential		Rental		Commercial		Industrial	
	Number of Parcels	Value (\$1,000)	Number of Parcels	Value (\$1,000)	Number of Parcels	Value (\$1,000)	Number of Parcels	Value (\$1,000)
Bryan	1192	\$204,781	104	\$96,394	179	\$445,253	14	\$40,561
College Station	564	\$189,914	78	\$530,835	108	\$506,456	2	\$29,990
Kurten	0	0	0	0	0	0	0	0
Wixon Valley	0	0	0	0	0	0	0	0
Unincorporated	520	\$127,312	4	\$2,443	56	\$78,095	6	\$2,541
Brazos County - TOTAL	2276	\$522,006	186	\$629,672	343	\$1,029,804	22	\$95,956

Market Value: \$3,494,789,179

Land Value: \$1,585,952,326

Improvement Value: \$1,908,836,853

POTENTIAL DAMAGES AND LOSSES

To estimate annualized losses due to flood, the exposed values were multiplied by the probability of the occurrence of a 100-year flood event (1 percent) to calculate the estimated annualized losses. Annualized losses by county are shown in Table 6-4. Potential impacts to critical facilities and infrastructure are provided in Table 6-5. Repetitive losses are provided in Table 6-6.

Table 6-4. Potential Annualized Losses (Riverine Flooding)

Planning Entity	Total Exposure (\$1,000)	Annualized Loss (Residential)	Annualized Loss (Commercial)	Annualized Loss (Industrial)	Total Annualized Loss	Annualized Loss Percentage Ratio
Brazos County	\$210,391	\$69,920.00	\$249,728.86	\$303,325.74	\$622,974.60	0.30%
City of Bryan	\$786,989	\$431,794.18	\$284,055.76	\$224,273.04	\$940,122.98	0.12%
City of College Station	\$1,257,195	\$77,627.34	\$43,801.11	\$19,002.26	\$140,430.71	0.01%

Table 6-5. Critical Facilities and Infrastructure Potentially Damaged, Brazos County

County	Critical Facilities and Infrastructure		
	Total Number	Number Inside the 100-year Floodplain	Percentage Susceptible to Flooding
Brazos	298	129	43.29

REPETITIVE LOSSES

Brazos County has four (4) structures on FEMA's Repetitive Loss (RL) list and no Severe Repetitive Loss (SRL) structures.

The City of Bryan has twenty-eight (28) structures on FEMA's RL list and seven (7) structures on the SRL list.

The City of College Station has four (4) structures on FEMA's RL list and one (1) structure on the SRL list.

Forty-one (41) structures are residential, and three (3) are commercial. They are primarily constructed of brick and mortar on concrete slab foundations.

None of the other participating entities within this plan have either RL or SRL structures listed by FEMA.

SECTION 7: DROUGHT

WHY DROUGHT IS A THREAT

According to the Texas Parks and Wildlife Department, “Drought is one of the most complex, and least understood, of all natural hazards, affecting more people than do other natural hazards, but differing from them in important ways. Unlike earthquakes, hurricanes and tornadoes, drought unfolds at an almost imperceptible pace with beginning and ending times that are difficult to determine, and with effects that often are spread over vast regions. Drought is a period of time without substantial rainfall that persists from one year to the next.

Drought is a normal part of virtually all-climatic regimes, including areas with high and low average rainfall. Drought is the consequence of a natural reduction in the amount of precipitation expected over an extended period of time, usually a season or more in length. Droughts can be classified as meteorological, hydrologic, agricultural, and socioeconomic. Table 7-1 shows the drought classification definitions.

Table 7-1. Drought Classification Definitions

Meteorological Drought	The degree of dryness or departure of actual precipitation from an expected average or normal amount based on monthly, seasonal, or annual time scales.
Hydrologic Drought	The effects of precipitation shortfalls on stream flows and reservoir, lake, and groundwater levels.
Agricultural Drought	Soil moisture deficiencies relative to water demands of plant life, usually crops.
Socioeconomic Drought	The effect of demands for water exceeding the supply as a result of a weather-related supply shortfall.

Source: Multi-Hazard Identification and Risk Assessment: A Cornerstone of the National Mitigation Strategy, FEMA

Over time, droughts can have very damaging effects on crops, municipal water supplies, recreational uses, and wildlife. If droughts extend over a number of years, the direct and indirect economic impact can be significant.

Droughts can affect a large area and range in size from a couple of counties to several states. Their impact on wildlife and area farming is enormous. Droughts can kill crops, grazing land, edible plants and even in severe cases, trees. The historic Texas drought of 2011 led to a record \$5.2 billion in agricultural losses, making it the most costly drought on record, according to Texas AgriLife Extension Service economists. The \$5.2 billion in losses exceeds the previous

record of \$4.1 billion during the 2006 drought. Additionally dying vegetation also serves as a prime ignition source for wildland fires.

The following is a list of economic drought losses from 1998 through 2011 compiled by AgriLife Extension economists:

2011– \$5.2 billion

2009 – \$3.6 billion

2008 – \$1.4 billion

2006 – \$4.1 billion

2002 – \$316 million

2000 – \$1.1 billion

1999 – \$223 million

1998 – \$2.4 billion

A heat wave combined with a drought is a very dangerous situation. Although drought can occur in any season, when extreme heat combines with drought conditions, the result can be a community disaster.

Droughts occur regularly in Texas and are a normal condition. They can vary greatly, however, in their intensity and duration. On average, a yearlong drought takes place somewhere in Texas once every 3 years and a major drought every 20 years. Major droughts can last for years. In 2011, the planning area experienced a severe drought event.

HAZARD PROFILE

The potential severity of impact of droughts is substantial, especially taking into consideration the economic losses that may result.

The frequency of occurrence of drought in the planning area is likely.

The planning area has critical facilities or infrastructure that are vulnerable to drought. The participating entities in this plan all have back-up water supply systems in place to provide water to commercial and residential structures should a drought affect the water supply system. Most residences in the planning area rely on water from underground wells. Livestock and agriculture losses could occur in the county during periods of drought. Additionally, drought increases the risk of wildfires due to lack of soil and plant moisture. The risk of wildfires is address in the subsequent section.

Droughts are slow onset hazards. Warning time for drought is long, since drought events take place over long periods of time. Drought warnings are issued by the state Drought Preparedness Council, as directed by H.B. 2660, based upon input from NOAA, the Office of the State Climatologist, the U.S. Geological Service, the Texas Water Development Board, Texas

Commission on Environmental Quality, and the Texas Agricultural Statistics Service. Warnings utilize five “levels of concern” and take into account assessments of climatology, agriculture, and water availability for each of 10 climatic regions of the state.

According to the Palmer Drought Index, shown in Table 7.2 on the next page, the extent of droughts can range from minor or moderate to extreme or exceptional. The maximum extent of drought that can affect the planning area would be exceptional, as shown in Figure 7.1. This occurred during the summer and fall of 2011. The minimum extent of drought that can affect Brazos County and the participating entities would be moderate, as shown in Figure 7.2. This occurred during the spring of 2017 after some much needed rain.

Table 7-2. Palmer Drought Index

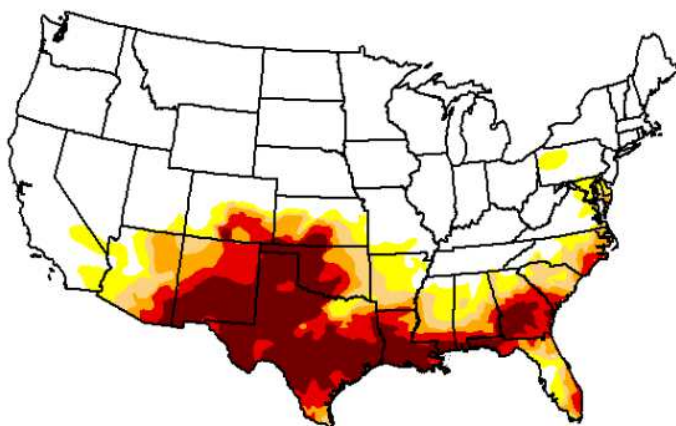
Drought Severity	Return Period (years)	Description of Possible Impacts	Drought Monitoring Indices		
			Standardized Precipitation Index (SPI)	NDMC* Drought Category	Palmer Drought Index
Minor Drought	3 to 4	Going into drought; short-term dryness slowing growth of crops or pastures; fire risk above average. Coming out of drought; some lingering water deficits; pastures or crops not fully recovered.	-0.5 to -0.7	D0	-1.0 to -1.9
Moderate Drought	5 to 9	Some damage to crops or pastures; fire risk high; streams, reservoirs, or wells low, some water shortages developing or imminent, voluntary water use restrictions requested.	-0.8 to -1.2	D1	-2.0 to -2.9
Severe Drought	10 to 17	Crop or pasture losses likely; fire risk very high; water shortages common; water restrictions imposed.	-1.3 to -1.5	D2	-3.0 to -3.9
Extreme Drought	18 to 43	Major crop and pasture losses; extreme fire danger; widespread water shortages or restrictions.	-1.6 to -1.9	D3	-4.0 to -4.9
Exceptional Drought	44+	Exceptional and widespread crop and pasture losses; exceptional fire risk; shortages of water in reservoirs, streams, and wells creating water emergencies.	less than -2	D4	-5.0 or less

*NDMC - National Drought Mitigation Center

Figure 7-1. Extent of Drought for the United States during 2011

U.S. Drought Monitor CONUS

7/12/11



July 12, 2011

(Released Thursday, Jul. 14, 2011)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	64.33	35.67	28.70	23.69	18.67	11.96
Last Week 7/5/2011	62.63	37.37	29.28	23.58	18.62	11.77
3 Months Ago 4/12/2011	62.57	37.43	28.49	18.31	9.00	0.93
Start of Calendar Year 1/4/2011	60.50	39.50	21.74	8.50	2.60	0.00
Start of Water Year 9/28/2010	60.05	39.95	13.16	3.09	0.30	0.00
One Year Ago 7/13/2010	74.84	25.16	7.83	1.33	0.25	0.00

Intensity:

D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought
D2 Severe Drought	

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author(s):

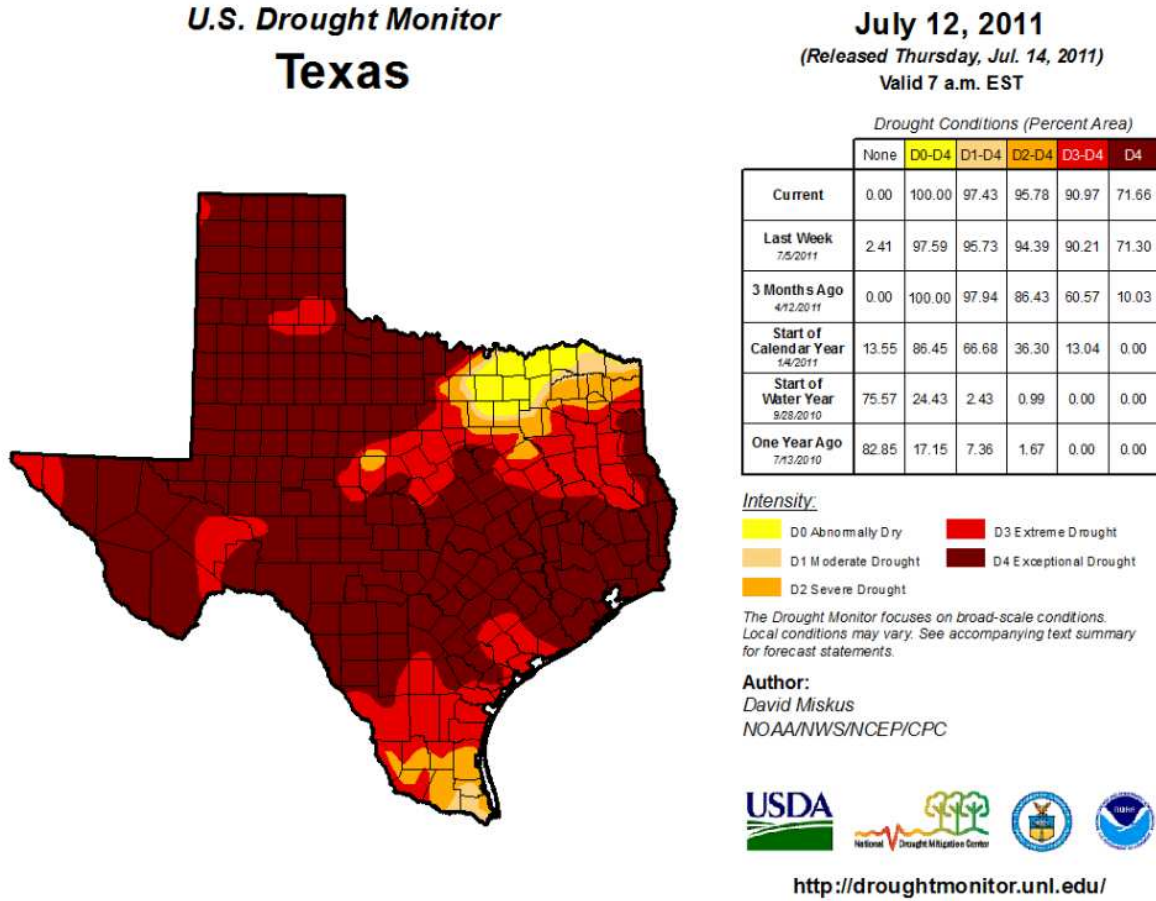
David Miskus

NOAA/NWS/NCEP/CPC



<http://droughtmonitor.unl.edu/>

Figure 7-2. Extent of Drought Specific to the State of Texas during 2011



HISTORY OF DROUGHT

The data collected for this hazard is from the National Weather Service and provides estimates of historical losses for property and crop damages (see Table 7-3).

Table 7-3. Exposure to Droughts in the Planning Area as Reported to the National Weather Service, 01/01/1996 to 11/30/2017

Date	Death	Injury	Property Damage	Crop Damage	Notes
4/1/1996	0	0	0	0	Entire county affected
5/1/1996	0	0	0	0	Entire county affected
6/1/1996	0	0	0	0	Entire county affected
5/1/1998	0	0	0	0	Entire county affected
6/1/1998	0	0	0	0	Entire county affected
7/1/1998	0	0	0	0	Entire county affected
8/1/1998	0	0	23.0M	167.9M	Entire county affected No data to separate damages within area
8/1/2000	0	0	0	0	Entire county affected
9/1/2000	0	0	0	102.3M	Entire county affected No data to separate damages within area
7/1/2011	0	0	0	TBD	Entire county affected
8/1/2011	0	0	0	TBD	Entire county affected

PEOPLE AND PROPERTY AT RISK

Droughts have the potential to impact large geographical areas, thus all the agricultural property, population, and built environment are considered exposed to the hazard and could potentially be impacted. In the planning area, drought does not have specific location.

Drought has the ability to adversely affect agriculture such as reduced crop productivity as well as harm to livestock through reduced water levels, additional stress, and reduced forage. Economic impacts to agriculture can be found in "Potential Damages and Losses" below.

Vulnerable populations due to drought are the elderly (ages 65 and above) and the young (ages 5 and below) as well as populations living at or below poverty level. The elderly are more vulnerable to drought possibly due to underlying health conditions as well as to possible limited access to potable water.

Through the reduction of soil moisture, drought can impact the built environment through the shrinking of soils. This could affect building foundations, bridge construction, and dam construction.

POTENTIAL DAMAGES AND LOSSES

In order to analyze the risk of Brazos County and participating entities to drought and estimate potential losses, 100 years of statistical data from the University of Nebraska was used (this data was developed by the University based on Palmer Drought and Crop Severity Indices) as well as 1997 USDA agriculture data. A drought event frequency-impact was then developed to determine a drought impact profile on non-irrigated agriculture products and estimate potential losses due to drought in the area. Table 7-4 shows annualized expected exposure for the planning area.

Table 7-4. Annualized Expected Agricultural Product Market Value Exposed to Drought in the Planning Area in 2017

County	Annualized Expected Exposure (\$1000)
Brazos	24,856.7

SECTION 8: URBAN AND WILDLAND FIRES

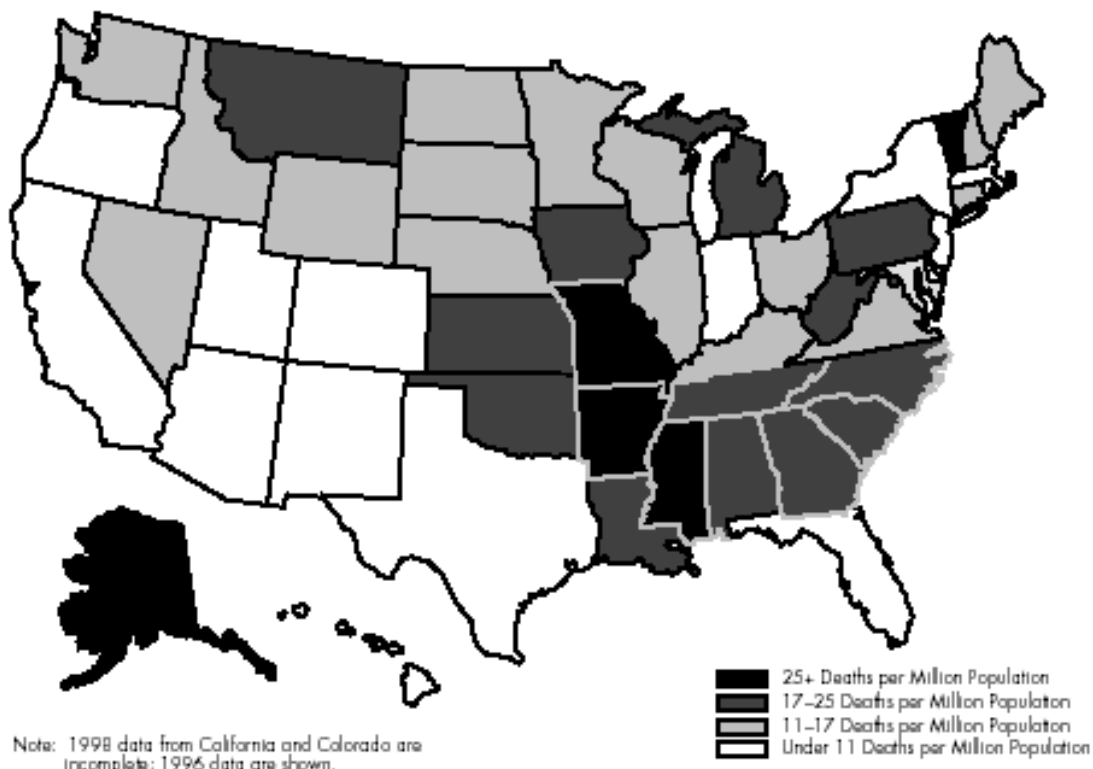
WHY URBAN AND WILDLAND FIRES ARE A THREAT

The fire problem in the United States on a per capita basis is one of the worst in the industrial world. Thousands of Americans die each year from fire, tens of thousands of people are injured, and property losses reach billions of dollars. To put these figures in context, the annual losses from floods, tornadoes, earthquakes and other natural disasters combined in the United States average just a fraction of the losses from fire.

According to the National Fire Data Center of the U.S. Fire Administration, recent trends show a decline in the numbers of fires, deaths, injuries, and dollar loss to property. However, despite these encouraging trends, an average of over 3,000 deaths and 16,000 injuries to civilians, and over 85 firefighter deaths occurred annually over the 10-year period from 2005-2015. The fire death rate, by state, is shown in Figure 8-1.

This plan addresses both wildland fires and major urban fires. For purposes of this plan, major wildland fire events are those that were greater than or equal to two-alarm fires. Major urban fires are defined as those structure fires that were greater than or equal to three-alarm fires.

Figure 8-1. Fire Death Rate by State



Major Urban Fires

The leading causes of fires nationally are arson, open flames, and cooking. Urban fires cause most fire deaths and injuries. The leading causes of fire deaths are smoking, arson, and heating. Between 70 and 80 percent of deaths result from residential fires. People under age 5 and over age 55 have a much higher death rate than the average population. These two age groups account for more than one-third of all deaths nationally.

Wildland Fires

A wildland fire is any fire occurring on grassland, forest, or prairie, regardless of ignition source, damages, or benefits. According to the National Fire Plan, 2000, the wildland fire risk is now considered by authorities as “the most significant fire service problem of the century.”

The National Fire Plan was issued by the U.S. Departments of Agriculture and Interior. It defines the urban/wildland interface as “the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.” The interface problem has grown dramatically over the last twenty years, spawned by increases in population, urban expansion, land-management decisions that place neighborhoods adjacent to wildland preserves, parks, and greenbelts, and the ever-present desire to intermingle with nature. The marriage between humans and their property and wildland areas has significantly increased human exposure to wildfires.

More and more people are building their homes in woodland settings in or near forests, rural areas, or remote mountain sites. Many of these homes are nestled along ridgelines, cliff-edges, and other classic fire-interface hazard zones. There, homeowners enjoy the beauty of the environment but they also face the very real danger of wildfire.

Years of fire suppression have significantly disturbed natural fire occurrences—nature’s renewal process. The result has been the gradual accumulation of understory and canopy fuels to levels of density that can feed high-energy, intense wildfires and further increase the hazards from and exposure to interface problems.

Multiple devastating interface-area fires over the past several years have demonstrated the disastrous potential inherent in the interface.

Wildland fires can occur at any time of the year. Climatic conditions such as severe freezes and drought can significantly increase the intensity of wildland fires since these conditions kill vegetation, creating a prime fuel source for these types of fires. The intensity of fires and the rate at which they spread are directly related to wind speed, temperature, and relative humidity.

Three different classes of wildfires exist. A “surface fire” is the most common type and burns along the floor of a forest, moving slowly and killing or damaging trees. A “ground fire” is usually started by lightning and burns on or below the forest floor in the humus layer down to the mineral soil. “Crown fires” spread rapidly by wind and move quickly by jumping along the tops of trees.

Humans start about 90 percent of wildfires (cigarettes thrown from cars, burning of refuse, etc.); lightning starts the other 10 percent.

HAZARD PROFILE

The extent of both urban and wildland fires in the planning area is major; fires can completely shut down facilities for at least two weeks and cause more than 25 percent of affected properties to be destroyed or incur major damage.

The frequency of occurrence of urban and wildland fire events in the planning area is likely.

Winter is the peak period for major urban fires and fire deaths. The wildland fire risk varies considerably by month.

Warning time for urban and wildland fire events is minimal or none.

HISTORY OF WILDFIRE IN THE PLANNING AREA

Table 8-1 shows the number of voluntarily reported incidents by Precinct in Brazos County and participating entities during 2005 through 2017. It is likely that more fire incidents occurred during this timeframe that were not reported. Reporting is voluntary and thus not consistent.

Table 8-1. Wildland Fire Incidents and Losses in the Planning Area, 2005-2017 (over 25 acres)

Fire Dept. Name	Date	Type	Acres	Cause	Agencies Responding
Brazos County Pct. 4 VFD	10/6/2005	Wildfire	320	Debris burning	8
Brazos County Pct. 4 VFD	12/3/2005	Wildfire	375	Equipment use	6
Brazos Co. Dist. 2 VFD	12/24/2005	Wildfire	300	Miscellaneous	5
Brazos County Pct. 3 VFD	12/24/2005	Wildfire	500	Miscellaneous	7
Brazos Co. Dist. 2 VFD	1/3/2006	Wildfire	500	Incendiary	7
Brazos Co. Dist. 2 VFD	1/7/2006	Wildfire	300	Incendiary	7
Brazos Co. Dist. 2 VFD	2/27/2006	Wildfire	40	Debris burning	2
Brazos County Pct. 3 VFD	2/27/2006	Wildfire	30	Debris burning	2
Brazos Co. Dist. 2 VFD	3/31/2006	Wildfire	30	Debris burning	2
Brazos County Pct. 3 VFD	9/2/2006	Wildfire	148	Miscellaneous	3
South Brazos County FD	7/11/2008	Wildfire	25	Miscellaneous	5
Brazos County Pct. 3 VFD	7/11/2008	Wildfire	50	Debris burning	5
Brazos County Pct. 3 VFD	11/5/2008	Wildfire	25	Debris burning	6

Brazos County Pct. 3 VFD	12/7/2008	Wildfire	50	Debris burning	3
Brazos County Pct. 3 VFD	1/7/2009	Wildfire	35	Debris burning	3
Brazos County Pct. 3 VFD	1/21/2009	Wildfire	40	Debris burning	4
Brazos County Pct. 3 VFD	1/31/2009	Wildfire	145	Debris burning	3
Brazos County District 2 VFD	5/9/2011	Wildfire	100	Unknown	8
Brazos County District 2 VFD	11/04/2017	Wildfire	40	Debris burning	5

LOCATION OF HAZARDOUS AREAS

There is no defined geographic hazard boundary for urban and wildland fires in the planning area. Due to the recent droughts of 2009 and 2011, along with the excessive heat of the summer months during those years, most people, buildings, critical facilities, infrastructure and lifelines are considered exposed to the urban and wildland fire hazard and could potentially affect the planning area.

Figure 8-2 on the following page shows wildfire risk locations across Brazos County and the participating entities, as determined by the Texas Forest Service. The map represents the cumulative weights of (1) the risks associated with fuel complexes, (2) the risks associated with population, and (3) the weighted factors of population growth. These combined variables determine the following risk categories:

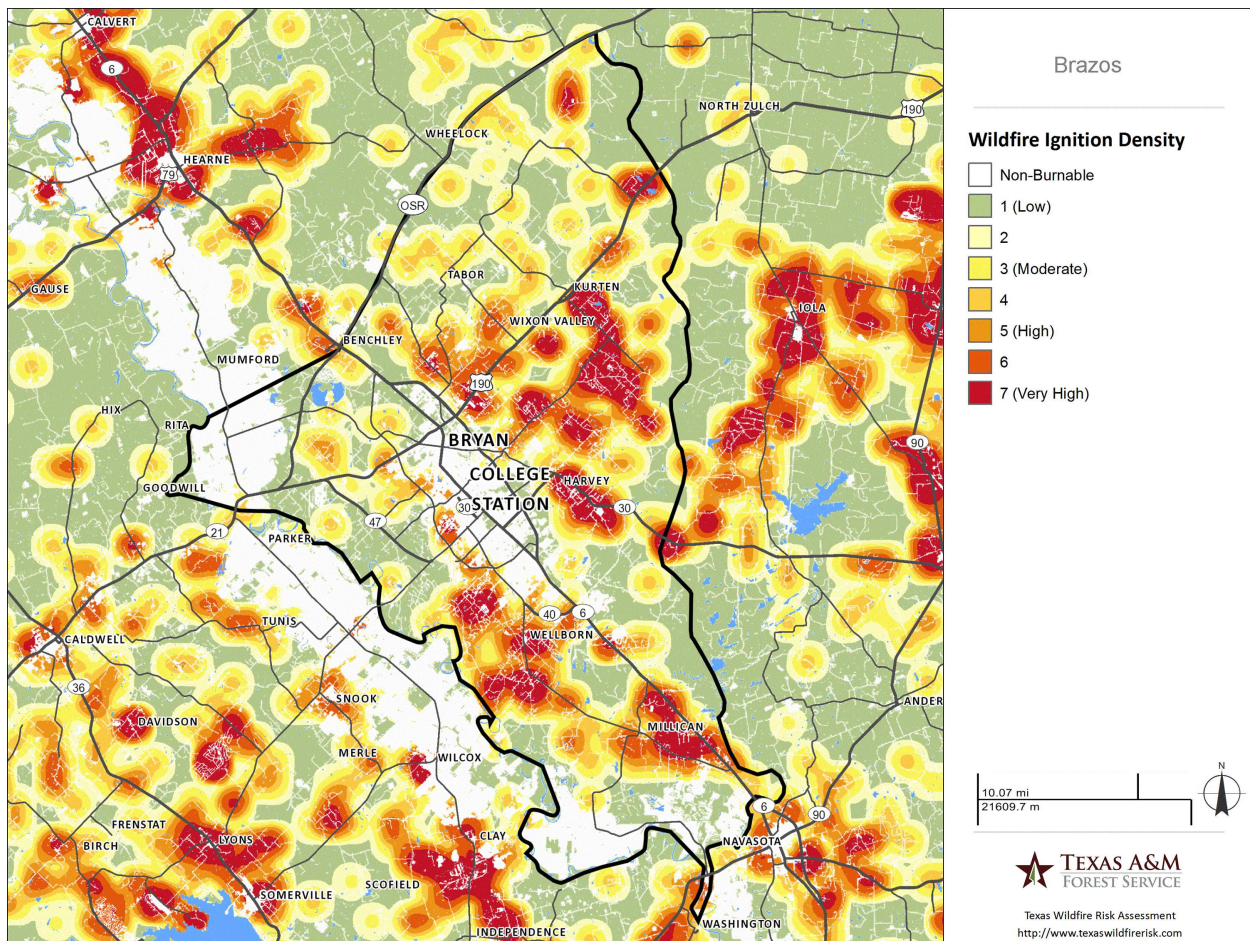
Low risk: Areas are primarily those that have little population or population densities that are not located near or in a hazardous fuel complex.

Moderate risk: Areas that may have a high population but are located near or in a moderate- or low-hazard fuel complex. Also, areas that have a low population but have significant growth located near or in a high-hazard fuel complex are included in this category.

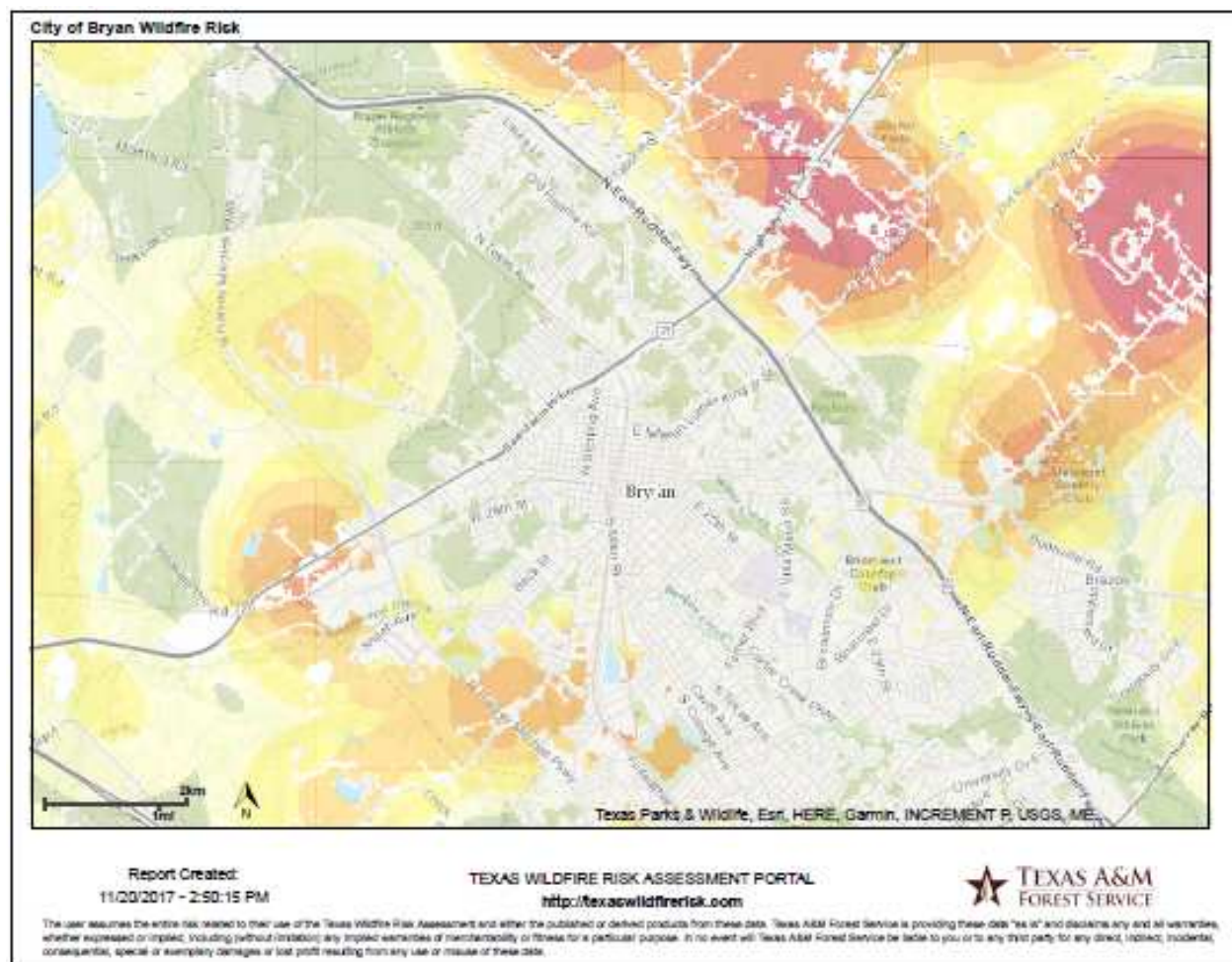
High risk: Areas that have a moderate population and a high growth rate and are located near or in a high- or moderate-hazard fuel complex.

Very High risk: Areas that have high population numbers and moderate-to-high growth rates and are located near or in a high-hazard fuel complex area.

Figure 8-2. Areas at Risk to Wildfire in the Planning Area

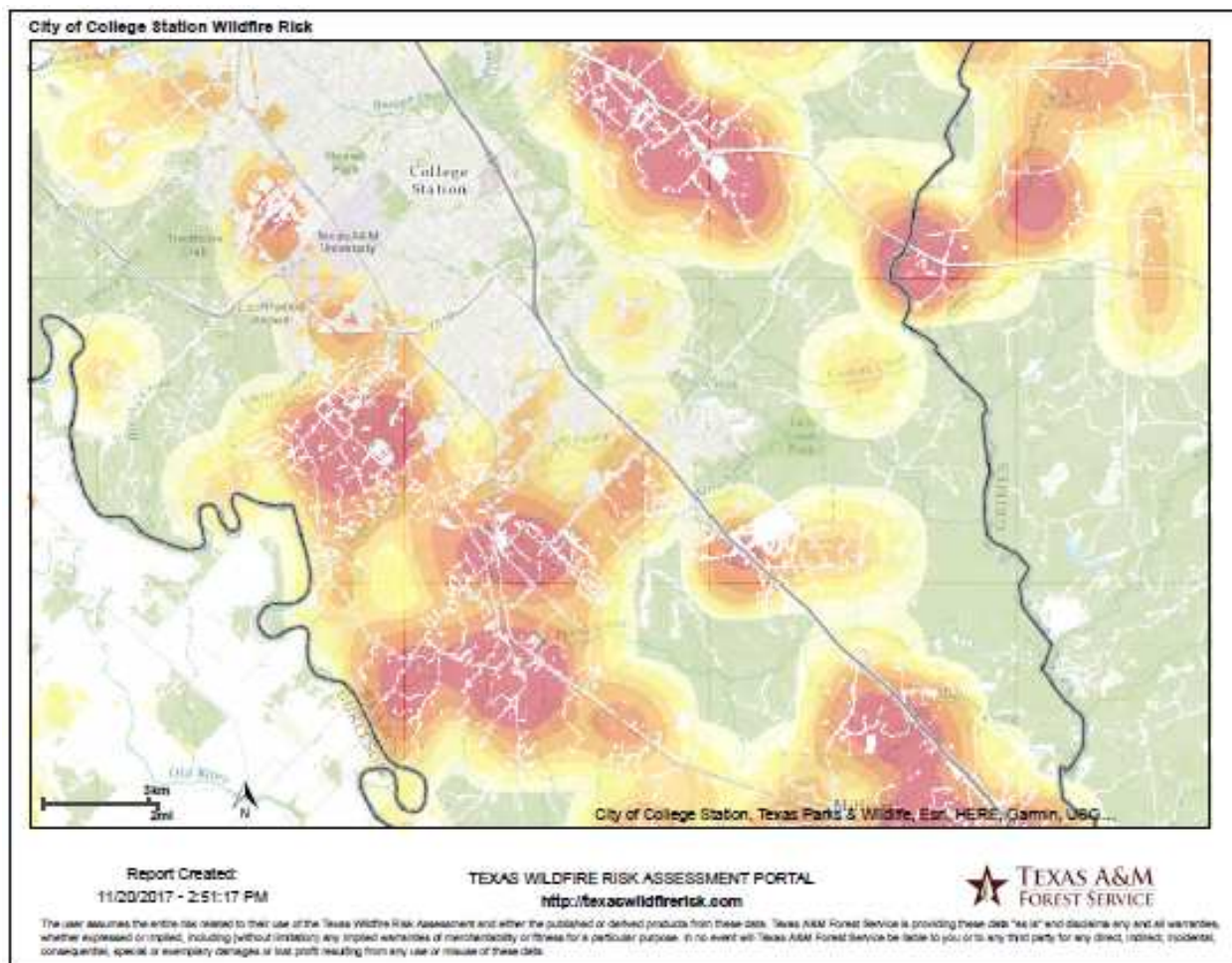


From *Texas Wildfire Risk Assessment Summary Report* for Brazos County (11/13/2017)



Wildfire Ignition Density

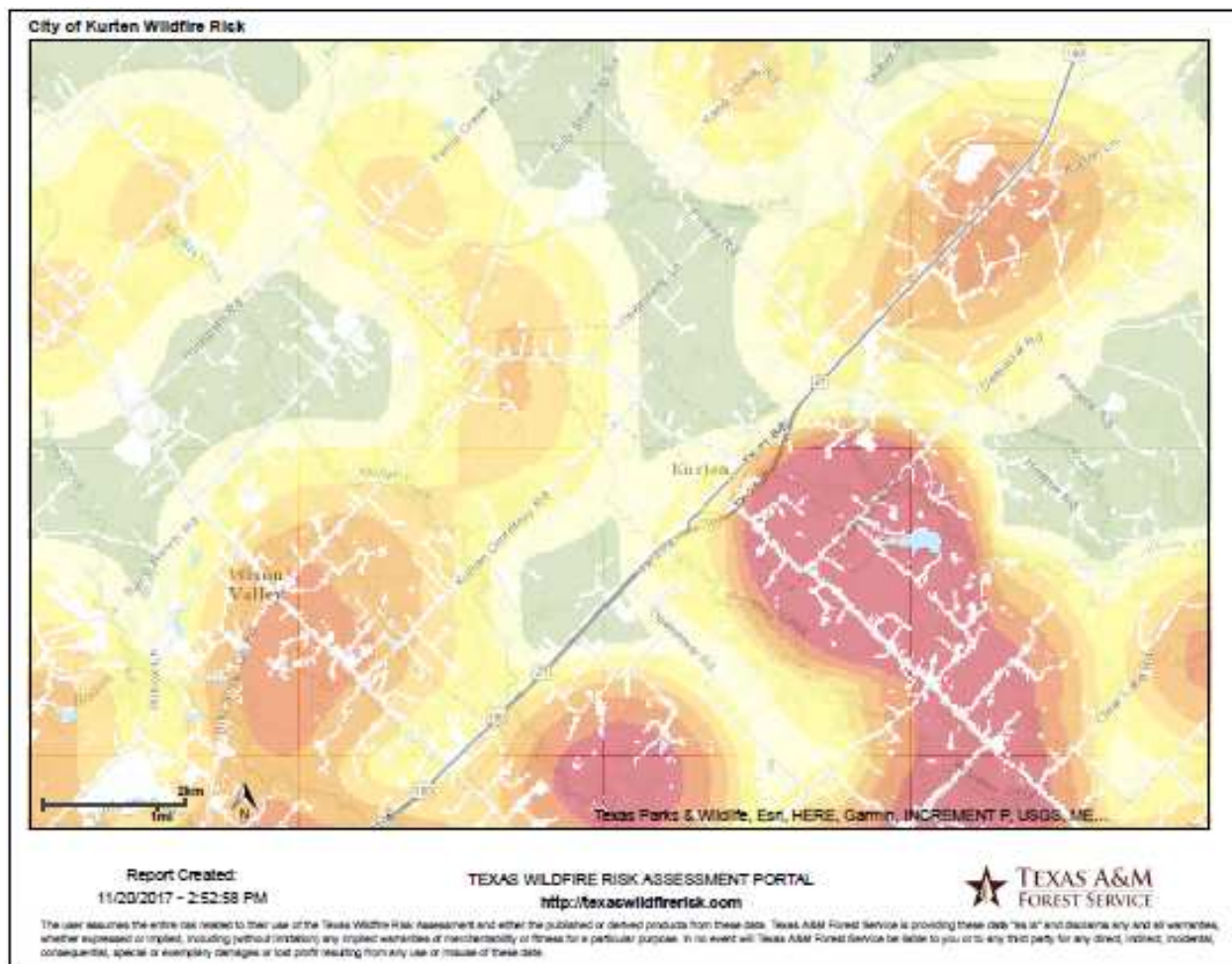
- 1 (Low)
- 2
- 3 (Moderate)
- 4
- 5 (High)
- 6
- 7 (Very High)



The majority of Texas A&M University campus is within the City of College Station; however, some portions are in the City of Bryan. Regardless, Texas A&M University falls under the category of “low” when considering the risk of wildfire.

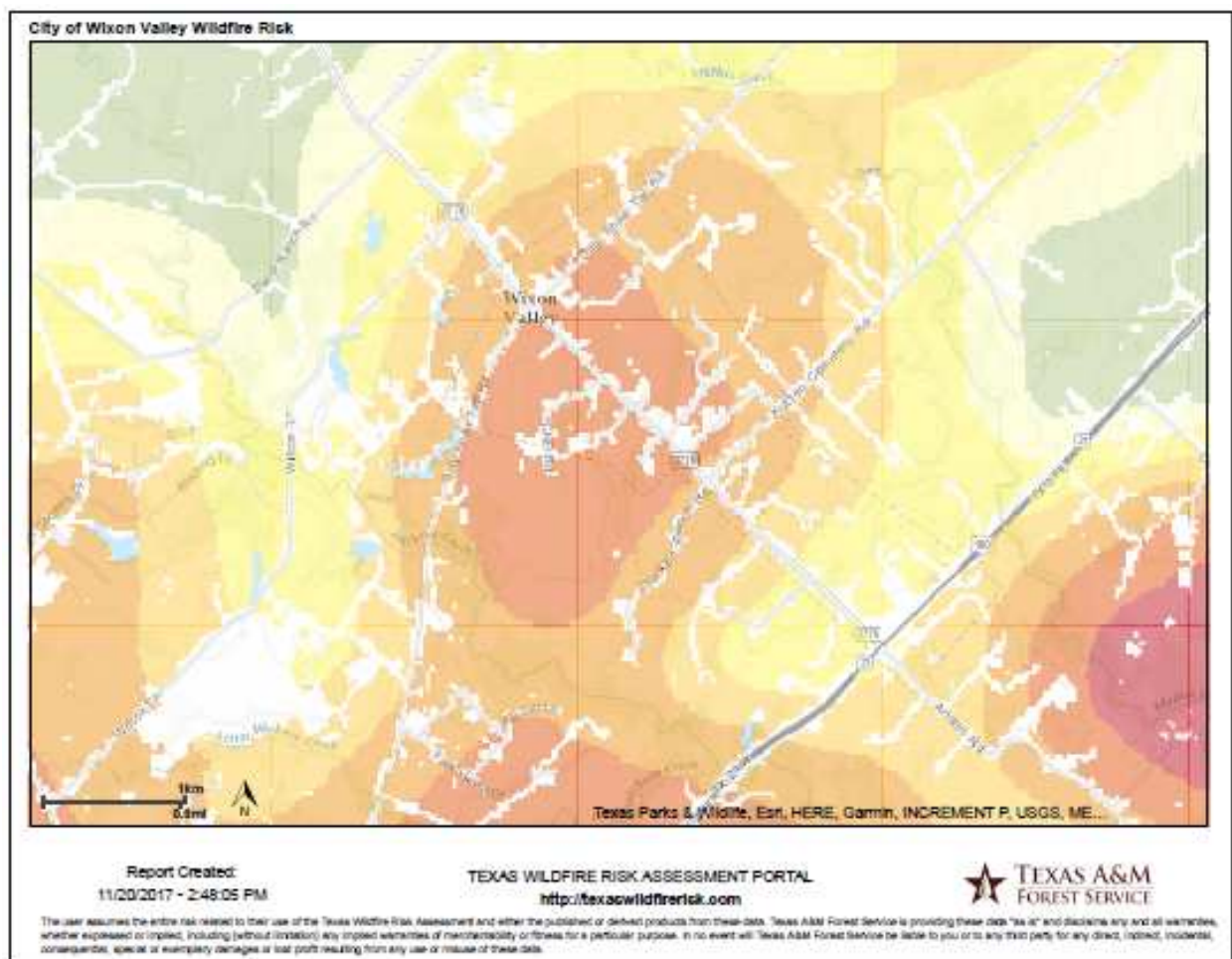
Wildfire Ignition Density

- 1 (Low)
- 2
- 3 (Moderate)
- 4
- 5 (High)
- 6
- 7 (Very High)



Wildfire Ignition Density

- 1 (Low)
- 2
- 3 (Moderate)
- 4
- 5 (High)
- 6
- 7 (Very High)



Wildfire Ignition Density

- 1 (Low)
- 2
- 3 (Moderate)
- 4
- 5 (High)
- 6
- 7 (Very High)

This overall hazard rating by the Texas Forest Service is descriptive and not predictive, based on wide-ranging parameters. In most cases, the interface risk in a county will change based on the distribution of hazardous wildland fuels and population and growth within the county. Keeping this in mind, counties that have an overall low-hazard rating may have isolated areas within the county that are at high risk, just as counties identified as high risk may have isolated areas within the county that are at low risk.

A major component of the risk assessment was the relation of population and urban development to hazardous wildland fuels. To achieve a rating, the fuels model map for Texas was categorized in to fuel complexes that represented low, moderate and high hazard fuels. This correlation was developed under the direction of Karen Allender and the UWI division of the Texas Forest Service. Fuels were grouped by NFDRS and Anderson Fuel Model ratings and the resulting descriptors of low to high hazard were assigned. These descriptors were based on the fuel complexes potential for spread rates, heat output (BTUs) and duration of output, difficulty of control and potential for fire movement in the canopy of the vegetation. Fuels that had the highest potential for crowning, difficulty in control and heat output for duration posed the most hazards.

Any structure is exposed to the urban fire risk. The wildland fire risk is a function of the following:

the climate (patterns over time);

fuel complexes (vegetation);

topography (slope, aspect and elevation);

human factors (structures and infrastructure).

HISTORY OF FIRE

Table 8-2 shows the number of voluntarily reported incidents and the total dollar losses by Brazos County and the participating entities. It is likely that more fire incidents occurred during this timeframe that were not reported. Reporting is voluntary and thus not consistent.

Table 8-2. Urban Fire Incidents and Losses in the Planning Area, 1989-2017

County	Incidents	Total Dollar Loss (\$)
Brazos	4,272	14,570,651

PEOPLE AND PROPERTY AT RISK

The urban fire hazard can occur throughout the entire planning area. Historically most urban fires have been in residential facilities. Table 8-3 below shows the total number of residential facilities by participating entity.

Table 8-3. Total Number of Residential Facilities by Participating Entity

Participating Entity	Number of Residential Facilities
City of Bryan	19,925
City of College Station	21,856

City of Kurten	112
City of Wixon Valley	59
Texas A&M University	~40
Unincorporated Brazos County	48,796

For a breakdown of residential types per entity, refer to Chapter/Section 5.

The potential for wildland fires will be limited to the rural areas of the planning area. These areas are identified in Table 8-4 below:

Table 8-4. Total Number of Facilities by Participating Entity

	Area (Sq Mi)	Residential (Structures)	Commercial/Industrial (Number of Facilities)	Critical Infrastructure
Kurten	4.60	112	10	Post Office/VFD/Church
Unincorporated	490.49	48,796	3,357	BISD Campus off Mumford/VFDs/Churches/ Post Offices
Wixon Valley	1.81	59	22	City Hall, Industrial Complex

POTENTIAL DAMAGES AND LOSSES

Table 8-3 shows potential annualized losses for Brazos County and the participating entities due to urban fire, which were calculated using the statistical risk assessment methodology. The general steps used in the statistical risk assessment methodology are; to compile data from local and national sources, clean up the data by removing duplication, identify patterns in frequency and vulnerability, extrapolate the statistical patterns, and produce meaningful results with the development of annualized loss estimates.

Table 8-5. Potential Annualized Losses to Urban Fire in the Planning Area

County	Annualized Expected Property Losses (\$)
Brazos	1,553,605

SECTION 9: WINTER STORMS

WHY WINTER STORMS ARE A THREAT

A severe winter storm event includes a storm with snow, ice or freezing rain—all of which can cause significant problems for area residents. Winter storms that threaten Texas usually start out as powerful cold fronts that push south from central Canada.

Most of the precipitation seen in the planning area from severe winter storms takes the form of ice or sleet. Freezing rain occurs when rain developing in a relatively warm (above freezing) layer of air falls through a layer of air that is below freezing (25-32° F). The rain is “supercooled” as it falls through the cold layer near the surface of the earth. When the supercooled but still liquid raindrops strike the ground or an object already below freezing, they freeze on contact. The resulting coating of ice is commonly known as glaze.

A heavy accumulation of ice can topple power and telephone lines, television towers, and trees. Highways become impossible to travel on, and even stepping outdoors can be extremely risky. The severity of an ice storm and the amount of damage caused by the storm depends on the amount of rain and thus the amount of icing taking place, the strength of the wind, and whether or not the storm strikes an urban or rural area. Urban areas tend to suffer more damage than rural areas because of the concentration of utilities and transportation systems (aircraft, trains, buses, trucks, and cars), all of which may be affected to a great degree by the icing.

HAZARD PROFILE

The severity of impact of winter storms is generally minor. Winter storms can cause injuries and completely shut down facilities for more than one week, and cause more than ten percent of affected properties to be destroyed or suffer major damage.

The extent of winter storms on the planning area can extend from something as minor as winter weather advisory's or as major as freezing temperatures with sleet, snow and wind chill. The maximum extent of winter storms for Brazos County and participating entities include low temperatures below 32 degrees, freezing rain and sleet, and/or snow amounts up to 6-10 inches.

The frequency of occurrence of winter storms in the planning area is unlikely.

Warning time for winter storms is generally six to twelve hours.

Table 10.1 shows the definitions for winter weather alerts.

Table 9-1. Winter Weather Alerts

Winter weather advisory	This alert may be issued for a variety of severe conditions. Weather advisories may be announced for snow, blowing or drifting snow, freezing drizzle, freezing rain, or a combination of weather events.
Winter storm watch	Severe winter weather conditions may affect your area (freezing rain, sleet or heavy snow may occur separately or in combination).
Winter storm warning	Severe winter weather conditions are imminent.
Freezing rain or freezing drizzle	Rain or drizzle is likely to freeze upon impact, resulting in a coating of ice glaze on roads and all other exposed objects.
Sleet	Small particles of ice, usually mixed with rain. If enough sleet accumulates on the ground, it makes travel hazardous.
Blizzard warning	Sustained wind speeds of at least 35 mph are accompanied by considerable falling or blowing snow. This alert is the most perilous winter storm with visibility dangerously restricted.
Frost/freeze warning	Below freezing temperatures are expected and may cause significant damage to plants, crops and fruit trees.
Wind chill	A strong wind combined with a temperature slightly below freezing can have the same chilling effect as a temperature nearly 50 degrees lower in a calm atmosphere. The combined cooling power of the wind and temperature on exposed flesh is called the wind-chill factor.

HISTORY OF SEVERE WINTER STORMS

Winter storm events that have occurred in the Planning Area from 1997 to 2017 are presented in Table 9-2, along with reported injuries, deaths and damages.

Table 9-2. Severe Winter Storms for the Planning Area, 1997–2017

Type	Location	Date	Deaths	Injuries	Property Damage	Crop Damage
Winter storm (ice)	County	01/12/1997	0	0	0	0
Winter Storm	County	12/23/1998	0	0	75K	0
Winter storm (ice)	County	12/13/2000	0	0	1.0M	0
Ice Storm	County	12/07/2005	1	2	70K	0
Ice Storm	County	1/16/2007	0	0	1K	0K
Ice Storm	County	2/04/2011	0	0	0K	0K
Winter Storm	County	2/04/2011	0	0	0K	0K
Winter Weather (Ice)	County	12/07/2013	0	0	0	0
Winter Weather (Ice)	County	01/28/2014	0	0	0	0
Winter Weather (Ice)	County	01/28/2014	0	0	0	0
Winter Weather (Ice)	County	02/06/2014	0	0	50K	0
Winter Weather (Ice)	County	03/02/2014	0	0	0	0
Winter Storm	County	03/03/2014	0	0	0	0
Heavy Snow	County	12/07/2017	0	0	0	0

PEOPLE AND PROPERTY AT RISK

Winter storms usually impact large geographical areas; thus, all the population, buildings, critical facilities, infrastructure and lifelines, and hazardous materials facilities in the Planning Area are considered exposed to the hazard and could potentially be impacted.

Winter storms impact large geographical areas of the planning area, thus the entire population, buildings, identified critical infrastructure, lifelines, and hazardous materials facilities are considered exposed to the hazard and could potentially be impacted. In the planning area, winter storms do not have a specific location. However, all participating entities are at risk and could be affected by this hazard. It is understood, however, that there are populations throughout the planning area that are more vulnerable than others. Information is provided in Chapter 5 – Hazards the Region Faces and What's at Risk on the different populations found within the planning area. In analyzing the relative risks from hazards, potential losses and ability

to recover from losses, it is understood that the more vulnerable populations are those that are in the lower socio-economic levels.

POTENTIAL DAMAGES AND LOSSES

Table 9-3 presents annualized expected property losses due to winter storms in Brazos County and participating entities, which were calculated using the statistical risk assessment methodology. The general steps used in the statistical risk assessment methodology are; to compile data from local and national sources, clean up the data by removing duplication, identify patterns in frequency and vulnerability, extrapolate the statistical patterns, and produce meaningful results with the development of annualized loss estimates.

Table 9-3. Potential Annualized Losses due to Winter Storms in the Planning Area

County	Annualized Expected Property Losses (\$)
Brazos	66,249

SECTION 10: TORNADOES

WHY TORNADOES ARE A THREAT

Tornadoes are unquestionably the most violent storms on the planet. A tornado is a violently rotating column of air extending between, and in contact with, a cloud and the surface of the earth. The most violent tornadoes are capable of tremendous destruction with wind speeds of 250 miles per hour or more.

The most powerful tornadoes are spawned by "super-cell thunderstorms." These storms are affected by horizontal wind shears (winds moving in different directions at different altitudes) that begin to rotate the storm. This horizontal rotation can be tilted vertically by violent updrafts, and the rotation radius can shrink, forming a vertical column of very quickly swirling air. This rotating air can eventually reach the ground, forming a tornado.

Table 10-1. Enhanced Fujita Tornado Scale implemented February 1, 2007

EF-Scale Number	Intensity	Wind Speed (mph)	Type of Damage Done
EF0	Gale tornado	65-85	Some damage to chimneys; breaks branches off trees; pushes over shallow-rooted trees; damages sign boards.
EF1	Moderate tornado	86-110	The lower limit is the beginning of hurricane wind speed; peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos pushed off roads; attached garages may be destroyed.
EF2	Significant tornado	111-135	Considerable damage. Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light object missiles generated.
EF3	Severe tornado	136-165	Roof and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted.
EF4	Devastating tornado	166-200	Well-constructed homes leveled; structures with weak foundations blown off some distance; cars thrown and large missiles generated.
EF5	Incredible tornado	Over 200	Strong frame houses lifted off foundations and carried considerable distances to disintegrate; automobile sized missiles flying through the air in excess of 100 meters; trees debarked; steel reinforced concrete badly damaged.

The planning area is affected by frequent severe weather and thunderstorms. Thunderstorms form when warm, moist air collides with cooler, drier air. Since these masses tend to come

together during the transition from summer to winter, most thunderstorms occur during the spring and fall months. Severe thunderstorms can produce tornadoes, high winds, and hail—any of which can cause extensive property damage and loss of life.

Tornadoes occasionally accompany tropical storms and hurricanes that move over land. Tornadoes are the most common to the right and ahead of the path of the storm center as it comes ashore.

Tornadoes vary in terms of duration, wind speed and the toll that they take, as shown in Table 10-2.

Table 10-2. Variations Among Tornadoes

Weak Tornadoes	Strong Tornadoes	Violent Tornadoes
69% of all tornadoes	29% of all tornadoes	2% of all tornadoes
Less than 5% of tornado deaths	Nearly 30% of all tornado deaths	70% of all tornado deaths
Lifetime 1-10+ minutes	May last 20 minutes or longer	Lifetime can exceed one hour
Winds less than 110 mph	Winds 110 – 205 mph	Winds greater than 205 mph

HAZARD PROFILE

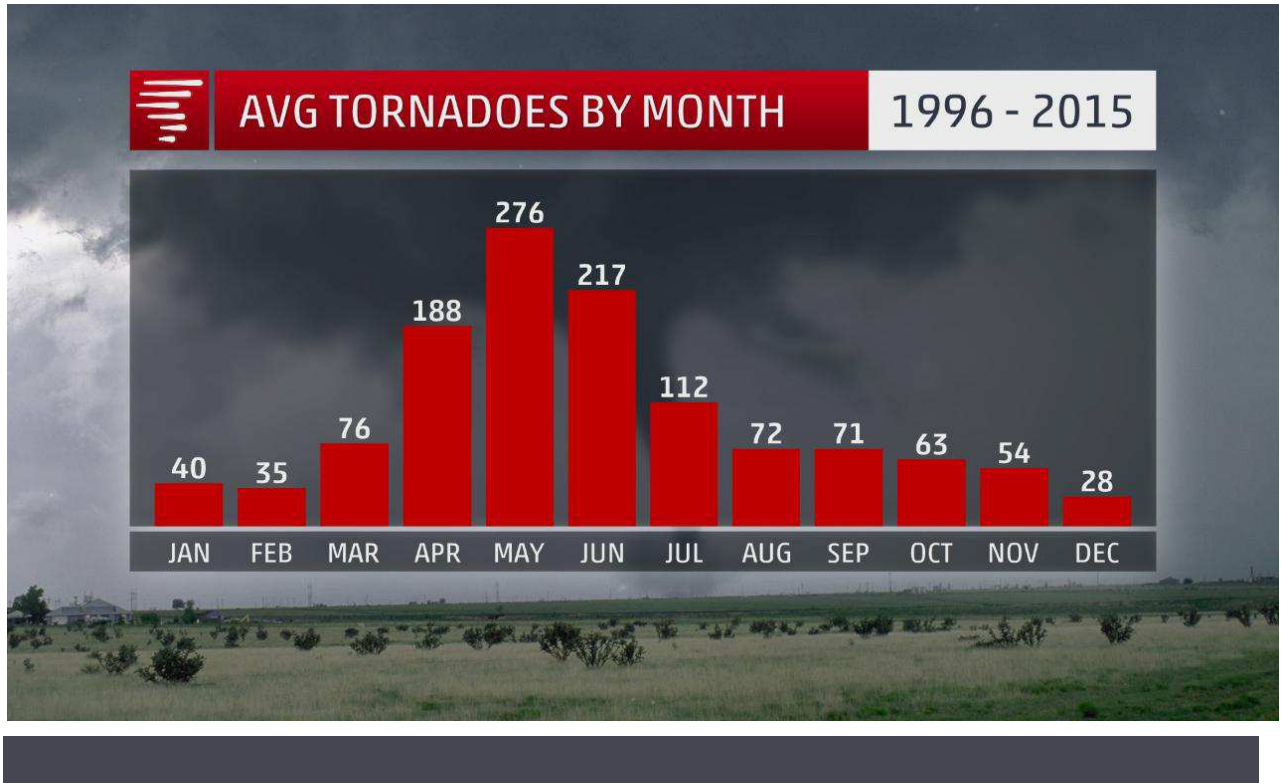
The impact of tornadoes can be substantial. They can cause multiple deaths, completely shut down facilities for thirty days or more, and cause more than fifty percent of affected properties to be destroyed or suffer major damage.

The maximum extent of tornadoes that can affect Brazos County and the participating entities is an EF5, which according to the Enhanced Fujita Scale, would be an incredibly strong tornado with winds speeds over 200 miles per hour.

While the frequency of occurrence of tornadoes in the planning area is less than 1% per year, millions of dollars of damage has occurred within the planning area.

Seasonal patterns are relevant to tornadoes. Thunderstorms form when warm, moist air collides with cooler, drier air. Since these masses tend to come together during the transition from summer to winter, most thunderstorms and resulting tornadoes occur during the spring (March, April, May and June) and, at a lesser intensity, during the fall (September, October, and November). Warning time for tornadoes is minimal.

Figure 10-1. Occurrence of Texas Tornadoes, by Month



HISTORY OF TORNADOES

Historical evidence, as reflected in Table 10-3, shows that most of the planning area is vulnerable to tornado activity. There is no defined hazard boundary for tornadoes.

Since the Enhanced Fujita Scale was not implemented until 2007, the original Fujita Scale is included here to help understand the History of Tornado Events scale in Table 10-3.

ORIGINAL FUJITA SCALE		ENHANCED FUJITA SCALE	
F5	261-318 mph	EF5	+200 mph
F4	207-260 mph	EF4	166-200 mph
F3	158-206 mph	EF3	136-165 mph
F2	113-157 mph	EF2	111-135 mph
F1	73-112 mph	EF1	86-110 mph
F0	<73 mph	EF0	65-85 mph

Table 10-3 identifies reported tornado events in the planning area, and Table 10-4 gives the total number of tornadoes in the Planning Area.

Table 10-3. History of Tornado Events in the Planning Area as Reported to the National Weather Service, 01/01/1950 to 08/26/2017

Type	Date	Time	Magnitude	Death	Injury	Property Damage	Crop Damage
Tornado	12/2/1953	1530	F2	0	0	25K	0
Tornado	4/30/1954	0730	F2	0	0	0K	0
Tornado	4/5/1956	1515	F3	0	0	250K	0
Tornado	3/31/1957	1610	F0	0	0	3K	0
Tornado	5/20/1960	0615	F0	0	0	0K	0
Tornado	5/17/1965	1456	F0	0	0	0K	0
Tornado	2/10/1981	0245	F1	0	1	25K	0

Tornado	11/19/1983	0910	F2	0	0	2.5M	0
Tornado	4/27/1990	1758	F0	0	0	0K	0
Tornado	5/13/1994	1525	F0	0	0	0	0
Tornado	5/18/1995	0230	F0	0	0	60K	0
Tornado	5/18/1995	0230	F0	0	0	60K	0
Tornado	1/21/1998	1644	F0	0	0	35K	0
Tornado	10/17/1998	1540	F1	0	0	20K	0
Tornado	10/12/2001	1150	F1	0	0	60K	0
Tornado	12/23/2002	1120	F0	0	0	5K	0
Tornado	6/13/2003	1500	F0	0	0	1K	0
Tornado	10/5/2003	1705	F1	0	1	750K	0
Tornado	10/5/2003	1730	F0	0	0	3K	0
Tornado	2/24/2004	2110	F0	0	0	25K	0
Tornado	3/17/2004	0040	F0	0	0	3K	0
Tornado	5/13/2004	0545	F1	0	0	515K	0
Tornado	12/29/2006	1523	F1	0	3	2.8M	0K
Tornado	4/28/2009	1441	F0	0	0	0K	0K
Tornado	05/26/2016	1130	EF1	0	0	7M	0K
Tornado	08/26/2017	0705	EF0	0	0	0M	0K

Table 10-4. Overall Historical Impact of Tornadoes in the Planning Area

County	Number of events	Maximum EF-Scale
Brazos	26	EF3

PEOPLE AND PROPERTY AT RISK

Tornadoes can occur throughout the entire planning area. Because it cannot be predicted where a tornado will touch down, almost all of the buildings and facilities in the Planning Area are considered to be vulnerable to tornadoes. Greater losses would be expected in areas where there is substandard housing. Infrastructure such as power poles and lines could be downed during a strong tornado. Critical facilities within the Planning Area that have back-up generators could continue to operate. It is understood, however, that there are populations throughout the planning area that are more vulnerable than others. Information is provided in Chapter 5 – Hazards the Region Faces and What's at Risk on the different populations found within the planning area. In analyzing relative risks from tornadoes, potential losses and the ability to recover from losses, it is understood that the more vulnerable populations are those that are in the lower socio-economic levels. They are more likely to suffer greater losses due to damages to substandard housing. They may also lack resources, such as insurance, to recover from losses.

Of note, mobile and manufactured homes are especially vulnerable to tornadoes. There are a total of 5,255 mobile or manufactured homes within the entire planning area, as of 2016 (2016 5-year ACS survey).

POTENTIAL DAMAGES AND LOSSES

Table 10-5 shows potential annualized expected property losses for the Planning Area, which were calculated using the statistical risk assessment methodology. The general steps used in the statistical risk assessment methodology are; to compile data from local and national sources, determine the average exposed value based on likely tornado intensity and path area, and calculate annualized loss estimates.

Table 10-5. Potential Annualized Losses from Tornadoes in the Planning Area

Jurisdiction	Exposed Value	Annualized Loss	Annualized Loss Percentage
Bryan	\$5,538,141,000.00	\$3,488,846.54	0.06%
College Station	\$9,316,285,000.00	\$6,628,623.26	0.07%
Kurten	\$13,621,000.00	\$35,994.79	0.26%
Wixon Valley	\$16,074,000.00	\$107,952.79	0.67%
Unincorporated	\$16,827,581,000.00	\$420,384.81	0.00%

SECTION 11: HAIL

WHY HAILSTORMS ARE A THREAT

Large hail results in nearly \$1 billion in damage annually to property and crops in the United States. Hail is made up of spherical balls of ice. It is a product of thunderstorms or intense showers. It is generally white and translucent, consisting of liquid or snow particles encased with layers of ice. Hail is formed within the high tops of a well-organized thunderstorm. An updraft will sometimes throw rain droplets high up into the tops of a cloud, where the temperature is well below freezing. The droplet freezes, then falls and can become caught in another updraft. This time, a second coating of ice is added, making the hail stone larger. This cycle continues until the hailstone is too heavy to be lifted again and falls to the ground as hail. The stronger the updraft, the longer the hail develops and the bigger the hailstone is when it falls.

Hail is not to be confused with sleet, which consists of frozen raindrops that fall during winter storms. Hail can be smaller than a pea or as large as a softball and can be very destructive to plants, cars, homes, buildings and crops.

The development and maturation of hailstones are very complex processes. Numerous factors impact the size of the hailstone including updraft strength, storm scale wind profile, height of the freezing level, and the mean temperature and relative humidity of downdraft air. The complexities of hail formation and sub-cloud processes make utilizing Doppler radar data to forecast the occurrence of large hail difficult. Verification of hail events is also important, but is a cumbersome process due to the limited temporal and spatial distribution of the event.

Large hailstones fall at speeds faster than 100 mph. Large falling balls of ice can be very dangerous. Large hail can do significant damage to automobiles, windows, roofs, crops and animals. When caught in a hailstorm, it is important to seek shelter immediately. Pets and livestock are particularly vulnerable to hail, and should be brought into a shelter.

HAZARD PROFILE

Hailstorms are generally localized and their impact is considered limited since the injuries they cause are generally treatable with first aid, they shut down critical facilities and services for 24 hours or less, and less than ten percent of affected properties are destroyed or suffer major damage.

Hail events in the planning area are likely. Most hailstorms occur during the spring (March, April and May) and the fall, during the month of September.

Warning time for a hailstorm is generally minimal to no warning. The National Weather Service classifies a storm as severe if hail of $\frac{3}{4}$ of an inch in diameter (approximately the size of a penny) or greater is imminent based on radar intensities or observed by a spotter or other people.

The extent of hail in the Planning Area can range from $\frac{3}{4}$ of an inch up to 1.75 inches. The frequency of occurrence of hail in planning area is approximately 2 incidents per year.

HISTORY OF HAILSTORMS

Table 11-1 shows the historical hail events that hit the planning area. Historical hail events with hailstone size one inch or greater are listed in Table 12-1 below. Table 12-2 aggregates historical hail events by jurisdiction.

**Table 11-1. Overall Historical Hail Impact for Brazos County
(National Climatic Data Center), 2005-2017**

Location or County	Date	Time	Type	Magnitude	Death	Injury	Property Damage	Crop Damage
Bryan	3/19/2005	5:50 PM	Hail	1.75 in.	0	0	30K	0
Bryan	3/19/2005	6:02 PM	Hail	1.75 in.	0	0	30K	0
College Station	3/19/2005	6:02 PM	Hail	0.75 in.	0	0	4K	0
College Station	3/19/2005	6:08 PM	Hail	0.88 in.	0	0	5K	0
College Station	3/19/2005	6:25 PM	Hail	1.75 in.	0	0	30K	0
College Station	3/19/2005	6:35 PM	Hail	1.75 in.	0	0	30K	0
Bryan	4/5/2005	8:45 PM	Hail	0.75 in.	0	0	6K	0
College Station	10/31/2005	3:05 PM	Hail	0.75 in.	0	0	2K	0
College Station	4/25/2006	11:30 PM	Hail	1.75 in.	0	0	20K	0
Bryan	5/1/2007	16:06 PM	Hail	0.88 in.	0	0	0K	0K
Bryan Coulter Airport	4/4/2008	8:03 AM	Hail	1.00 in.	0	0	1K	0K
Bryan Coulter Airport	4/4/2008	8:29 AM	Hail	1.25 in.	0	0	1K	0K
College Station	7/19/2009	17:55 PM	Hail	1.75 in.	0	0	5K	0K

College Station	7/19/2009	17:57 PM	Hail	0.75 in.	0	0	OK	OK
College Station	7/20/2009	18:25 PM	Hail	1.00 in.	0	0	OK	OK
College Station	8/12/2009	16:15 PM	Hail	0.88 in.	0	0	OK	OK
College Station	4/07/2010	16:58 PM	Hail	0.75 in.	0	0	OK	OK
College Station	2/03/2012	19:15	Hail	1.00 in	0	0	5K	OK
College Station	2/03/2012	19:35	Hail	2.25 in	0	0	30K	OK
College Station	12/09/2012	18:30	Hail	.75 in	0	0	OK	OK
College Station	05/09/2013	16:48	Hail	1.00 in	0	0	OK	OK
Millican	05/09/2014	19:50	Hail	1.00 in	0	0	OK	OK
Bryan	04/16/2015	16:09	Hail	1.50 in	0	0	OK	OK
Bryan	04/19/2015	14:40	Hail	.88 in	0	0	OK	OK
Bryan	04/19/2015	15:02	Hail	1.00 in	0	0	OK	OK
Bryan	03/27/2017	01:20	Hail	1.25 in	0	0	OK	OK

Table 11-2. Overall Historical Hail Impact by County (National Climatic Data Center)

County	Number of Events	Maximum Diameter (inches)
Brazos	26	1.75

PEOPLE AND PROPERTY AT RISK

Hail may impact large geographical areas of the planning area, thus the entire population, buildings, identified critical infrastructure, lifelines, and hazardous materials facilities are considered exposed to the hazard and could potentially be impacted. In the planning area, hail does not have a specific location. However, all participating entities are at risk and could be affected by this hazard. It is understood, however, that there are populations throughout the planning area that are more vulnerable than others. Information is provided in Chapter 5 – Hazards the Region Faces and What’s at Risk on the different populations found within the

planning area. In analyzing the relative risks from hazards, potential losses and ability to recover from losses, it is understood that the more vulnerable populations are those that are in the lower socio-economic levels.

POTENTIAL DAMAGES AND LOSSES

To estimate losses due to hail, PBS&J used NOAA historical hail loss data to develop a hail stochastic model. In this model:

Losses were scaled to account for inflation;

Average historic hail damageability was used to generate losses for historical hail events where losses were not reported;

Expected annualized losses were calculated through a non-linear regression of historical data; and

Probabilistic losses were scaled to account for would-be losses where no exposure/instrument was present at the time of the event.

Table 11-3 shows potential annualized losses in the Planning Area.

Table 11-3. Overall Historical Hail Impact for the Planning Area (National Climatic Data Center)

County	Annualized Expected Property Damage (\$)
Brazos	281, 565

SECTION 12: THUNDERSTORMS

WHY THUNDERSTORMS ARE A THREAT

A thunderstorm is defined as a storm of heavy rain accompanied by lightning, thunder, wind, and sometimes hail.

Damaging winds are often called “straight-line” winds to differentiate the damage they cause from tornado damage. Strong thunderstorm winds can come from a number of different processes. Most thunderstorm winds that cause damage at the ground are a result of outflow generated by a thunderstorm downdraft. Damaging winds are classified as those exceeding 50-60 mph.

Damage from severe thunderstorm winds account for half of all severe reports in the lower 48 states and is more common than damage from tornadoes. Wind speeds can reach up to 100 mph and can produce a damage path extending for hundreds of miles.

Since most thunderstorms produce some straight-line winds as a result of outflow generated by the thunderstorm downdraft, anyone living in thunderstorm-prone areas of the world is at risk for experiencing this hazard.

People living in mobile homes are especially at risk for injury and death. Even anchored mobile homes can be seriously damaged when winds gust over 80 mph.

Lightning is a massive electrostatic discharge between electrically charged regions within clouds, or between a cloud and the Earth’s surface.

Thunderstorms occasionally accompany tropical storms and hurricanes that move over land which may produce damaging winds and dangerous lightning.

HAZARD PROFILE

Thunderstorms are generally localized events. The severity of impact of thunderstorms is considered to be limited since they generally result in injuries treatable with first aid, shut down critical facilities and services for 24 hours or less, and less than ten percent of affected properties are destroyed or suffer major damage.

Most thunderstorms occur during the spring (March, April and May) and the fall, during the month of September.

Warning time for thunderstorms is generally minimal to no warning.

The maximum extent of thunderstorm winds in the planning area can reach 78 knots. Some minor localized flooding may also occur if the thunderstorms bring substantial rain amounts.

The frequency of occurrence of thunderstorms in the planning area is between 1 and 2 per year.

HISTORY OF THUNDERSTORMS

Table 12-1 gives aggregated historical thunderstorm information for the planning area. Historical thunderstorm events are detailed in Table 12-2. It is important to note that only thunderstorms that have been reported are recorded in these tables. It is likely that a higher number of occurrences have not been reported.

Table 12-1. Thunderstorms in Brazos County, 2000-2017
<http://www4.ncdc.noaa.gov/cgi-win/wwcgl.dll?wwevent~storms>

County	Number of Events
Brazos	23

Table 12-2. Thunderstorms in Brazos County, 2000-2017

Type	Location or County	Date	Time	Magnitude	Death	Injury	Property Damage	Crop Damage
Thunderstorm Winds	Brazos	02/10/2009	2325	52 kts.	0	0	8K	0
Thunderstorm Winds	Kurten	03/31/2009	0445	50 kts.	0	0	3K	0
Thunderstorm Winds	Bryan	05/03/2009	0454	55 kts.	0	0	2K	0
Thunderstorm Winds	Kurten	05/03/2009	0454	55 kts.	0	0	2K	0
Thunderstorm Winds	Bryan	05/03/2009	0500	55 kts.	0	0	5K	0
Thunderstorm Winds	College Station	07/19/2009	1800	56 kts.	0	0	1K	0
Thunderstorm Winds	Bryan	02/01/2011	0440	52 kts.	0	0	5K	0
Thunderstorm Winds	Bryan	05/12/2001	1030	58 kts	0	0	0	0

Thunderstorm Winds	Kurten	06/06/2011	1735	52 kts	0	0	1K	0
Thunderstorm Winds	Bryan	08/24/2011	1829	52 kts	0	0	0	0
Thunderstorm Winds	Bryan	01/09/2012	0412	52 kts	0	0	3K	0
Thunderstorm Winds	Bryan	01/25/2012	0715	50 kts	0	0	6K	0
Thunderstorm Winds	College Station	01/25/2012	0724	55 kts	0	0	15K	0
Thunderstorm Winds	Bryan	02/03/2012	1938	65 kts	0	0	5K	0
Thunderstorm Winds	Bryan	08/07/2012	1645	50 kts	0	0	0	0
Thunderstorm Wind	College Station	10/13/2013	0158	52 kts	0	0	15K	0
Thunderstorm Wind	Bryan	05/23/2015	2230	55 kts	0	0	0	0
Thunderstorm Winds	Bryan	08/25/2015	1115	55 kts	0	0	0	0
Thunderstorm Winds	College Station	08/25/2015	1128	59 kts	0	0	0	0
Thunderstorm Winds	Bryan	04/27/2016	0136	60 kts	0	0	0	0
Thunderstorm Winds	College Station	04/27/2016	0140	60 kts	0	0	0	0
Thunderstorm Wind	Edge	01/02/2017	0635	52 kts	0	0	0	0
Thunderstorm Wind	Smetana	03/27/2017	0120	51 kts	0	0	0	1K
Thunderstorm Wind	Millican	05/21/2017	0008	60kts	0	0	0	0
Thunderstorm Wind	Bryan	05/28/52017	1853	53kts	0	0	0	0

Thunderstorm Wind	Smetana	05/28/2017	1853	52kts	0	0	0	0
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Table 12-3. Lightning in Brazos County, 2000-2017

Type	Location or County	Date	Time	Magnitude	Death	Injury	Property Damage	Crop Damage
Lightning	Bryan	7/8/2009	1515		0	2	0	0
Lightning	College Station	5/15/2010	445		0	0	2000	0
Lightning	College Station	6/9/2010	855		0	0	5000	0
Lightning	College Station	5/12/2011	1030		0	0	5000	0
Lightning	Wellborn	5/12/2011	1400		0	0	5000	0
Lightning	Bryan	5/27/2014	2305		0	0	35000	0
Lightning	College Station	4/11/2017	1030		0	0	300	0

PEOPLE AND PROPERTY AT RISK

Thunderstorms impact large geographical areas of the planning area, thus the entire population, buildings, identified critical infrastructure, lifelines, and hazardous materials facilities are considered exposed to the hazard and could potentially be impacted. In the planning area, thunderstorms do not have a specific location. However, all participating entities are at risk and could be affected by this hazard. It is understood, however, that there are populations throughout the planning area that are more vulnerable than others. Information is provided in Chapter 5 – Hazards the Region Faces and What's at Risk on the different populations found within the planning area. In analyzing the relative risks from hazards, potential losses and ability to recover from losses, it is understood that the more vulnerable populations are those that are in the lower socio-economic levels.

SECTION 13: DAM FAILURE

WHY DAM FAILURE IS A THREAT

Dams are water storage, control, or diversion barriers that impound water upstream in reservoirs. Dams provide many benefits and are an important part of our public works infrastructure. They are built for a variety of reasons, including maintenance of lake levels, flood control, power production, and water supply.

Although dams have many benefits, the risk that a dam could fail still exists. Dams can pose a risk to communities if not designed, operated and maintained properly. Dam failure is a collapse or breach in the structure. While most dams have storage volumes small enough that failures have little or no repercussions, dams with large storage amounts can cause significant flooding downstream. Dam failures can result from any one or a combination of the following causes:

- Prolonged periods of rainfall and flooding, which cause most failures;

- Inadequate spillway capacity, resulting in excess overtopping flows;

- Internal erosion caused by embankment or foundation leakage or piping;

- Improper maintenance, including failure to remove trees, repair internal problems, or maintain gates, valves, and other operational components;

- Improper design, such as use of improper construction materials;

- Failure of upstream dams in the same drainage basin;

- Landslides into reservoirs, which cause surges that result in overtopping;

- High winds, which can cause significant wave action and result in substantial erosion;

- Earthquakes, which typically cause longitudinal cracks at the tops of the embankments, leading to structural failure.

The nation's infrastructure of dams is aging. Old age and neglect can intensify vulnerability to these same influences. Furthermore, the terrorist attacks of September 11, 2001, have brought an increased focus on infrastructure protection nationwide, including the safety of dams.

Dam failures may result in the quick release of all the water in the lake. In the event of a dam failure, the energy of the water stored behind the dam is capable of causing rapid and unexpected flooding downstream, resulting in loss of life and great property damage downstream of the dam.

HAZARD PROFILE

The frequency of occurrence of a major dam failure in the planning area is a highly unlikely event. If a major dam should fail, however, the severity of impact could be substantial. It could

cause multiple deaths, completely shut down facilities for thirty days or more, and cause more than fifty percent of affected properties to be destroyed or severely damaged.

The extent of a major dam failure in our planning area is that several thousand gallons of water could be released at a sudden and unexpected rate. Over 2,000 people could be affected, 700 buildings could be flooded and several million dollars in damages could occur.

A flooding-related dam failure would most likely occur in months when floods are most likely -- during the spring (April, May and June) and fall (October, November, and December). Warning time for dam failure, or the potential speed of onset, varies with the causes but is estimated to be three to six hours.

There are about 80,000 dams in the United States today. Catastrophic dam failures have occurred frequently throughout the past century. Between 1918 and 1958, 33 major dam failures in the United States caused 1,680 deaths—an average of 42 deaths a year. According to information from damsafety.org and damfailures.org, there were sixty-six major dam failures worldwide from 1959 - 2018. There have been 3 dam failures in the planning area – Leisure Lake in 2009, Bryan Utilities Lake in 2016, and Clifty Creek Lake (spillway breach) in 2017.

PEOPLE AND PROPERTY AT RISK

High-hazard-potential dams are those at which failure or misoperation would probably cause loss of human life. Significant-hazard-potential dams are those at which failure or misoperation probably would not result in loss of human life but could cause economic loss, environmental damage, disruption of lifeline facilities, or other significant damage. Significant-hazard-potential dams often are located in predominantly rural or agricultural areas but could be located in populated areas having significant infrastructure. Low-hazard-potential dams are those at which failure or misoperation probably would not result in loss of human life but might cause limited economic and/or environmental losses. Losses would be limited mainly to the owner's property.

Table 13-1. Dam Failure Hazard-Potential Classifications, FEMA

Hazard Potential Classification	Loss of Human Life	Economic, Environmental, and Lifeline Losses
Low	None expected	Low and generally limited to owner
Significant	None expected	Some local damages
High	Probable. One or more expected	Yes (but not necessary for this classification)

Low hazard dams pose no threat to the communities participating in this plan, and thus, will not be profiled further. Significant hazard dams do pose some threat to property damage and high hazard dams, pose a threat to human life as well as property damage for the participating entities and are profiled in this plan.

LOCATION OF HAZARDOUS AREAS

Figure 13-1 shows the location of dams in planning area. Detailed maps of dam failure inundation areas are not currently available for all dams. This is noted as a data deficiency and a hydrology study to address this data deficiency is included for Brazos County in the list of mitigation projects for 2019-2024. It is assumed that dam breaks happen most likely at the time of maximum capacity of the lake and that the location of the released water would inundate a downstream quarter-circle buffer proportional to the maximum capacity of the dam to represent the maximum impact area.

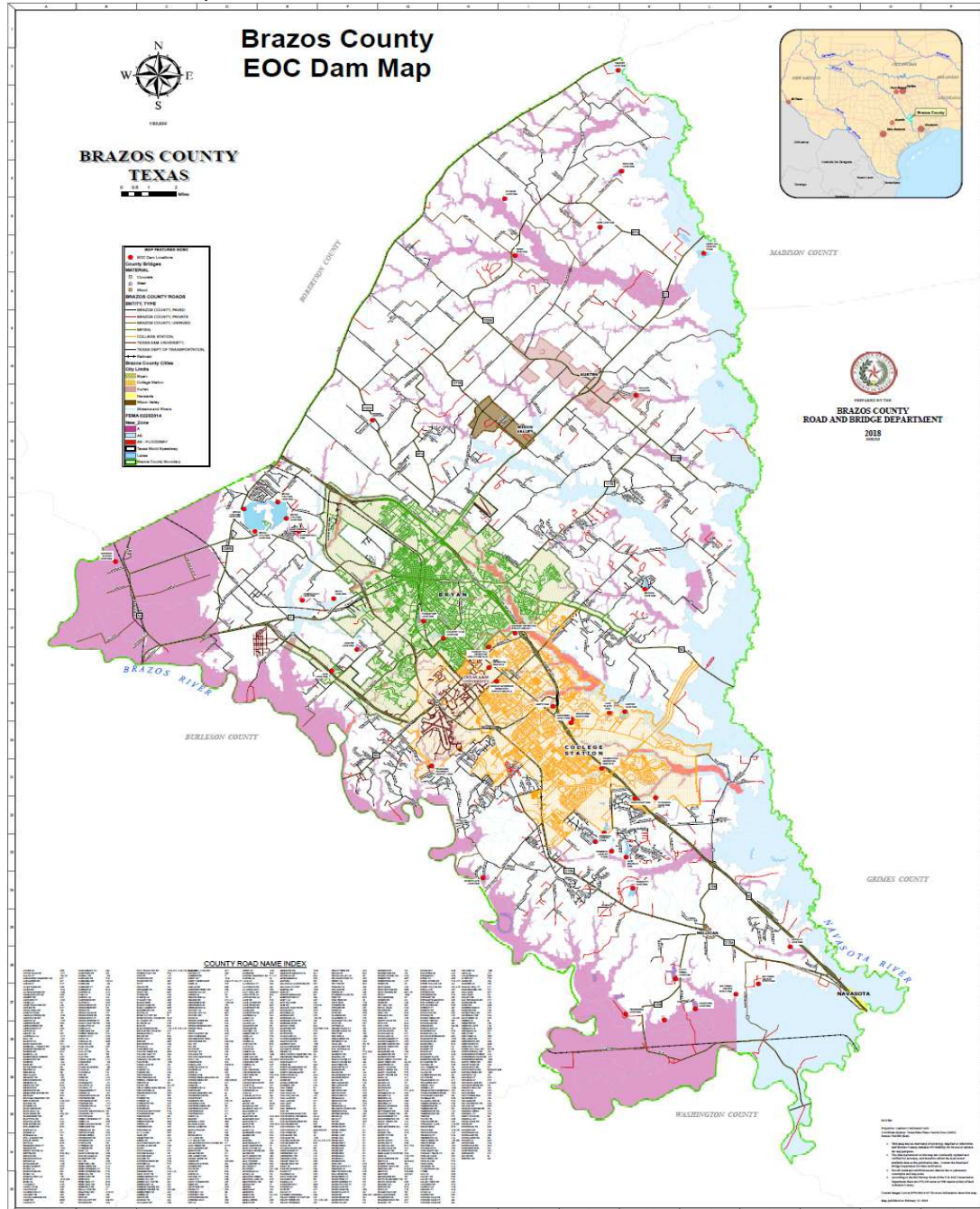


Table 13-2. Summary Status of Dams in Brazos County

County	High	Significant	Low	Undetermined	Total
Brazos	7	5	26	0	38

Legislation was passed on September of 2013 allowed for some dams to be designated as exempt if they met all of the following five criteria:

Privately owned

Less than 500 acre foot maximum capacity

Located in a county with population of less than 350,000 (per 2010 census)

Located outside the city limits

Low or significant hazard rating

While owners are still required to do maintenance on those dams, TCEQ is not required to do the every 5 year inspection on those dams. For those dams that are non-exempt (see Table 13-3), the owners must continue the maintenance of the dams, schedule inspections every 5 years with TCEQ, and if they are high and significant hazard dams, they must also produce an emergency action plan. As part of the emergency action plan, the owners need to do a tabletop exercise every five years and submit an annual update or a letter stating there were no updates necessary.

Table 13-3. High and Significant/Exempt and Non-Exempt Dams in Brazos County

Dam Name	Exemption Status	Latitude/Longitude	Dam Height (Ft.)	Maximum Storage (acre feet)	Normal Storage (acre feet)	Has Available Data
BRYAN UTILITIES LAKE DAM	Non-Exempt	30.710067 / -96.453721	59	20763	13647	Data Deficient
CARTER LAKE DAM	Non-Exempt	30.594992 / -96.248677	32	2196	481	Data Deficient
COUNTRY CLUB LAKE DAM	Non-Exempt	30.639827 / -96.358982	10	128	42	Yes

CSISD AT ANDERSON ST DETENTION STRUCTURE NO 3	Non-Exempt	30.613940 / - 96.327372	11.7	9	0	Data Deficient
FIN- FEATHER LAKE DAM	Non-Exempt	30.649868 / - 96.371041	16.1	300	156	Data Deficient
LAKE ARAPAHO DAM	Non-Exempt	30.510553 / - 96.250460	37	924	436	Data Deficient
LEISURE LAKE DAM	Non-Exempt	30.633847 / - 96.411916	25	322	175	Data Deficient
NANTUCKET DAM	Non-Exempt	30.543651 / - 96.243367	20	428	140	Data Deficient
OAKLAND LAKE DAM	Non-Exempt	30.776483 / - 96.235630	32	550	272	Data Deficient
TAMU DETENTION DAM NO 8	Non-Exempt	30.621050 / - 96.333642	8.2	140	0	Yes
THOUSAND OAKS DAM NO 11	Non-Exempt	30.544471 / - 96.231595	22	120	58	Data Deficient
TERRY LAKE	Exempt	30.6211 / -96.334	17.5	21	18	Data Deficient

POTENTIAL DAMAGES AND LOSSES

Tables 13-4 & 5 show the risk to people and buildings of failure of Country Club Lake (Figure 13-2) and TAMU Detention Dam #8 (Figure 13-3), respectively. It was assumed that dam breaks happen most likely at the time of maximum capacity and that a downstream quarter-circle buffer proportional to the maximum capacity of dams represents the maximum impact area.

Figure 13-2. Country Club Lake

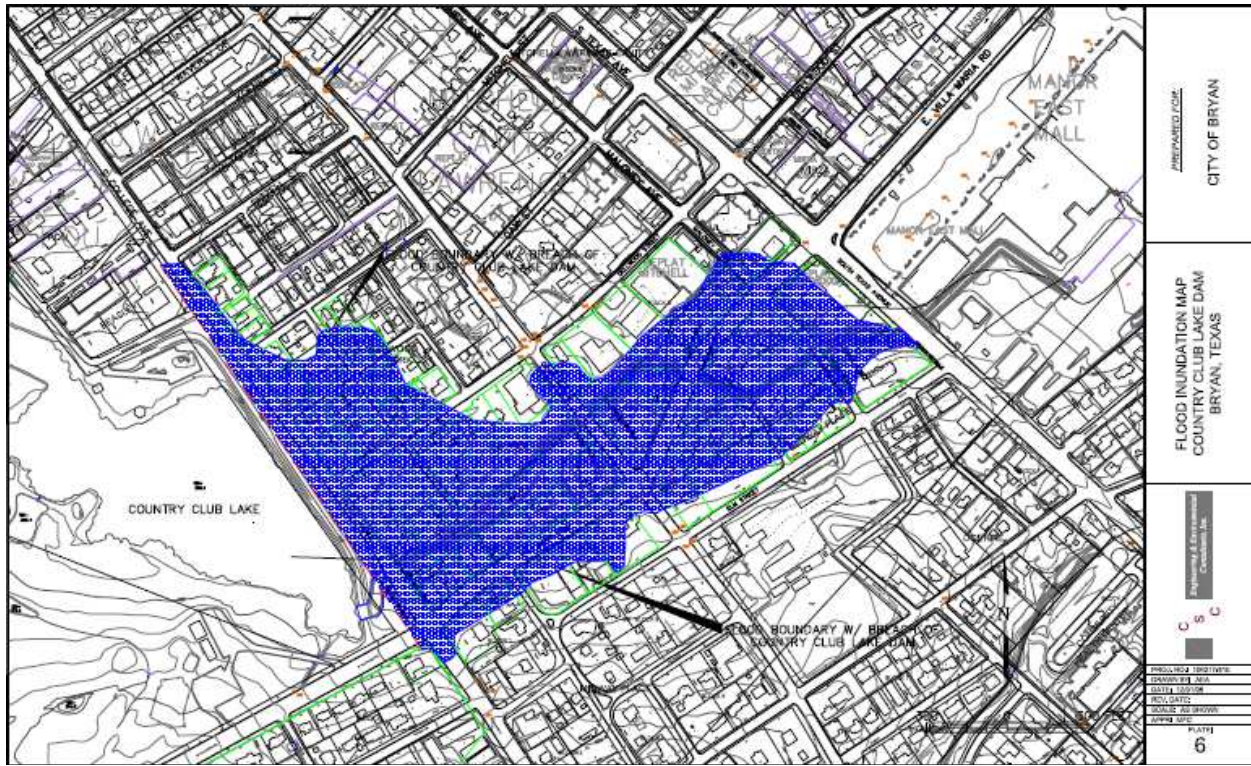


Table 13-4. Exposure of People and Buildings to Country Club Lake

	Parcels	Value	Structures	Value	Population
Residential	54	\$4,904,587	44	\$4,624,447	~180
Commercial	40	\$12,358,400	36	\$12,211,670	

Additionally, Villa Maria and College Avenue are highly trafficked roadways. So, there could be numerous motorists within the inundation area depending on the time of day.

Figure 13-3. TAMU Detention Dam #8

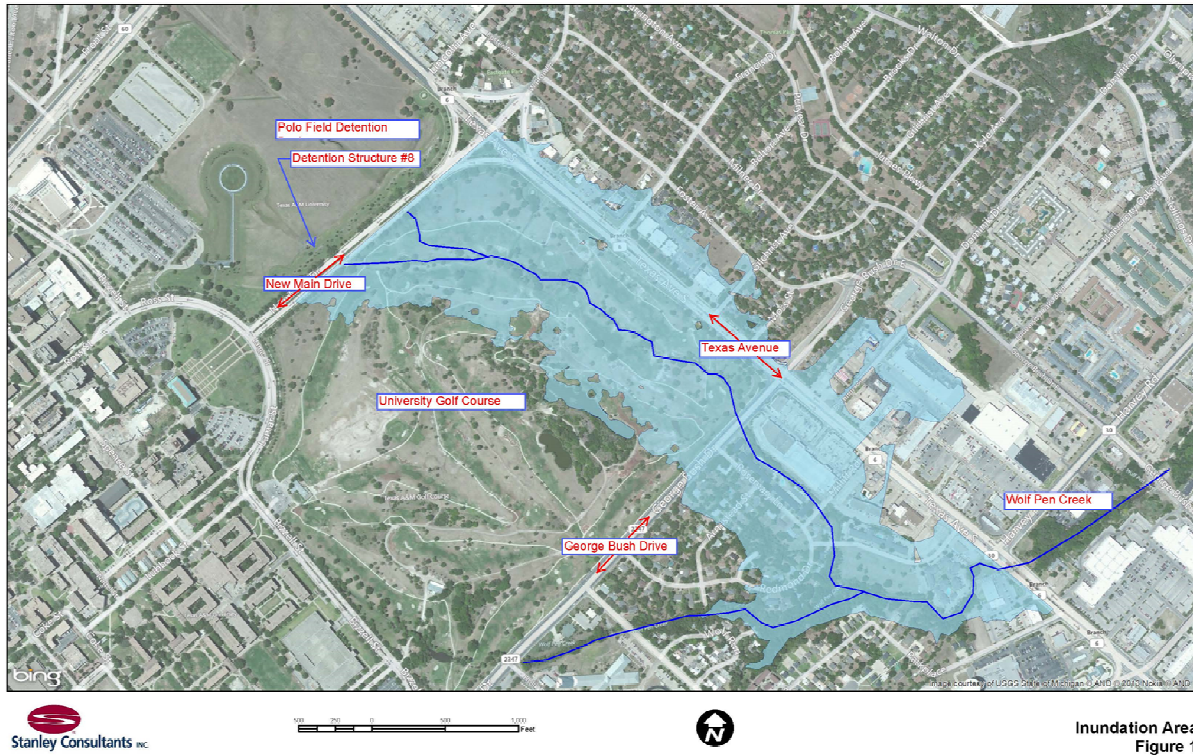


Table 13-5. Exposure of People and Buildings to TAMU Detention Dam #8

	Parcels	Value	Structures	Value	Population
Residential	73	\$20,926,630	66	\$19,451,270	769
Commercial	19	\$48,037,109	18	\$44,322,719	
Rural Land – not defined	1	\$1,020,000			

Additionally, Texas Avenue and George Bush Drive are highly trafficked roadways. So, there could be numerous motorists within the inundation area depending on the time of day.

Vulnerabilities and impacts can not be determined for the other dams due to data deficiencies.

SECTION 14: EXCESSIVE HEAT

WHY EXCESSIVE HEAT IS A THREAT

Texas is known for its long hot summers. These conditions can pose problems for those not accustomed to the climate or who are outside for prolonged periods of time. Excessive heat is defined as temperatures that hover 10 degrees or more above the high average temperature for a particular region and last for several weeks.

Excessive heat can pose a threat even to individuals and communities that are accustomed to high temperatures. Heat disorders can occur when victims are overexposed to heat or have over-exercised for their age and physical condition. Heat kills by pushing the body beyond its limits. Under normal conditions an internal thermostat produces perspiration that evaporates and cools the body. In excessive heat and high humidity, however, evaporation is slowed, and the body must work extra hard to maintain a normal temperature.

Excessive heat kills more people nationally than any other natural disaster. According to the Center for Climatic Research at the University of Delaware, an average of 1,500 American city dwellers die every year from the effects of excessive heat. Elderly residents, young children, those who are overweight, and people suffering from serious illnesses are especially prone to heat-related problems. Excessive heat disorders include sunburn, heat cramps, heat exhaustion, and heat stroke. Heat stroke is a severe medical emergency.

Table 14-1. Urban Heat Deaths

City	Duration of heat wave	Heat-related deaths	% Increase in deaths over norm
Chicago	7 days in 1995	739	147
New York	7 days in 1972	891	62
Los Angeles	9 days in 1955	946	122
Kansas City	1 month in 1980	236	65
St. Louis	1 month in 1980	308	57

HAZARD PROFILE

Excessive heat waves usually come on subtly, raising summer temperatures higher than normal, leaving casualties in their wake. Excessive heat can have a major impact, causing multiple

deaths, but sparing property. With excessive heat, there is little physical destruction, although roads can buckle, trains derail, and livestock die.

The frequency of occurrence of excessive heat in the Planning Area is likely. There are seasonal patterns to excessive heat waves, with an event most likely to occur in the summer months. Warning time is long with a slow speed of onset.

Excessive heat can also cause utility outages due to an increased demand for electricity. Utility outages can severely cripple a city's ability to provide services. Facilities can become inoperable and have to be closed without power or water.

Local warning systems that may be utilized for excessive heat events include local television and radio stations and the Internet.

HISTORY OF EXCESSIVE HEAT IN THE PLANNING AREA

There have been no reported excessive heat events in the planning area from 01/01/1950 to present.

Source: <https://www.ncdc.noaa.gov>

LOCATION OF HAZARDOUS AREAS

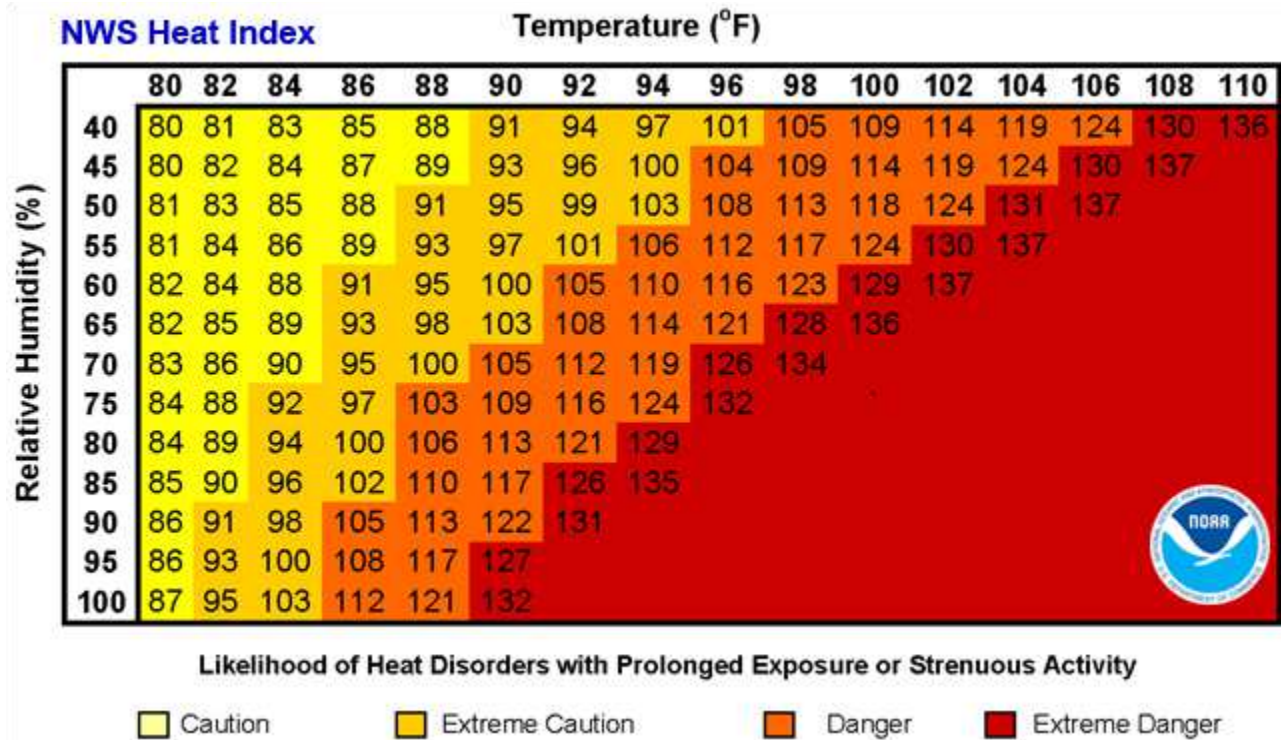
The entire planning area is subject to excessive heat.

PEOPLE AND PROPERTY AT RISK

The entire population of the planning area is at risk from excessive heat, but those at highest risk are the poor, the elderly, those who live alone, and those who lack access to transportation and air-conditioning. People living in urban areas may be at greater risk from the effects of a prolonged heat wave than people living in rural regions. An increased health problem can occur when stagnant atmospheric conditions trap pollutants in urban areas, thus adding contaminants to excessively hot temperatures. Excessive heat generally affects people rather than property.

The extent of excessive heat in the planning area can be temperatures above 100 degrees for several days or weeks in a row. During the summer of 2011, temperatures above 100 degrees were recorded for over 30 days in the planning area.

Based on the Heat Index Chart, the extent of excessive heat in Brazos County can be placed in the Danger Range when the conditions are present of high temperatures and high relative humidity.



Source: <https://www.weather.gov/safety/heat-index>

POTENTIAL DAMAGES AND LOSSES

Potential dollar loss estimates for excessive heat are not available. The potential impact of excessive heat on Brazos County is the possible deaths of the poor, the elderly, those who live alone, and those who lack access to transportation and air conditioning.

SECTION 15: PREVIOUS MITIGATION ACTIONS

FEDERAL EMERGENCY MANAGEMENT AGENCY PROGRAMS

The effectiveness of previously implemented hazard mitigation measures was examined as part of the hazard mitigation planning process. The effectiveness of each previously implemented mitigation program was evaluated based on its effect on overall risk to life and property, ease of implementation and political and community support.

A total of five Presidential and five Small Business Administration Disaster Declarations have been issued since 1965 for Brazos County and participating entities, paving the way for assistance by the Federal Emergency Management Agency and other federal agencies. FEMA's Individual Assistance Program helps disaster victims to secure temporary housing, low-interest loans, unemployment assistance, and legal aid; makes grants to low-income individuals; conducts crisis counseling; and assists victims with income tax, Social Security, and veteran's benefits issues.

"Public Assistance" is aid to state or local governments and certain private non-profit entities to pay part of the approved costs (generally 75 percent) of rebuilding a community's damaged infrastructure. Public assistance may include debris removal; emergency protective measures; repair, replacement, or restoration of damaged public property; loans needed by communities to restore essential government functions; and grants for public schools.

Through the Hazard Mitigation Grant Program (HMGP), FEMA has financially helped the state to permanently reduce or eliminate future damages and losses due to natural hazards. HMGP funds promote safer building practices that improve existing structures and supporting infrastructure. The HMGP currently provides post-disaster funds, which can be used anywhere in the state, equal to 7.5 percent of obligations for individual and public assistance. Grants are for planning and projects, including acquisition of real property, relocation and demolition of structures, seismic retrofitting, strengthening of existing structures, initial implementation of vegetative management programs, elevation of residential structures, elevation or dry flood-proofing of non-residential structures, and other activities that bring a structure into compliance with the floodplain management requirements of the National Flood Insurance Program. A review of the state's HMGP records reveals no hazard mitigation projects conducted within the BVCOG jurisdictions. There were also no Project Impact, Pre-Disaster Mitigation, or Hurricane Property Protection Mitigation Projects.

PREVIOUS PLANNING EFFORTS

All participating entities in the planning area have performed numerous planning activities. As shown in Table 15-1, Brazos County has received Emergency Management Performance Grants (EMPG) from FEMA. These grants are intended to help develop comprehensive, all-hazards emergency management and improve local capabilities for emergency planning, preparedness, mitigation, response, and recovery. Assistance includes grant funding covering 13 key

functional areas, including laws and authorities; hazard identification and risk assessment; hazard management; resource management; planning; direction, control, and coordination; communications and warning; operations and procedures; logistics and facilities; training; exercises; public education and information; and finance and administration.

The previous hazard mitigation action plans have been utilized in the updating of our Interjurisdictional Emergency Management Plan and associated annexes, the threat and risk assessment (THIRA), drainage and stormwater plans, and flood mitigation plans.

Brazos County and participating entities have undertaken previous planning efforts that have complemented the region-wide planning conducted during the development of this Hazard Mitigation Action Plan. These other related planning efforts include development of hazard analyses, Annex P, comprehensive plans, capital improvement plans, drainage and stormwater plans, long-range growth plans and flood mitigation plans. Table 15-1 details these previous planning efforts.

Table 15-1. Previous Planning Efforts for Brazos County and participating entities

Participating Entities	Received EM Grant Funds? Y(es), N(o)	Planning Documents Completed for State Department of Emergency Management		Other Planning Efforts Undertaken (list)
		Basic Plan	Annexes*	
All participating entities are covered under one plan (Brazos County, City of College Station, City of Bryan, City of Kurten, City of Wixon Valley, Texas A&M University)	Y	Y	All	

* Annexes

Annex A	Warning	Annex F	Firefighting
Annex B	Communications	Annex G	Law Enforcement
Annex C	Shelter and Mass Care	Annex H	Health and Medical Services
Annex D	Radiological Protection	Annex I	Public Information
Annex E	Evacuation	Annex J	Recovery

Annex K	Public Works and Engineering	Annex Q	Hazardous Materials and Oil Spill Response
Annex L	Utilities		
Annex M	Resource Management	Annex R	Search and Rescue
Annex N	Direction and Control	Annex S	Transportation
Annex O	Human Services	Annex T	Donations Management
Annex P	Hazard Mitigation	Annex U	Legal
		Annex V	Terrorist Incident Response

Texas A&M University is largely located within College Station city limits within Brazos County, Texas. Because Texas A&M University is a state entity, it is subject to code regulations that are required by the State of Texas. The university has staff that includes emergency management, police, environmental health & safety, facilities, and engineers that meet regularly to discuss safety, security, and mitigation action items for current and future buildings. In the event of an opportunity to apply for a hazard mitigation grant key people from each department would be assigned, creating a team to manage the hazard mitigation project. The assigned department, in conjunction with emergency management, would be the lead department on each respective hazard mitigation projects. Texas A&M University would consult with the City of College Station and/or Brazos County if beneficial or if necessary.

The planning team reviewed existing regulatory capabilities and opportunities for establishing new capabilities and enhancing existing ones. All jurisdictions can improve their capabilities by: budgeting for mitigation actions and support, passing policies and procedures to implement mitigation actions, adopting and implementing stricter building regulations, approving the hiring and training of staff for mitigation activities, and approving mitigation action updates and additions to existing plans as new needs are recognized.

BUILDING AND FIRE CODES

Building codes are laws, ordinances, or government regulations that set forth standards and requirements for the construction, maintenance, operation, occupancy, use, or appearance of buildings, premises, and dwelling units. Building codes are an effective way to ensure that development is built to withstand natural hazards. Building codes apply primarily to new construction.

Adherence to existing building codes and standards is essential to maintain public safety and promote an effective local mitigation program—so much so that the insurance industry has moved to rate communities according to their ability to enforce the building code and by the qualifications and training of their staff.

There are four principal types of building codes, promulgated by various code organizations:

Uniform Building Code, promulgated by the International Conference of Building officials (ICBO),
National Building Code, promulgated by the Building Officials and Code Administrators
International, Inc. (BOCA),

Standard Building Code, promulgated by the Southern Building Code Congress, International
(SBCCI), and

International Building Codes, promulgated by the International Code Council (ICC).

The building codes are periodically reviewed by the respective organizations and revised, as appropriate, when new requirements and materials are introduced. In the past, local governments have adopted these codes either in their entirety or as amended to adapt them to their local conditions. Legislation passed by the Texas Legislature in 2001, however, now requires communities to adopt the International Building Code.

Table 15-2 shows the effective date of each jurisdiction's building code, the name of the code, the type of code on which it is based, and whether any amendments have been made.

Table 15-2. Building Codes

Jurisdiction	Current Building Code							
	Effective Date	Name	Type					Amend-ments made (Y /N)
			UBC	NBC	SBC	IBC	Other	
Brazos County	September 2009	2003 International Residential Code and 2002 National Electrical Code						N
City of College Station	December 2009	International Building Codes				X		Y
City of Bryan	October 2010 and June 2011	International Building Codes				X		Y

FIRE CODES

Fire codes are laws, ordinances, or government regulations that set forth standards and requirements for the construction, maintenance, operation, occupancy, use, or appearance of buildings, premises, and dwelling units in order to prevent damage and loss of life from fire hazards.

There are three principal types of fire codes, promulgated by various code organizations. They are:

Uniform Fire Code (UFC), published by the International Fire Code Institute,

International Fire Code (IFC), published by the International Code Council, and

Standard Fire Code (SFC), published by the SBCC.

The fire codes are periodically reviewed and revised by the relevant organizations, as appropriate, when new requirements and materials are introduced. Local governments have adopted these codes either in their entirety or amended them as appropriate to their local conditions.

Table 15-3 shows the effective date of each jurisdiction's fire code, the name of the code, the type of code on which it is based, and whether any amendments have been made.

Table 15-3. Fire Codes for Brazos County and Participating Entities

Jurisdiction	Current Fire Code					
	Effective Date	Name	Type			
			UFC	IFC	SFC	Other
Brazos County	N/A					
City of College Station	December 2009	International Fire Code		X		
City of Bryan	November 9, 2010	International Fire Code		X		

INSPECTION AND PERMITTING PROCESSES

Adherence to existing building and fire codes and standards is essential to maintaining public safety and promoting an effective local mitigation program. New buildings can fail in a disaster if builders or inspectors do not adequately observe the code. Studies of the damage caused by Hurricane Andrew in 1992 attributed one-quarter of the storm's total damages to "shoddy workmanship and poor enforcement of building codes."

Well-trained inspectors are more likely to recognize building practices that are suspect with regard to hazard resilience than are poorly trained or untrained inspectors. Training is critical to the inspection and permitting process.

Table 15-4 shows the number of building inspectors and their average years of experience in each jurisdiction and, of those, the number certified. It also shows the number of building starts and inspections conducted in the last twelve months.

Table 15-4. Building Inspections and Permitting

Jurisdiction	Number of:				
	Building Inspectors (FTEs)	Inspectors Certified	Yrs. Experience (Average)	Building Starts (last 12 months)	Inspections (last 12 months)
Brazos County	N/A				
College Station	6	6	5	782	11,067
Bryan	5	5	11	700	17,094

A vigorous fire inspection process and well-trained inspectors are critical to saving lives and property from fire hazards. It also gives the number certified and number having received the Texas State Certification course.

BUILDING CODE EFFECTIVENESS GRADING SCHEDULES AND FIRE RATINGS

The Insurance Services Office maintains Building Code Effectiveness Grading (BCEG) ratings and Public Protection Classification (PPC) ratings. The latter gauge the capacity of the local fire department to respond if flames engulf a property. PPC ratings are recorded for each individual street address in Texas.

There are 10 classes of ratings in BCEG schedule. Class 1 is the best rating, i.e., strongest program of building code enforcement, and 10 is the lowest rating. The date identified is the date of the rating by ISO. This rating applies to all structures built after that date and can lead to lower insurance rates.

Table 15-5. Community Mitigation Classifications

Community	PPC Fire Grading Classification	BCEGS (Building Code Effectiveness Grading Schedule) for Personal Property (Single Family Dwelling)	BCEGS (Building Code Effectiveness Grading Schedule) for Commercial Property	Date of Rating
Bryan	2	03	03	2017
College Station	3	04	04	2002

FLOODPLAIN MANAGEMENT ORDINANCES

Table 15-6 below describes the floodplain management ordinances currently in use in the planning area, while Table 15-7 provides information regarding floodplain administration. This includes the number of: people on the administrator's staff; certified managers; inspections in the past month; and variances.

Table 15-6. Floodplain Management Ordinances in Brazos County

Jurisdiction	Current Flood Ordinance	
	Effective Date	Description
Brazos County	May 2012	Each newly built or installed structure requires permit; structures not in floodplain receive exemption; structures in floodplain must be at least one foot above BFE and have special septic system; enforced by spot inspections.
College Station	November 2009	All work in or near floodplains is required to obtain a Drainage Development Permit. Applications are reviewed for effects to surrounding areas, as well as meeting requirements for publicly maintained drainage facilities.
Bryan	November 2010	All work in or near floodplains is required to obtain a Drainage Development Permit. Applications are reviewed for effects to surrounding areas, as well as meeting requirements for publicly maintained drainage facilities.
Wixon Valley	May 2012	Each newly built or installed structure in a floodplain requires a permit; structures not in a floodplain receive an exemption; structures in a floodplain must be at or above BFE.

Table 15-7. Jurisdictional Floodplain Administration Process

Jurisdiction	Number of:				
	Floodplain administration professional staff	Certified floodplain managers	Average years of experience of professional staff	Inspections in last twelve months	Floodplain variances in last twelve months
Brazos County	3	3	15	Not Applicable	0
College Station	2	2	10	40	0
Bryan	3	7	15	144	0
Wixon Valley	1	0	0	Not Applicable	0

FEMA COMMUNITY ASSISTANCE PROGRAM INVOLVEMENT

The Federal Emergency Management Agency's Community Assistance Program (CAP) is a product-oriented financial assistance program directly related to the flood loss reduction

objectives of the NFIP. States and communities that are participating in the NFIP are eligible for this assistance. The CAP is intended to identify, prevent, and resolve floodplain management issues in participating communities before they develop into problems requiring enforcement action. The program involves Community Assistance Contacts (CACs) and Community Assistance Visits (CAVs). During CACs and CAVs, officials discuss current local ordinances, the number of floodplain insurance policies in the community, floodplain administration, permitting, and annexation issues. Table 15-8 shows the dates of CACs and CAVs according to FEMA records.

Table 15-8. Community Assistance Contacts and Community Assistance Visits from FEMA, 2004 - 2018

Jurisdiction	CAC	CAV
Brazos County	05/14/2018 12/03/2015 11/03/2014 06/27/2012 02/20/2012 07/07/2008 05/22/2007 05/02/2007 02/20/2004	None
Bryan	07/15/2014 02/22/2012 08/09/2011 07/09/2008 06/22/2006 5/14/2004	11/18/2013
College Station	10/27/2014 02/20/2012 07/09/2008 07/11/2006	07/27/2016 08/18/2008
Wixon Valley	11/03/2014 02/22/2012 07/07/2008	None
Kurten	02/20/2012 07/07/2008	None

PREVIOUS ACTION ITEMS

The following items submitted from the previous 2012 plan have been addressed.

Projects - 2012 -2017			
Jurisdiction	Mitigation Action 2012 - 2017	Completed?	If not, why not?
Brazos County	Enhance the County's ring-down notification system and increase public education in the role of 2-1-1.	Project is on-going	A new emergency notification system (ENS) was implemented in 2017 with plans to further upgrade the system in 2018.
Brazos County	Enhance Emergency Alert System (EAS) and expand capability to other counties in the region to activate EAS.	Project is was not completed and will not be carried forward	Work on the project was ceased due to lack of technical expertise and loss of institutional knowledge need to expand the system into other counties in the region.
Brazos County	Place NOAA weather radios in existing critical facilities such as churches, schools, and high population buildings.	Project is not complete	Lack of funding

Brazos County	Increase public awareness of flood hazards, as related to continued NFIP compliance. Many NWS campaigns, such as "Turn around, don't drown" have increased awareness of these dangers. On the local level, we will broadcast public awareness spots on local government channels and local network television if funds are available. Also, the Floodplain Administrator's Office distributes public awareness material to the public on a limited basis.	Project is on-going	Project is on-going
Brazos County	Purchase generators to power existing emergency communications. Two BVWACS tower sites do not have back-up generators but do currently have battery back-up power systems. We plan for all sites to eventually have a generator.	Project is not complete	Lack of funding
Brazos County	Back-up power generators for existing critical facilities. Assess and install "quick-connect for emergency generator hook-ups at critical facilities. The EOC and the Courthouse Administration Building now have (partial) back-up power generators and the County has purchased (4) large generators for use at critical facilities as needed.	Project is on-going	Purchase and installation of generator for the Brazos Center planned for 2018.

Brazos County	Eliminate burning of hazardous materials and/or non-hazardous materials.	Project is on-going	Brazos County Sheriff's Office has created a position for an environmental enforcement. This individual works to educate the citizens about how to handle hazardous materials and the laws that dictate guidelines for outdoor burning.
Brazos County	Identify possible funding for the purchase of thermal energy scanners, floating pumps, and eight new electronic defibrillators. Some VFDs have been equipped with thermal scanners and all have been equipped with electronic defibrillators.	Not completed using hazard mitigation funds.	The VFDs were able to purchase this equipment either with money own budgets or by using Texas A&M Forest Service grants.
Brazos County	Partner with Texas Forest Service (TFS) and their Firewise program to develop public awareness information and Public Service Announcements about fire risks and steps that homeowners can take to protect themselves and their existing homes against fire, including wildfires.	Project is on-going	

Brazos County	Create a data layer of FEMA repetitive loss claims for our web GIS. This will help the County prioritize the purchase of existing repetitive loss properties throughout the County, and possibly prevent new structures from being built in the flood hazard area.	Project is on-going	
Brazos County	Provide "fan drives" for people in the County who do not have the means to keep themselves cool.	Project not completed.	Utilize 2-1-1 to provide information regarding availability of fans through local non-for-profits for individuals that need them and provide information on places for individuals to go if they need to escape the heat.
Brazos County	Determine the flood inundation areas for Bryan Utilities Lake and acquire structures located in the identified hazard area.	Project not completed.	Lack of funding.
Brazos Valley COG	Stand-by Electric Generator for the existing COG Building.	Yes; action completed. Generator has been in service for over four years and tested on a routine bases.	

Brazos Valley COG	Purchase and install new individual safe rooms throughout the County.	Yes; action completed. BVCOG managed a regional Individual Safe Room grant. The grant closed December 6, 2014. Only 36 citizens took advantage of the grant.	
City of Bryan	Implement a new Records Management System for the Fire and Police Departments.	Fire Department completed, Police Department on-going	
City of Bryan	Improve EOC software so that all governmental agencies can communicate better.	On-going	
City of Bryan	Create a map showing low water crossings in the City of Bryan. The results of the flood mapping will be used to determine which low water crossings should be eliminated first with the building of a bridge with 404 Mitigation Funds.	Mapping completed (although continuously updated). Results used to prioritize bridge replacements	
City of Bryan	Improve new shelter capabilities.	On-going	

City of Bryan	Provide "cooling center" for people in the City who do not have the means to keep themselves cool during periods of excessive heat.	On-going, continually working with College Station and Brazos County utilizing GIS to coordinate "shelters" that could be used in times of excessive heat	
City of Bryan	Purchase NOAA Radios.	No	The advent of technology has made weather radios more accessible to a wide range of residents. No funding at this time
City of Bryan	Obtain updated low level aerial photography and topographic mapping within the city limits and ETJ.	Completed, on-going	
City of Bryan	Perform detailed studies of areas prone to flooding to determine the most cost effective means to reduce potential loss. The flood studies will be used to prevent new buildings from being built in the flood hazard area, and studies will be used to determine which existing Repetitive Loss properties should be purchased first.	Completed, on-going	

City of Bryan	Purchase or elevate existing properties subject to repetitive loss or severe repetitive floodplain losses.	On-going, received HMGP grant to purchase 4 (with 1 alternate) SRL properties	
City of Bryan	Replace drainage culverts identified in Stormwater Master Plan to improve their efficiency. This will also have a positive effect on new buildings.	Completed, on-going	
City of Bryan	As related to continued compliance with the NFIP, install paired rain and stream gauge units with the major watersheds of the City of Bryan to better calibrate rainfall and flooding projections. This will result in more accurate Base Flood Elevations (BFE), which in turn will allow for new buildings to be built higher above the floodplain.	No	Annual maintenance too costly. Water Services installed rain gauges to monitor infiltration/inflows, data is being used to monitor/calibrate hydrologic and hydraulic models.
City of Bryan	This Project was listed under City of College Station. These dams are not in City of College Station - this project should be on City of Bryan's list. Determine the flood inundation areas for Country Club Lake and Finfeather Lake and acquire structures located in the identified hazard area.	Partially completed, emergency action plan has been completed for Country Club Lake	Finfeather Lake will be removed since it is not in the City's control. Acquisition of structures located in the hazard area is unlikely to occur.
City of College Station	Offer tree pruning education classes to the public to reduce debris caused by limbs failing due to excessive snow or ice.	Project is on-going	

City of College Station	Increase public awareness of the effects of hail and mitigation activities that can lessen damage.	Project is on-going	
City of College Station	Purchase existing flood-prone properties to remove structures subject to chronic flooding and to facilitate stream restoration project in the Wolf Pen Creek basin.	Project is not complete	Funding is not available to purchase the property or properties and the/one of the owners is unwilling to sell.
City of College Station	Mitigate existing structures with Repetitive Loss flood insurance claims by either elevating them above the base flood elevation, or purchase and demolish them to remove them from the floodplain.	Project is not complete	Funding is not available
City of College Station	Purchase existing flood-prone properties, remove structures subject to chronic flooding, and construct a regional flood control/detention pond project in the Bee Creek basin.	Project is 90% complete	1 homeowner is unwilling to sell
City of College Station	Educate and purchase NOAA weather radios for the citizens of College Station.	Project is complete	
City of College Station	Maintain/enhance public education programs regarding fire dangers for identified risk areas and population groups. Enhance fire hydrant maintenance program. Provide adequate/required-staffing levels. Provide optimum resource distribution.	Project is complete	

City of College Station	Improve outdated Emergency Operations Center technological capabilities for monitoring, recording, and responding to disasters.	Project is complete	
City of College Station	Implement a water conservation program.	Project is complete	
City of College Station	Create a hurricane hazard information center to better inform the public. Continue to recruit and certify shelter facilities.	Project is on-going	
City of Kurten	Public education and awareness about floods, droughts, excessive heat, and tornadoes	Project is on-going	
City of Kurten	To buyout, relocate or elevate any existing repetitive loss flood properties located within the floodplain.	No such properties known to exist in the city limits	
City of Kurten	Purchase and install a generator on the existing City of Kurten Municipal Building.	Project not completed	No funding
City of Wixon Valley	Public education and awareness about floods, droughts, excessive heat, and tornadoes	Project is on-going	
City of Wixon Valley	To buyout, relocate or elevate any existing repetitive loss flood properties located within the floodplain.	No such properties known to exist in the city limits	
City of Wixon Valley	Purchase and install a generator on the existing City of Wixon Valley Municipal Building.	Project is on-going	

SECTION 16: MITIGATION ACTIONS

NEW PROJECTS 2019-2024

Jurisdictions	All participating entities (Brazos County; Cities of Bryan, College Station, Kurten, and Wixon Valley; and TAMU)
Action:	Develop an annual public workshop or expo for all residents to educate them on all the hazards, NFIP, and develop methods to mitigate damage to personal properties from all the hazards. Additionally, educate residents about the need for and creation of preparedness kits.
Hazard	Flood, Drought, Wildfire, Winter Storm, Tornadoes, Hail, Thunderstorms, Dam Failure and Excessive Heat
Priority	High
Estimated Cost	\$2,000
Responsible Organization	All participating entities
Target Completion Date	2019
Funding Sources	General funds and corporate donations

Jurisdictions	All participating entities (Brazos County; Cities of Bryan, College Station, Kurten, and Wixon Valley; and TAMU)
Action:	Purchase generators for critical facilities
Hazard	Flood, Drought, Wildfire, Winter Storm, Tornadoes, Hail, Thunderstorms, Dam Failure and Excessive Heat
Priority	High
Estimated Cost	Up to \$150,000 per generator
Responsible Organization	All participating entities
Target Completion Date	2023
Funding Sources	Grant and General Funds

Jurisdictions	All participating entities (Brazos County; Cities of College Station, Kurten, and Wixon Valley; and TAMU)
Action:	Build, renovate, rehabilitate or convert a building or buildings for use as emergency shelters for individuals and families.
Hazard	Flood, Wildfire, Winter Storm, Tornadoes, Hail, Thunderstorms, Dam Failure and Excessive Heat
Priority	Medium
Estimated Cost	\$1million
Responsible Organization	Brazos County
Target Completion Date	2021
Funding Sources	Grant monies and general funds

Jurisdictions	Brazos County
Action:	Do a hydrology study of the watersheds that exist in Brazos County that contribute to flooding during heavy rain incidents
Hazard	Flood
Priority	Medium
Estimated Cost	\$25,000
Responsible Organization	Brazos County
Target Completion Date	2023
Funding Sources	Grant monies and general funds

Jurisdictions	City of Bryan
Action:	Create 2D “rain on mesh” model to better identify flooding hazards outside of riverine areas (local flooding hazards)
Hazard	Flood
Priority	Medium
Estimated Cost	\$100k
Responsible Organization	City of Bryan
Target Completion Date	2023
Funding Sources	Drainage and general funds

Jurisdictions	City of Bryan
Action:	Create a map showing low water crossings in the City of Bryan. The results of the flood mapping will be used to prioritize low water crossing replacements/improvements
Hazard	Flood
Priority	High
Estimated Cost	\$10k
Responsible Organization	City of Bryan
Target Completion Date	2020
Funding Sources	Drainage and general funds

Jurisdictions	City of Bryan
Action:	Perform detailed studies of areas prone to flooding to determine the most cost effective means to reduce potential loss. The flood studies will be used to prevent new buildings from being built in the flood hazard area.
Hazard	Flood
Priority	Medium
Estimated Cost	\$250k
Responsible Organization	City of Bryan
Target Completion Date	2023
Funding Sources	Drainage and general funds

Jurisdictions	City of Bryan
Action:	Purchase or elevate existing properties subject to repetitive loss or severe repetitive losses
Hazard	Flood
Priority	Medium
Estimated Cost	\$7M
Responsible Organization	City of Bryan
Target Completion Date	2023
Funding Sources	Drainage and general funds

Jurisdictions	City of Bryan
Action:	Replace drainage culverts identified in the Stormwater Master Plan to improve efficiency.
Hazard	Flood
Priority	Medium
Estimated Cost	\$5M
Responsible Organization	City of Bryan
Target Completion Date	2023
Funding Sources	Drainage and general funds

Jurisdictions	City of College Station
Action:	Continue to enforce building codes and STP's
Hazard	Flood
Priority	High
Estimated Cost	\$6k
Responsible Organization	City of College Station
Target Completion Date	2020
Funding Sources	General funds

Jurisdictions	City of College Station
Action:	Improve flood risk assessment
Hazard	Flood
Priority	Medium
Estimated Cost	\$50k
Responsible Organization	City of College Station
Target Completion Date	2021
Funding Sources	General funds

Jurisdictions	Texas A&M University
Action:	Design and construct detention ponds to control runoff of rainwater from Texas A&M University property.
Hazard	Flood
Priority	Medium
Estimated Cost	\$12M
Responsible Organization	Texas A&M University
Target Completion Date	2023
Funding Sources	Grand and local funds

Jurisdictions	City of Kurten
Action:	Join the National Flood Insurance Program so residents can be eligible for flood insurance
Hazard	Flood
Priority	High
Estimated Cost	N/A
Responsible Organization	City of Kurten
Target Completion Date	High
Funding Sources	N/A

Jurisdictions	City of Wixon Valley
Action:	Include space for a Shelter in the new City Hall
Hazard	Flood
Priority	High
Estimated Cost	\$3M
Responsible Organization	City of Wixon Valley
Target Completion Date	2023
Funding Sources	Grant and general funds

Jurisdictions	All participating entities (Brazos County; Cities of Bryan, College Station, Kurten, and Wixon Valley; and TAMU)
Action:	Create a series of PSA's/outreach for topics such as Burn Bans, foundation watering how to's, water conservation in times of drought
Hazard	Drought
Priority	High
Estimated Cost	\$1k
Responsible Organization	All participating entities
Target Completion Date	2019
Funding Sources	General funds

Jurisdictions	City of Bryan
Action:	Aquifer storage & recovery (ASR)
Hazard	Drought
Priority	High
Estimated Cost	\$24M
Responsible Organization	City of Bryan
Target Completion Date	2023
Funding Sources	SWIFT

Jurisdictions	City of College Station
Action:	Monitor water supply
Hazard	Drought
Priority	Medium
Estimated Cost	\$5k
Responsible Organization	City of College Station
Target Completion Date	2019
Funding Sources	General funds

Jurisdictions	City of College Station
Action:	Educate residents on water saving techniques
Hazard	Drought
Priority	Medium
Estimated Cost	\$5k
Responsible Organization	City of College Station
Target Completion Date	2019
Funding Sources	General funds

Jurisdictions	Texas A&M University
Action:	Incorporate drought tolerant practices into landscaping of current and new open spaces to reduce dependence on irrigation
Hazard	Drought
Priority	Medium
Estimated Cost	\$500k
Responsible Organization	Texas A&M University
Target Completion Date	2021
Funding Sources	Grant and local funds

Jurisdictions	Brazos County, Cities of Kurten and Wixon Valley
Action:	Develop wildfire plan for the unincorporated areas of Brazos County, to include cities of Kurten and Wixon Valley
Hazard	Urban & Wildfires
Priority	High
Estimated Cost	\$1k
Responsible Organization	Brazos County, Cities of Kurten and Wixon Valley
Target Completion Date	2020
Funding Sources	Grant

Jurisdictions	City of Bryan
Action:	Obtain updated low level aerial photography and topographic maps within the city limits and ETJ. Imagery can be used to delineate areas susceptible to urban/wildland fire hazards
Hazard	Urban & Wildfires
Priority	High
Estimated Cost	\$250k
Responsible Organization	City of Bryan
Target Completion Date	2019
Funding Sources	General funds

Jurisdictions	City of Bryan
Action:	Update/maintain wildfire plan
Hazard	Urban & Wildfires
Priority	High
Estimated Cost	\$5k
Responsible Organization	City of Bryan
Target Completion Date	2019
Funding Sources	Grant funds

Jurisdictions	City of Bryan
Action:	Work with Red Cross to initiate a smoke alarm program.
Hazard	Urban & Wildfires
Priority	High
Estimated Cost	\$2k
Responsible Organization	City of Bryan
Target Completion Date	2020
Funding Sources	General funds

Jurisdictions	City of College Station
Action:	Map and assess vulnerability to wildfire
Hazard	Urban & Wildfires
Priority	Medium
Estimated Cost	\$5k
Responsible Organization	City of College Station
Target Completion Date	2019
Funding Sources	General Funds

Jurisdictions	City of College Station
Action:	Increase wildfire risk awareness
Hazard	Urban & Wildfires
Priority	Medium
Estimated Cost	\$3k
Responsible Organization	City of College Station
Target Completion Date	2019
Funding Sources	General funds

Jurisdictions	Texas A&M University
Action:	Continue to enhance and improve the fire inspection program
Hazard	Urban & Wildfires
Priority	Medium
Estimated Cost	\$45k
Responsible Organization	Texas A&M University
Target Completion Date	2022
Funding Sources	General funds

Jurisdictions	City of Wixon Valley
Action:	Purchase and install flag pole and burn ban warning flags.
Hazard	Urban & Wildfires
Priority	High
Estimated Cost	\$1,500
Responsible Organization	City of Wixon Valley
Target Completion Date	2019
Funding Sources	General funds

Jurisdictions	City of Wixon Valley
Action:	Install/expand City of Wixon Valley hydrant coverage.
Hazard	Urban & Wildfires
Priority	Medium
Estimated Cost	\$15k
Responsible Organization	City of Wixon Valley
Target Completion Date	2019
Funding Sources	General funds

Jurisdictions	City of Bryan
Action:	Create an SOP for winter storm events including roadway safety, power outages, etc.
Hazard	Winter Storm
Priority	High
Estimated Cost	\$10k
Responsible Organization	City of Bryan
Target Completion Date	2019
Funding Sources	General funds

Jurisdictions	City of Bryan
Action:	Maintain weather condition information on the city's website, including closures, safety tips, etc.
Hazard	Winter Storm
Priority	High
Estimated Cost	\$50k
Responsible Organization	City of Bryan
Target Completion Date	2019
Funding Sources	General funds

Jurisdictions	City of College Station
Action:	Conduct winter weather risk awareness activities.
Hazard	Winter Storm
Priority	Medium
Estimated Cost	\$1k
Responsible Organization	City of College Station
Target Completion Date	2019
Funding Sources	General funds

Jurisdictions	City of College Station
Action:	Assist vulnerable populations
Hazard	Winter Storm
Priority	Medium
Estimated Cost	\$1k
Responsible Organization	City of College Station
Target Completion Date	2020
Funding Sources	General funds

Jurisdictions	Texas A&M University
Action:	Planning for and maintaining adequate road/sidewalk and debris clearing capabilities
Hazard	Winter Storm
Priority	Medium
Estimated Cost	\$10k
Responsible Organization	Texas A&M University
Target Completion Date	2023
Funding Sources	General funds

Jurisdictions	City of Bryan
Action:	Maintain hazardous weather condition information on the city's website and PSA's, including closures, safety tips, etc.
Hazard	Tornado
Priority	High
Estimated Cost	\$50k
Responsible Organization	City of Bryan
Target Completion Date	2019
Funding Sources	General funds

Jurisdictions	City of Bryan
Action:	Create PSA's, procedures to provide residents regarding cleanup/permit requirements after events, and choosing contractors
Hazard	Tornado
Priority	High
Estimated Cost	\$10k
Responsible Organization	City of Bryan
Target Completion Date	2019
Funding Sources	General funds

Jurisdictions	City of College Station
Action:	Encourage construction of safety rooms
Hazard	Tornado
Priority	Medium
Estimated Cost	\$1k
Responsible Organization	City of College Station
Target Completion Date	2021
Funding Sources	Grant and general funds

Jurisdictions	City of College Station
Action:	Conduct tornado awareness activities
Hazard	Tornado
Priority	Medium
Estimated Cost	\$1k
Responsible Organization	City of College Station
Target Completion Date	2021
Funding Sources	General funds

Jurisdictions	Texas A&M University
Action:	Enhance building emergency plans to include “areas of refuge”
Hazard	Tornado, hailstorms, thunderstorms (to include lightning and wind storms)
Priority	Medium
Estimated Cost	\$45,500
Responsible Organization	Texas A&M University
Target Completion Date	2021
Funding Sources	General funds

Jurisdictions	City of Bryan
Action:	Maintain hazardous weather condition information on the city's website and PSA's, including closures, safety tips, etc.
Hazard	Hail Storms
Priority	High
Estimated Cost	\$50,000
Responsible Organization	City of Bryan
Target Completion Date	2019
Funding Sources	General Funds

Jurisdictions	City of Bryan
Action:	Create PSA's, procedures to provide to residents regarding cleanup/permit requirements after events, and choosing contractors
Hazard	Hail Storms
Priority	High
Estimated Cost	Less than \$10,000
Responsible Organization	City of Bryan
Target Completion Date	2019
Funding Sources	General Funds

Jurisdictions	City of College Station
Action:	Locate safe rooms to minimize damage
Hazard	Hail Storms
Priority	Medium
Estimated Cost	\$1,000
Responsible Organization	City of College Station
Target Completion Date	2021
Funding Sources	General Funds

Jurisdictions	City of College Station
Action:	Increase hail awareness
Hazard	Hail Storms
Priority	Medium
Estimated Cost	\$1,000
Responsible Organization	City of College Station
Target Completion Date	2021
Funding Sources	General Funds

Jurisdictions	City of Kurten
Action:	Create mailouts and/or social media messages that provide information to residents regarding the use of weather radios, teach residents about the dangers of lightning and safety precautions to take when severe weather and lightning threatens
Hazard	Hail Storms
Priority	High
Estimated Cost	\$250
Responsible Organization	City of Kurten
Target Completion Date	2020
Funding Sources	General Funds

Jurisdictions	City of Bryan
Action:	Maintain hazardous weather condition information on the city's website and PSA's, including closures, safety tips, etc.
Hazard	Thunderstorms (to include lightning and wind storms)
Priority	High
Estimated Cost	\$50,000
Responsible Organization	City of Bryan
Target Completion Date	2019
Funding Sources	General Funds

Jurisdictions	City of Bryan
Action:	Install lightning detectors in areas where there may be significant numbers of residents congregating outside (pools, parks, etc.)
Hazard	Thunderstorms (to include lightning and wind storms)
Priority	High
Estimated Cost	\$150,000
Responsible Organization	City of Bryan
Target Completion Date	2023
Funding Sources	Grants

Jurisdictions	City of Bryan
Action:	Create/maintain tree trimming program (BTU)
Hazard	Thunderstorms (to include lightning and wind storms)
Priority	High
Estimated Cost	\$2 million
Responsible Organization	City of Bryan
Target Completion Date	2019
Funding Sources	Enterprise Funds

Jurisdictions	City of College Station
Action:	Conduct lightning awareness programs.
Hazard	Thunderstorms (to include lightning and wind storms)
Priority	Medium
Estimated Cost	\$1,000
Responsible Organization	City of College Station
Target Completion Date	2021
Funding Sources	Grants

Jurisdictions	City of College Station
Action:	Create and mail lightning safety brochures with COCS water bills.
Hazard	Thunderstorms (to include lightning and wind storms)
Priority	Medium
Estimated Cost	\$2,500
Responsible Organization	City of College Station
Target Completion	2021

Date	
Funding Sources	General Funds

Jurisdictions	City of Kurten
Action:	Create mailouts and/or social media messages that provide information to residents regarding the use of weather radios, teach residents about the dangers of thunderstorms and safety precautions to take when severe weather threatens.
Hazard	Thunderstorms (to include lightning and wind storms)
Benefits	
Priority	High
Estimated Cost	\$250
Responsible Organization	City of Kurten
Target Completion Date	2020
Funding Sources	General Funds

Jurisdictions	City of Wixon Valley
Action:	Install surge & strike reduction rods/system in the new City Hall.
Hazard	Thunderstorms (to include lightning and wind storms)
Priority	High
Estimated Cost	\$10,000
Responsible Organization	City of Wixon Valley
Target Completion Date	2023
Funding Sources	General and Grant Funds

Jurisdictions	Brazos County, Bryan, College Station
Action:	Conduct hydrology studies to identify the extent for each dam on the list for

	which there is no current information. The extent will be stated in the form of water depth in the inundation area for each dam. This project is to address data deficiencies identified in Section 13
Hazard	Dam Failure (and levee failure)
Priority	Medium
Estimated Cost	\$50,000
Responsible Organization	Brazos County
Target Completion Date	2021
Funding Sources	Grant monies

Jurisdictions	City of Bryan
Action:	Maintain/update Emergency Action Plans for Country Club Lake and Lake Bryan
Hazard	Dam Failure (and levee failure)
Priority	Medium
Estimated Cost	\$100,000
Responsible Organization	City of Bryan
Target Completion Date	2020
Funding Sources	Drainage/General Funds

Jurisdictions	City of Bryan
Action:	Update development regulations within the hazard areas identified with the EAP's.
Hazard	Dam Failure (and levee failure)
Priority	Medium
Estimated Cost	Less than \$10,000
Responsible Organization	City of Bryan
Target Completion Date	2020
Funding Sources	General Funds

Jurisdictions	City of College Station
Action:	Conduct a study estimating economic consequences for dam failure scenarios.

Hazard	Dam Failure (and levee failure)
Priority	Medium
Estimated Cost	\$40,000
Responsible Organization	City of College Station
Target Completion Date	2021
Funding Sources	Grants Funds

Jurisdictions	City of College Station
Action:	Conduct a study estimating loss of life for dam sector for dam failure scenarios.
Hazard	Dam Failure (and levee failure)
Priority	Medium
Estimated Cost	\$40,000
Responsible Organization	City of College Station
Target Completion Date	2021
Funding Sources	Grants Funds

Jurisdictions	Texas A&M University
Action:	Enhance routine dam maintenance to include vegetation evaluation and removal (as appropriate) annually.
Hazard	Dam Failure (and levee failure)
Priority	Medium
Estimated Cost	\$10,000
Responsible Organization	Texas A&M University
Target Completion Date	2021
Funding Sources	General Funds

Jurisdictions	All participating entities (Brazos County, Cities of Bryan, College Station, Kurten, Wixon Valley, and TAMU)
Action:	Provide information to the public on where they can go to stay cool during periods of excessive heat
Hazard	Excessive Heat
Priority	High
Estimated Cost	\$1,500
Responsible Organization	All participating entities

Target Completion Date	2019
Funding Sources	General Funds

Jurisdictions	All participating entities (Brazos County, Cities of Bryan, College Station, Kurten, Wixon Valley, and TAMU)
Action:	Educate vulnerable populations about sources of fans and sources of programs that can assist citizens having trouble paying utility bills.
Hazard	Excessive Heat
Priority	High
Estimated Cost	\$1,500
Responsible Organization	All participating entities
Target Completion Date	2019
Funding Sources	General Funds

Jurisdictions	City of Bryan
Action:	Study and quantify possible urban heat island effects in Bryan and subsequently assess a possible need for a mitigation program.
Hazard	Excessive Heat
Priority	Low
Estimated Cost	\$200,000
Responsible Organization	All participating entities
Target Completion Date	2023
Funding Sources	Grants and General Funds

SECTION 17: PLAN IMPLEMENTATION AND MAINTENANCE PROCEDURES

IMPLEMENTATION

This section discusses how this Hazard Mitigation Plan will be implemented by Brazos County and the participating entities listed in this plan. It also addresses how the plan will be evaluated and improved over time and how the public will continue to be involved in the hazard mitigation planning process.

Brazos County and participating entities will be responsible for implementing its own mitigation action plans contained in Section 17. Each action has been assigned to a specific person or local government office that is responsible for implementing it. The governing bodies of each participating jurisdiction have adopted the mitigation action plan for their jurisdictions. Copies of the governing body resolutions are contained in Appendix E.

A funding source has been listed for each identified action. This source may be used when the jurisdiction begins to seek funds to implement the action. An implementation time period or a specific implementation date also has been assigned to each action as an incentive for seeing the action through to completion and to gauge whether actions are timely implemented.

Participating jurisdictions will integrate implementation of their mitigation action plans with other, existing planning mechanisms such as capital improvement plans, long range growth plans, master stormwater and drainage plans, and regional planning efforts. Jurisdictions will ensure that the actions contained in the mitigation action plans are reflected in these other planning efforts. These other planning efforts will be used to advance the mitigation strategies of the jurisdictions.

Each participating entity will conduct periodic reviews of their comprehensive and land use plans and policies and analyze the need for any amendments in light of the approved hazard mitigation plan. Participating entities will ensure that comprehensive or capital improvement planning in the future will also be integrated into this hazard mitigation plan to reduce the long-term risk to life and property from all hazards. Within one year of formal adoption of the hazard mitigation plan, existing planning mechanisms will be reviewed by each participating entities and incorporated into the plan, as necessary. The process to be used to integrate any plans into this mitigation plan will be for the local jurisdictions to amend their portion of the mitigation plan by including any action items from other planning mechanisms that are relevant to mitigation. Likewise, any mitigation actions that are relevant to comprehensive planning will be incorporated from the mitigation plan into those comprehensive plans.

Upon formal adoption of the plan, hazard mitigation team members from each jurisdiction will review all comprehensive land use plans, capital improvement plans, transportation plans, and any building codes to guide and control development. The hazard mitigation team members will work to integrate the hazard mitigation strategies into these other plans and codes. Each jurisdiction will conduct periodic reviews of their comprehensive and land use plans and policies

and analyze the need for any amendments in light of the approved hazard mitigation plan. Participating jurisdictions will ensure that capital improvement planning in the future will also contribute to the goals of this hazard mitigation plan to reduce the long-term risk to life and property from all hazards. Within one year of formal adoption of the hazard mitigation plan, existing planning mechanisms will be reviewed by each jurisdiction.

EVALUATION AND ENHANCEMENT

Periodic revisions and updates of the plan are required to ensure that the goals, objectives, and mitigation action plans for the Brazos County and participating entities are kept current. More importantly, revisions may be necessary to ensure that the plan is in full compliance with federal regulations and state statutes. This portion of the plan outlines the procedures for completing such revisions and updates.

Monitoring and Five-Year Plan Review and Update

The Brazos County Hazard Mitigation Plan will be monitored and evaluated for any updates, input and planning for the next revision due in the year 2024. Brazos County Emergency Management and City of Bryan Emergency Management will coordinate the monitoring and maintenance of the 2019 through 2024 plan, including all four elements and serve as the plan contacts. The Brazos County Hazard Mitigation Team (BCHMT) will be notified of the status of the plan upon approval. On the third Thursday in April of 2020 and 2021, a request for updates will be sent to the BCHMT along with any updates that have been added to the plan during the last three years. This will be followed up with a meeting two weeks later to review the planning process and review the plan. The plan contacts will work with the TDEM Hazard Mitigation Section Staff to keep up to date on requirements and will attend any appropriate training needed. January of 2022, the plan contacts will arrange and hold a Hazard Mitigation Team Meeting and continue the process to evaluate, update and submit the new HMP as required for approval through the State of Texas and FEMA. This will allow plenty of time for proper involvement from the HMPT, all stakeholders and the public as outlined in our plan and sufficient time to have the plan revised and approved before the expiration date occurs in 2024.

Hazard mitigation team members from each jurisdiction (see Appendix C) are responsible for continual monitoring those components of the hazard mitigation plan that pertains to their entity on an annual basis. As part of the monitoring process, team members will assess any changes in risk; determine whether implementation of mitigation actions is on schedule or if there are any implementation problems, such as technical, political, legal or coordination issues; and reflect changes in land development or programs that affect mitigation priorities or actions.

This mitigation action plan will be formally reviewed and updated every five years to determine whether significant changes may have occurred in Brazos County and participating entities that could affect the plan. Increased development, increased exposure to certain hazards, the development of new mitigation capabilities or techniques, and revisions to federal or state legislation are examples of changes that may affect the currency of the plan. Criteria to be included in the evaluation will include, at a minimum:

- The goals and objectives address current and expected conditions;
- The nature, magnitude, and/or type of risks has changed;
- The current resources are appropriate for implementing the plan;
- There are implementation problems, such as technical, political, legal, or coordination issues with other agencies;
- The outcomes have occurred as expected; and,
- The agencies and other partners participated as originally proposed.

The review also will give community officials an opportunity to evaluate successful actions and to explore the possibility of documenting losses avoided because of actions taken. The plan also will need to be revised to reflect lessons learned following a disaster declaration or to address specific circumstances arising from changing conditions surrounding disaster events.

As part of the plan review process, participating jurisdictions will be asked to review each goal and objective to determine their continued relevance; review the risk assessment portion of the plan to determine if the information should be updated or modified; report on the status of each of their mitigation actions; report on which implementation processes worked well, any difficulties encountered, how coordination efforts are proceeding, and which mitigation actions should be revised; and evaluate the effectiveness of their mitigation action plans and recommend changes or amendments.

As part of the five-year plan update, depending upon resource availability, a review will be undertaken of development trends in each jurisdiction and vulnerability. Also as part of the five-year plan update, depending upon resource availability, a review will be undertaken for each hazard of the type and number of existing and future buildings, infrastructure and critical facilities within each hazard area, and an estimate will be undertaken of the vulnerability of critical facilities and infrastructure in terms of potential dollar losses from each hazard. Also depending upon resource availability, land uses and development trends will also be re-examined, including the types of development occurring, location, expected intensity, and pace by land use for each jurisdiction. This will help complete and improve future vulnerability assessment efforts. Based on the analysis, a summary of vulnerability will be provided for participating jurisdictions below the county level.

Plan Amendments and Updates

At any time, minor technical changes may be made to the plan to keep it up to date. However, any changes to the mitigation actions or major changes in the overall direction of the plan or the policies contained within it must be subject to formal adoption by the participating jurisdictions.

After initial adoption, any amendment to the mitigation action plan contained in Section 18 must also be approved by the governing body of the participating city or county for inclusion in an amended plan.

At the end of the comment period, the proposed amendment and all comments will be forwarded to the governing body of the proposing jurisdiction for consideration. If no comments are received from the reviewing parties within the specified review period, this will also be noted. The governing body will then review the proposed amendment and comments received, and vote to accept, reject, or amend the proposed change. The public will have an opportunity to provide input during the governing body meeting at which the request is considered. Upon ratification, the amendment will be included in the plan and forwarded to the Texas Division of Emergency Management.

In determining whether to recommend approval or denial of a plan amendment request, the following factors will be considered:

- Errors or omissions made in the identification of issues or needs during the preparation of the plan;
- New issues or needs that were not adequately addressed in the plan;
- Changes in information, data, or assumptions from those on which the plan was based.

CONTINUED PUBLIC INVOLVEMENT

Public input was an integral part of the preparation of this plan and will continue to be essential as the plan grows and changes. As with any officially adopted plan or ordinance, a significant change to this plan shall require an opportunity for the public to make its views known.

This Hazard Mitigation Action Plan will be posted continuously on the website of the Brazos County Department of Emergency Management, where the public is invited to provide ongoing feedback. The public will be notified that the plan is available on the website and social media through the participating entities. For more information, contact the CEOC at 979-821-1000.

APPENDIX A: ACRONYMS

AL	Annualized Loss
ALR	Annualized Loss Ratio
BCEG	Building Code Effectiveness Grading
BCEGS	Building Code Effectiveness Grading Schedule
BOCA	Building Officials and Code Administrators
BTU	British Thermal Unit
BVCOG	Brazos Valley Council of Governments
CAC	Community Assistance Contact
CAP	Community Assistance Program
CAV	Community Assistance Visit
CDBG	Community Development Block Grant
CERT	Community Emergency Response Team
CFS	Cubic feet per second
CHER-CAP	Comprehensive Hazardous Materials Emergency Response – Capability Assessment Program
CHEMTREC	Chemical Transportation Emergency Center
COG	Council of Governments
COOP	Continuity of Operations Plan
COPS	Community Oriented Police Services
CTP	Cooperating Technical Partner
DEM	Texas Division of Emergency Management
DFIRM	Digital Flood Insurance Rate Map
DOD	Department of Defense
EAS	Emergency Alert System

EM	Emergency Management
EMP	Emergency Management Plan
EMPG	Emergency Management Performance Grants
EMS	Emergency Medical Services
EO	Emergency Operations
EOC	Emergency Operations Center
EP	Exceeding Probability
EPA	United States Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Maps
GIS	Geographic Information System
HAZUS	Federal Emergency Management Agency's Hazards U.S.
HMT	Hazard Mitigation Team
IFC	International Fire Code
ISO	International Organization for Standardization
NFDS	National Fire Danger Rating System
NFIP	National Flood Insurance Program
NHC	National Hurricane Center
NOAA	National Oceanic and Atmospheric Administration
PPC	Public Protection Classification
SFC	Standard Fire Code
TEEX	Texas Engineering Extension Service
UFC	Uniform Fire Code
USACE	U.S. Army Corps of Engineers
USDA	United States Department of Agriculture

APPENDIX B: PUBLIC SURVEY RESULTS **(2017)**

Introduction:

The public survey collects information from the citizens of Brazos County and the participating entities on their knowledge of local natural hazards. One goal of the survey is to gauge impacts to the citizens of the planning area from previous natural disasters. Another purpose of this survey is to provide information *to* the citizens about local hazards and convey strategies to reduce loss of life and property from future disasters. The Federal Emergency Management Agency (FEMA) requires community involvement in the creation of a hazard mitigation plan to:

- Increase education and awareness around threats, hazards, and vulnerabilities;
- Build partnerships for risk reduction involving government, organizations, businesses, and the public;
- Identify long-term, broadly-supported strategies for risk reduction;
- Align risk reduction with other state, tribal, or community objectives;
- Identify implementation approaches that focus resources on the greatest risks and vulnerabilities; and
- Communicate priorities to potential sources of funding.

The ‘*Public Survey for the Brazos County and Participating Entities Hazard Mitigation Plan Update – 2017*’ (Community Survey) was designed for citizens to share their opinions and participate in the mitigation planning process. Responses to the Community Survey give emergency managers, hazard mitigation planning committee members, and elected officials a snap shot of information about the survey respondents and their concerns as well as provide an opportunity to compare this information to Brazos County and participating entities as a whole. Community involvement in the Brazos County Hazard Mitigation Plan Update is a requirement for a FEMA approved-hazard mitigation plan. A FEMA-approved hazard mitigation plan enables Brazos County and participating entities to receive certain types of non-emergency disaster assistance. This funding is used to complete hazard mitigation projects to reduce the loss of life and property and reduce the impacts of disasters within the planning area.

Information to be collected:

The Community Survey includes questions to gather information on public perception of hazard risks within the Brazos County and participating entities. Other questions in the survey aim to identify previous citizen experiences from disaster impacts. Brazos County and participating entities officials requested that a particular focus be given to floods and flooding hazards. Officials also requested information on how citizens receive warnings regarding severe weather events. In regard to these requests, the survey included questions directed at collecting these types of data from the respondents. Basic information, such as the respondent's zip code and simple demographics, was collected to help officials better understand who was received the survey. Officials will then better understand which populations are underrepresented or missing from the survey responses. As a result, future distribution channels and methods of data collection will have an opportunity for improvement and encourage a greater and more diverse sample of the population of the planning area.

Development of the survey instrument:

In order to develop the survey instrument, several activities were undertaken. First, examples of past hazard mitigation survey instruments were collected from a variety of sources including Galveston, Texas, San Leandro, California, and Fort Bend County, Texas.

Once the initial draft was developed the survey was distributed to emergency managers and other city and county officials for review and comments. Two separate meetings were held with emergency managers and officials to review the survey and make revisions. Concern with the difference between perceived risk by the public and the actual risk to the public was expressed by the survey developers therefore, questions to help understand this paradigm were created and included in the survey. The thought behind this was, for example, to identify respondents that might not perceive flooding as a risk yet they reside in a flood zone. Consequently, these findings would be used to target areas within the County where officials will provide public education on actual local risks and deliver information about achievable mitigation strategies aimed to help reduce the loss of life and property from future disasters. Questions were designed to help guide the respondent in giving comprehensive answers yet stay within measurable bounds. This was done in an effort to help quantify the various responses and later visualize the percentages of the answers given. By providing charts and graphs depicting survey responses, officials and the public will have the opportunity to quickly assess where they stand on perceived risks and recognize what actual risks exist within the County. The visuals also aid in identifying areas within the County where public outreach will be directed and where additional mitigation strategies need to be applied.

The survey as distributed to the public follows on the next 11 pages.

Public Survey for the Brazos County Hazard Mitigation Plan Update - 2017

1. The Purpose of This Survey

Brazos County is working to become less vulnerable to natural disasters, and your participation in this planning process is important to us!

Our County, along with local jurisdictions and other partners (including but not limited to the cities of Bryan, College Station, Kurten, Wixon Valley and Texas A&M University), are working to prepare an update to our current Hazard Mitigation Plan. This plan identifies and assesses our community's natural hazard risks and develops strategies and actions to minimize or manage those risks.

Having an established Hazard Mitigation Plan is important to citizens in that it helps to reduce flood insurance rates, reduces damage/loss to personal property and creates the ability to apply for recovery funds should a Federal Disaster Declaration be issued.

The following survey will help you share your opinions and participate in our mitigation planning process. The information you provide will help us better understand your hazard concerns and can lead to mitigation activities that should help lessen the impacts of future hazard events.

The anticipated draft of our Hazard Mitigation Plan Update is expected Fall 2016 and is due for finalization by FEMA in November 2017.

Public Survey for the Brazos County Hazard Mitigation Plan Update - 2017

2. As we update our Brazos County Hazard Mitigation Plan, we need to hear from you!

There are two easy ways you can help:

- 1. Take this survey! (Please submit by August 30, 2016). Your answers will help our Hazard Mitigation Planning Committee determine our community's concerns and questions about the plan and guide discussion during the revision process.**
- 2. Attend the public meetings! At least one to two public meetings will be held during the process (there will be a page at the end of the survey for you to provide your contact information to receive updates!). These meetings will provide you with an opportunity to learn more about the hazard mitigation plan, ask questions, and make comments.**

Thank you for your participation and input! Please encourage your neighbors to also participate!

*****One survey per household, please*****

Public Survey for the Brazos County Hazard Mitigation Plan Update - 2017

3. Brazos County Hazard Mitigation Plan Update Questions:

Please answer the following questions based on where you live.

1. How concerned are you about your area being impacted by a natural disaster? (Click for more information, then choose one answer)

- ☐ Extremely concerned
- ☐ Somewhat concerned
- ☐ Not concerned

2. Have you ever experienced a natural disaster? (Click for more information, then choose one answer)

- ☐ Yes
- ☐ No

3. Which of the following natural hazard(s) have you experienced while living in Brazos County that have resulted in structural damage, personal displacement, loss of utility services for more than 24 hours, or other issues? (Choose all that apply)

- ☐ Flood
- ☐ Winter Storm
- ☐ Tornado
- ☐ Urban/Wildfire
- ☐ Hurricane
- ☐ Dam Failure
- ☐ Windstorm/Thunderstorm
- ☐ Lightning
- ☐ Hail
- ☐ Drought
- ☐ Excessive/Extreme Heat
- ☐ Expansive Soils

Other (please specify)

* 4. Do you rent or own the place where you live? (Choose one)

- ☐ Own (Includes holding a mortgage)
- ☐ Rent
- ☐ Other (please specify)

5. Please select the housing type that best describes your dwelling. (Choose one)

- ☐ Single-family home
- ☐ Duplex
- ☐ Apartment
- ☐ Condominium or Townhome
- ☐ Manufactured Home (modular)
- ☐ Mobile Home or Trailer

Other (please specify)

6. Is your home in a floodplain? Floodplains are areas that are vulnerable to flooding and are identified by the Federal Emergency Management Agency (FEMA) through the National Flood Insurance Program (NFIP). Click [HERE](#) to go the the FEMA Flood Map website. (Please choose one answer)

- ☐ Yes, my home is located in a floodplain.
- ☐ No, my home is not located in a floodplain.
- ☐ I am unsure if my home is located in a floodplain.

7. Do you have flood insurance? Flood insurance is not included in a standard home owner's insurance policy/renter's insurance policy and must be purchased separately. (Choose one)

- ☐ Yes, I have flood insurance.
- ☐ No, I do not have flood insurance.
- ☐ I am not sure if I have flood insurance.

Flood Insurance is available to the residents of our county. Please click [HERE](#) for more information on the FEMA National Flood Insurance Program.

8. If you do not have flood insurance, why? (Choose all that apply)

- ☐ I am not located in a floodplain.
- ☐ Flood insurance is too expensive.
- ☐ Flood insurance is not necessary because it does not flood in my area.
- ☐ Flood insurance is not necessary because my home is elevated or otherwise protected.
- ☐ My mortgage did not require flood insurance.
- ☐ I have never really considered flood insurance.

Other (please specify)

9. Please indicate how concerned you are that your neighborhood would be impacted by these natural hazards.

	Extremely Concerned	Somewhat Concerned	Not Concerned
Flood	☐	☐	☐
Winter Storm	☐	☐	☐
Tornado	☐	☐	☐
Urban/Wildfire	☐	☐	☐
Hurricane	☐	☐	☐
Dam Failure	☐	☐	☐
Windstorm/Thunderstorm	☐	☐	☐
Lightning	☐	☐	☐
Hail	☐	☐	☐
Drought	☐	☐	☐
Excessive/Extreme Heat	☐	☐	☐
Expansive Soils	☐	☐	☐

10. Natural hazards can have significant impacts, but planning for these impacts can help to reduce them. The following statements will help determine citizen priorities regarding planning for natural hazards. Thinking about the community as a whole, how important are the following priorities? (Choose one per row)

	Very Important	Somewhat Important	Not Very Important
Protecting private property	☐	☐	☐
Protecting critical facilities (i.e. Hospitals, Fire Stations, etc.)	☐	☐	☐
Protecting "Life-lines" (i.e. Utilities such as water, electric, natural gas, etc.)	☐	☐	☐
Protecting critical infrastructure (i.e. Bridges, Transportation Routes, etc.)	☐	☐	☐
Preventing development in hazard prone areas	☐	☐	☐
Protecting natural features like wetlands and streams that can reduce flooding	☐	☐	☐
Protecting cultural and historical landmarks	☐	☐	☐
Strengthening emergency response services	☐	☐	☐
Enhancing public education on natural hazards that can impact our area	☐	☐	☐
Signage to identify flood-prone areas within our community	☐	☐	☐

11. Disasters occur at different times of the day. Are you aware of local school, business or religious organization emergency plans? (Choose one)

- ☐ Yes, I am familiar with these emergency plans.
- ☐ I am somewhat aware of these emergency plans.
- ☐ I am not familiar with other emergency plans.

12. Families may want to have household plans for a variety of events. Which of the following has your family planned for? (Choose all that apply)

- ☐ Flood
- ☐ Winter Storm
- ☐ Tornado
- ☐ Urban/Wildfire
- ☐ Hurricane
- ☐ Dam Failure
- ☐ Windstorm/Thunderstorm
- ☐ Lightning
- ☐ Hail
- ☐ Drought
- ☐ Excessive/Extreme Heat
- ☐ Expansive Soils

Please click [HERE](#) to find out more about how to help your family plan for a variety of events.

Our county has the Brazos County Emergency Notification System. If you do not subscribe to this service, please follow [this link](#) to enter your information to receive emergency notifications.

13. How do you receive warnings regarding severe weather events? (Please choose all that apply)

- ☐ Television
- ☐ Radio
- ☐ Brazos County Emergency Notification System
- ☐ Texas A&M's Code Maroon Notification System
- ☐ NOAA Weather Radio
- ☐ Cell Phone Services / Apps
- ☐ Social Media (Facebook, Twitter, etc.)
- ☐ Cable TC System Alerts

Other (please specify)

14. What would be the most effective way for you to receive information about how to make your home and neighborhood more aware and better prepared for natural hazards? (Please check all that apply)

- ☐ Local Newspaper
- ☐ Television or Local Town Cable Channel
- ☐ Radio
- ☐ Information on Utility Bills
- ☐ Direct Mailings
- ☐ Email
- ☐ County/City/Town Website
- ☐ County/City/Town Meetings
- ☐ School Meetings and/or Messages
- ☐ Information at Local Library
- ☐ Roadside Message Boards
- ☐ Emergency Notification System (Phone or Text Message)
- ☐ Social Media (Facebook, Twitter, etc.)

Here are a few questions to answer about yourself
and your household.

15. What is your zip code?

16. With which do you identify as?

- ☐ Male
☐ Female

17. What is the highest level of education completed by any household member?

- ☐ No High School Diploma
☐ High School Diploma
☐ Some College
☐ Trade-Specific Certificate / Associate Degree
☐ Bachelor Degree
☐ Master Degree or Higher

18. Including yourself, please indicate the number of people in each age range that live in your household.

12 and under	
13 - 18	
19 - 64	
65 and over	

19. What is the current marital status of the head of household?

- ☐ Single
☐ Married/Domestic Partnership
☐ Separated/Divorced
☐ Widowed

20. Considering all the members of your household what is the highest number of years any member has been a resident of Brazos County?

21. Please choose which best describes your race.

- ☐ White
- ☐ Black
- ☐ Asian
- ☐ Other (please specify)

22. Are you of Hispanic origin? (Note: Hispanic origin can be viewed as the heritage, nationality, lineage, or country of birth of the person or the person's parents or ancestors before arriving in the United States. People who identify as Hispanic, Latino, or Spanish may be any race - US Census)

- ☐ Yes
- ☐ No

THANK YOU FOR YOUR PARTICIPATION! The survey may be submitted anonymously. However, if you would like to receive information regarding upcoming public meetings for the Brazos County Hazard Mitigation Plan Update, please provide your name and contact information.

23. Your Contact Information: (Optional)

Name:	
Address:	
Phone:	
Email:	

How the Survey was conducted:

Survey Distribution

The Community Survey was distributed to the citizens of Brazos County and participating entities through a variety of means including paper copies distributed at public meetings and events, in public locations such as libraries and City Halls, and digitally through an online form available by hyperlink located on publically-accessible websites. This hyperlink to the online survey was also sent via email to Brazos County employees and employees of the City of Bryan and the City of College Station. The table below indicates the form of distribution used throughout the planning area.

	County-wide	Brazos County	City of Bryan	City of College Station	Texas A&M University
Paper Copies at Public Locations	X				
Paper Copies at Public Meetings	X				
Paper Copies at Public Events	X				
Digital Copy via Website		X	X	X	X
Digital Copy via Email	X	X	X	X	

A digital copy of the survey was available by following the hyperlink - <https://www.surveymonkey.com/r/BCHMPUpdate> from either an email sent to a city or county employee or by visiting one of the websites listed below:

- brazosceoc.org
- www.cstx.gov
- www.bryantx.gov
- www.tamu.edu

Survey Data Entry

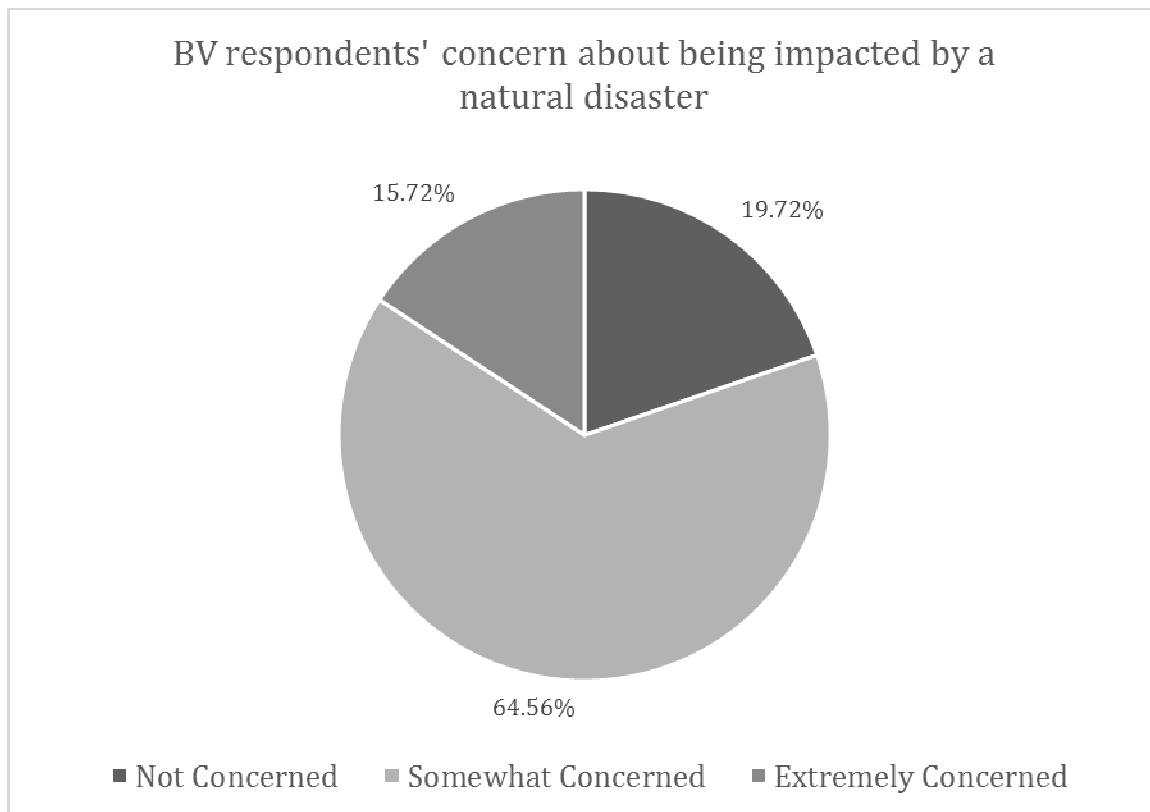
Responses to the survey submitted via digital means (hyperlinks available on websites and through email) were captured and recorded through the SurveyMonkey website (www.surveymonkey.com). Responses to the survey submitted via printed means were entered into the digital format of the survey and added to the SurveyMonkey website totals. By the closing date of the survey there were a total of 653 responses (digital and print combined) which were recorded and saved for analysis.

Survey results for questions 1 through 15 are detailed on the following pages.

Community Survey Results:

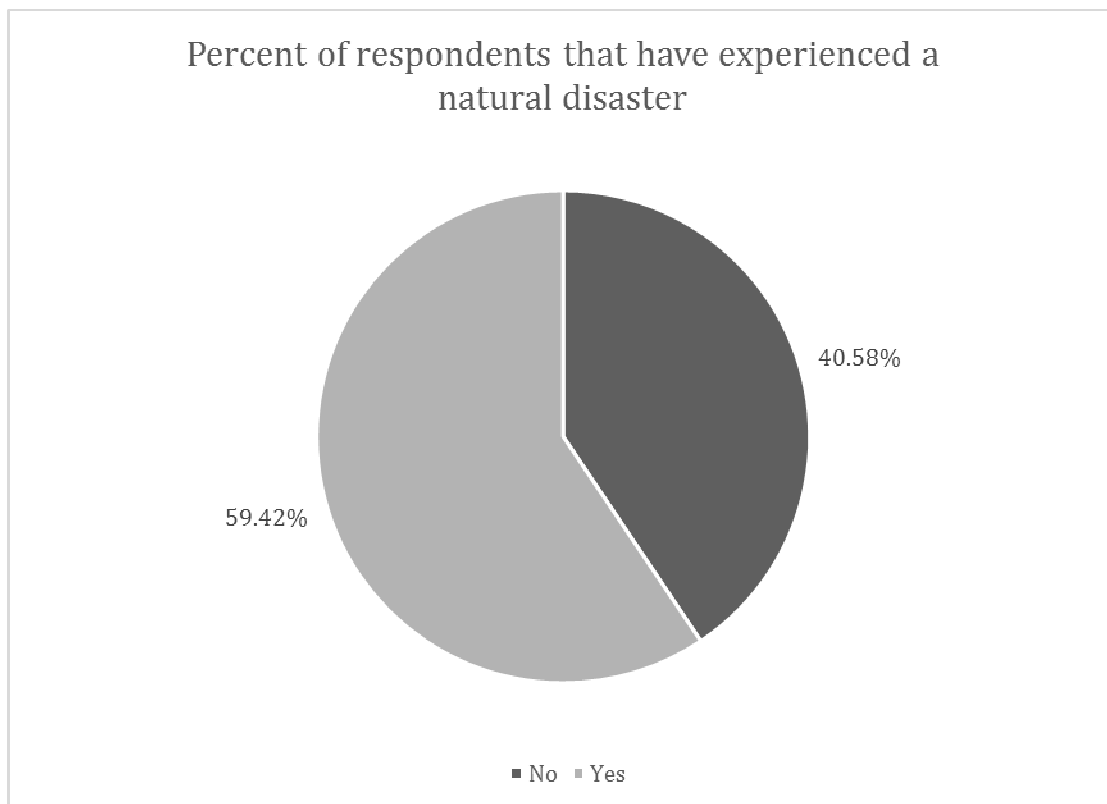
1. How concerned are you about your area being impacted by a natural disaster?

Concern about being affected by a natural disaster?	Frequency	Percent	Cumulative
Not Concerned	128	19.72%	19.72%
Somewhat Concerned	419	64.56%	84.28%
Extremely Concerned	102	15.72%	100.00%
Total	649	100.00%	



2. Have you ever experienced a natural disaster?

Have you ever experienced a natural disaster?	Frequency	Percent	Cumulative
No	265	40.58%	40.58%
Yes	388	59.42%	100.00%
Total	653	100.00%	



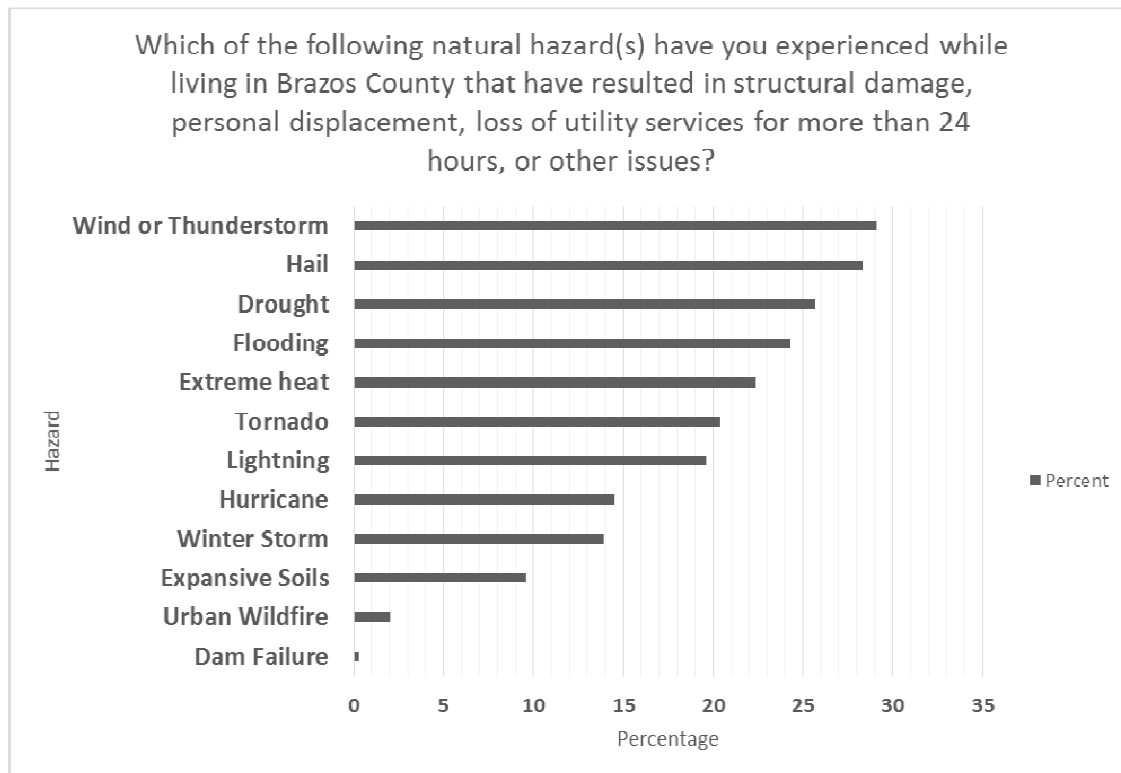
3. Which of the following natural hazard(s) have you experienced while living in Brazos County that have resulted in structural damage, personal displacement, loss of utility services for more than 24 hours, or other issues?

Respondents were asked to indicate which of the following natural hazards they have “experienced” – with quite detail examples of experience, to frame their answers. The responses were simple yes (1) or no (0) answers. So, if a mean or average is calculated, that indicates the proportion of respondents experiencing a particular natural hazard. The following table rank orders the responses, indicating the most likely to least likely natural hazards experienced by the respondents to this survey.

Natural Hazard	Percent
Wind or Thunder Storm	29.1%
Hail	28.3%
Drought	25.7%
Flooding	24.3%
Extreme Heat	22.4%
Tornado	20.4%
Lightning	19.6%
Hurricane	14.5%
Winter Storm	13.9%
Expansive Soils	9.6%
Urban Wildfire	2.0%
Dam Failure	.3%

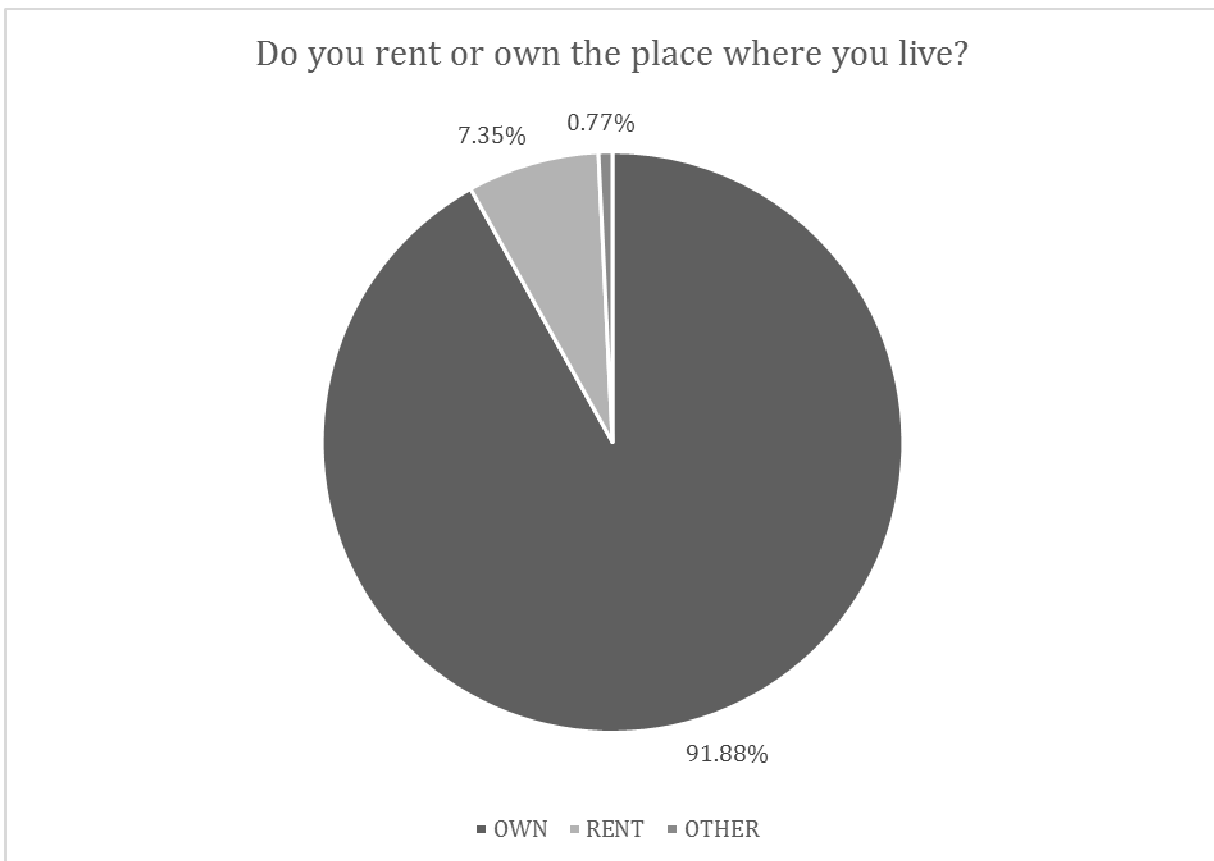
Please see chart of results on following page.

As can be seen from the chart below, the highest proportion of nearly 30% reported having experienced a wind/thunder storm, 28.3% hail, 25.7% drought, etc. Dam failure was the hazard least experienced by the respondents at .3%.



4. Do you rent or own the place where you live?

Do you own or rent the place where you live?	Frequency	Percent	Cumulative
Own	600	91.88%	91.88%
Rent	48	7.35%	99.23%
Other	5	0.77%	100.00%
Total	653	100.00%	



5. Please select the housing type that best describes your dwelling.

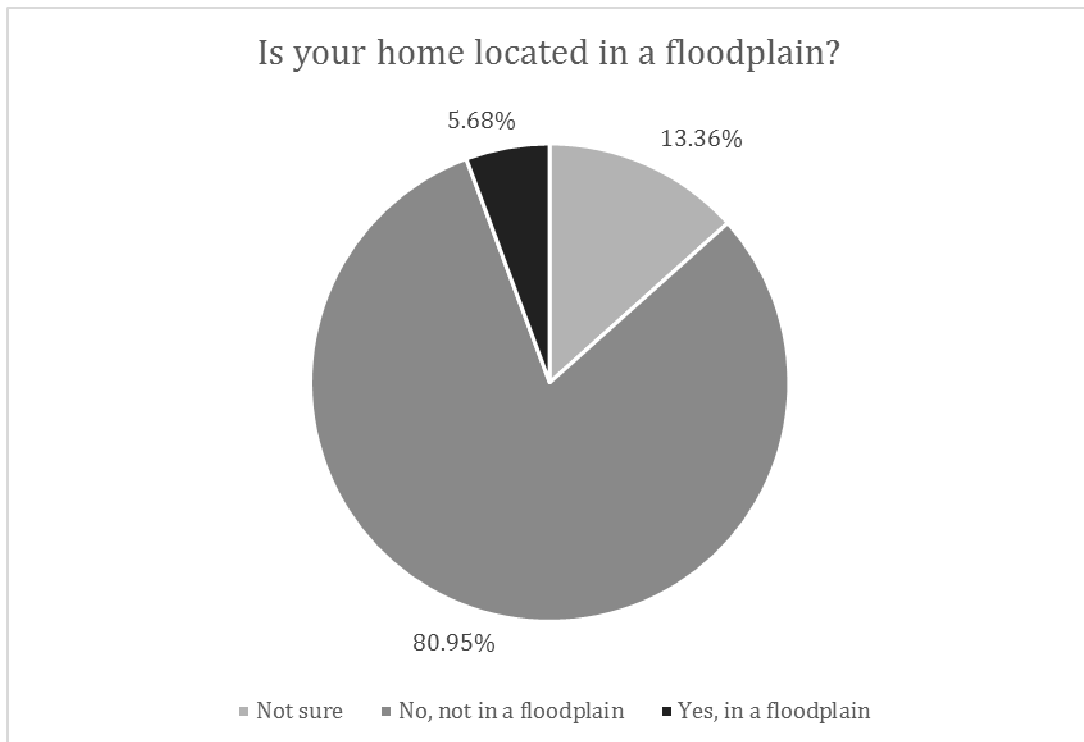
Type of Home	Frequency	Percent	Cumulative
Single Family	601	92.18%	92.18%
Duplex	5	0.77%	92.94%
Apartment	12	1.84%	94.79%
Condo/Townhome	9	1.38%	96.17%
Manufactured Home	25	3.83%	100.00%
Total	652	100.00%	

Tenure by Ownership:

	Do you own or rent the place where you live?			
Type of Home	Own	Rent	Other	Total
Single Family	574	22	5	601
<i>Row Percentage</i>	<i>95.51%</i>	<i>3.66%</i>	<i>0.83%</i>	<i>100.00%</i>
<i>Column Percentage</i>	<i>95.83%</i>	<i>45.83%</i>	<i>100.00%</i>	<i>92.18%</i>
Duplex	1	4	0	5
<i>Row Percentage</i>	<i>20.00%</i>	<i>80.00%</i>	<i>0.00%</i>	<i>100.00%</i>
<i>Column Percentage</i>	<i>0.17%</i>	<i>8.33%</i>	<i>0.00%</i>	<i>0.77%</i>
Apartment	0	12	0	12
<i>Row Percentage</i>	<i>0.00%</i>	<i>100.00%</i>	<i>0.00%</i>	<i>100.00%</i>
<i>Column Percentage</i>	<i>0.00%</i>	<i>25.00%</i>	<i>0.00%</i>	<i>1.84%</i>
Condo/Townhome	5	4	0	9
<i>Row Percentage</i>	<i>55.56%</i>	<i>44.44%</i>	<i>0.00%</i>	<i>100.00%</i>
<i>Column Percentage</i>	<i>0.83%</i>	<i>8.33%</i>	<i>0.00%</i>	<i>1.38%</i>
Manufactured Home	19	6	0	25
<i>Row Percentage</i>	<i>76.00%</i>	<i>24.00%</i>	<i>0.00%</i>	<i>100.00%</i>
<i>Column Percentage</i>	<i>3.17%</i>	<i>12.50%</i>	<i>0.00%</i>	<i>3.83%</i>
Total	599	48	5	652
	<i>91.87%</i>	<i>7.36%</i>	<i>0.77%</i>	<i>100.00%</i>
	<i>100.00%</i>	<i>100.00%</i>	<i>100.00%</i>	<i>100.00%</i>

6. Is your home in a floodplain? Floodplains are areas that are vulnerable to flooding and are identified by the Federal Emergency Management Agency (FEMA) through the National Flood Insurance Program (NFIP).

Is your home located in a floodplain?	Frequency	Percent	Cumulative
Not Sure	87	13.36	13.36
No, not in a floodplain	527	80.95	94.32
Yes, in a floodplain	37	5.68	100.00
Total	651	100.00	



7. Do you have flood insurance? Flood insurance is not included in a standard home owner's insurance policy/renter's insurance policy and must be purchased separately.

Do you have flood insurance?	Frequency	Percentage	Cumulative
Not Sure	49	7.55%	7.55%
No Flood Insurance	512	78.89%	86.44%
Yes, I have Flood Insurance	88	13.56%	100.00%
Total	649	100.00%	

7.1 Flood insurance by owning and renting:

This table suggests that both renters and homeowners *that responded to the survey* are carrying flood insurance.

	Do you own or rent the place where you live?			
Do you have flood insurance?	Own	Rent	Other	Total
Not Sure	41	7	1	49
%	6.88%	14.58%	20.00%	7.55%
No Flood Insurance	477	31	4	512
%	80.03%	64.58%	80.00%	78.89%
Yes, I have Flood Insurance	78	10	0	88
%	13.09%	20.83%	0.00%	13.56%
Total	596	48	5	649
%	100%	100%	100%	100%

7.2 How about the relationship between having (and not having) flood insurance when the respondent says their home is location in a floodplain?

This table is specific to the people indicating that they are in a floodplain:

	Do you own or rent the place where you live?			
Do you have flood insurance?	Own	Rent	Other	Total
Not Sure	2	1	0	3
%	6.67%	16.67%	0.00%	8.11%
No Flood Insurance	11	3	1	15
%	36.67%	50.00%	100.00%	40.54%
Yes, I have Flood Insurance	17	2	0	19
%	56.67%	33.33%	0.00%	51.35%
Total	30	6	1	37
%	100%	100%	100%	100%

** Note - There are 15 of the 37 respondents (51.4%) that report knowing they are in a floodplain but, DO NOT have flood insurance.*

** Note - This includes 17 of 30 homeowners (56.7%) and 2 of 6 (33.3%) renters.*

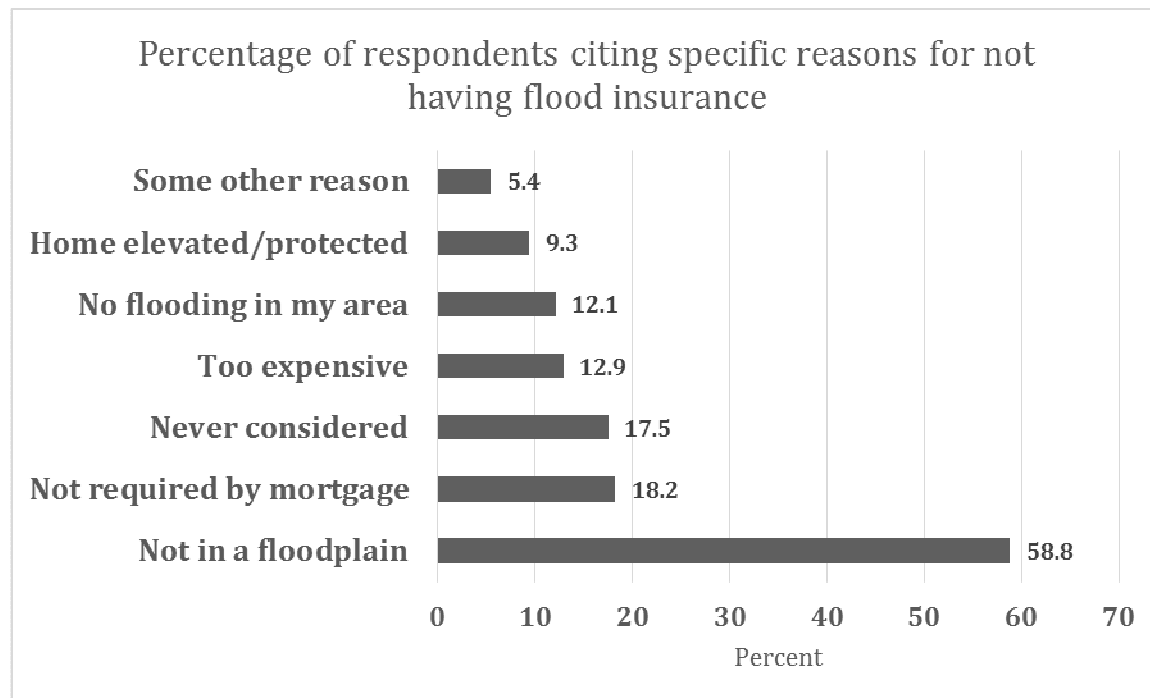
** Again, be cautious, since this is not a random sample, it is unknown if these figures hold true for the full population of Brazos County [and participating entities](#).*

8. If you do not have flood insurance, why?

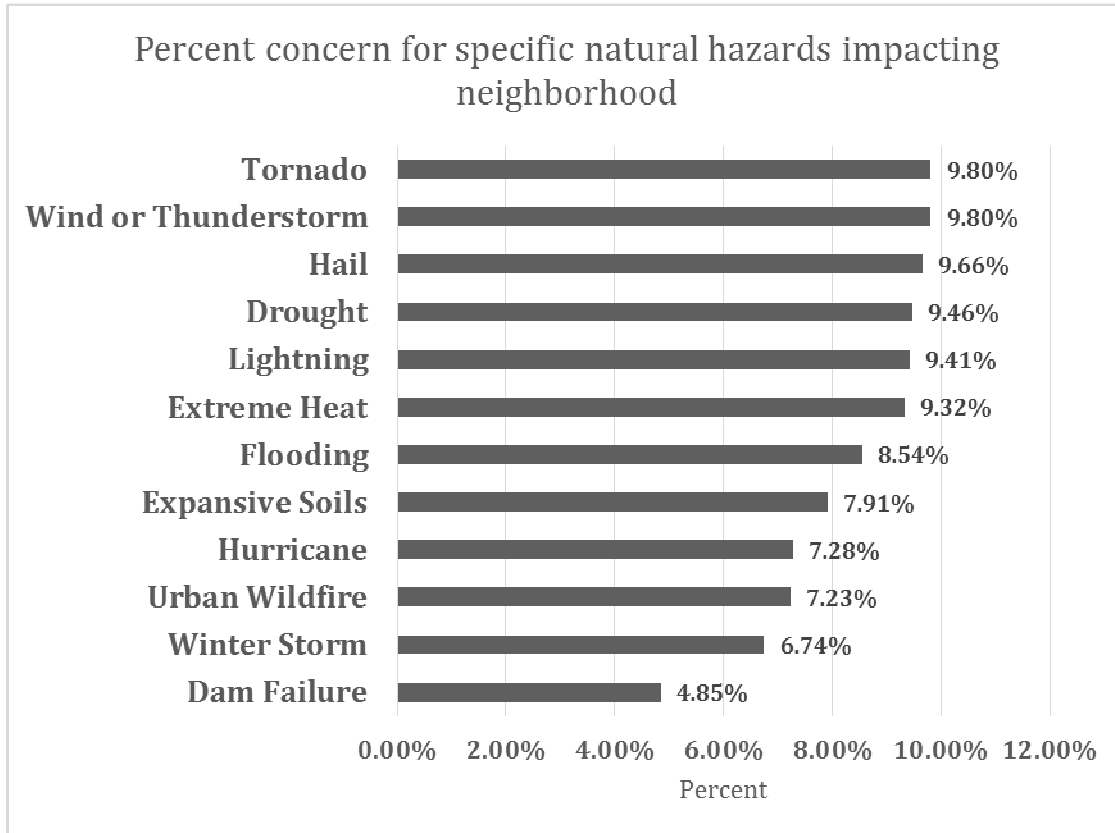
The following table summarizes the detail tables below – it presents the proportion of respondents that indicated specific reasons for not having flood insurance. This is for both homeowners and renters.

The highest proportion of respondents, reported that they did not have flood insurance because they do not think they are located in a floodplain. This may or may not be technically correct, but they believe they are not in a floodplain, and that is the main reason they report not having flood insurance.

Reason For No Flood Insurance?	Percent
Not in a floodplain	58.8%
Not required by mortgage	18.2%
Never considered	17.5%
Too expensive	12.9%
No flooding in my area	12.1%
Home is elevated or protected	9.3%
Some other reason	5.4%



9. Please indicate how concerned you are that your neighborhood would be impacted by these natural hazards.

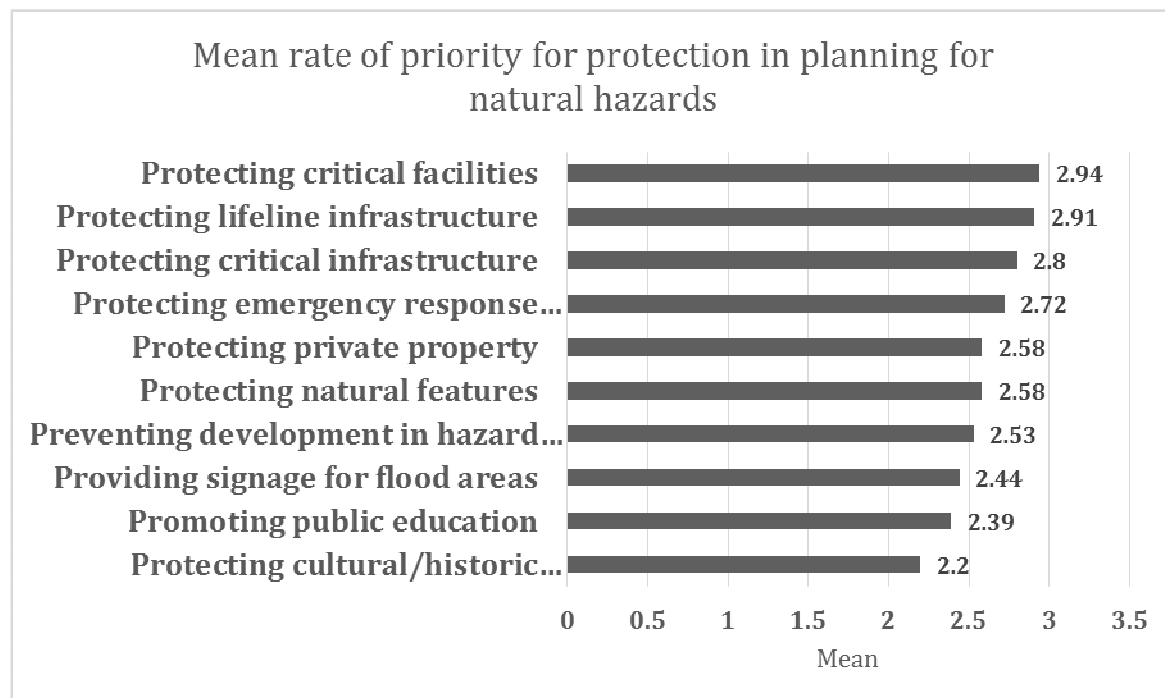


***Respondents were asked to rate between Not Concerned (1) at all to Extremely concerned (3). However, a variable number of respondents did not rate some of these at all such as the 19 that did not rate tornados and 50 that did not rate wildfires. These were left in with a value of 0, which would deflate the ratings, perhaps better capturing the overall concern of this group of respondents. In general, therefore, the higher the rating, the greater the concern over each of these natural hazards for this particular group of respondents.

10. Natural hazards can have significant impacts, but planning for these impacts can help to reduce them. The following statements will help determine citizen priorities regarding planning for natural hazards. Thinking about the community as a whole, how important are the following priorities?

For this set of questions, respondents were asked to rate how important different criteria or principles were for them when it comes to planning for natural hazards and hazard mitigation. These ranged from private property rights to preserving the environment. Ratings ranged from very important (3) to not very important (1). Again a few (9 to 7) people did not answer some, they were coded with a 0 and left in this analysis. So the table below presents the average importance scoring for each of the criteria or principle rated by these respondents. The closer the value is to 3, the more important the priority when planning for natural hazards.

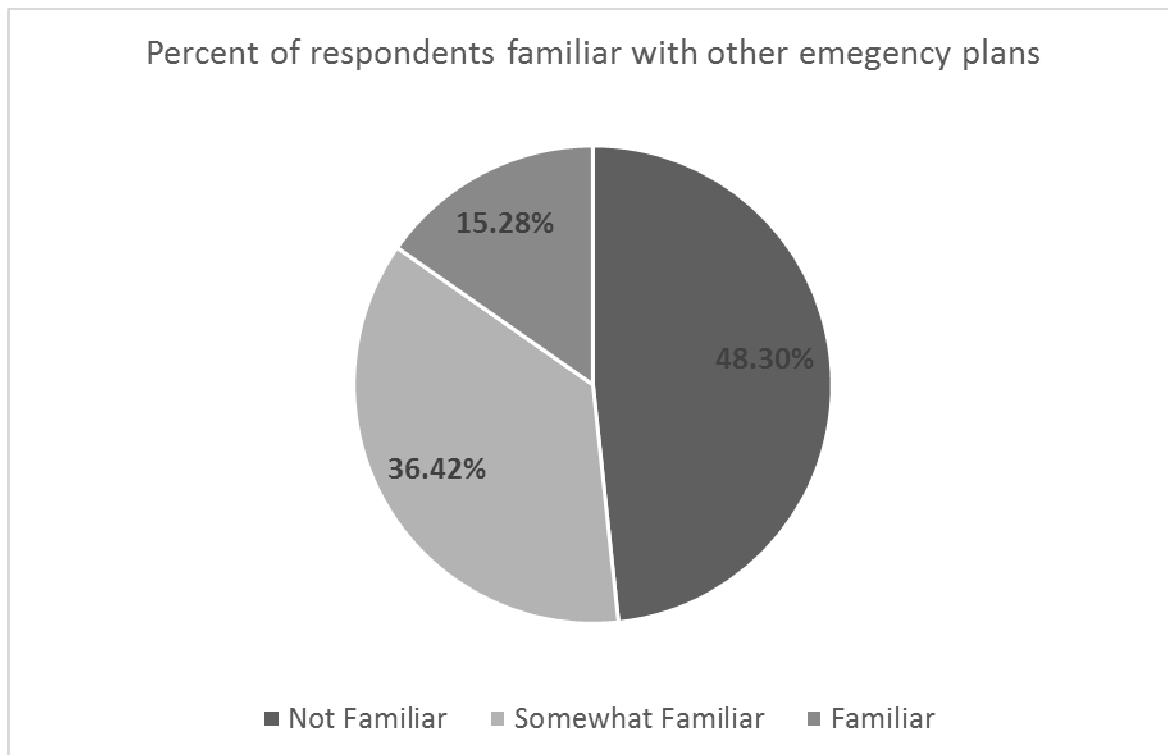
Interestingly protecting critical facilities (hospitals, fire station, etc.) and lifeline infrastructure (utilities) were rated the highest priorities. These were followed by critical infrastructure (bridges, roads, etc.) and emergency response services. Even more interesting, to me, was the virtual tie between protecting private property rights and environmental features such as wetlands. These two are often in conflict – and here they are tied in terms of priorities. The least, but still in the somewhat important range, was protecting cultural and historic landmarks. It is worth noting that signage was a somewhat important priority – something that many in the development community do not want to necessarily see prominently displayed.



11. Disasters occur at different times of the day. Are you aware of local school, business or religious organization emergency plans?

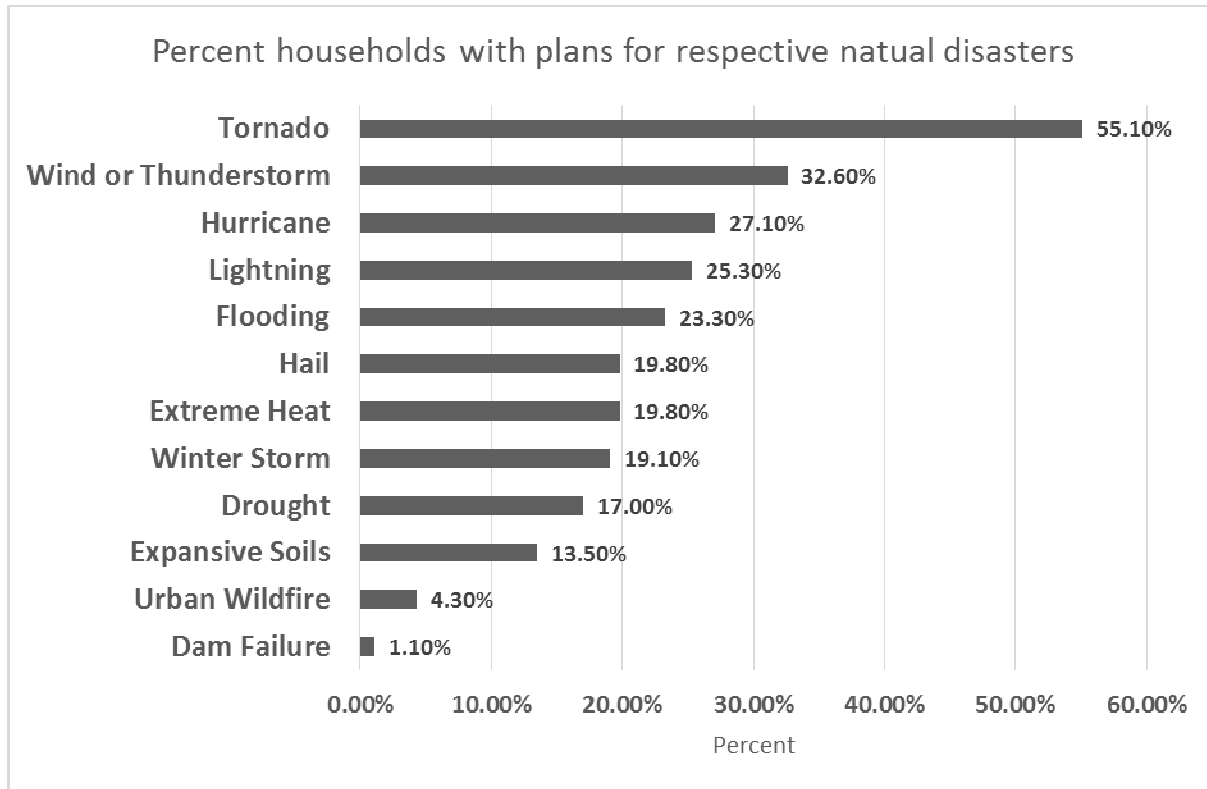
In general there does not appear to be much solid familiarity, but perhaps limited only familiarity with the emergency planning efforts of other organizations in the community among the respondents to this survey.

Familiarity with Emergency Plans of Schools and Religious Organizations?	Frequency	Percent	Cumulative
Not Familiar	313	48.30%	48.30%
Somewhat Familiar	236	36.42%	84.72%
Familiar	99	15.28%	100.00%
Total	648	100.00%	



****In general there does not appear to be much solid familiarity, but perhaps limited only familiarity with the emergency planning efforts of other organizations in the community among the respondents to this survey.*

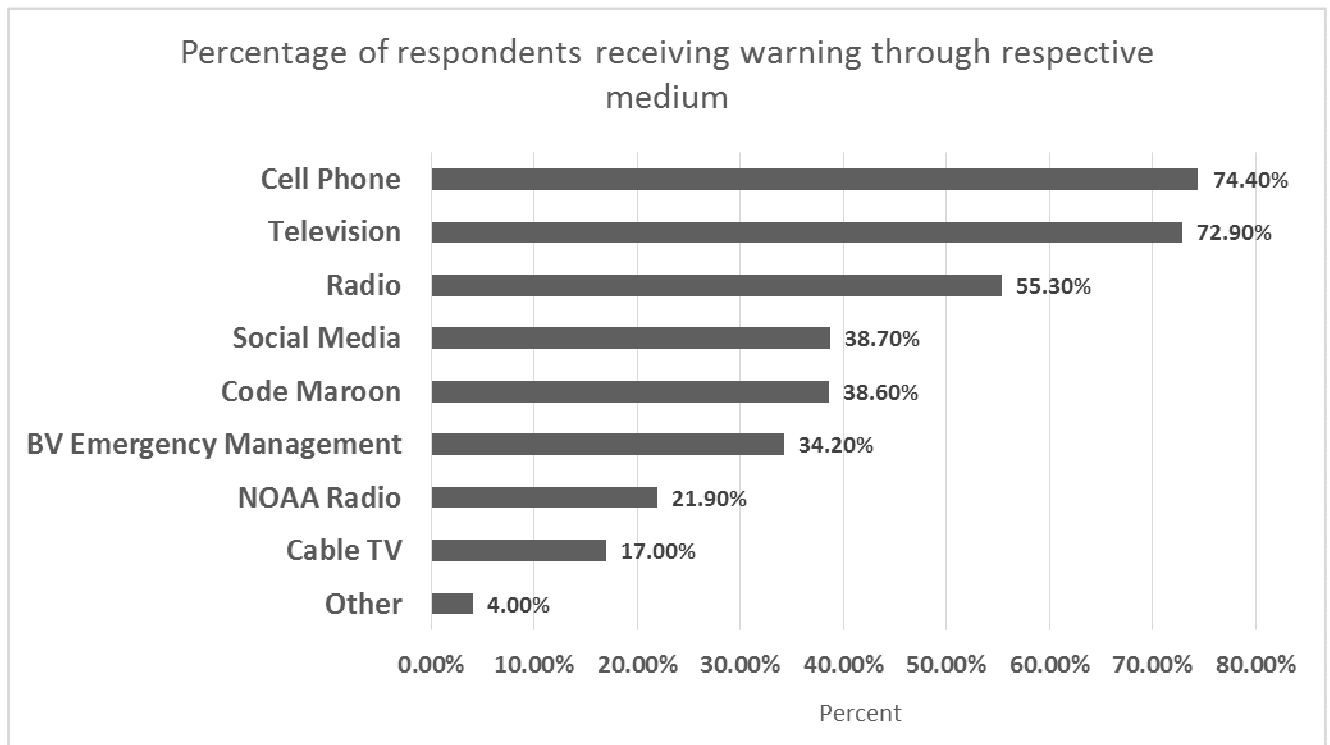
12. Families may want to have household plans for a variety of events. Which of the following has your family planned for?



13.How do you receive warnings regarding severe weather events?

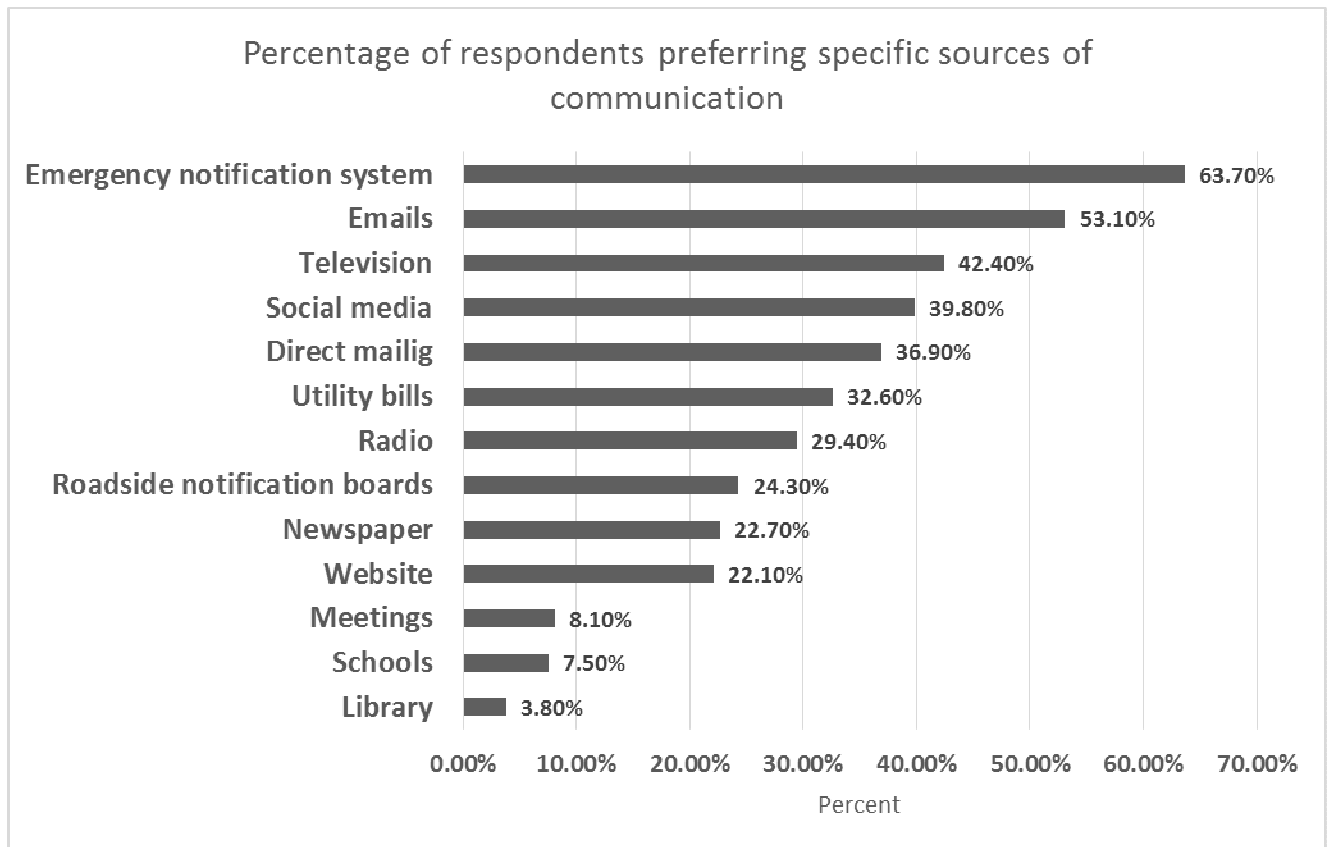
Respondent were asked to indicated how they received sever weather warnings for a specific set of media types. The responses were codes yes (1) or no (0). The following table indicates the percentage of respondents indicating that they receive warnings from each media source. Cell phone and television far surpass other media forms when considering this group of respondents.

Source	Percent
Cell Phone	74.45%
Television	72.90%
Radio	55.30%
Social Media	37.70%
Code Maroon	38.60%
Brazos County Emergency Management	34.20%
NOAA Radio	21.90%
Cable TV	17.00%
Other	4.00%



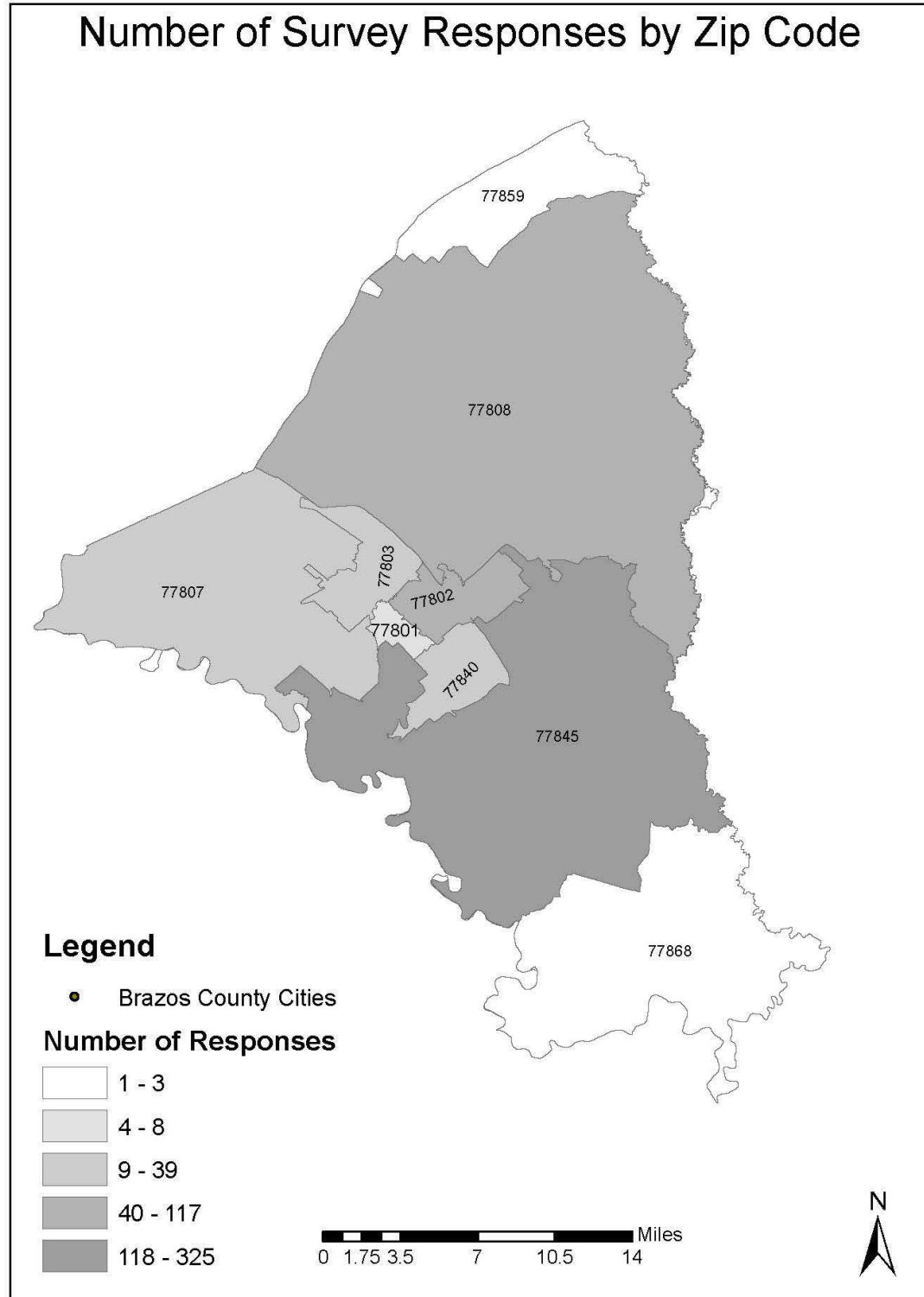
14. What would be the most effective way for you to receive information about how to make your home and neighborhood more aware and better prepared for natural hazards?

Communication Sources	Percent
Emergency Notification System	63.70%
Emails	53.10%
Television	42.40%
Social Media	39.80%
Direct Mailing	36.90%
Utility Bills	32.60%
Radio	29.40%
Roadside Notification Boards	24.30%
Newspapers	22.70%
Website	22.10%
Meetings	8.10%
Schools	7.50%
Library	3.80%



15. Zip code

The map below shows a breakdown of the number of survey responses received from each zip code within Brazos County.



Strengths and limitations of the survey:

As with any data collection method there are advantages and disadvantages to the process and the results. The '*Public Survey for the Brazos County Hazard Mitigation Plan Update – 2017*' proved to garner more information from public participation than the previous survey conducted in 2012. Although over 650 community members responded to the survey, it must be noted that the data presented reflects only the responses of the survey-takers and may not accurately reflect the County as a whole. The survey results have helped local officials better understand some of the community's perceived risks and in turn, this information will help to provide education to the residents that will create better preparedness and assist in the implementation of mitigation actions.

Conclusions:

Public participation during the drafting stage of the planning process is required in the guidelines laid out by the Federal Emergency Management Agency (FEMA) as part of an acceptable Plan. At the same time, the intent of the survey is to provide the citizens of Brazos County and participating entities an opportunity to offer input on community vulnerabilities and mitigation activities and for officials to inform the citizens as to what the community is doing on their behalf.

APPENDIX C: LOCAL HAZARD MITIGATION TEAM

Michele Meade	EMC, Emergency Management, Brazos County
Jason Ware	Deputy EMC, Emergency Management, Brazos County
Kim Hinton	Floodplain Coordinator, Road & Bridge Department, Brazos County
Megan Lott	GIS Coordinator, Road & Bridge Department, Brazos County
James Hall	Environmental Deputy, Sheriff's Office, Brazos County
Mike Paulus	Emergency Preparedness and Response Coordinator, Brazos County
Roger Sheridan	Manager, Public Safety Planning, Brazos Valley Council of Governments
Robert Santarsiero	Homeland Security Senior Planner, Public Safety Planning, Brazos Valley Council of Governments
Jerry Henry	EMC, Emergency Management, City of Bryan
Johnnie Price	Engineering, Development Services, City of Bryan
Cody Cravatt	Development Manager, Development Services, City of Bryan
Brian Hilton	EMC, Emergency Management, City of College Station
Monica Martinez	EMC, Office of Safety & Security, Texas A&M University
Leslie Lutz	Assistant EMC, Office of Safety & Security, Texas A&M University
Jeff Truss	Assistant Director, EHS, Texas A&M University
Ralph Davila	Director, Facilities, Texas A&M University
Valerie Hadley	Assistant Director, Facilities and Dining Administration, Texas A&M University
Rob Meyer	Supervisor, UES, Texas A&M University

Robert Meyer	Assistant Chief of Police, University PD, Texas A&M University
Shannon Van Zandt	Professor & Interim Head, Landscape Architecture & Urban Planning, Texas A&M University
Walter Peacock	Professor, Landscape Architecture & Urban Planning, Texas A&M University
John T. Cooper	Associate Professor of Practice, Landscape Architecture & Urban Planning, Texas A&M University
Kelly Trietsch-Hall	Graduate Student, Master's Level, Texas A&M University
Jim Soefje	Mayor, City of Wixon Valley
Philip Mundine	Mayor, City of Kurten

APPENDIX D: CRITICAL FACILITIES IN BRAZOS COUNTY AND PARTICIPATING ENTITIES

Name	Type	Jurisdiction
Coulter Field	Airport	COB
Easterwood Field	Airport	COCS, TAMU
Brazos Transit District	Bus	COB
Greyhound Bus Station	Bus	COB
Transportation Services	Bus	TAMU
City of Bryan City Hall	City Hall	COB
City of College Station City Hall	City Hall	COCS
City of Wixon Valley City Hall	City Hall	WV
KYLE	Communication	COB
WTAW	Communication	COCS
KEOS	Communication	COB
KNFX-FM	Communication	COB
KKYS	Communication	COB
KORA	Communication	COB
KAMU	Communication	TAMU
KBTX	Communication	COB
Brazos County Courthouse	Courthouse	BC
Bryan Texas Utilities	Electric	COB
College Station Utilities	Electric	COCS
Central Utilities Plant	Electric	TAMU
West Campus Cogeneration Company	Electric	TAMU
Community Emergency Operations Center	Emergency	COB
Kyle Field Command	Emergency	TAMU
College Station Fire Department Station #1	Fire Station	COCS
College Station Fire Department Station #2	Fire Station	COCS
College Station Fire Department Station #3	Fire Station	COCS
College Station Fire Department Station #4	Fire Station	COCS
College Station Fire Department Station #5	Fire Station	COCS
College Station Fire Department Station #6	Fire Station	COCS
Bryan Fire Department Station #1	Fire Station	COB
Bryan Fire Department Station #2	Fire Station	COB
Bryan Fire Department Station #3	Fire Station	COB
Bryan Fire Department Station #4	Fire Station	COB
Bryan Fire Department Station #5	Fire Station	COB
Brazos County District 2 VFD Station #1	Fire Station	BC
Brazos County District 2 VFD Station #2	Fire Station	BC

Brazos County Precinct 3 VFD Station #1	Fire Station	BC
Brazos County Precinct 3 VFD Station #2	Fire Station	BC
Brazos County Precinct 3 VFD Station #3	Fire Station	BC
Brazos County Precinct 4 VFD Station #1	Fire Station	BC
Brazos County Precinct 4 VFD Station #2	Fire Station	BC
Brazos county Precinct 4 VFD Station #3	Fire Station	BC
South Brazos County FD Station #1	Fire Station	BC
South Brazos County FD Station #2	Fire Station	BC
South Brazos County FD Station #3	Fire Station	BC
South Brazos County FD Station #4	Fire Station	BC
Business 6/ Texas Avenue	Highway	BC, COB, COCS
Earl Rudder Freeway/ State Highway 6	Highway	BC, COB, COCS
Farm to Market 50	Highway	BC
Farm to Market 60 (Raymond Stotzer/University Dr)	Highway	BC, COB, COCS
Farm to Market 158 (Boonville Road/ William J. Bryan Parkway)	Highway	COB, BC
Farm to Market 159	Highway	BC
Farm to Market 974 (Tabor Road)	Highway	BC, COB
Farm to Market 1179 (Briarcrest/ Villa Maria)	Highway	COB, BC
Farm to Market 1687 (Sandy Point Road)	Highway	COB, BC
Farm to Market 1688 (Leonard Road)	Highway	COB, BC
Farm to Market 2038	Highway	BC
Farm to Market 2154 (Wellborn Road)	Highway	BC, COB, COCS
Farm to Market 2223 (Old Cameron Ranch Road)	Highway	BC
Farm to Market 2347 (George Bush Dr)	Highway	COCS
Farm to Market 2776	Highway	BC, WV
Farm to Market 2818 (Harvey Mitchell Parkway)	Highway	BC, COB, COCS
Old San Antonio Road (OSR)	Highway	BC
State Highway 21	Highway	BC, COB, WV, Kurten
State Highway 30 (Harvey Road)	Highway	BC, COB, COCS
State Highway 40	Highway	COCS
State Highway 47	Highway	COCS, COB, BC
State Highway 105	Highway	BC
College Station Medical Center	Medical	COCS
St Joseph Regional Health Ctr	Medical	COB
Scott and White	Medical	COCS
The Physician Center	Medical	COB
Rock Prairie Behavioral Health	Medical	COCS

University Emergency Medical Service	Medical	TAMU
City of Bryan Police Department	Police Station	COB
City of College Station Police	Police Station	COCS
Brazos County Sheriff's Office	Police Station	BC
Texas Department of Public Safety	Police Station	COB
University Police Department	Police Station	TAMU
Union Pacific Railroad	Railway bridge	BC, COB, COCS
Burlington Northern Santa Fe	Railway bridge	BC, COB, COCS
A & M Consolidated High School	School	COCS
A&M Consolidated Middle School	School	COCS
Aggieland Country School	School	COCS
Allen Academy	School	COB
Anson Jones Elementary	School	COB
Arthur Davila Middle School	School	COB
Ben Milam Elementary	School	COB
Bonham Elementary	School	COB
Brazos Christian School	School	COB
Bryan Collegiate High School	School	COB
Bryan High School	School	COB
Center For Alternative Learning	School	COCS
College Hills Elementary	School	COCS
College Station High School	School	COCS
College Station Middle School	School	COCS
Cornerstone Christian Academy	School	COB
Creekview Elementary School	School	COCS
Crockett Elementary	School	COB
Cypress Grove Intermediate	School	COCS
Disciplinary Alternative Educational Program	School	COB
Fannin Elementary	School	COB
Forest Ridge Elementary School	School	COCS
Greens Prairie Elementary School	School	COCS
Harmony Science Academy	School	COB
Harvey Mitchell Elementary	School	COB
Henderson Elementary	School	COB
Jane Long Middle	School	COB
Johnson Elementary	School	COB
Kemp Elementary	School	COB
Keystone Montessori School	School	COB
Mary Branch Elementary	School	COB
Mary Catherine Harris School of Choice High School	School	COB
Montessori School House	School	COB

Navarro Elementary	School	COB
Neal Elementary	School	COB
Oakwood Intermediate	School	COCS
Pebble Creek Elementary	School	COCS
Rock Prairie Elementary	School	COCS
Rudder High School	School	COB
Sam Houston Elementary	School	COB
Sam Rayburn Middle	School	COB
South Knoll Elementary	School	COCS
Southwood Valley Elementary	School	COCS
Special Opportunity School	School	COB
St. Michaels Academy	School	COB
St. Joseph Catholic School	School	COB
Stephen F Austin Middle	School	COB
Still Creek Christian School	School	BC
Sul Ross Elementary	School	COB
Burton Creek Wastewater Treatment Plant	Wastewater	COB
City of Bryan Thompsons Creek Wastewater Treatment Plant	Wastewater	COB
Texas A&M University	Wastewater	TAMU
Carter Creek Wastewater Treatment	Wastewater	COCS
Lick Creek Wastewater Treatment	Wastewater	COCS
City of Bryan Still Creek Wastewater Treatment	Wastewater	COB
Utilities and Energy Services	Wastewater	TAMU
Legend: COB - City of Bryan, COCS - City of College Station, BC - Brazos County, TAMU - Texas A&M University, WV - City of Wixon Valley, and Kurten - City of Kurten		



APPENDIX E: LOCAL ADOPTION RESOLUTIONS

To be included after FEMA issues the "Approvable Pending Adoption Letter"

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF COLLEGE STATION, TEXAS, ADOPTING AND APPROVING THE COLLEGE STATION PORTION OF “MITIGATING RISK: PROTECTING THE BRAZOS VALLEY FROM ALL HAZARDS, 2019-2024 PLAN” (PLAN).

WHEREAS, certain areas of College Station are subject to periodic flooding and other natural hazards with the potential to cause damages to people and properties within the area; and

WHEREAS, under the Disaster Mitigation Act of 2000, the United States Federal Emergency Management Agency (FEMA) requires that local jurisdictions have in place a FEMA-approved Hazard Mitigation Action Plan as a condition of receipt of certain future Federal mitigation funding after November 1, 2004; and

WHEREAS, This Plan, a five-year blueprint for the future, aimed at making communities in Brazos County disaster resistant by reducing or eliminating the long-term risk of loss of life and property from the full range of natural disasters; and

WHEREAS, This Plan meets the requirements of the Disaster Mitigation Act of 2000 (P.L. 106-390); Section 44 of the Code of Federal Regulations, Part 201.6 and Part 206; and State of Texas Division of Emergency Management standards.

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COLLEGE STATION, TEXAS:

PART 1: That the City Council hereby adopts and approves those portions of the Plan entitled, Mitigating Risk: Protecting the Brazos Valley from All Hazards, 2019-2024, that pertain to the City of College Station attached as Exhibit A.

PART 2: That the City Council hereby approves and authorizes Brian Hilton, Emergency Management Coordinator with the responsibility, authority, and the means to:

- a.** Inform all concerned parties of this action.
- b.** Develop an addendum to this Hazard Mitigation Plan if College Station’s unique situation warrants such an addendum.

PART 3: That the City Council hereby appoints the Emergency Management Coordinator to assure the Hazard Mitigation Plan is reviewed at least annually and that amendments to the City of College Station addendum to the Hazard Mitigation Plan be developed and presented to the City Council for consideration and approval

PART 4: That this resolution shall take effect immediately from and after its passage.

ADOPTED this ____ day of _____, 2019.

ATTEST:

APPROVED:

City Secretary

Mayor

APPROVED:

City Attorney

EXHIBIT A

**MITIGATING RISK:
PROTECTING THE BRAZOS VALLEY FROM ALL HAZARDS
2019-2024 PLAN**

Legislation Details (With Text)

File #:	19-0223	Version:	1	Name:	EMC Resolution
Type:	Resolution	Status:		Status:	Consent Agenda
File created:	4/23/2019	In control:		In control:	City Council Regular
On agenda:	5/13/2019	Final action:		Final action:	
Title:	Presentation, discussion, and possible action regarding a resolution reappointing Brian Hilton as the Emergency Management Coordinator.				
Sponsors:	Jonathan McMahan				
Indexes:					
Code sections:					
Attachments:	TDEM Form 147 College Station.pdf EMC Resolution 5-1-19				

Date	Ver.	Action By	Action	Result
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Presentation, discussion, and possible action regarding a resolution reappointing Brian Hilton as the Emergency Management Coordinator.

Relationship to Strategic Goals:

- Good Governance
- Financially Sustainable City
- Core Services and Infrastructure
- Neighborhood Integrity
- Diverse Growing Economy
- Improving Mobility
- Sustainable City

Recommendation(s): Staff recommends approval of the resolution.

Summary: The citizens have elected Karl Mooney as the Mayor for the City of College Station. In accordance with the Texas Disaster Act of 1975, the Mayor assumes the duty as the Emergency Management Director. The Emergency Management Director may designate an Emergency Management Coordinator who shall serve as assistant to the presiding officer of the political subdivision for emergency management purposes when so designated.

Budget & Financial Summary: None

Attachments: Emergency Management Coordinator Resolution & Form TDEM-147

EMERGENCY MANAGEMENT DIRECTOR/COORDINATOR NOTIFICATION

Section 418.101 of the Texas Government Code states: "The presiding officer of the governing body of each political subdivision will notify the Division of Emergency Management of the manner in which the political subdivision is providing or securing an emergency management program, identify the person who heads the agency responsible for the program, and furnish additional pertinent information." This form is used to make the required notification to TDEM.

The information on this form may be released to those inquiring about local emergency management programs pursuant to the Texas Open Records Act. Hence, TDEM recommends that you provide business addresses and mobile telephone numbers rather than home addresses and telephone numbers.

COUNTY:	Brazos	(Required)
Jurisdiction:	City of College Station	(City or County Name)
Official's Title:	Mayor	(Mayor/Judge)
Name:	Karl Mooney	(First & Last Name)
Mailing Address:	PO Box 9960	(The best address to receive mail)
City, State, Zip:	College Station, TX 77842	
Office Number:	979-764-3509	
Cell Number:		
Fax Number:	979-764-6377	
E-mail:	kmooney@cstx.gov	(Please include – this is a back-up for mailing)

EMERGENCY MANAGEMENT PROGRAM APPOINTMENT STATUS

- ☐ I HAVE NOT appointed an Emergency Management Coordinator and will personally direct the local emergency management program.
- ☒ I HAVE appointed/re-appointed the Emergency Management Coordinator identified below to conduct the emergency management program for this jurisdiction. The effective date of the appointment is: 04/19
- ☐ We share our EMC with _____ (name of jurisdiction).

*If the COUNTY Emergency Management Coordinator has been appointed to other jurisdictions within the county, the County Judge and the participating City Mayors must sign this form.
(See the third page for additional signature blocks.)*

The EMC for this jurisdiction is (please select one):

- ☒ Paid, Full Time, EMC only
- ☐ Paid, Full Time, EMC and other job duties (Fire Chief, Fire Marshal, Police Chief, EMS Director, Etc.) (please specify other duty/duties) _____
- ☐ Paid part time, EMC only
- ☐ Paid, Part Time, EMC and other job duties (Fire Chief, Fire Marshal, Police Chief, EMS Director, Etc.) (please specify other duty/duties) _____
- ☐ Unpaid/volunteer EMC only
- ☐ Unpaid/Volunteer, EMC and other volunteer job duties (Fire Chief, Fire Marshal, Police Chief, EMS Director, Etc.) (please specify other duty/duties) _____
- ☐ Other (please describe) _____

EMERGENCY MANAGEMENT COORDINATOR		
	Coordinator	Asst Coordinator
Name:	Brian Hilton	
Mailing Address:	PO Box 9960	
City, State, Zip:	College Station, TX 77842	
Office Phone:	979-764-6210	
Cell Number:	979-255-6210	
Fax Number:	979-393-9922	
E-mail Address:	bhilton@cstx.gov	
Emergency Operations Center Number: 979-821-1000		

Judge's or Mayor's Signature

Date

PLEASE RETURN TO: Texas Division of Emergency Management Operations Section PO Box 4087 Austin, TX 78773-0220 E-mail: SOC2@dps.texas.gov Phone: (512) 424-2208 Email: Click to Submit Form to SOC	
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RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF COLLEGE STATION, TEXAS, APPOINTING AN EMERGENCY MANAGEMENT COORDINATOR FOR THE CITY.

WHEREAS, the City Council recognizes the need to prepare for the occurrence or imminent threat of widespread or severe damage, injury, or loss of life or property resulting from any natural or man-made cause, requiring emergency action; and

WHEREAS, the Texas Division of Emergency Management (TDEM) according to the Texas Disaster Act of 1975, Chapter 418 shall identify the Emergency Management Director and the Emergency Management Coordinator responsible for the emergency management program; and

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COLLEGE STATION, TEXAS:

PART 1: That the City Council hereby recognizes that Mayor Karl Mooney as the Emergency Management Director (EMD) for the City and gives the Mayor authority to execute documents related to appointing the Emergency Management Coordinator.

PART 2: That the Mayor/EMD appoints Brian Hilton as the Emergency Management Coordinator for the City.

PART 3: That this resolution shall take effect immediately from and after its passage.

ADOPTED this ____ day of _____, 2019.

ATTEST:

APPROVED:

City Secretary

Mayor

APPROVED:

City Attorney



Legislation Details (With Text)

File #:	19-0224	Version:	1	Name:	Construction Contract # 19300432 Parks Improvements Construction Contract # 19300432 Parks Improvements
Type:	Contract	Status:			Consent Agenda
File created:	4/24/2019	In control:			City Council Regular
On agenda:	5/13/2019	Final action:			
Title:	Presentation, discussion, and possible action on a construction contract with Jamail and Smith Construction, LP, in the amount of \$153,394.92 for construction at three parks: Lincoln Recreation Center basketball pavilion structure painting and repairs, installing a water drinking fountain, court resurfacing, and lighting upgrades; the installation of water drinking fountains at Lick Creek Park; and concrete pads for bench installations at Cove of Nantucket Park.				
Sponsors:	David Schmitz				
Indexes:					
Code sections:					
Attachments:	Lick Creek Revised Proposal Nantucket Revised Proposal Rec Center Revised				

Date	Ver.	Action By	Action	Result
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Presentation, discussion, and possible action on a construction contract with Jamail and Smith Construction, LP, in the amount of \$153,394.92 for construction at three parks: Lincoln Recreation Center basketball pavilion structure painting and repairs, installing a water drinking fountain, court resurfacing, and lighting upgrades; the installation of water drinking fountains at Lick Creek Park; and concrete pads for bench installations at Cove of Nantucket Park.

Neighborhood Integrity; Diverse Growing Economy

Recommendation(s):

Staff recommends approval and award of the construction contract with Jamail and Smith Construction, LP, for the installation of two drinking fountains at the Lick Creek Nature Center, two concrete park bench slabs at Cove of Nantucket Park, and the installation of LED light fixtures, painting of basketball pavilion, court resurfacing, new drinking fountain, and gutter replacement at the Lincoln Recreation Basketball Pavilion, in the amount of \$153,394.92 with one hundred and twenty (120) construction days.

Summary:

The proposed construction project will allow for upgrades and improvements at three different parks.

Budget & Financial Summary:

Jamail and Smith, LP; a Job Order Contractor vendor, was asked to submit quotes for the installation of drinking fountains, concrete pads, and improvements to the Lincoln Recreation Basketball

Pavilion. Job Order Contractor vendors have been competitively procured, so members automatically have compliance with Texas local and state procurement requirements. Funds are available from Parkland Dedication Funds, Zone 11 and Zone 12. The Lincoln Recreation Center Basketball Pavilion is funded by certificates of obligation.

JAMAIL & SMITH CONSTRUCTION, LP

16511 Hedgecroft
Suite 208
Houston, Texas 77060
p: 281.461.7075
f: 281.461.7260
www.jamailsmith.com

Rusty Warncke
College Station Parks & Recreation
1000 Krenek Cap Rd.
College Station, Texas 77842

March 27, 2019

Attn: Mr. Warncke,

Subject: Lick Creek Park Drinking Fountains

We are pleased to provide our detailed unit price estimate to accomplish the below described scope of work, estimated using the 2019 R.S. Means Facilities Construction Cost Data, the Houston City Cost Index, using our Buyboard Job Order Contract 581-19 coefficient (0.738). Our scope of work is based upon the walk through at the school.

Scope of Work

1. Install new 1" water line to supply each new drinking fountain
2. We will need to make (2) 3" taps in main water line
3. Bore under sidewalk so we do not disturb the existing sidewalk
4. Form and pour out (2) concrete pad 6' X 6' 31/2" thick 3000 PSI with #3 rebar 16" Centers
5. Install (2) new Murdock Fountains Model GYM74
6. Install (2) concrete valve boxes
7. (2) 1" ball valves to shut off fountains

We are available for review of this estimate at your convenience. Should you have any questions or need additional information please do not hesitate to contact Ed McKinzie at 281-901-5893.

Lick Creek Park	\$ 37,673.36
2% Bond	\$ 753.46

Total	\$ 38,426.82
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Very truly yours,
Jamail & Smith Construction


Ed McKinzie
Sr. Project Manager

Attachments:

College Station CX job number cover sheet

Estimator: Sr. Est. Val Bankston

CSP&R Lick Creek Water Fountain

Division Summary (MF04)

01 - General Requirements	\$15,632.60
02 - Existing Conditions	
03 - Concrete	\$2,650.00
04 - Masonry	
05 - Metals	
06 - Wood, Plastics, and Composites	
07 - Thermal and Moisture Protection	
08 - Openings	
09 - Finishes	
10 - Specialties	
11 - Equipment	
12 - Furnishings	
13 - Special Construction	
14 - Conveying Equipment	
21 - Fire Suppression	
22 - Plumbing	\$11,390.00
23 - Heating, Ventilating, and Air-Conditioning (HVAC)	
25 - Integrated Automation	

Totalling Components

Priced Line Items(Right Hand)	\$57,228.60
Nonpriced Line Items	

Material, Labor, and Equipment Totals (No Totalling Components)

Material:	\$23,949.40
Labor:	\$32,364.52
Equipment:	\$914.68
Other:	\$0.00
Laborhours:	209.89
Green Line Items:	\$0.00

26 - Electrical	
27 - Communications	
28 - Electronic Safety and Security	
31 - Earthwork	\$1,056.00
32 - Exterior Improvements	
33 - Utilities	
34 - Transportation	\$14,050.00
35 - Waterway and Marine Transportation	
41 - Material Processing and Handling Equipment	
44 - Pollution Control Equipment	
46 - Water and Wastewater Equipment	
48 - Electric Power Generation	
Alternate	\$12,450.00
Trades	
Assemblies	
FMR	
MF04 Total (Without totalling components)	\$57,228.60

RSMeans HOUSTON, TX CCI 2019Q1, 89.20%	\$6,180.69
2019 Buy Board JOC Jamail Standard (-26.2000%)	\$(13,374.55)

Priced/Non-Priced

Total Priced Items:	12	\$57,228.60	
Total Non-Priced Items:	0	\$0.00	0.00%
	12	\$57,228.60	

Grand Total

\$37,673.36

Estimate Details

Estimator: Sr. Est. Val Bankston

Totalling Component Details

Description	Item Count	Applicable Amount	Applied Amount	Applied Result	Balance
Priced Line Items(Right Hand) Included in Total: Yes Type: Total, Master Format Type: MFO4 Values: Total Includes: Priced Filtering: (none)	12	\$57,228.60		\$57,228.60	\$57,228.60
Nonpriced Line Items Included in Total: Yes Type: Total, Master Format Type: MFO4 Values: Total Includes: Non Priced Filtering: Bare Cost Line Items, O&P Line Items					\$57,228.60
RSMeans HOUSTON, TX CCI 2019Q1, 89.20% Included in Total: Yes Type: RSMeans CCI (Project Level) RSMeans HOUSTON, TX CCI 2019Q1, 89.20% ZIP: 770 Subtotal based on 1 items: "Priced Line Items(Right Hand)"		\$57,228.60	(10.8000)%	\$(6,180.69)	\$51,047.91
2019 Buy Board JOC Jamail Standard Included in Total: Yes Type: Percentage (Project Level) Subtotal based on 2 items: "Priced Line Items(Right Hand)", "RSMeans HOUSTON, TX CCI (Current)"		\$51,047.91	(26.2000)%	\$(13,374.55)	\$37,673.36

Estimate Details

Estimator: Sr. Est .Val Bankston				CSP&R Lick Creek Water Fountain					
Item	Description	UM	Crew	Quantity	Material	Labor	Equipment	Unit Cost	Total
01 - General Requirements									
1	01-31-13-20-0200 Field personnel, project manager, average	Week		2.0000	0.00	4,000.00	0.00	\$4,000.00	\$8,000.00
2	01-31-13-20-0260 Field personnel, superintendent, average	Week		2.0000	0.00	3,725.00	0.00	\$3,725.00	\$7,450.00
3	01-54-33-40-6420-3 Rent per week for general equipment rental, without Ea. operators, toilet, recycle flush type	Ea.		2.0000	0.00	0.00	91.30	\$91.30	\$182.60
01 - General Requirements Total					\$0.00	\$15,450.00	\$182.60		\$15,632.60
03 - Concrete									
4	03-30-53-40-9000 Concrete in place, minimum labor/equipment charge For 2 each 6' x 6' slabs	Job	2 CARP	2.0000	0.00	1,325.00	0.00	\$1,325.00	\$2,650.00
03 - Concrete Total					\$0.00	\$2,650.00	\$0.00		\$2,650.00
22 - Plumbing									
5	22-05-23-20-1470 Valves, bronze, ball, threaded or soldered, 150 PSI, Ea. 1" Valves at 2 ends of water line	Ea.	1 PLUM	4.0000	34.10	40.90	0.00	\$75.00	\$300.00
6	22-11-13-74-1880 Pipe, plastic, including couplings and clevis hanger assemblies, 10' O.C., 3 per 10', PVC, schedule 40, 1" diameter From taps to fountains	L.F.	1 PLUM	320.0000	9.90	17.10	0.00	\$27.00	\$8,640.00
7	22-11-19-42-1120 Backflow preventers, includes valves and four test cocks, corrosion resistant, automatic operation, double check principle, threaded, with gate valves, 1" pipe size Backflow Preventers	Ea.	1 PLUM	2.0000	1,155.00	70.00	0.00	\$1,225.00	\$2,450.00
22 - Plumbing Total					\$5,614.40	\$5,775.60	\$0.00		\$11,390.00
31 - Earthwork									
8	31-23-16-13-0050 Excavating, trench or continuous footing, common earth, excluding sheeting and dewatering, 1' to 4' deep, 3/8 C.Y. excavator Trench for new piping 320lf x 6"wide x 2' deep	B.C.Y.	B-11C	12.0000	0.00	8.16	2.34	\$10.50	\$126.00
9	31-23-23-13-0100 Backfill, by hand, no compaction, heavy soil Backfill trench for piping	L.C.Y.	1 CLAB	13.0000	0.00	48.00	0.00	\$48.00	\$624.00
10	31-23-23-13-0100-0300 Backfill, compaction in 6" layers, hand tamp, add to above (Modified using 31-23-23-13-0300) Compaction of trench backfill	E.C.Y.	1 CLAB	12.0000	0.00	25.50	0.00	\$25.50	\$306.00

Estimate Details

Estimator: Sr. Est .Val Bankston		CSP&R Lick Creek Water Fountain							
31 - Earthwork									
Item	Description	UM	Crew	Quantity	Material	Labor	Equipment	Unit Cost	Total

31 - Earthwork Total

33 - Utilities									
11	33-05-97-05-0020								
	Utility connection, water, sanitary, stormwater, gas, Ea.	Ea.	B-14	2.0000	3,355.00	3,318.00	352.00	\$7,025.00	\$14,050.00
	2 Each-Tap into existing 3" utility water line with valve and concrete shut off box.								

33 - Utilities Total

Alternate									
12	22-47-13-10-8660								
	Drinking water fountains, for connection to cold water supply, floor mounted, pedestal type, enameled iron, heavy duty service, four bubblers	Ea.	1 PLUM	2.0000	5,812.50	412.50	0.00	\$6,225.00	\$12,450.00

Alternate Total

Estimate Grand Total

37,673.36

Rusty Warncke
College Station Parks & Recreation
1000 Krenek Cap Rd.
College Station, Texas 77842

March 27, 2019

Attn: Mr. Warncke,

Subject: COCS-Cove of Nantucket Concrete Slab

We are pleased to provide our detailed unit price estimate to accomplish the below described scope of work, estimated using the 2019 R.S. Means Facilities Construction Cost Data, the Houston City Cost Index, using our Buyboard Job Order Contract 581-19 coefficient (0.738). Our scope of work is based upon the walk through at the school.

Scope of Work

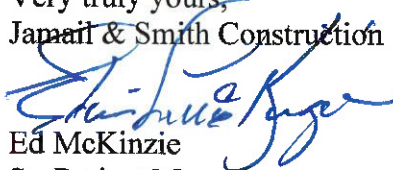
1. Install (2) slabs for two park benches provided and installed by COCS Parks
2. Prep sub grade and set forms
3. Install #3 rebar at 12" centers
4. Placement of 3000 PSI concrete
5. Slab size to be 5'x 15' x 6" thick
6. Wreck forms and remove all construction debris

We are available for review of this estimate at your convenience. Should you have any questions or need additional information please do not hesitate to contact Ed McKinzie at 281-901-5893.

Cove Nantucket Park	\$ 3,602.86
2% Bond	\$ 0

Total	\$ 3,602.86
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Very truly yours,
Jamail & Smith Construction


Ed McKinzie
Sr. Project Manager

Attachments:

College Station CX job number cover sheet

Estimator: Sr. Est. Val Bankston

Summary of tagged estimates...

Division Summary (MF04)	
01 - General Requirements	\$17,097.50
02 - Existing Conditions	
03 - Concrete	
04 - Masonry	\$28,467.36
05 - Metals	\$818.75
06 - Wood, Plastics, and Composites	
07 - Thermal and Moisture Protection	\$3,069.50
08 - Openings	
09 - Finishes	\$17,848.75
10 - Specialties	
11 - Equipment	
12 - Furnishings	
13 - Special Construction	
14 - Conveying Equipment	
21 - Fire Suppression	
22 - Plumbing	\$150.00
23 - Heating, Ventilating, and Air-Conditioning (HVAC)	
25 - Integrated Automation	

Totalling Components

Priced Line Items(Right Hand)	\$166,282.34
Nonpriced Line Items	

Material, Labor, and Equipment Totals (No Totalling Components)

Material:	\$94,912.95
Labor:	\$67,098.53
Equipment:	\$4,270.86
Other:	\$0.00
Laborhours:	676.04
Green Line Items:0	\$0.00

26 - Electrical	\$80,587.36
27 - Communications	
28 - Electronic Safety and Security	
31 - Earthwork	
32 - Exterior Improvements	\$11,605.62
33 - Utilities	
34 - Transportation	
35 - Waterway and Marine Transportation	
41 - Material Processing and Handling Equipment	
44 - Pollution Control Equipment	
46 - Water and Wastewater Equipment	
48 - Electric Power Generation	\$6,637.50
Alternate	
Trades	
Assemblies	
FMR	
MF04 Total (Without totalling components)	\$166,282.34

RSMeans HOUSTON, TX CCI 2019Q1, 89.20%	\$(17,958.49)
2019 Buy Board JOC Jamail Standard (-26.2000%)	\$(38,860.86)

Priced/Non-Priced

Total Priced Items:	23	\$166,282.34	
Total Non-Priced Items:	0	\$0.00	0.00%
	23	\$166,282.34	

Grand Total

\$109,462.99

Estimate Details

Estimator: Sr. Est .Val Bankston

Totalling Component Details

Description	Item Count	Applicable Amount	Applied Amount	Applied Result	Balance
Priced Line Items(Right Hand) Included in Total: Yes Type:Total, Master Format Type: MFO4 Values:Total Includes: Priced Filtering: O&P Line Items	23	\$166,282.34		\$166,282.34	\$166,282.34
Nonpriced Line Items Included in Total: Yes Type:Total, Master Format Type: MFO4 Values:Total Includes: Non Priced Filtering: Bare Cost Line Items, O&P Line Items					\$166,282.34
RSMeans HOUSTON, TX CCI 2019Q1, 89.20% Included in Total: Yes Type:RSMeans CCI (Project Level) RSMeans HOUSTON, TX CCI 2019Q1, 89.20% ZIP:770 Subtotal based on 1 items: "Priced Line Items(Right Hand)"		\$166,282.34	(10.8000)%	\$(17,958.49)	\$148,323.85
2019 Buy Board JOC Jamail Standard Included in Total: Yes Type:Percentage (Project Level) Subtotal based on 2 items: "Priced Line Items(Right Hand)", "RSMeans HOUSTON, TX CCI (Current)"		\$148,323.85	(26.2000)%	\$(38,860.86)	\$109,463.00

Estimate Details

Estimator: Sr. Est. Val Bankston

Basketball Courts

Division Summary (MF04)

01 - General Requirements	
02 - Existing Conditions	
03 - Concrete	
04 - Masonry	\$28,462.50
05 - Metals	
06 - Wood, Plastics, and Composites	
07 - Thermal and Moisture Protection	
08 - Openings	
09 - Finishes	
10 - Specialties	
11 - Equipment	
12 - Furnishings	
13 - Special Construction	
14 - Conveying Equipment	
21 - Fire Suppression	
22 - Plumbing	
23 - Heating, Ventilating, and Air-Conditioning (HVAC)	
25 - Integrated Automation	

26 - Electrical	
27 - Communications	
28 - Electronic Safety and Security	
31 - Earthwork	
32 - Exterior Improvements	\$11,605.62
33 - Utilities	
34 - Transportation	
35 - Waterway and Marine Transportation	
41 - Material Processing and Handling Equipment	
44 - Pollution Control Equipment	
46 - Water and Wastewater Equipment	
48 - Electric Power Generation Alternate	
Trades	
Assemblies	
FMR	
MF04 Total (Without totalling components)	\$40,068.12

Totalling Components

Priced Line Items(Right Hand)	\$40,068.12
Nonpriced Line Items	

Material, Labor, and Equipment Totals (No Totalling Components)

Material:	\$9,331.38
Labor:	\$29,188.54
Equipment:	\$1,548.20
Other:	\$0.00
Laborhours:	419.40
Green Line Items:0	\$0.00

Priced/Non-Priced

Total Priced Items:	5	\$40,068.12
Total Non-Priced Items:	0	\$0.00
	5	\$40,068.12

Estimate Grand Total

\$26,376.68

Estimate Details

Estimator: Sr. Est .Val Bankston

Totalling Component Details

Description	Item Count	Applicable Amount	Applied Amount	Applied Result	Balance
Priced Line Items(Right Hand) Included in Total: Yes Type: Total, Master Format Type: MFD4 Values: Total Includes: Priced Filtering: O&P Line Items	5	\$40,068.12		\$40,068.12	\$40,068.12
Nonpriced Line Items Included in Total: Yes Type: Total, Master Format Type: MFD4 Values: Total Includes: Non Priced Filtering: Bare Cost Line Items, O&P Line Items					\$40,068.12
RSMMeans HOUSTON, TX CCI 2019Q1, 89.20% Included in Total: Yes Type: RSMMeans CCI (Project Level) RSMMeans HOUSTON, TX CCI 2019Q1, 89.20% ZIP: 770 Subtotal based on 1 items: "Priced Line Items(Right Hand)"		\$40,068.12	(10.8000)%	\$(4,327.36)	\$35,740.76
2019 Buy Board JOC Jamail Standard Included in Total: Yes Type: Percentage (Project Level) Subtotal based on 2 items: "Priced Line Items(Right Hand)", "RSMMeans HOUSTON, TX CCI (Current)"		\$35,740.76	(26.2000)%	\$(9,364.08)	\$26,376.68

Estimate Details

Estimator: Sr. Est. Val Bankston						Basketball Courts		
Item	Description	UM	Crew	Quantity	Material	Labor	Equipment	Total
04 - Masonry								
1	04-01-30-20-0300 Clearing masonry, excludes scaffolding, by chemical, high pressure wash and rinse, heavy restoration, light soil Pressure wash courts at 4000 psi to remove all loose materials and resins. Flood courts, mark and fill areas holding water.	S.F.	D-01	14,375.0000	0.12	1.86	0.00	\$28,462.50
04 - Masonry Total					\$1,725.00	\$26,737.50	\$0.00	\$28,462.50
32 - Exterior Improvements								
2	32-01-13-64-2080 Sand seal, sand sealing, sharp sand, asphalt emulsion, small area Chip , clean, and fill crack lines. Sand to plane all surface regularities	S.Y.	B-91	50.0000	1.63	0.47	0.24	\$117.00
3	32-01-13-66-0620 Fog seal, non-skid pavement renewal, 1,000 to 10,000 S.Y. 1598 sy (14375sf) x 3 (1coat acylic resurfacer, and to coats Fortified Plexipave) = 4794sy	S.Y.	B-45	4,794.0000	1.52	0.41	0.30	\$10,690.62
4	32-17-23-13-0200 Painted pavement markings, acrylic waterborne, white or yellow, 6" wide, less than 3,000 L.F. Paint lines on two courts at 700 lf per NCAA layout No logos included	L.F.	B-78	1,400.0000	0.17	0.27	0.06	\$700.00
5	32-17-23-14-0790 Pavement parking markings, layout of pavement marking Layout of court lines	L.F.	A-02	1,400.0000	0.00	0.06	0.01	\$98.00
32 - Exterior Improvements Total					\$7,606.38	\$2,451.04	\$1,548.20	\$11,605.62
Estimate Grand Total								26,376.68

Estimate Details

Estimator: Sr. Est. Val Bankston

CSP&R Lincoln REC. Center Paint and Lighting

Division Summary (MF04)

01 - General Requirements	\$14,375.00
02 - Existing Conditions	
03 - Concrete	
04 - Masonry	
05 - Metals	
06 - Wood, Plastics, and Composites	
07 - Thermal and Moisture Protection	
08 - Openings	
09 - Finishes	
10 - Specialties	
11 - Equipment	
12 - Furnishings	
13 - Special Construction	
14 - Conveying Equipment	
21 - Fire Suppression	
22 - Plumbing	
23 - Heating, Ventilating, and Air-Conditioning (HVAC)	
25 - Integrated Automation	

Totalling Components

Priced Line Items(Right Hand)	\$14,375.00
Nonpriced Line Items	

Material, Labor, and Equipment Totals (No Totalling Components)

Material:	\$0.00
Labor:	\$14,375.00
Equipment:	\$0.00
Other:	\$0.00
Laborhours:	0.00
Green Line Items:	0

26 - Electrical	
27 - Communications	
28 - Electronic Safety and Security	
31 - Earthwork	
32 - Exterior Improvements	
33 - Utilities	
34 - Transportation	
35 - Waterway and Marine Transportation	
41 - Material Processing and Handling Equipment	
44 - Pollution Control Equipment	
46 - Water and Wastewater Equipment	
48 - Electric Power Generation Alternate	
Trades	
Assemblies	
FMR	
MF04 Total (Without totalling components)	\$14,375.00

RSMeans HOUSTON, TX CCI 2019Q1, 89.20%	\$(1,552.50)
2019 Buy Board JOC Jamail Standard (-26.2000%)	\$(3,359.50)

Priced/Non-Priced

Total Priced Items:	2	\$14,375.00
Total Non-Priced Items:	0	\$0.00
	2	\$14,375.00

Estimate Grand Total

\$9,463.00

Estimate Details

Estimator: Sr. Est .Val Bankston CSP&R Lincoln REC. Center Paint and Lighting

Totalling Component Details

Description	Item Count	Applicable Amount	Applied Amount	Applied Result	Balance
Priced Line Items(Right Hand) Included in Total: Yes Type: Total, Master Format Type: MF04 Values: Total Includes: Priced Filtering: O&P Line Items	2	\$14,375.00		\$14,375.00	\$14,375.00
Nonpriced Line Items Included in Total: Yes Type: Total, Master Format Type: MF04 Values: Total Includes: Non Priced Filtering: Bare Cost Line Items, O&P Line Items					\$14,375.00
RSMeans HOUSTON, TX CCI 2019Q1, 89.20% Included in Total: Yes Type: RSMeans CCI (Project Level) RSMeans HOUSTON, TX CCI 2019Q1, 89.20% ZIP: 770 Subtotal based on 1 items: "Priced Line Items(Right Hand)"		\$14,375.00	(10.8000)%	\$(1,552.50)	\$12,822.50
2019 Buy Board JOC Jamail Standard Included in Total: Yes Type: Percentage (Project Level) Subtotal based on 2 items: "Priced Line Items(Right Hand)", "RSMeans HOUSTON, TX CCI (Current)"		\$12,822.50	(26.2000)%	\$(3,359.50)	\$9,463.00

Estimate Details

Estimator: Sr. Est .Val Bankston				CSP&R Lincoln REC. Center Paint and Lighting					
Item	Description	UM	Crew	Quantity	Material	Labor	Equipment	Unit Cost	Total
01 - General Requirements									
1	01-31-13-20-0200	Field personnel, project manager, average	Week	1.0000	0.00	3,800.00	0.00	\$3,800.00	\$3,800.00
2	01-31-13-20-0260	Field personnel, superintendent, average	Week	3.0000	0.00	3,525.00	0.00	\$3,525.00	\$10,575.00
01 - General Requirements Total					\$0.00	\$14,375.00	\$0.00	\$14,375.00	
Estimate Grand Total									9,463.00

Estimate Details

Estimator: Sr. Est. Val Bankston

Lighting

Division Summary (MF04)

01 - General Requirements	\$907.50	26 - Electrical	\$80,587.36
02 - Existing Conditions		27 - Communications	
03 - Concrete		28 - Electronic Safety and Security	
04 - Masonry		31 - Earthwork	
05 - Metals		32 - Exterior Improvements	
06 - Wood, Plastics, and Composites		33 - Utilities	
07 - Thermal and Moisture Protection		34 - Transportation	
08 - Openings		35 - Waterway and Marine Transportation	
09 - Finishes		41 - Material Processing and Handling Equipment	
10 - Specialties		44 - Pollution Control Equipment	
11 - Equipment		46 - Water and Wastewater Equipment	
12 - Furnishings		48 - Electric Power Generation	
13 - Special Construction		Alternate	
14 - Conveying Equipment		Trades	
21 - Fire Suppression		Assemblies	
22 - Plumbing		FMR	
23 - Heating, Ventilating, and Air-Conditioning (HVAC)		MF04 Total (Without totalling components)	\$81,494.86
25 - Integrated Automation			

Totalling Components

Priced Line Items(Right Hand)	\$81,494.86	RSMMeans HOUSTON, TX CCI 2019Q1, 89.20%	\$8,801.44)
Nonpriced Line Items		2019 Buy Board JOC Jamall Standard (-26.2000%)	\$(19,045.68)

Material, Labor, and Equipment Totals (No Totalling Components)

Material:	\$73,920.00
Labor:	\$6,667.36
Equipment:	\$907.50
Other:	\$0.00
Laborhours:	62.72
Green Line Items:0	\$0.00

Priced/Non-Priced

Total Priced Items:	4	\$81,494.86
Total Non-Priced Items:	0	\$0.00
	4	\$81,494.86

Estimate Grand Total

\$53,647.74

Estimate Details

Estimator: Sr. Est .Val Bankston

Lighting

Totalling Component Details

Description	Item Count	Applicable Amount	Applied Amount	Applied Result	Balance
Priced Line Items(Right Hand) Included in Total: Yes Type:Total, Master Format Type: MFO4 Values:Total Includes: Priced Filtering: O&P Line Items	4	\$81,494.86		\$81,494.86	\$81,494.86
Nonpriced Line Items Included in Total: Yes Type:Total, Master Format Type: MFO4 Values:Total Includes: Non Priced Filtering: Bare Cost Line Items, O&P Line Items					\$81,494.86
RSMeans HOUSTON, TX CCI 2019Q1, 89.20% Included in Total: Yes Type:RSMeans CCI (Project Level) RSMeans HOUSTON, TX CCI 2019Q1, 89.20% ZIP:770 Subtotal based on 1 items: "Priced Line Items(Right Hand)"		\$81,494.86	(10.8000)%	\$(8,801.44)	\$72,693.42
2019 Buy Board JOC Jamail Standard Included in Total: Yes Type:Percentage (Project Level) Subtotal based on 2 items: "Priced Line Items(Right Hand)", "RSMeans HOUSTON, TX CCI (Current)"		\$72,693.42	(26.2000)%	\$(19,045.68)	\$53,647.74

Estimate Details

Estimator: Sr. Est .Val Bankston									Lighting
Item	Description	UM	Crew	Quantity	Material	Labor	Equipment	Unit Cost	Total
01 - General Requirements									
1	01-54-33-40-0070-3	Rent per week for general equipment rental, without Ea. operators, aerial lift, articulating boom, diesel, to 45' high, 500 lb. capacity		1.0000	0.00	0.00	907.50	\$907.50	\$907.50
01 - General Requirements Total					\$0.00	\$0.00	\$907.50		\$907.50
26 - Electrical									
2	26-05-05-10-2620	Electrical demolition, exterior fixtures, incandescent, Ea. wall mount, 100 watt	2 ELEC	56.0000	0.00	28.50	0.00	\$28.50	\$1,596.00
3	26-05-05-10-2620-1070	Labor adjustment factors, add to labor for elevated installation, above floor level, 40' and higher (Modified using 26-01-02-20-1070)	2 ELEC	56.0000	0.00	10.56	0.00	\$10.56	\$591.36
4	26-56-23-55-0200	Exterior LED fixtures, wall mounted, outdoor, 110 watt	1 ELEC	56.0000	1,320.00	80.00	0.00	\$1,400.00	\$78,400.00
26 - Electrical Total					\$73,920.00	\$6,667.36	\$0.00		\$80,587.36
Estimate Grand Total									53,647.74

Estimator: Sr. Est .Val Bankston

PLUMBING & GUTTERS

Division Summary (MF04)

01 - General Requirements	
02 - Existing Conditions	
03 - Concrete	
04 - Masonry	\$4.86
05 - Metals	
06 - Wood, Plastics, and Composites	
07 - Thermal and Moisture Protection	\$3,069.50
08 - Openings	
09 - Finishes	
10 - Specialties	
11 - Equipment	
12 - Furnishings	
13 - Special Construction	
14 - Conveying Equipment	
21 - Fire Suppression	
22 - Plumbing	\$150.00
23 - Heating, Ventilating, and Air-Conditioning (HVAC)	
25 - Integrated Automation	

Totalling Components

Priced Line Items(Right Hand)	\$9,861.86
Nonpriced Line Items	

Material, Labor, and Equipment Totals (No Totalling Components)

Material:	\$6,912.82
Labor:	\$2,948.88
Equipment:	\$0.16
Other:	\$0.00
Laborhours:	30.16
Green Line Items:0	\$0.00

26 - Electrical	
27 - Communications	
28 - Electronic Safety and Security	
31 - Earthwork	
32 - Exterior Improvements	
33 - Utilities	
34 - Transportation	
35 - Waterway and Marine Transportation	
41 - Material Processing and Handling Equipment	
44 - Pollution Control Equipment	
46 - Water and Wastewater Equipment	
48 - Electric Power Generation	\$6,637.50
Alternate	
Trades	
Assemblies	
FMR	
MF04 Total (Without totalling components)	\$9,861.86

RSMeans HOUSTON, TX CCI 2019Q1, 89.20%	\$(1,065.08)
2019 Buy Board JOC Jamall Standard (-26.2000%)	\$(2,304.76)

Priced/Non-Priced

Total Priced Items:	6	\$9,861.86	
Total Non-Priced Items:	0	\$0.00	0.00%
	6	\$9,861.86	

Estimate Grand Total

\$6,492.02

Estimate Details

Estimator: Sr. Est .Val Bankston

PLUMBING & GUTTERS

Totalling Component Details

Description	Item Count	Applicable Amount	Applied Amount	Applied Result	Balance
Priced Line Items(Right Hand) Included in Total: Yes Type: Total, Master Format Type: MF04 Values: Total Includes: Priced Filtering: O&P Line Items	6	\$9,861.86		\$9,861.86	\$9,861.86
Nonpriced Line Items Included in Total: Yes Type: Total, Master Format Type: MF04 Values: Total Includes: Non Priced Filtering: Bare Cost Line Items, O&P Line Items					\$9,861.86
RSMMeans HOUSTON, TX CCI 2019Q1, 89.20% Included in Total: Yes Type: RSMMeans CCI (Project Level) RSMMeans HOUSTON, TX CCI 2019Q1, 89.20% ZIP: 770 Subtotal based on 1 items: "Priced Line Items(Right Hand)"		\$9,861.86	(10.8000)%	\$(1,065.08)	\$8,796.78
2019 Buy Board JOC Jamail Standard Included in Total: Yes Type: Percentage (Project Level) Subtotal based on 2 items: "Priced Line Items(Right Hand)", "RSMMeans HOUSTON, TX CCI (Current)"		\$8,796.78	(26.2000)%	\$(2,304.76)	\$6,492.02

Estimate Details

Estimator: Sr. Est. Val Bankston					PLUMBING & GUTTERS				
Item	Description	UM	Crew	Quantity	Material	Labor	Equipment	Unit Cost	Total
04 - Masonry									
1	04-05-16-30-0500 Grouting, cavity walls, pumped, excludes blockwork, S.F. 2" space, 0.167 C.F. per S.F. of wall GROUT UNDER NEW DRINKING FOUNTAIN	S.F.	D-04	2.0000	0.96	1.39	0.08	\$2.43	\$4.86
04 - Masonry Total					\$1.92	\$2.78	\$0.16		\$4.86
07 - Thermal and Moisture Protection									
2	07-71-23-10-5400 Downspouts, steel, galvanized, round, corrugated, 6" diameter, 28 gauge	L.F.	1 SHEE	120.0000	3.93	7.32	0.00	\$11.25	\$1,350.00
3	07-71-23-30-2800 Gutters, steel, galvanized, half round or box, 26 gauge, stock, 6" wide	L.F.	1 SHEE	190.0000	2.94	6.11	0.00	\$9.05	\$1,719.50
07 - Thermal and Moisture Protection Total					\$1,030.20	\$2,039.30	\$0.00		\$3,069.50
22 - Plumbing									
4	22-05-23-20-1470 Valves, bronze, ball, threaded or soldered, 150 PSI, Ea. 1" Valves at 2 ends of water line	Ea.	1 PLUM	2.0000	34.10	40.90	0.00	\$75.00	\$150.00
22 - Plumbing Total					\$68.20	\$81.80	\$0.00		\$150.00
Alternate									
5	22-47-13-10-8660 Drinking water fountains, for connection to cold water supply, floor mounted, pedestal type, enameled iron, heavy duty service, four bubblers Labor Adjustment: 100% of \$412.50 = \$412.50 Using O&P Pricing	Ea.	1 PLUM	1.0000	5,812.50	412.50	0.00	\$6,225.00	\$6,225.00
6	22-47-13-10-8660 Demo - Drinking water fountains, for connection to cold water supply, floor mounted, pedestal type, enameled iron, heavy duty service, four bubblers Labor Adjustment: 100% of \$412.50 = \$412.50 Using O&P Pricing	Ea.	1 PLUM	1.0000	0.00	412.50	0.00	\$412.50	\$412.50
Alternate Total					\$5,812.50	\$825.00	\$0.00		\$6,637.50
Estimate Grand Total					6,492.02				

Estimate Details

Estimator: Sr. Est .Val Bankston Pavillion Clean and Paint

Division Summary (MF04)		
01 - General Requirements	\$1,815.00	
02 - Existing Conditions		
03 - Concrete		
04 - Masonry		
05 - Metals	\$818.75	
06 - Wood, Plastics, and Composites		
07 - Thermal and Moisture Protection		
08 - Openings		
09 - Finishes	\$17,848.75	
10 - Specialties		
11 - Equipment		
12 - Furnishings		
13 - Special Construction		
14 - Conveying Equipment		
21 - Fire Suppression		
22 - Plumbing		
23 - Heating, Ventilating, and Air-Conditioning (HVAC)		
25 - Integrated Automation		
Totalling Components		
Priced Line Items(Right Hand)	\$20,482.50	
Nonpriced Line Items		
Material, Labor, and Equipment Totals (No Totalling Components)		
Material:	\$4,748.75	
Labor:	\$13,918.75	
Equipment:	\$1,815.00	
Other:	\$0.00	
Laborhours:	163.76	
Green Line Items:0	\$0.00	
26 - Electrical		
27 - Communications		
28 - Electronic Safety and Security		
31 - Earthwork		
32 - Exterior Improvements		
33 - Utilities		
34 - Transportation		
35 - Waterway and Marine Transportation		
41 - Material Processing and Handling Equipment		
44 - Pollution Control Equipment		
46 - Water and Wastewater Equipment		
48 - Electric Power Generation Alternate		
Trades		
Assemblies		
FMR		
MF04 Total (Without totalling components)	\$20,482.50	
RSMeans HOUSTON, TX CCI 2019Q1, 89.20%		\$ (2,212.11)
2019 Buy Board JOC Jamall Standard (-26.2000%)		\$ (4,786.84)
Priced/Non-Priced		
Total Priced Items:	6	\$20,482.50
Total Non-Priced Items:	0	\$0.00
	6	\$20,482.50
Estimate Grand Total		\$13,483.55

Estimate Details

Estimator: Sr. Est. Val Bankston

Pavillion Clean and Paint

Totalling Component Details

Description	Item Count	Applicable Amount	Applied Amount	Applied Result	Balance
Priced Line Items(Right Hand) Included in Total: Yes Type: Total, Master Format Type: MF04 Values: Total Includes: Priced Filtering: O&P Line Items	6	\$20,482.50		\$20,482.50	\$20,482.50
Nonpriced Line Items Included in Total: Yes Type: Total, Master Format Type: MF04 Values: Total Includes: Non Priced Filtering: Bare Cost Line Items, O&P Line Items					\$20,482.50
RSMeans HOUSTON, TX CCI 2019Q1, 89.20% Included in Total: Yes Type: RSMeans CCI (Project Level) RSMeans HOUSTON, TX CCI 2019Q1, 89.20% ZIP: 770 Subtotal based on 1 items: "Priced Line Items(Right Hand)"		\$20,482.50	(10.8000)%	\$(2,212.11)	\$18,270.39
2019 Buy Board JOC Jamail Standard Included in Total: Yes Type: Percentage (Project Level) Subtotal based on 2 items: "Priced Line Items(Right Hand)", "RSMeans HOUSTON, TX CCI (Current)"		\$18,270.39	(26.2000)%	\$(4,786.84)	\$13,483.55

Estimate Details

Estimator: Sr. Est. Val Bankston

Pavillion Clean and Paint

Item	Description	UM	Crew	Quantity	Material	Labor	Equipment	Unit Cost	Total
01 - General Requirements									
1	01-54-33-40-0070-3 Rent per week for general equipment rental, without Ea. operators, aerial lift, articulating boom, diesel, to 45' high, 500 lb. capacity			2.0000	0.00	0.00	907.50	\$907.50	\$1,815.00
01 - General Requirements Total									
					\$0.00	\$0.00	\$1,815.00		\$1,815.00
05 - Metals									
2	05-01-10-51-6215 Cleaning of structural metal framing, steel surface treatments, PDCA guidelines, pressure washing, up to 5,000 psi, 5,000 to 15,000 S.F. per day Power wash inside roof area and columns	S.F.	1 PORD	16,375.0000	0.00	0.05	0.00	\$0.05	\$818.75
05 - Metals Total									
					\$0.00	\$818.75	\$0.00		\$818.75
09 - Finishes									
3	09-97-13-23-6520 Exterior steel coatings, paints and protective coatings, sprayed in field, alkyds, primer primer coat on isde pavillion ceiling and columns	S.F.	2 PSST	16,375.0000	0.10	0.32	0.00	\$0.42	\$6,877.50
4	09-97-13-23-6520-7020 Exterior steel coatings, above one story, spray painting, simple structures, add (Modified using 09-97-13-23-7020)	S.F.	2 PSST	16,375.0000	0.00	0.05	0.00	\$0.05	\$818.75
5	09-97-13-23-6560 Exterior steel coatings, paints and protective coatings, sprayed in field, alkyds, silicone alkyd One top coat on ceiling and columns	S.F.	2 PSST	16,375.0000	0.19	0.37	0.00	\$0.56	\$9,170.00
6	09-97-13-23-6560-7020 Exterior steel coatings, above one story, spray painting, simple structures, add (Modified using 09-97-13-23-7020)	S.F.	2 PSST	16,375.0000	0.00	0.06	0.00	\$0.06	\$982.50
09 - Finishes Total									
					\$4,748.75	\$13,100.00	\$0.00		\$17,848.75
Estimate Grand Total									13,483.55

**Rusty Warncke
College Station Parks & Recreation
1000 Krenek Cap Rd.
College Station, Texas 77842**

February 25, 2019

Attn: Mr. Warncke,

Subject: COCS-Lincoln Rec Center Painting & Lighting at Pavilion

We are pleased to provide our detailed unit price estimate to accomplish the below described scope of work, estimated using the 2019 R.S. Means Facilities Construction Cost Data, the Houston City Cost Index, using our Buyboard Job Order Contract 581-19 coefficient (0.738). Our scope of work is based upon the walk through at the school.

Scope of Work

Painting Scope

1. Power wash all exposed steel at pavilion
2. Prime any rusted areas
3. Paint two coats at pavilion on all the steel

Metal Bldg. Scope

1. Replace entire gutter system and down spouts on the south side of pavilion to be reinstalled
2. Fill in the washed-out areas under the existing downspouts with dirt
3. Provide and install new splash blocks at downspouts north side of pavilion
4. Provide and install new fountain in existing location (Murdock Fountain #GYM74/HB3/JF2/PF grout under fountain to keep level
5. Insure fountain works & drains
6. Remove existing Fountain and haul off and patch in concrete approx.. 2'x 2' 31/2"

Electrical Scope

1. Remove all existing pavilion lights total of (56)
2. Provide and install (56) new LED light 3,000 Lumens
3. Provide submittals for the new lights before installing.

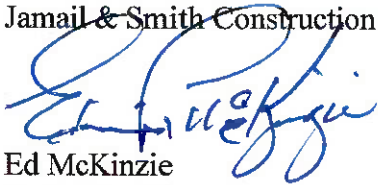
Striping of Basketball Court Scope

1. Prep existing concrete and existing striping of basketball court
2. Re-paint basketball court to match existing lay-out

We are available for review of this estimate at your convenience. Should you have any questions or need additional information please do not hesitate to contact Ed McKinzie at 281-901-5893.

Lincoln Rec Center	\$ 109,462.99
2% Bond	\$ 2,189.25
Total	\$ 111,365.24

Very truly yours,
Jamail & Smith Construction



Ed McKinzie

Sr. Project Manager

Attachments:

College Station CX job number cover sheet

Estimator: Sr. Est .Val Bankston

Summary of tagged estimates...

Division Summary (MF04)	
01 - General Requirements	\$17,097.50
02 - Existing Conditions	
03 - Concrete	
04 - Masonry	\$28,467.36
05 - Metals	\$818.75
06 - Wood, Plastics, and Composites	
07 - Thermal and Moisture Protection	\$3,069.50
08 - Openings	
09 - Finishes	\$17,848.75
10 - Specialties	
11 - Equipment	
12 - Furnishings	
13 - Special Construction	
14 - Conveying Equipment	
21 - Fire Suppression	
22 - Plumbing	\$150.00
23 - Heating, Ventilating, and Air-Conditioning (HVAC)	
25 - Integrated Automation	

Totalling Components	
Priced Line Items(Right Hand)	\$166,282.34
Nonpriced Line Items	

Material, Labor, and Equipment Totals (No Totalling Components)

Material:	\$94,912.95
Labor:	\$67,098.53
Equipment:	\$4,270.86
Other:	\$0.00
Laborhours:	676.04
Green Line Items:	\$0.00

26 - Electrical	\$80,587.36
27 - Communications	
28 - Electronic Safety and Security	
31 - Earthwork	
32 - Exterior Improvements	\$11,605.62
33 - Utilities	
34 - Transportation	
35 - Waterway and Marine Transportation	
41 - Material Processing and Handling Equipment	
44 - Pollution Control Equipment	
46 - Water and Wastewater Equipment	
48 - Electric Power Generation Alternate	\$6,637.50
Trades	
Assemblies	
FMR	
MF04 Total (Without totalling components)	\$166,282.34

RSMeans HOUSTON, TX CCI 2019Q1, 89.20%	\$17,958.49
2019 Buy Board JOC Jamail Standard (-26.2000%)	\$38,860.86

Priced/Non-Priced

Total Priced Items:	23	\$166,282.34	
Total Non-Priced Items:	0	\$0.00	0.00%
	23	\$166,282.34	

Grand Total

\$109,462.99

Estimate Details

Estimator: Sr. Est .Val Bankston

Totalling Component Details

Description	Item Count	Applicable Amount	Applied Amount	Applied Result	Balance
Priced Line Items(Right Hand) Included in Total: Yes Type:Total, Master Format Type: MFO4 Values:Total Includes: Priced Filtering: O&P Line Items	23	\$166,282.34		\$166,282.34	\$166,282.34
Nonpriced Line Items Included in Total: Yes Type:Total, Master Format Type: MFO4 Values:Total Includes: Non Priced Filtering: Bare Cost Line Items, O&P Line Items					\$166,282.34
RSMeans HOUSTON, TX CCI 2019Q1, 89.20% Included in Total: Yes Type:RSMeans CCI (Project Level) RSMeans HOUSTON, TX CCI 2019Q1, 89.20% ZIP:770 Subtotal based on 1 items: "Priced Line Items(Right Hand)"		\$166,282.34	(10.8000)%	\$(17,958.49)	\$148,323.85
2019 Buy Board JOC Jamail Standard Included in Total: Yes Type:Percentage (Project Level) Subtotal based on 2 items: "Priced Line Items(Right Hand)", "RSMeans HOUSTON, TX CCI (Current)"		\$148,323.85	(26.2000)%	\$(38,860.86)	\$109,463.00

Estimate Details

Estimator: Sr. Est .Val Bankston

Basketball Courts

Division Summary (MF04)

01 - General Requirements	
02 - Existing Conditions	
03 - Concrete	
04 - Masonry	\$28,462.50
05 - Metals	
06 - Wood, Plastics, and Composites	
07 - Thermal and Moisture Protection	
08 - Openings	
09 - Finishes	
10 - Specialties	
11 - Equipment	
12 - Furnishings	
13 - Special Construction	
14 - Conveying Equipment	
21 - Fire Suppression	
22 - Plumbing	
23 - Heating, Ventilating, and Air-Conditioning (HVAC)	
25 - Integrated Automation	

26 - Electrical	
27 - Communications	
28 - Electronic Safety and Security	
31 - Earthwork	
32 - Exterior Improvements	\$11,605.62
33 - Utilities	
34 - Transportation	
35 - Waterway and Marine Transportation	
41 - Material Processing and Handling Equipment	
44 - Pollution Control Equipment	
46 - Water and Wastewater Equipment	
48 - Electric Power Generation Alternate	
Trades	
Assemblies	
FMR	
MF04 Total (Without totalling components)	\$40,068.12

Totalling Components

Priced Line Items(Right Hand)	\$40,068.12
Nonpriced Line Items	

Material, Labor, and Equipment Totals (No Totalling Components)

Material:	\$9,331.38
Labor:	\$29,188.54
Equipment:	\$1,548.20
Other:	\$0.00
Laborhours:	419.40
Green Line Items:0	\$0.00

Priced/Non-Priced

Total Priced Items:	5	\$40,068.12
Total Non-Priced Items:	0	\$0.00
	5	\$40,068.12

Estimate Grand Total

\$26,376.68

Estimator: Sr. Est .Val Bankston

Totalling Component Details

Description	Item Count	Applicable Amount	Applied Amount	Applied Result	Balance
Priced Line Items(Right Hand) Included in Total: Yes Type:Total, Master Format Type: MFD4 Values:Total Includes: Priced Filtering: O&P Line Items	5	\$40,068.12		\$40,068.12	\$40,068.12
Nonpriced Line Items Included in Total: Yes Type:Total, Master Format Type: MFD4 Values:Total Includes: Non Priced Filtering: Bare Cost Line Items, O&P Line Items					\$40,068.12
RSMeans HOUSTON, TX CCI 2019Q1, 89.20% Included in Total: Yes Type:RSMeans CCI (Project Level) RSMeans HOUSTON, TX CCI 2019Q1, 89.20% ZIP:770 Subtotal based on 1 items: "Priced Line Items(Right Hand)"		\$40,068.12	(10.8000)%	\$(4,327.36)	\$35,740.76
2019 Buy Board JOC Jamail Standard Included in Total: Yes Type:Percentage (Project Level) Subtotal based on 2 items: "Priced Line Items(Right Hand)", "RSMeans HOUSTON, TX CCI (Current)"		\$35,740.76	(26.2000)%	\$(9,364.08)	\$26,376.68

Estimate Details

Estimator: Sr. Est. Val Bankston					Basketball Courts				
Item	Description	UM	Crew	Quantity	Material	Labor	Equipment	Unit Cost	Total
04 - Masonry									
1	04-01-30-20-0300 Cleaning masonry, excludes scaffolding, by chemical, high pressure wash and rinse, heavy restoration, light soil Pressure wash courts at 4000 psi to remove all loose materials and resins. Flood courts, mark and fill areas holding water.	S.F.	D-01	14,375.0000	0.12	1.86	0.00	\$1.98	\$28,462.50
04 - Masonry Total					\$1,725.00	\$26,737.50	\$0.00		\$28,462.50
32 - Exterior Improvements									
2	32-01-13-64-2080 Sand seal, sand sealing, sharp sand, asphalt emulsion, small area Chip , clean, and fill crack lines. Sand to plane all surface regiarities	S.Y.	B-91	50.0000	1.63	0.47	0.24	\$2.34	\$117.00
3	32-01-13-66-0620 Fog seal, non-skid pavement renewal, 1,000 to 10,000 S.Y. 1598 sy (14375sf) x 3 (1coat acylic resurfacer, and to coats Fortified Plexipave) = 4794sy	S.Y.	B-45	4,794.0000	1.52	0.41	0.30	\$2.23	\$10,690.62
4	32-17-23-13-0200 Painted pavement markings, acrylic waterborne, white or yellow, 6" wide, less than 3,000 L.F. Paint lines on two courts at 700 if per NCAA layout No logos included	L.F.	B-78	1,400.0000	0.17	0.27	0.06	\$0.50	\$700.00
5	32-17-23-14-0790 Pavement parking markings, layout of pavement marking Layout of court lines	L.F.	A-02	1,400.0000	0.00	0.06	0.01	\$0.07	\$98.00
32 - Exterior Improvements Total					\$7,606.38	\$2,451.04	\$1,548.20		\$11,605.62
Estimate Grand Total					26,376.68				

Estimate Details

Estimator: Sr. Est .Val Bankston

CSP&R Lincoln REC. Center Paint and Lighting

Totalling Component Details

Description	Item Count	Applicable Amount	Applied Amount	Applied Result	Balance
Priced Line Items(Right Hand) Included in Total: Yes Type:Total, Master Format Type: MF04 Values:Total Includes: Priced Filtering: O&P Line Items	2	\$14,375.00		\$14,375.00	\$14,375.00
Nonpriced Line Items Included in Total: Yes Type:Total, Master Format Type: MF04 Values:Total Includes: Non Priced Filtering: Bare Cost Line Items, O&P Line Items					\$14,375.00
RSMeans HOUSTON, TX CCI 2019Q1, 89.20% Included in Total: Yes Type:RSMeans CCI (Project Level) RSMeans HOUSTON, TX CCI 2019Q1, 89.20% ZIP:770 Subtotal based on 1 items: "Priced Line Items(Right Handy)"		\$14,375.00	(10.8000)%	\$(-1,552.50)	\$12,822.50
2019 Buy Board JOC Jamail Standard Included in Total: Yes Type:Percentage (Project Level) Subtotal based on 2 items: "Priced Line Items(Right Handy)", "RSMeans HOUSTON, TX CCI (Currency)"		\$12,822.50	(26.2000)%	\$(-3,359.50)	\$9,463.00

Estimate Details

Estimator: Sr. Est .Val Bankston				CSP&R Lincoln REC. Center Paint and Lighting					
Item	Description	UM	Crew	Quantity	Material	Labor	Equipment	Unit Cost	Total
01 - General Requirements									
1	01-31-13-20-0200	Field personnel, project manager, average	Week	1.0000	0.00	3,800.00	0.00	\$3,800.00	\$3,800.00
2	01-31-13-20-0260	Field personnel, superintendent, average	Week	3.0000	0.00	3,525.00	0.00	\$3,525.00	\$10,575.00
01 - General Requirements Total					\$0.00	\$14,375.00	\$0.00		\$14,375.00

Estimate Grand Total **9,463.00**

Estimate Details

Estimator: Sr. Est .Val Bankston

Lighting

Division Summary (MF04)

01 - General Requirements	\$907.50
02 - Existing Conditions	
03 - Concrete	
04 - Masonry	
05 - Metals	
06 - Wood, Plastics, and Composites	
07 - Thermal and Moisture Protection	
08 - Openings	
09 - Finishes	
10 - Specialties	
11 - Equipment	
12 - Furnishings	
13 - Special Construction	
14 - Conveying Equipment	
21 - Fire Suppression	
22 - Plumbing	
23 - Heating, Ventilating, and Air-Conditioning (HVAC)	
25 - Integrated Automation	

Totalling Components

Priced Line Items(Right Hand)	\$81,494.86
Nonpriced Line Items	

Material, Labor, and Equipment Totals (No Totalling Components)

Material:	\$73,920.00
Labor:	\$6,667.36
Equipment:	\$907.50
Other:	\$0.00
Laborhours:	62.72
Green Line Items:0	\$0.00

26 - Electrical	
27 - Communications	
28 - Electronic Safety and Security	
31 - Earthwork	
32 - Exterior Improvements	
33 - Utilities	
34 - Transportation	
35 - Waterway and Marine Transportation	
41 - Material Processing and Handling Equipment	
44 - Pollution Control Equipment	
46 - Water and Wastewater Equipment	
48 - Electric Power Generation	
Alternate	
Trades	
Assemblies	
FMR	
MF04 Total (Without totalling components)	\$81,494.86

RSMMeans HOUSTON, TX CCI 2019Q1, 89.20%	
2019 Buy Board JOC Jamail Standard (-26.2000%)	

Priced/Non-Priced

Total Priced Items:	4	\$81,494.86
Total Non-Priced Items:	0	\$0.00
	4	\$81,494.86

Estimate Grand Total

\$53,647.74

Estimate Details

Estimator: Sr. Est .Val Bankston

Lighting

Totalling Component Details

Description	Item Count	Applicable Amount	Applied Amount	Applied Result	Balance
Priced Line Items(Right Hand) Included in Total: Yes Type: Total, Master Format Type: MF04 Values: Total Includes: Priced Filtering: O&P Line Items	4	\$81,494.86		\$81,494.86	\$81,494.86
Nonpriced Line Items Included in Total: Yes Type: Total, Master Format Type: MF04 Values: Total Includes: Non Priced Filtering: Bare Cost Line Items, O&P Line Items					\$81,494.86
RSMeans HOUSTON, TX CCI 2019Q1, 89.20% Included in Total: Yes Type: RSMeans CCI (Project Level) RSMeans HOUSTON, TX CCI 2019Q1, 89.20% ZIP: 770 Subtotal based on 1 items: "Priced Line Items(Right Hand)"		\$81,494.86	(10.8000)%	\$(8,801.44)	\$72,693.42
2019 Buy Board JOC Jamail Standard Included in Total: Yes Type: Percentage (Project Level) Subtotal based on 2 items: "Priced Line Items(Right Hand)", "RSMeans HOUSTON, TX CCI (Current)"		\$72,693.42	(26.2000)%	\$(19,045.68)	\$53,647.74

Estimate Details

Estimator: Sr. Est .Val Bankston									Lighting
Item	Description	UM	Crew	Quantity	Material	Labor	Equipment	Unit Cost	Total
01 - General Requirements									
1	01-54-33-40-0070-3 Rent per week for general equipment rental, without Ea. operators, aerial lift, articulating boom, diesel, to 45' high, 500 lb. capacity			1.0000	0.00	0.00	907.50	\$907.50	\$907.50
01 - General Requirements Total					\$0.00	\$0.00	\$907.50	\$907.50	
26 - Electrical									
2	26-05-05-10-2620 Electrical demolition, exterior fixtures, incandescent, Ea. wall mount, 100 watt		2 ELEC	56.0000	0.00	28.50	0.00	\$28.50	\$1,596.00
3	26-05-05-10-2620-1070 Labor adjustment factors, add to labor for elevated installation, above floor level, 40' and higher (Modified using 26-01-02-20-1070)	Ea.	2 ELEC	56.0000	0.00	10.56	0.00	\$10.56	\$591.36
4	26-56-23-55-0200 Exterior LED fixtures, wall mounted, outdoor, 110 watt	Ea.	1 ELEC	56.0000	1,320.00	80.00	0.00	\$1,400.00	\$78,400.00
26 - Electrical Total					\$73,920.00	\$6,667.36	\$0.00	\$80,587.36	
Estimate Grand Total									53,647.74

Estimator: Sr. Est .Val Bankston

PLUMBING & GUTTERS

Division Summary (MF04)

01 - General Requirements	
02 - Existing Conditions	
03 - Concrete	
04 - Masonry	\$4.86
05 - Metals	
06 - Wood, Plastics, and Composites	
07 - Thermal and Moisture Protection	\$3,069.50
08 - Openings	
09 - Finishes	
10 - Specialties	
11 - Equipment	
12 - Furnishings	
13 - Special Construction	
14 - Conveying Equipment	
21 - Fire Suppression	
22 - Plumbing	\$150.00
23 - Heating, Ventilating, and Air-Conditioning (HVAC)	
25 - Integrated Automation	

26 - Electrical	
27 - Communications	
28 - Electronic Safety and Security	
31 - Earthwork	
32 - Exterior Improvements	
33 - Utilities	
34 - Transportation	
35 - Waterway and Marine Transportation	
41 - Material Processing and Handling Equipment	
44 - Pollution Control Equipment	
46 - Water and Wastewater Equipment	
48 - Electric Power Generation	
Alternate	\$6,637.50
Trades	
Assemblies	
FMR	
MF04 Total (Without totalling components)	\$9,861.86

Totalling Components

Priced Line Items(Right Hand)	\$9,861.86
Nonpriced Line Items	

Material, Labor, and Equipment Totals (No Totalling Components)

Material:	\$6,912.82
Labor:	\$2,948.88
Equipment:	\$0.16
Other:	\$0.00
Laborhours:	30.16
Green Line Items:0	\$0.00

RSMeans HOUSTON, TX CCI 2019Q1, 89.20%	\$(1,065.08)
2019 Buy Board JOC Jamail Standard (-26.2000%)	\$(2,304.76)

Priced/Non-Priced

Total Priced Items:	6	\$9,861.86
Total Non-Priced Items:	0	\$0.00
	6	\$9,861.86

Estimate Grand Total

\$6,492.02

Estimate Details

Estimator: Sr. Est .Val Bankston

PLUMBING & GUTTERS

Totalling Component Details

Description	Item Count	Applicable Amount	Applied Amount	Applied Result	Balance
Priced Line Items(Right Hand) Included in Total: Yes Type:Total, Master Format Type: MF04 Values:Total Includes: Priced Filtering: O&P Line Items	6	\$9,861.86		\$9,861.86	\$9,861.86
Nonpriced Line Items Included in Total: Yes Type:Total, Master Format Type: MF04 Values:Total Includes: Non Priced Filtering: Bare Cost Line Items, O&P Line Items					\$9,861.86
RSMeans HOUSTON, TX CCI 2019Q1, 89.20% Included in Total: Yes Type:RSMeans CCI (Project Level) RSMeans HOUSTON, TX CCI 2019Q1, 89.20% ZIP: 770 Subtotal based on 1 items: "Priced Line Items(Right Hand)"		\$9,861.86	(10.8000)%	\$(1,065.08)	\$8,796.78
2019 Buy Board JOC Jamail Standard Included in Total: Yes Type:Percentage (Project Level) Subtotal based on 2 items: "Priced Line Items(Right Hand)", "RSMeans HOUSTON, TX CCI (Current)"		\$8,796.78	(26.2000)%	\$(2,304.76)	\$6,492.02

Estimate Details

Estimator: Sr. Est .Val Bankston					PLUMBING & GUTTERS				
Item	Description	UM	Crew	Quantity	Material	Labor	Equipment	Unit Cost	Total
04 - Masonry									
1	04-05-16-30-0500 Grouting, cavity walls, pumped, excludes blockwork, S.F. 2" space, 0.167 C.F. per S.F. of wall GROUT UNDER NEW DRINKING FOUNTAIN		D-04	2.0000	0.96	1.39	0.08	\$2.43	\$4.86
04 - Masonry Total					\$1.92	\$2.78	\$0.16		\$4.86
07 - Thermal and Moisture Protection									
2	07-71-23-10-5400 Downspouts, steel, galvanized, round, corrugated, L.F. 6" diameter, 28 gauge	L.F.	1 SHEE	120.0000	3.93	7.32	0.00	\$11.25	\$1,350.00
3	07-71-23-30-2800 Gutters, steel, galvanized, half round or box, 26 gauge, stock, 6" wide	L.F.	1 SHEE	190.0000	2.94	6.11	0.00	\$9.05	\$1,719.50
07 - Thermal and Moisture Protection Total					\$1,030.20	\$2,039.30	\$0.00		\$3,069.50
22 - Plumbing									
4	22-05-23-20-1470 Valves, bronze, ball, threaded or soldered, 150 PSI, Ea. 1" Valves at 2 ends of water line		1 PLUM	2.0000	34.10	40.90	0.00	\$75.00	\$150.00
22 - Plumbing Total					\$68.20	\$81.80	\$0.00		\$150.00
Alternate									
5	22-47-13-10-8660 Drinking water fountains, for connection to cold water supply, floor mounted, pedestal type, enameled iron, heavy duty service, four bubblers	Ea.	1 PLUM	1.0000	5,812.50	412.50	0.00	\$6,225.00	\$6,225.00
6	22-47-13-10-8660 Demo - Drinking water fountains, for connection to cold water supply, floor mounted, pedestal type, enameled iron, heavy duty service, four bubblers Labor Adjustment: 100% of \$412.50 = \$412.50	Ea.	1 PLUM	1.0000	0.00	412.50	0.00	\$412.50	\$412.50
Using O&P Pricing					\$5,812.50	\$825.00	\$0.00		\$6,637.50
Alternate Total									
Estimate Grand Total									6,492.02

Estimate Details

Pavillion Clean and Paint

Estimator: Sr. Est. Val Bankston

Division Summary (MF04)

01 - General Requirements	\$1,815.00
02 - Existing Conditions	
03 - Concrete	
04 - Masonry	
05 - Metals	\$818.75
06 - Wood, Plastics, and Composites	
07 - Thermal and Moisture Protection	
08 - Openings	\$17,848.75
09 - Finishes	
10 - Specialties	
11 - Equipment	
12 - Furnishings	
13 - Special Construction	
14 - Conveying Equipment	
21 - Fire Suppression	
22 - Plumbing	
23 - Heating, Ventilating, and Air-Conditioning (HVAC)	
25 - Integrated Automation	

Totalling Components

Priced Line Items(Right Hand)	\$20,482.50
Nonpriced Line Items	

Material, Labor, and Equipment Totals (No Totalling Components)

Material:	\$4,748.75
Labor:	\$13,918.75
Equipment:	\$1,815.00
Other:	\$0.00
Laborhours:	163.76
Green Line Items:	\$0.00

26 - Electrical	
27 - Communications	
28 - Electronic Safety and Security	
31 - Earthwork	
32 - Exterior Improvements	
33 - Utilities	
34 - Transportation	
35 - Waterway and Marine Transportation	
41 - Material Processing and Handling Equipment	
44 - Pollution Control Equipment	
46 - Water and Wastewater Equipment	
48 - Electric Power Generation Alternate	
Trades	
Assemblies	
FMR	
MF04 Total (Without totalling components)	\$20,482.50

RSMeans HOUSTON, TX CCI 2019Q1, 89.20%	\$(2,212.11)
2019 Buy Board JOC Jamail Standard (-26.2000%)	\$(4,786.84)

Priced/Non-Priced

Total Priced Items:	6	\$20,482.50	
Total Non-Priced Items:	0	\$0.00	0.00%
	6	\$20,482.50	

Estimate Grand Total

\$13,483.55

Estimate Details

Estimator: Sr. Est .Val Bankston

Pavillion Clean and Paint

Totalling Component Details

Description	Item Count	Applicable Amount	Applied Amount	Applied Result	Balance
Priced Line Items(Right Hand) Included in Total: Yes Type:Total, Master Format Type: MF04 Values:Total Includes: Priced Filtering: O&P Line Items	6	\$20,482.50		\$20,482.50	\$20,482.50
Nonpriced Line Items Included in Total: Yes Type:Total, Master Format Type: MF04 Values:Total Includes: Non Priced Filtering: Bare Cost Line Items, O&P Line Items					\$20,482.50
RSMeans HOUSTON, TX CCI 2019Q1, 89.20% Included in Total: Yes Type:RSMeans CCI (Projected Level) RSMeans HOUSTON, TX CCI 2019Q1, 89.20% ZIP:770 Subtotal based on 1 items: "Priced Line Items(Right Hand)"		\$20,482.50	(10.8000)%	\$(2,212.11)	\$18,270.39
2019 Buy Board JOC Jamail Standard Included in Total: Yes Type:Percentage (Project Level) Subtotal based on 2 items: "Priced Line Items(Right Hand)", "RSMeans HOUSTON, TX CCI (Current)"		\$18,270.39	(26.2000)%	\$(4,786.84)	\$13,483.55

Estimate Details

Estimator: Sr. Est .Val Bankston					Pavillion Clean and Paint				
Item	Description	UM	Crew	Quantity	Material	Labor	Equipment	Unit Cost	Total
01 - General Requirements									
1	01-54-33-40-0070-3 Rent per week for general equipment rental, without Ea. operators, aerial lift, articulating boom, diesel, to 45' high, 500 lb. capacity			2.0000	0.00	0.00	907.50	\$907.50	\$1,815.00
01 - General Requirements Total					\$0.00	\$0.00	\$1,815.00		\$1,815.00
05 - Metals									
2	05-01-10-51-6215 Cleaning of structural metal framing, steel surface treatments, PDCA guidelines, pressure washing, up to 5,000 psi, 5,000 to 15,000 S.F. per day Power wash inside roof area and columns	S.F.	1 POR	16,375.0000	0.00	0.05	0.00	\$0.05	\$818.75
05 - Metals Total					\$0.00	\$818.75	\$0.00		\$818.75
09 - Finishes									
3	09-97-13-23-6520 Exterior steel coatings, paints and protective coatings, sprayed in field, alkyds, primer primer coat on lsde pavilion ceiling and columns	S.F.	2 PSST	16,375.0000	0.10	0.32	0.00	\$0.42	\$6,877.50
4	09-97-13-23-6520-7020 Exterior steel coatings, above one story, spray painting, simple structures, add (Modified using 09-97-13-23-7020)	S.F.	2 PSST	16,375.0000	0.00	0.05	0.00	\$0.05	\$818.75
5	09-97-13-23-6560 Exterior steel coatings, paints and protective coatings, sprayed in field, alkyds, silicone alkyd One top coat on ceiling and columns	S.F.	2 PSST	16,375.0000	0.19	0.37	0.00	\$0.56	\$9,170.00
6	09-97-13-23-6560-7020 Exterior steel coatings, above one story, spray painting, simple structures, add (Modified using 09-97-13-23-7020)	S.F.	2 PSST	16,375.0000	0.00	0.06	0.00	\$0.06	\$982.50
09 - Finishes Total					\$4,748.75	\$13,100.00	\$0.00		\$17,848.75
Estimate Grand Total									13,483.55

Legislation Details (With Text)

File #:	19-0227	Version:	3	Name:	TriTech CO for Subscription Agreement
Type:	Change Order	Status:		Status:	Consent Agenda
File created:	4/25/2019	In control:		In control:	City Council Regular
On agenda:	5/13/2019	Final action:		Final action:	
Title:	Presentation, discussion, and possible action on a change order in the amount of \$9,925 to the TriTech Subscription Service, License and Use Agreement related to the police CAD/RMS project.				
Sponsors:	Sindhu Menon				
Indexes:					
Code sections:					
Attachments:	Change Order CADRMS				

Date	Ver.	Action By	Action	Result
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Presentation, discussion, and possible action on a change order in the amount of \$9,925 to the TriTech Subscription Service, License and Use Agreement related to the police CAD/RMS project.

Relationship to Strategic Goals:

- Good Governance
- Core Services and Infrastructure

Recommendation(s): Approval

Summary: Change order 2 will remove the IQ Analytics and Dashboard Designer subscriptions modules from contract 15300408 and add IQ CrimeView Advanced Reports Module hosted subscription solution. TriTech IQ and Analytics went live August 2016 during phase 1 CAD and Mobile Go-Live. TriTech IQ and Analytics is a browser based reporting tool that allows users to graphically display and report real time activity, data trends and additional information interactively. Users can build, alter and deploy new and existing dashboard reports to share information and data throughout the department. ARM (Advanced Reporting Module) brings business intelligence and advanced reporting capabilities using KPI's (Key Performance Indicators) identified by the department and shared via ARM which interacts with the current CrimeView reporting dashboard.

Budget & Financial Summary: This is an increase of \$9,925.00. This cost includes professional services to install, implement and train as well as the annual subscription fee for use of the product. Funds will come from CO1301 (CAD/RMS Project).

Attachments:

1. Change Order 2

CHANGE ORDER NO. 2 DATE: 03/26/19 Contract No. 15300408 / 15300406
P.O.# 16201121 PROJECT: CAD / RMS Replacement

OWNER: City of College Station
P.O. Box 9960
College Station, Texas 77842

CONTRACTOR: TriTech Software Systems
PO Box 203223
Dallas, TX 75320- 3223 Ph: 858-7997353
Fax: 858- 799- 7015

PURPOSE OF THIS CHANGE ORDER:

- A. Remove TriTech.com IQ Analytics 5 Concurrent User Bundle One Year Subscription
- B. Remove TriTech.com IQ Dashboard Designer 1 Concurrent User One Year Subscription
- C. Add IQ CrimeView Advanced Reports Module (ARM) T6 (20K to 50K, up to 5 Users) - Hosted (Subscription)
- D. Add IQ CrimeView Advanced Reports Module (ARM) T6 Subscription Professional Services - Hosted

ITEM NO	UNIT	DESCRIPTION	UNIT PRICE	ORIGINAL QUANTITY	REVISED QUANTITY	ADDED COST
1	ea	Remove IQ Analytics Subscription	\$2,250.00	1	0	(\$2,250.00)
2	ea	Remove IQ Dashboard Designer Subscription	\$900.00	1	0	(\$900.00)
3	ea	Add IQ CrimeView ARM Hosted Subscription	\$4,500.00	0	1	\$4,500.00
4	ea	Add IQ CrimeView ARM Subscription Professional Services	\$8,575.00	0	1	\$8,575.00
					TOTAL	\$9,925.00

THE NET AFFECT OF THIS CHANGE ORDER IS 70% INCREASE.

LINE 1 (10011250-5201) \$9,925.00

TOTAL CHANGE ORDER 9,925.00

ORIGINAL CONTRACT AMOUNT	\$14,085.00		
CHANGE ORDER NO. 1	\$13,265.00	94%	CHANGE
CHANGE ORDER NO. 2	\$9,925.00	70%	CHANGE
REVISED CONTRACT AMOUNT	\$37,275.00	165%	TOTAL CHANGE

ORIGINAL CONTRACT TIME	N/A	Days
Time Extension No. 1	N/A	Days
Revised Contract Time	N/A	Days

SUBSTANTIAL COMPLETION DATE
REVISED SUBSTANTIAL COMPLETION DATE

APPROVED

[Signature] 4/8/2019
TRITECH SOFTWARE SYSTEMS Date

[Signature] 4/9/2019
DEPARTMENT DIRECTOR Date

CITY PROJECT MANAGER Date

ASST CITY MGR - CFO Date

CITY ATTORNEY Date

CITY MANAGER Date



GSA Change Order

Q5046LA-03

Date: 3/29/2019

General & Client Information

Client Name:	City of College Station	Bill to:	
System Description:	CrimeView Advanced Reporting		City of College Station
Great Plains ID:	TX191/SD		2611 Texas Ave
Change Order #			College Station, TX 77840
Original Sales Order #	6356		
Client Purchase Order #	16201121-00		
Client Purchase Order Date	12/2/2015		
Client Contact:	Jordan Wood	Ship to:	
Contact Phone:	(979) 764-3647		City of College Station
Contact Email Address:	jwood@cstx.gov		2611 Texas Ave
Credit Terms:			College Station, TX 77840
Account Executive:	Anthony Johnson		
Project Manager:	Linda Ali		

Project Products & Services

Qty	Product #	Sin #	Sales Category	Item Description	Unit Price	Qty*Unit \$	Extended Price
Project Additions:							
1	IN-SW-140040-001	OPEN MARKET	IQ Subscriptions	IQ CrimeView Advanced Reports Module (ARM) T6 (20K to 50K, up to 5 Users) - Hosted (Subscription)	\$ 4,500.00	\$ 4,500.00	\$ 4,500.00
1		OPEN MARKET	Subscriptions: Project & Installation, Setup, Services & Training	IQ CrimeView Advanced Reports Module (ARM) T6 Subscription Professional Services - Hosted			
	IN-SV-140045-001				\$ 8,575.00	\$ 8,575.00	\$ 8,575.00
Project Deletions:							
(1)	IN-SW-140017-001	132-32 Subscription	TriTech.com IQ	TRITECH.COM IQ ANALYTICS 5 Concurrent User Bundle One Year Subscription	\$ 2,250.00	\$ (2,250.00)	\$ (2,250.00)
(1)	IN-SW-140019-002	132-32 Subscription	TriTech.com IQ	TRITECH.COM IQ Dashboard Designer 1 Concurrent User One Year Subscription	\$ 900.00	\$ (900.00)	\$ (900.00)
Total:							\$ 9,925.00

Project Summary & Totals

TriTech.com IQ							(3,150.00)
IQ Subscriptions							4,500.00
Subscriptions: Project & Installation, Setup, Services & Training							8,575.00
Estimated Sales Tax (State: at %)	Taxable sales:	0.00	Sales tax rate:	5.00%	Subtotal:		\$ 9,925.00
Estimated Shipping							\$ -
Total:							\$ 9,925.00

Project Payment Terms: Net 30 days from date of invoice after completion and acceptance of the below Deliverables.

Completion of Sections 3.1.1 of the SOW, Application Configuration and Deployment and Section 3.1.2 of the SOW, Advanced Reporting Module Training (Remote)	\$ 4,962.50
Completion of Section 3.2 of the SOW, Advanced Reporting Module Go Live & System Review	\$ 4,962.50
Total Payments:	\$ 9,925.00

Summary Information & Project Notes

IQ Analytics and Dashboard Designer subscriptions will be removed from the Subscription Agreement in exchange for the CrimeView Advanced Reporting Module (ARM) subscription.

The attached 'Addendum to Statement of Work, City of College Station, TX, CrimeView Advanced Reporting Module' outlines the Professional Services for implementing the ARM module.

The recurring annual subscription cost for IQ CrimeView Advanced Reports Module (ARM) is \$4,500.00.

This is Change Order # 2 to the Subscription Agreement and the scope of the project.

Issued by: Linda Ali
Contact info: (858) 799-7353

Send Purchase Orders to:
TriTech Software Systems
Attn: Sales Admin FAX: 858-799-7015
salesadmin@tritech.com

Remit Payments to:

TriTech Software Systems
PO Box # 203223
Dallas, TX 75320-3223

Terms and Conditions

This is a Change Order to the System Purchase Agreement and the Subscription Agreement (Contract No. 15300408) dated November 24, 2015. This Change Order is subject to the terms and conditions of the System Purchase Agreement and Subscription Agreement. All other terms, conditions, and pricing of the Agreements remain in full force and effect.

Accepted for Client

City of College Station							
Client Agency/Entity Name							
Print Name					Title		
Client Authorized Representative							
Signature					Date		
Client Authorized Representative							

ADDENDUM TO STATEMENT OF WORK

City of College Station, TX

CrimeView Advanced Reporting Module

VER 2



TriTech Software Systems
9477 Waples Street, Suite 100
San Diego, CA 92121
Fax: 858.799.1010
Technical Services: 1.800.987.0911

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Document Control

Template creation date: 2.6.18

Date	Version	Details/Changes	Author
1/30/19	1	Initial version	Jim Mulford
2/4/19	2	Added 6 APPENDIX B – ESTIMATED TIMELINE FOR IMPLEMENTATION	Jim Mulford

Note: Prior to finalizing the document, select all of the document text (ctl-A) and activate F9 to update reference fields and the table of contents.

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1. OVERVIEW

1.1 Statement of Work

This is an Addendum to the Statement of Work (SOW) between TriTech Software Systems (TriTech) and City of College Station, TX (“Client”). It defines the services and deliverables that TriTech will be providing in accordance with the terms and conditions of the associated Change Order (the “Change Order”) for the CrimeView Advanced Reporting Module.

This Addendum only outlines the unique items associated with the Change Order. All other general project responsibilities, roles, and controlling processes outlined in the original Statement of Work remain in effect.

The number and type of software licenses, products, or services provided by TriTech are specifically listed in the Change Order and any reference within this document does not imply or convey a software, license, or services that are not explicitly listed in the Change Order.

2 PROJECT DELIVERABLES

2.1 Overview of Project Deliverables

The Purchase Agreement for this project incorporates the following applications/systems:

- 1) IQ CrimeView Advanced Reporting Module
 - a. Including configuration of the following source data from CrimeView Dashboard:
 - i. Calls for Service
 - ii. Incidents
 - iii. Arrests*
 - iv. Citations*
 - v. Field Interviews*
 - vi. Traffic Collisions*

*Arrests, Citations, Field Interviews, and Traffic Collisions data are limited to a high level summary view and not presented on dedicated reports.

3 PROJECT EXECUTION

3.1 Implementation of the Advanced Reporting Module

The Advanced Reporting Module will be implemented through a series of standard steps following standard application specifications.

3.1.1 Application Configuration and Deployment

The TriTech Implementation Specialist will configure the Advanced Reporting Module to display the data entities and reports as described in *Analytics Appendix A – Advanced Reporting Module System Requirements and Application Specifications*, and the TriTech Implementation Team will install the application.

3.1.1.1 TriTech Responsibilities

- a) Coordinate an Installation Planning Meeting with the customer if necessary
- b) Install the application in the live environment.
- c) Prepare and submit a TCR upon completion of the installation.

3.1.1.2 Client Responsibilities

- a) Coordinate assistance, as needed, from the Client Systems Administrator if the application is to be installed at the customer's premise.
- b) Review and approve the applicable TCRs.

3.1.2 Advanced Reporting Module Training (Remote)

Note: This training must occur within 3 weeks of completion of the Application Configuration and Deployment phase (denoted by a TCR). If the Client cannot schedule the training within this window, an alternative, equivalent delivery method such as a video or remote training will be provided. No refund or credit will be provided as a result of this change.

This TriTech instructor led class is designed for either a small group of end users or the individuals who will be responsible for formally or informally training the balance of users at the agency. The recommended class size for this training is up to 15 participants. At completion of this training, participants will be able to perform the following:

- Navigate the application
- Filter and select data
- Set report parameters
- Export reports to Excel
- Export/print standard reports
- Save bookmarks and share sessions remotely

This training is 2 hours and is delivered in one remote session.

3.1.2.1 TriTech Responsibilities

- a) Request a list of Client users to be licensed in the system
- b) Schedule the Advanced Reporting Module training in accordance with the Client's availability and the Project Schedule.
- c) Provide the Advanced Reporting Module training session for Client personnel
- d) Prepare and submit TCRs upon completion of the training.

3.1.2.2 Client Responsibilities

- a) Provide a list of Client users to be licensed in the system
- a) Schedule appropriate personnel to attend the training.
- b) Ensure participation of the appropriate personnel.
- c) Provide adequate hardware, telecom, and/or other facilities for the training.
- d) Review and approve the applicable TCRs.

3.2 Advanced Reporting Module Go Live & System Review

“Go Live” occurs at the point when the Advanced Reporting Module application is available to trained Advanced Reporting Module users. This initiates the System Review, during which the client takes responsibility for testing and data validation, and TriTech provides support and consultation.

3.2.1 System Review

Once one or more Advanced Reporting Module logins have been provided to the client, and the training has been completed, the application will be considered “live”, and the System Review will begin. During the System Review, the Client is responsible for reviewing the application and informing the TriTech Project Manager of any noticed or potential issues or deficiencies with the configuration or data. The System Review period will expire in 10 business days, at which point, TriTech will address all submitted items and close the project.

TriTech responses to each submitted item will fall into one of the following categories:

- This item refers to something in the application or data configuration that has been confirmed and fixed/changed.
- Further information or action from the Client is required to assess the item (a time window for Client action will be provided).
- This item requires Client action to fix (a time window for Client action will be provided).
- This item identifies a software bug that has been submitted for review and rectification.
- This item refers to a function or known limitation of the application that lies in the application code rather than the configuration, and changes to the application code are excluded from this project.

Suggested Client Review Items:

- Availability of data entities, as outlined in *Analytics Appendix A – Advanced Reporting Module System Requirements and Application Specifications*
- Data integrity and completeness:
 - Compare/confirm the number of records vs. the source database (CAD/RMS) by running identical queries in both systems.
 - Confirm that the fields displayed in the Table contain the expected values (including codes/descriptions)
- Application functions

-
- Test selection and filtering functions and confirm that the displayed data and charts change appropriately as filters are applied
 - Confirm ability to save bookmarks
 - Confirm ability to print reports

3.2.1.1 TriTech Responsibilities

- a) Prepare and submit a “Go Live” TCR at the completion of Advanced Reporting Module Training
- b) Notify the Client that the System Review period has begun
- c) Receive and address all items/issues submitted by the Client during the System Review
- d) Prepare and submit a TCR.

3.2.1.2 Client Responsibilities

- a) Complete the Suggested Client Review Items listed above.
- b) Inform the TriTech Project Manager of any questions, issues, or requested configuration changes.
- c) Review and approve the appropriate TCRs

4 SYSTEM ACCEPTANCE

Each system/application will be considered Accepted upon completion of the associated System Review.

5 ANALYTICS APPENDIX A – ADVANCED REPORTING MODULE SYSTEM REQUIREMENTS AND APPLICATION SPECIFICATIONS

5.1.1 Data Entities

a) The following data entities are included in the Advanced Reporting Module (ARM):

1. CrimeView ARM
 - i. Calls for Service
 - ii. Incidents
 - iii. Arrests*
 - iv. Citations*
 - v. Field Interviews*
 - vi. Traffic Collisions*

*Arrests, Citations, Field Interviews, and Traffic Collisions data are limited to a high level summary view and not presented on dedicated reports.

5.1.2 Standard Reports

a) The following standard reports are included in the Advanced Reporting Module:

1. CrimeView ARM Standard Reports

- | | |
|-------------------------|-------------------------|
| ▪ Statistical Briefing | ▪ COMPSTAT |
| ▪ Offense Reports | ▪ CFS Report |
| ▪ Temporal Analysis | ▪ CFS Temporal Analysis |
| ▪ Activity Reports | ▪ CFS Response Times |
| ▪ Repeat Address Report | ▪ CFS Command Summary |
| ▪ Command Summary KPIs | ▪ CFS COMPSTAT |
| | ▪ Unmatched Records |

5.1.3 End User System Requirements

a) HTML5-compatible web browser.

1. Suggested browsers: Microsoft Explorer 8 or higher, Microsoft Edge, Mozilla Firefox (latest version), Apple Safari 9.0 or later, Google Chrome (latest version), Apple Mobile Safari (iOS9 or higher), Google Chrome for Android (version 5.0 or higher).

b) Suggested minimum monitor resolution: 1024x768

6 APPENDIX B – ESTIMATED TIMELINE FOR IMPLEMENTATION

Milestone	Estimated Duration	Estimated Completion
Fully executed Change Order		Start of project
Application Configuration and Deployment	Four weeks	Start + Five Weeks
Advanced Reporting Module Training (Remote)	Two hours	Start + Five weeks
Go Live & System Review	Ten business days	Start + Seven weeks
System Acceptance	One week	Start + Eight weeks



Legislation Details (With Text)

File #: 19-0229 **Version:** 1 **Name:** Agreement with the Brazos Valley Umpires Association
Renewal 1 - Contract #18300369

Type: Presentation **Status:** Consent Agenda

File created: 4/30/2019 **In control:** City Council Regular

On agenda: 5/13/2019 **Final action:**

Title: Presentation, discussion, and possible action regarding the renewal of a contract with Brazos Valley Softball Umpires Association to provide officiating services for City athletic leagues, programs and tournaments in an amount not to exceed \$125,000 per year.

Sponsors: David Schmitz

Indexes:

Code sections:

Attachments:

Date	Ver.	Action By	Action	Result
------	------	-----------	--------	--------

Presentation, discussion, and possible action regarding the renewal of a contract with Brazos Valley Softball Umpires Association to provide officiating services for City athletic leagues, programs and tournaments in an amount not to exceed \$125,000 per year.

Relationship to Strategic Goals:

1. Financially Sustainable City
2. Core Services and Infrastructure
3. Sustainable City

Recommendation(s): Staff recommends approval of the first renewal of the contract with the Brazos Valley Softball Umpires Association.

Summary: This Contract Number Renewal 1 - 18300369 is for a period of one (1) year (27 April 2019 - 26 April 2020).

The contract is for the provision of all officiating services for all City operated athletic leagues and programs, including Adult and Youth Softball, Adult and Youth Flag Football, Adult and Youth Volleyball, Youth Basketball, and Adult Kickball, as well as tournament play. This blanket contract sets rates for these sports that can cover league play and tournaments, if held.

Payment for umpire services is made to the Association, prior to each season based on the scheduled games, who then pays the individual umpires for actual games called. A "true up" is calculated at the end of each season to verify actual games called with the Association and the Parks and Recreation Department. Tournaments are handled individually in the same manner.

This Agreement for Services is exempt from competitive bidding in accordance with LGC 252.022(a) (7), a procurement that is available from only one source.

Budget & Financial Summary: This contract is not to exceed \$125,000.00. Funds are budgeted through the Parks and Recreation Departments General Fund, Recreation Fund and Hotel Occupancy Tax budgets.

Attachments: None, contract is on file in the City Secretary's Office.



Legislation Details (With Text)

File #:	19-0243	Version:	1	Name:	Consider Ordinance Issuing Certificates of Obligation
Type:	Presentation	Status:		Agenda:	Agenda Ready
File created:	5/6/2019	In control:		City Council:	City Council Regular
On agenda:	5/13/2019	Final action:			
Title:	Presentation, discussion, and possible action on an ordinance authorizing the issuance of up to \$82,000,000 in principal amount of "City of College Station, Texas Certificates of Obligation, Series 2019"; delegating the authority to certain City Officials to execute certain documents relating to the sale of the certificates; approving and authorizing instruments and procedures relating to the certificates; and enacting other provisions relating to the subject.				
Sponsors:	Mary Ellen Leonard				
Indexes:					
Code sections:					
Attachments:	Certificates of Obligation Coversheet-2019 Ordinance (CO) (ver 1) POS-College Station Series 2019				

Date	Ver.	Action By	Action	Result
------	------	-----------	--------	--------

Presentation, discussion, and possible action on an ordinance authorizing the issuance of up to \$82,000,000 in principal amount of "City of College Station, Texas Certificates of Obligation, Series 2019"; delegating the authority to certain City Officials to execute certain documents relating to the sale of the certificates; approving and authorizing instruments and procedures relating to the certificates; and enacting other provisions relating to the subject.

Relationship to Strategic Goals: Financially Sustainable City, and Providing Core Services and Infrastructure.

Recommendation(s): Council move to approve the attached ordinance authorizing the issuance of Certificates of Obligation, Series 2019; delegating the authority to certain City Officials to execute certain documents relating to the sale of the certificates; approving and authorizing instruments and procedures relating to the certificates; and enacting other provisions relating to the subject.

Summary: The City Council is authorized to approve the issuance of Certificates of Obligation (CO's) after approving a resolution directing notice to be published of the intent to issue the CO's. On March 28, 2019 Council approved a resolution directing staff to advertise the issuance of CO's. On April 3rd and April 10th such notice was published.

The City of College Station typically issues debt to fund various capital projects identified and approved as a part of the annual budget. The City primarily uses three types of debt instruments to fulfill those requirements:

1. General Obligation Bonds (GOB's) are based on the full faith and credit of the City and are paid primarily through the debt service portion of the ad valorem tax rate. GOBs are authorized by the voters and therefore the notice is provided in the election process.

2. Utility Revenue Bonds (URB's) are backed by the revenues of the City's various utilities and are issued as a business activity. These are typically only issued for utility capital projects.
3. Certificates of Obligation (CO's) normally include at least one additional revenue stream such as utility revenues, but are considered to be much like GOBs and therefore normally receive a rating similar to GOB's. Our policy for issuing CO's allows more flexibility in their issue than GOB's, particularly when other revenues are anticipated to assist in debt service.

It is at the recommendation of the City's Financial Advisor, Mr. Boyd London with Hilltop Securities, Inc. that the City issue Certificates of Obligation for utility projects rather than Utility Revenue Bonds.

This particular issue will provide resources for streets, parks, city hall construction, information technology, electric, and water and wastewater improvements; and debt issuance costs.

If this ordinance is approved, the City Council will be delegating to the Mayor, the City Manager and the Assistant City Manager / CFO the authority to effect the sale of the certificates through May 13, 2020.

Budget & Financial Summary: Staff reviewed the impact of the Certificates on the City's ability to meet debt service requirements and the effect they may have on the ad valorem tax rate. The impact on the utility rates will be reviewed as part of the financial forecast and FY20 budget.

Attachments:

1. Ordinance
2. Preliminary Official Statement

May 13, 2019
Regular Agenda Item
Consider Ordinance Issuing Certificates of Obligation

To: Bryan C. Woods, City Manager

From: Mary Ellen Leonard, Director of Fiscal Services

Agenda Caption: Presentation, possible action and discussion on an ordinance authorizing the issuance of up to \$82,000,000 in principal amount of "City of College Station, Texas Certificates of Obligation, Series 2019"; delegating the authority to certain City Officials to execute certain documents relating to the sale of the certificates; approving and authorizing instruments and procedures relating to the certificates; and enacting other provisions relating to the subject.

Relationship to Strategic Goals: Financially Sustainable City, and Providing Core Services and Infrastructure.

Recommendation(s): Council move to approve the attached ordinance authorizing the issuance of Certificates of Obligation, Series 2019; delegating the authority to certain City Officials to execute certain documents relating to the sale of the certificates; approving and authorizing instruments and procedures relating to the certificates; and enacting other provisions relating to the subject.

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3. Certificates of Obligation (CO's) normally include at least one additional revenue stream such as utility revenues, but are considered to be much like GOBs and therefore normally receive a rating similar to GOB's. Our policy for issuing CO's allows more flexibility in their issue than GOB's, particularly when other revenues are anticipated to assist in debt service.

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This particular issue will provide resources for streets, parks, city hall construction, information technology, electric, and water and wastewater improvements; and debt issuance costs.

If this ordinance is approved, the City Council will be delegating to the Mayor, the City Manager and the Assistant City Manager / CFO the authority to effect the sale of the certificates through May 13, 2020.

Budget & Financial Summary: Staff reviewed the impact of the Certificates on the City's ability to meet debt service requirements and the effect they may have on the ad valorem tax rate. The impact on the utility rates will be reviewed as part of the financial forecast and FY20 budget.

Attachments:

1. Ordinance
2. Preliminary Official Statement

ORDINANCE NO. 2019-[]

AUTHORIZING THE ISSUANCE OF "CITY OF COLLEGE STATION, TEXAS CERTIFICATES OF OBLIGATION, SERIES 2019"; DELEGATING THE AUTHORITY TO CERTAIN CITY OFFICIALS TO EXECUTE CERTAIN DOCUMENTS RELATING TO THE SALE OF THE CERTIFICATES; APPROVING AND AUTHORIZING INSTRUMENTS AND PROCEDURES RELATING TO SAID CERTIFICATES; AND ENACTING OTHER PROVISIONS RELATING TO THE SUBJECT

WHEREAS, on March 28, 2019, the City Council of the City of College Station (the "City") passed a resolution authorizing and directing notice of its intention to issue the Certificates of Obligation herein authorized, to be published in a newspaper as required by Section 271.049 of the Texas Local Government Code;

WHEREAS, said notice was published in the *Bryan-College Station Eagle*, a "newspaper" of the type described in Section 2051.044, Texas Government Code, as required by said Section 271.049 of the Texas Local Government Code, on April 3, 2019 and April 10, 2019;

WHEREAS, said notice provided that the ordinance authorizing the Certificates of Obligation may authorize an authorized officer of the City to effect the sale and delivery of the Certificates of Obligation on a date or dates subsequent to the adoption of the ordinance;

WHEREAS, no petition, signed by at least 5% of the qualified electors of said City as permitted by said Section 271.049 of the Texas Local Government Code protesting the issuance of such Certificates of Obligation, has been filed;

WHEREAS, the City is an "Issuer" within the meaning of Section 1371.001(4)(P), Texas Government Code, having (i) a principal amount of at least \$100 million in outstanding long-term indebtedness, in long-term indebtedness proposed to be issued, or a combination of outstanding or proposed long-term indebtedness and (ii) some amount of long-term indebtedness outstanding or proposed to be issued that is rated in one of the four highest rating categories for long-term debt instruments by a nationally recognized rating agency for municipal securities, without regard to the effect of any credit agreement or other form of credit enhancement entered into in connection with the obligation;

WHEREAS, the Certificates of Obligation hereinafter authorized are to be issued and delivered pursuant to Subchapter C of Chapter 271 of the Texas Local Government Code and Chapter 1371, Texas Government Code and the City's Home Rule Charter;

WHEREAS, during the preceding three years, the City has not submitted a bond proposition to authorize the issuance of bonds for the same purpose for which the Certificates of Obligation are hereby being issued and which proposition was disapproved by voters; and

WHEREAS, it is officially found, determined, and declared that the meeting at which this Ordinance has been adopted was open to the public and public notice of the time, place and subject matter of the public business to be considered and acted upon at said meeting, including

this Ordinance, was given, all as required by the applicable provisions of Texas Government Code, Chapter 551;

THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF COLLEGE STATION, TEXAS:

Section 1. DEFINITIONS; AUTHORIZATION OF CERTIFICATES OF OBLIGATION.

(a) *Definitions.* Terms not otherwise defined herein shall have the following meanings.

(i) The term "*Authorized Denomination*" shall mean a denomination of \$5,000 of principal amount of a Certificate or any integral multiple thereof.

(ii) The term "*Business Day*" means any day other than a Saturday, Sunday, a legal holiday, or a day on which banking institutions in the City are, authorized by law or executive order to close.

(iii) The term "*Certificates*" and "*Certificates of Obligation*" shall mean the City of College Station, Texas Certificates of Obligation, Series 2019, authorized to be issued and delivered by this Ordinance.

(iv) The term "*Financial Obligation*" means a: (a) debt obligation; (b) derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation; or (c) a guarantee of the foregoing (a) and (b). The term Financial Obligation does not include any municipal securities as to which a final official statement has been provided to the MSRB consistent with the Rule.

(v) The term "*MSRB*" means the Municipal Securities Rulemaking Board.

(vi) The term "*Pricing Certificate*" means a certificate of the Pricing Officer setting forth the terms of sale of the Certificates including the method of sale, principal amount, maturity dates, interest payment dates, dated date, interest rates, yields, redemption provisions, and other matters related to the sale of the Certificates.

(vii) The term "*Pricing Officer*" means the Mayor, the City Manager and the Assistant City Manager (Jeff Kersten) of the City (each the "*Pricing Officer*") each of whom is independently authorized to finalize the terms of sale of the Certificates by execution of the Pricing Certificate.

(viii) The term "*Purchaser*" means (i) if the Certificates are sold by negotiated sale, the underwriter or underwriting syndicate selected by the Pricing Officer, or (ii) if the Certificates are sold by competitive sale by soliciting public bids, the underwriter or underwriting syndicate awarded the Certificates by the Pricing Officer.

(ix) The term "*Rule*" means SEC Rule 15c2-12 (17 C.F.R. § 240.15C2-12), as amended from time to time.

(x) The term "SEC" means the United States Securities and Exchange Commission.

(xi) The term "*Surplus Revenues*" shall mean those revenues from the operation of the City's combined municipal electric light and power, waterworks and sewer system remaining after payment of all operation and maintenance expenses thereof and other obligations heretofore or hereafter incurred to which such revenues have been or shall be encumbered by a lien on and pledge of such revenues superior to the lien on and pledge of such revenues to the Certificates.

(b) The City's Certificates of Obligation, to be designated the "City of College Station, Texas Certificates of Obligation, Series 2019", are hereby authorized to be issued and delivered in the principal amount not to exceed \$82,000,000 for the following public purposes: (i) constructing and improving streets and roads including related drainage, landscaping, signalization, lighting, pedestrian improvements and signage related thereto; (ii) designing, constructing, equipping and installing parks and recreation equipment and improvements including park infrastructure improvements and park rehabilitation, lighting, shade structures and pavilions; (iii) purchasing and installing technology improvements including video surveillance, diagnostic systems, fiber optic infrastructure, fuel system rehabilitation, and communication equipment; (iv) designing and constructing a new City Hall; (v) designing and constructing a new police station; (vi) improvements to fleet maintenance facilities consisting of oil pit and storm drain upgrades; (vii) constructing improvements and extensions to the City's combined waterworks, sewer and electric systems including distribution, transmission, system lines, lift stations, metering, wells, plant improvements, and acquisition of interests in land for such purposes; and (viii) the payment of fiscal, engineering and legal fees incurred in connection therewith.

Section 2. DELEGATION TO PRICING OFFICER.

(a) As authorized by Section 1371.053, Texas Government Code, each Pricing Officer is hereby authorized to act individually and severally on behalf of the City in selling and delivering the Certificates, carrying out the other procedures specified in this Ordinance, including, determining the date of the Certificates, any additional or different designation or title by which the Certificates shall be known, whether the Certificate shall be sold and delivered in one or more series and the date and sale and delivery of each such series, the price at which the Certificates will be sold, the years in which the Certificates will mature, the principal amount to mature in each of such years, the rate of interest to be borne by each such maturity, the interest payment and record dates, the price and terms upon and at which the Certificates shall be subject to redemption prior to maturity at the option of the City, as well as any mandatory sinking fund redemption provisions, and all other matters relating to the issuance, sale, and delivery of the Certificates and obtaining municipal insurance for all or any portion of the Certificates and providing for the terms and provisions thereof applicable to the Certificates, all of which shall be specified in the Pricing Certificate; provided that:

(i) the aggregate principal amount of the Certificates shall not exceed \$82,000,000;

- (ii) the true interest cost of the Certificates shall not exceed 4.000%;
- (iii) the final maturity of the Certificates shall not exceed February 15, 2039;
- (iv) the delegation made hereby shall expire if not exercised by the Pricing Officer on or prior to May 13, 2020; and
- (v) on or prior to delivery, the Certificates shall be rated by a nationally recognized rating agency for municipal securities in one of the four highest categories for long-term obligations.

(b) In establishing the aggregate principal amount of the Certificates, the Pricing Officer shall establish an amount that, when combined with premium used for purposes other than the payment of costs of issuance, does not exceed the amount authorized in Subsection (a) hereof, which shall be sufficient in amount to provide for the purposes for which the Certificates are authorized and to pay costs of issuing the Certificates. The Certificates shall be sold with and subject to such terms as set forth in the Pricing Certificate.

(c) The Certificates may be sold by public offering (either through a negotiated or competitive offering) and the Pricing Certificate shall so state, and the Pricing Certificate may conform this Ordinance to such method of sale, including the provisions hereof that pertain to the undertaking of the Issuer in accordance with the Rule.

(d) The City Council hereby determines that the delegation of the authority to the Pricing Officer to approve the final terms of the Certificates as set forth in this Ordinance is, and the decisions made by the Pricing Officer pursuant to such delegated authority and incorporated into the Pricing Certificate are required to be, in the Issuer's best interests, and the Pricing Officer is hereby authorized to make and include in the Pricing Certificate a finding to that effect.

Section 3. CHARACTERISTICS OF THE CERTIFICATES. (a) The City shall keep or cause to be kept at the corporate trust office in Dallas, Texas (the "*Designated Trust Office*") of The Bank of New York Mellon Trust Company, N.A., or such other bank, trust company, financial institution, or other agency named by the Pricing Officer or in accordance with the provisions of (g) below (the "*Paying Agent/Registrar*"), books or records for the registration and transfer of the Certificates (the "*Registration Books*"), and the City hereby appoints the Paying Agent/Registrar as its registrar and transfer agent to keep such books or records and make such transfers and registrations under such reasonable regulations as the City and the Paying Agent/Registrar may prescribe; and the Paying Agent/Registrar shall make such transfers and registrations as herein provided. It shall be the duty of the Paying Agent/Registrar to obtain from the registered owner and record in the Registration Books the address of the registered owner of each Certificate to which payments with respect to the Certificates shall be mailed, as herein provided. The City or its designee shall have the right to inspect the Registration Books during regular business hours of the Paying Agent/Registrar at its Designated Trust Office, but otherwise the Paying Agent/Registrar shall keep the Registration Books confidential and, unless otherwise required by law, shall not permit their inspection by any other entity. Registration of each Certificate may be transferred in the Registration Books only upon presentation and

surrender thereof to the Paying Agent/Registrar at its Designated Trust Office for transfer of registration and cancellation, together with proper written instruments of assignment, in form and with guarantee of signatures satisfactory to the Paying Agent/Registrar, evidencing the assignment of such Certificate, or any portion thereof in any Authorized Denomination, to the assignee or assignees thereof, and the right of such assignee or assignees to have such Certificate or any such portion thereof registered in the name of such assignee or assignees. Upon the assignment and transfer of any Certificate or any portion thereof, a new substitute certificate or certificates shall be issued in exchange therefor in the manner herein provided.

(b) The entity in whose name any Certificate shall be registered in the Registration Books at any time shall be treated as the absolute owner thereof for all purposes of this Ordinance, whether or not such Certificate shall be overdue, and the City and the Paying Agent/Registrar shall not be affected by any notice to the contrary; and payment of, or on account of, the principal of, premium, if any, and interest on any such certificate shall be made only to such registered owner. All such payments shall be valid and effectual to satisfy and discharge the liability upon such certificate to the extent of the sum or sums so paid.

(c) The City hereby further appoints the Paying Agent/Registrar to act as the paying agent for paying the principal of and interest on the Certificates, and to act as its agent to exchange or replace Certificates, all as provided in this Ordinance. The Paying Agent/Registrar shall keep proper records of all payments made by the City and the Paying Agent/Registrar with respect to the Certificates, and of all exchanges thereof, and all replacements thereof, as provided in this Ordinance.

(d) Each Certificate may be exchanged for fully registered certificates in the manner set forth herein. Each Certificate issued and delivered pursuant to this Ordinance may, upon surrender thereof at the Designated Trust Office of the Paying Agent/Registrar, together with a written request therefor duly executed by the registered owner or the assignee or assignees thereof, or its or their duly authorized attorneys or representatives, with guarantee of signatures satisfactory to the Paying Agent/Registrar, at the option of the registered owner or such assignee or assignees, as appropriate, be exchanged for fully registered Certificates, without interest coupons, in the form prescribed in the FORM OF CERTIFICATE, in an Authorized Denomination (subject to the requirement hereinafter stated that each substitute Certificate shall have a single stated maturity date), as requested in writing by such registered owner or such assignee or assignees, in an aggregate principal amount equal to the principal amount of any Certificate or Certificates so surrendered, and payable to the appropriate registered owner, assignee, or assignees, as the case may be. If any Certificate or portion thereof is assigned and transferred, each Certificate issued in exchange therefor shall have the same principal maturity date and bear interest at the same rate as the Certificate for which it is being exchanged. Each substitute Certificate shall bear a letter and/or number to distinguish it from each other Certificate. The Paying Agent/Registrar shall exchange or replace Certificates as provided herein, and each fully registered Certificate or Certificates delivered in exchange for or replacement of any Certificate or portion thereof as permitted or required by any provision of this Ordinance shall constitute one of the Certificates for all purposes of this Ordinance, and may again be exchanged or replaced. It is specifically provided, however, that any Certificate delivered in exchange for or replacement of another Certificate prior to the first scheduled interest payment date on the Certificates (as stated on the face thereof) shall be dated the same

date as such Certificate, but each substitute Certificate so delivered on or after such first scheduled interest payment date shall be dated as of the interest payment date preceding the date on which such substitute Certificate is delivered, unless such substitute Certificate is delivered on an interest payment date, in which case it shall be dated as of such date of delivery; provided, however, that if at the time of delivery of any substitute Certificate the interest on the Certificate for which it is being exchanged has not been paid, then such substitute Certificate shall be dated as of the date to which such interest has been paid in full. On each substitute Certificate issued in exchange for or replacement of any Certificate or Certificates issued under this Ordinance there shall be printed thereon a Paying Agent/Registrar's Authentication Certificate, in the form hereinafter set forth in the FORM OF CERTIFICATE (the "*Authentication Certificate*"). An authorized representative of the Paying Agent/Registrar shall, before the delivery of any such substitute Certificate, date such substitute Certificate in the manner set forth above, and manually sign and date the Authentication Certificate, and no such substitute Certificate shall be deemed to be issued or outstanding unless the Authentication Certificate is so executed. The Paying Agent/Registrar promptly shall cancel all Certificates surrendered for exchange or replacement. No additional ordinances, orders, or resolutions need be passed or adopted by the City Council or any other body or person so as to accomplish the foregoing exchange or replacement of any Certificates or portion thereof, and the Paying Agent/Registrar shall provide for the printing, execution, and delivery of the substitute Certificate in the manner prescribed herein. Pursuant to Chapter 1206, Texas Government Code, the duty of exchange or replacement of any Certificates as aforesaid is hereby imposed upon the Paying Agent/Registrar, and, upon the execution of Authentication Certificate, the exchanged or replaced Certificate shall be valid, incontestable, and enforceable in the same manner and with the same effect as the Certificates which originally were delivered pursuant to this Ordinance, approved by the Attorney General, and registered by the Comptroller of Public Accounts. Neither the City nor the Paying Agent/Registrar shall be required to transfer or exchange any Certificate so selected for redemption, in whole or in part, within 45 calendar days of the date fixed for redemption; *provided, however*, such limitation of transfer shall not be applicable to an exchange by the registered owner of the uncalled principal of a Certificate.

(e) All Certificates issued in exchange or replacement of any other Certificate or portion thereof, (i) shall be issued in fully registered form, without interest coupons, with the principal of and interest on such Certificates to be payable only to the registered owners thereof, (ii) may be redeemed prior to their scheduled maturities, (iii) may be transferred and assigned, (iv) may be exchanged for other Certificates, (v) shall have the characteristics, (vi) shall be signed and sealed, and (vii) the principal of and interest on the Certificates shall be payable, all as provided, and in the manner required or indicated, in the FORM OF CERTIFICATE.

(f) The City shall pay the Paying Agent/Registrar's reasonable and customary fees and charges for making transfers of Certificates, but the registered owner of any Certificate requesting such transfer shall pay any taxes or other governmental charges required to be paid with respect thereto. The registered owner of any Certificates requesting any exchange shall pay the Paying Agent/Registrar's reasonable and standard or customary fees and charges for exchanging any such certificate or portion thereof, together with any taxes or governmental charges required to be paid with respect thereto, all as a condition precedent to the exercise of such privilege of exchange, except, however, that in the case of the exchange of an assigned and transferred Certificate or Certificates or any portion or portions thereof in an Authorized

Denomination, as provided in this Ordinance, such fees and charges will be paid by the City. In addition, the City hereby covenants with the registered owners of the Certificates that it will (i) pay the reasonable and standard or customary fees and charges of the Paying Agent/Registrar for its services with respect to the payment of the principal of and interest on Certificates, when due, and (ii) pay the fees and charges of the Paying Agent/Registrar for services with respect to the transfer or registration of Certificates solely to the extent above provided, and with respect to the exchange of Certificates solely to the extent above provided.

(g) The City covenants with the registered owners of the Certificates that at all times while the Certificates are outstanding the City will provide a competent and legally qualified bank, trust company, financial institution, or other agency to act as and perform the services of Paying Agent/Registrar for the Certificates under this Ordinance, and that the Paying Agent/Registrar will be one entity. The City reserves the right to, and may, at its option, change the Paying Agent/Registrar upon not less than sixty days written notice to the Paying Agent/Registrar. In the event that the entity at any time acting as Paying Agent/Registrar (or its successor by merger, acquisition, or other method) should resign or otherwise cease to act as such, the City covenants that it will promptly appoint a competent and legally qualified national or state banking institution which shall be a corporation organized and doing business under the laws of the United States of America or of any state, authorized under such laws to exercise trust powers, subject to supervision or examination by federal or state authority, and whose qualifications substantially are similar to the previous Paying Agent/Registrar to act as Paying Agent/Registrar under this Ordinance. Upon any change in the Paying Agent/Registrar, the previous Paying Agent/Registrar promptly shall transfer and deliver the Registration Books (or a copy thereof), along with all other pertinent books and records relating to the Certificates, to the new Paying Agent/Registrar designated and appointed by the City. Upon any change in the Paying Agent/Registrar, the City promptly will cause a written notice thereof to be sent by the new Paying Agent/Registrar to each registered owner of the Certificates, by United States mail, first-class postage prepaid, which notice also shall give the address of the new Paying Agent/Registrar. By accepting the position and performing as such, each Paying Agent/Registrar shall be deemed to have agreed to the provisions of this Ordinance, and a certified copy of this Ordinance shall be delivered to each Paying Agent/Registrar.

Section 4. FORM OF CERTIFICATES. The form of the Certificates, including the form of the Authentication Certificate, the form of Assignment and the form of Registration Certificate of the Comptroller of Public Accounts of the State of Texas to be attached to the Certificates initially issued and delivered pursuant to this Ordinance, shall be in substantially the form as set forth in **Exhibit A** to this Ordinance, shall be numbered consecutively from R-1 upward, with the Initial Certificate being numbered T-1, with such appropriate variations, omissions, or insertions as are permitted or required by this Ordinance and with the FORM OF CERTIFICATE to be modified pursuant to, and completed with information set forth in the Pricing Certificate. The FORM OF CERTIFICATE as it appears in **Exhibit A** shall be completed, amended and modified by Bond Counsel to incorporate the information set forth in the Pricing Certificate but it is not required for the FORM OF CERTIFICATE to reproduced as an exhibit to the Pricing Certificate. The printer of the Certificates is hereby authorized to print on the Certificates (i) the form of bond counsel's opinion relating to the Certificates, and (ii) an appropriate statement of insurance furnished by a municipal bond insurance company providing municipal bond insurance, if any, covering all or any part of the Certificates.

Section 5. RESERVED.

Section 6. LEVY OF TAX; INTEREST AND SINKING FUND; REVENUE PLEDGE.

(a) That a special fund or account, to be designated the "City of College Station, Texas Series 2019 Certificate of Obligation Interest and Sinking Fund" (the "*Interest and Sinking Fund*") is hereby created and shall be established and maintained by the City. The Interest and Sinking Fund shall be kept separate and apart from all other funds and accounts of the City, and shall be used only for paying the interest on and principal of the Certificates. All ad valorem taxes levied and collected for and on account of the Certificates shall be deposited, as collected, to the credit of the Interest and Sinking Fund. During each year while any of the Certificates are outstanding and unpaid, the governing body of the City shall compute and ascertain the rate and amount of ad valorem tax, based on the latest approved tax rolls of the City, with full allowances being made for tax delinquencies and the cost of tax collections, which will be sufficient to raise and produce the money required to pay the interest on the Certificates as such interest comes due, and to provide a sinking fund to pay the principal (including mandatory sinking fund redemption payments, if any) of the Certificates as such principal matures or comes due through operation of the mandatory sinking fund redemption, if any, but never less than 2% of the original amount of the Certificates as a sinking fund each year. The rate and amount of ad valorem tax is hereby ordered to be levied against all taxable property in the City for each year while any of the Certificates is outstanding and unpaid, and the ad valorem tax shall be assessed and collected each such year and deposited to the credit of the Interest and Sinking Fund. Ad valorem taxes necessary to pay the interest on and principal of the Certificates, as such interest comes due and such principal matures, are hereby pledged for such payment, within the limit prescribed by law.

(b) That the Certificates are additionally secured by and shall be payable from a limited pledge of Surplus Revenues (not to exceed \$1,000). The Surplus Revenues are pledged by the City pursuant to authority of Chapter 1502, Texas Government Code, specifically Section 1502.058 thereof. The City shall promptly deposit the Surplus Revenues upon their receipt to the credit of the Interest and Sinking Fund created pursuant to Section 6, to pay the principal and interest on the Certificates. The amount of Surplus Revenues pledged to the payment of the Certificates shall not exceed \$1,000. If Surplus Revenues or any other lawfully available revenues, income or resources of the City are deposited or budgeted to be deposited in the Interest and Sinking Fund in advance of the time when ad valorem taxes are scheduled to be levied for any year, then the amount of taxes that otherwise would have been required to be levied pursuant to Section 6 may be reduced to the extent and by the amount of the Surplus Revenues or other lawfully available revenues, income or resources then on deposit or budgeted to be deposited to the credit of the Interest and Sinking Fund.

Section 7. TRANSFER. That the City shall do any and all things necessary to accomplish the transfer of monies to the Interest and Sinking Fund of this issue in ample time to pay such items of principal and interest due on the Certificates.

Section 8. SECURITY FOR FUNDS. That the Interest and Sinking Fund created by this Ordinance shall be secured in the manner and to the fullest extent permitted or required by law

for the security of public funds, and such Interest and Sinking Fund shall be used only for the purposes and in the manner permitted or required by this Ordinance.

Section 9. DAMAGED, MUTILATED, LOST, STOLEN, OR DESTROYED CERTIFICATES. (a) *Replacement Certificates.* That in the event any outstanding Certificate is damaged, mutilated, lost, stolen, or destroyed, the Paying Agent/Registrar shall cause to be printed, executed, and delivered, a new Certificate of the same principal amount, maturity, and interest rate, as the damaged, mutilated, lost, stolen, or destroyed Certificate, in replacement for such Certificate in the manner hereinafter provided.

(b) *Application for Replacement Certificates.* That application for replacement of damaged, mutilated, lost, stolen, or destroyed Certificates shall be made by the registered owner thereof to the Paying Agent/Registrar. In every case of loss, theft, or destruction of a Certificate, the registered owner applying for a replacement Certificate shall furnish to the City and to the Paying Agent/Registrar such security or indemnity as may be required by them to save each of them harmless from any loss or damage with respect thereto. Also, in every case of loss, theft, or destruction of a Certificate, the registered owner shall furnish to the City and to the Paying Agent/Registrar evidence to their satisfaction of the loss, theft, or destruction of such Certificate, as the case may be. In every case of damage or mutilation of a Certificate, the registered owner shall surrender to the Paying Agent/Registrar for cancellation the Certificate so damaged or mutilated.

(c) *No Default Occurred.* That notwithstanding the foregoing provisions of this Section, in the event any such Certificate shall have matured, and no default has occurred which is then continuing in the payment of the principal of, redemption premium, if any, or interest on the Certificate, the City may authorize the payment of the same (without surrender thereof except in the case of a damaged or mutilated Certificate) instead of issuing a replacement certificate, provided security or indemnity is furnished as above provided in this Section.

(d) *Charge for Issuing Replacement Certificates.* That prior to the issuance of any replacement Certificate, the Paying Agent/Registrar shall charge the registered owner of such Certificate with all legal, printing, and other expenses in connection therewith. Every replacement Certificate issued pursuant to the provisions of this Section by virtue of the fact that any Certificate is lost, stolen, or destroyed shall constitute a contractual obligation of the City whether or not the lost, stolen, or destroyed Certificate shall be found at any time, or be enforceable by anyone, and shall be entitled to all the benefits of this Ordinance equally and proportionately with any and all other Certificates duly issued under this Ordinance.

(e) *Authority for Issuing Replacement Certificates.* That in accordance with Section 1201.067, Texas Government Code, this Section of this Ordinance shall constitute authority for the issuance of any such replacement Certificate without necessity of further action by the City or any other body or person, and the duty of the replacement of such Certificates is hereby authorized and imposed upon the Paying Agent/Registrar, and the Paying Agent/Registrar shall authenticate and deliver such Certificates in the form and manner and with the effect, as provided in Section 5(d) of this Ordinance for Certificates issued in conversion and exchange of other Certificates.

Section 10. FEDERAL INCOME TAX MATTERS. That the City covenants to refrain from any action which would adversely affect, or to take such action as to ensure, the treatment of the Certificates as obligations described in section 103 of the Code, the interest on which is not includable in the "gross income" of the holder for purposes of federal income taxation. In furtherance thereof, the City covenants as follows:

(a) to take any action to assure that no more than 10 percent of the proceeds of the Certificates (less amounts deposited to a reserve fund, if any) are used for any "private business use," as defined in section 141(b)(6) of the Code or, if more than 10 percent of the proceeds are so used, that amounts, whether or not received by the City, with respect to such private business use, do not, under the terms of this Ordinance or any underlying arrangement, directly or indirectly, secure or provide for the payment of more than 10 percent of the debt service on the Certificates, in contravention of section 141(b)(2) of the Code;

(b) to take any action to assure that in the event that the "private business use" described in subsection (a) hereof exceeds five percent of the proceeds of the Certificates (less amounts deposited into a reserve fund, if any) then the amount in excess of five percent is used for a "private business use" which is "related" and not "disproportionate", within the meaning of section 141(b)(3) of the Code, to the governmental use;

(c) to take any action to assure that no amount which is greater than the lesser of \$5,000,000, or five percent of the proceeds of the Certificates (less amounts deposited into a reserve fund, if any) is directly or indirectly used to finance loans to persons, other than state or local governmental units, in contravention of section 141(c) of the Code;

(d) to refrain from taking any action which would otherwise result in the Certificates being treated as "private activity bonds" within the meaning of section 141(b) of the Code;

(e) to refrain from taking any action that would result in the Certificates being "federally guaranteed" within the meaning of section 149(b) of the Code;

(f) to refrain from using any portion of the proceeds of the Certificates, directly or indirectly, to acquire or to replace funds which were used, directly or indirectly, to acquire investment property (as defined in section 148(b)(2) of the Code) which produces a materially higher yield over the term of the Certificates, other than investment property acquired with –

(1) proceeds of the Certificates invested for a reasonable temporary period of three years or less until such proceeds are needed for the purpose for which the Certificates are issued,

(2) amounts invested in a bona fide debt service fund, within the meaning of section 1.148-1(b) of the Treasury Regulations, and

(3) amounts deposited in any reasonably required reserve or replacement fund to the extent such amounts do not exceed 10 percent of the proceeds of the Certificates;

(g) to otherwise restrict the use of the proceeds of the Certificates or amounts treated as proceeds of the Certificates, as may be necessary, so that the Certificates do not otherwise

contravene the requirements of section 148 of the Code (relating to arbitrage) and, to the extent applicable, section 149(d) of the Code; and

(h) to pay to the United States of America at least once during each five-year period (beginning on the date of delivery of the Certificates) an amount that is at least equal to 90 percent of the "Excess Earnings," within the meaning of section 148(f) of the Code and to pay to the United States of America, not later than 60 days after the Certificates have been paid in full, 100 percent of the amount then required to be paid as a result of Excess Earnings under section 148(f) of the Code.

For purposes of the foregoing (a) and (b), the City understands that the term "proceeds" includes "disposition proceeds" as defined in the Treasury Regulations and, in the case of refunding bonds, transferred proceeds (if any) and proceeds of the refunded bonds expended prior to the date of issuance of the Certificates. It is the understanding of the City that the covenants contained herein are intended to assure compliance with the Code and any regulations or rulings promulgated by the U.S. Department of the Treasury pursuant thereto. In the event that regulations or rulings are hereafter promulgated which modify or expand provisions of the Code, as applicable to the Certificates, the City will not be required to comply with any covenant contained herein to the extent that such failure to comply, in the opinion of nationally-recognized bond counsel, will not adversely affect the exemption from federal income taxation of interest on the Certificates under section 103 of the Code. In the event that regulations or rulings are hereafter promulgated which impose additional requirements which are applicable to the Certificates, the City agrees to comply with the additional requirements to the extent necessary, in the opinion of nationally-recognized bond counsel, to preserve the exemption from federal income taxation of interest on the Certificates under section 103 of the Code. In furtherance of such intention, the City hereby authorizes and directs the Mayor, the City Manager and any Assistant City Manager, severally, to execute any documents, certificates or reports required by the Code, and to make such elections on behalf of the City which may be permitted by the Code as are consistent with the purpose for the issuance of the Certificates.

In order to facilitate compliance with clause (h) above, a "Rebate Fund" is hereby established by the City for the sole benefit of the United States of America, and such Fund shall not be subject to the claim of any other person, including without limitation the bondholders. The Rebate Fund is established for the additional purpose of compliance with section 148 of the Code.

Section 11. ALLOCATION OF, AND LIMITATION ON, EXPENDITURES FOR THE PROJECT. That the City covenants to account for the expenditure of proceeds from the sale of the Certificates and any investment earnings thereon to be used for the purposes described in Section 1 of this Ordinance (such purpose referred to in this Section and Section 12 hereof as a "Project") on its books and records by allocating proceeds to expenditures within 18 months of the later of the date that (a) the expenditure on a Project is made or (b) such Project is completed. The foregoing notwithstanding, the City shall not expend such proceeds or investment earnings more than 60 days after the earlier of (a) the fifth anniversary of the date of delivery of the Certificates or (b) the date the Certificates are retired, unless the City obtains an opinion of nationally-recognized bond counsel substantially to the effect that such expenditure will not adversely affect the tax-exempt status of the Certificates. For purposes hereof, the City shall not

be obligated to comply with this covenant if it obtains an opinion that such failure to comply will not adversely affect the excludability for federal income tax purposes from gross income of the interest.

Section 12. DISPOSITION OF PROJECT. That the City covenants that the property constituting a Project will not be sold or otherwise disposed in a transaction resulting in the receipt by the City of cash or other compensation, unless any action taken in connection with such disposition will not adversely affect the tax-exempt status of the Certificates. For purpose of the foregoing, the City may rely on an opinion of nationally-recognized bond counsel that the action taken in connection with such sale or other disposition will not adversely affect the tax-exempt status of the Certificates. For purposes of the foregoing, the portion of the property comprising personal property and disposed in the ordinary course shall not be treated as a transaction resulting in the receipt of cash or other compensation. For purposes hereof, the City shall not be obligated to comply with this covenant if it obtains an opinion that such failure to comply will not adversely affect the excludability for federal income tax purposes from gross income of the interest.

Section 13. PROCEDURES TO MONITOR COMPLIANCE WITH TAX COVENANTS. The City hereby adopts the procedures attached hereto as **Exhibit B** as a means of monitoring compliance with the federal tax covenants made by the City herein.

Section 14. CUSTODY, APPROVAL, AND REGISTRATION OF CERTIFICATES. That the Assistant City Manager of the City is hereby authorized to have control of the Certificates initially issued and delivered hereunder and all necessary records and proceedings pertaining to the Certificates pending their delivery and their investigation, examination, and approval by the Attorney General of the State of Texas, and their registration by the Comptroller of Public Accounts of the State of Texas. Upon registration of the Certificates said Comptroller of Public Accounts (or a deputy designated in writing to act for said Comptroller) shall manually sign the Comptroller's Registration Certificate attached to such Certificates, and the seal of said Comptroller shall be impressed, or placed in facsimile, on such certificate. The Certificates thus registered shall remain in the custody of the Assistant City Manager (or the designee thereof) until delivered to the Purchaser (as defined in Section 18 of this Ordinance).

Section 15. DTC REGISTRATION. That the Certificates initially shall be issued and delivered in such manner that no physical distribution of the Certificates will be made to the public, and The Depository Trust Company ("DTC"), New York, New York, initially will act as depository for the Certificates. DTC has represented that it is a limited purpose trust company incorporated under the laws of the State of New York, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered under Section 17A of the Securities Exchange Act of 1934, as amended, and the City accepts, but in no way verifies, such representations. The Certificates initially authorized by this Ordinance shall be delivered to and registered in the name of CEDE & CO., the nominee of DTC. It is expected that DTC will hold the Certificates on behalf of the Purchaser and its participants. So long as each Certificate is registered in the name of CEDE & CO., the Paying Agent/Registrar shall treat and deal with DTC the same in all respects as if it were the actual and beneficial owner thereof. It is expected that DTC will maintain a book-entry system which will identify ownership of the Certificates in Authorized Denominations, with

transfers of ownership being effected on the records of DTC and its participants pursuant to rules and regulations established by them, and that the Certificates initially deposited with DTC shall be immobilized and not be further exchanged for substitute Certificates except as hereinafter provided. The City is not responsible or liable for any functions of DTC, will not be responsible for paying any fees or charges with respect to its services, will not be responsible or liable for maintaining, supervising, or reviewing the records of DTC or its participants, or protecting any interests or rights of the beneficial owners of the Certificates. It shall be the duty of the DTC Participants, as defined in the Official Statement herein approved, to make all arrangements with DTC to establish this book-entry system, the beneficial ownership of the Certificates, and the method of paying the fees and charges of DTC. The City does not represent, nor does it in any way covenant that the initial book-entry system established with DTC will be maintained in the future. Notwithstanding the initial establishment of the foregoing book-entry system with DTC, if for any reason any of the originally delivered Certificates is duly filed with the Paying Agent/Registrar with proper request for transfer and substitution, as provided for in this Ordinance, substitute Certificates will be duly delivered as provided in this Ordinance, and there will be no assurance or representation that any book-entry system will be maintained for such Certificates. In connection with the initial establishment of the foregoing book-entry system with DTC, the City heretofore has executed a "Blanket Letter of Representations" prepared by DTC in order to implement the book-entry system described above.

Section 16. CONTINUING DISCLOSURE OBLIGATION PURSUANT TO RULE 15C2-12 (17 C.F.R. § 240.15C2-12).

(a) *Annual Reports.*

(i) The City will provide certain updated financial information and operating data to the MSRB on an annual basis in an electronic format that is prescribed by the MSRB and available via the Electronic Municipal Market Access System ("EMMA") at www.emma.msrb.org. The information to be updated includes all quantitative financial information and operating data with respect to the City of the general type included in the Official Statement under Tables numbered 1 through 6; 8 through 20 and in Appendix B. The City will update and provide the information in Tables 1 through 6 and 8 through 20 within six months after the end of each fiscal year ending in and after 2019. The City will additionally provide audited financial statements when and if available, and in any event, within 12 months after the end of each fiscal year ending in or after 2019. If the audit of such financial statements is not complete within 12 months after any such fiscal year end, then the City will file unaudited financial statements within such 12 month period and audited financial statements for the applicable fiscal year, when and if the audit report on such statements becomes available. Any such financial statements will be prepared in accordance with the accounting principles described in Appendix B of the Official Statement or such other accounting principles as the City may be required to employ from time to time pursuant to State law or regulation.

(ii) The financial information and operating data to be provided may be set forth in full in one or more documents or may be included by specific reference to any document available to the public on the MSRB's Internet Web site or filed with the SEC, as permitted by the Rule. If the City changes its fiscal year, it will notify the MSRB of

the change (and of the date of the new fiscal year end) prior to the next date by which the City otherwise would be required to provide financial information and operating data pursuant to this Section. The financial information and operating data to be provided pursuant to this Section may be set forth in full in one or more documents or may be included by specific reference to any document that is available to the public on the MSRB's internet website or filed with the SEC. All documents provided to the MSRB pursuant to this Section shall be accompanied by identifying information as prescribed by the MSRB.

(b) *Event Notices.* The City shall notify the MSRB in an electronic format as prescribed by the MSRB, in a timely manner (but not in excess of ten Business Days after the occurrence of the event) of any of the following events with respect to the Certificates:

1. Principal and interest payment delinquencies;
2. Non-payment related defaults, if material;
3. Unscheduled draws on debt service reserves reflecting financial difficulties;
4. Unscheduled draws on credit enhancements reflecting financial difficulties;
5. Substitution of credit or liquidity providers, or their failure to perform;
6. Adverse tax opinions or the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Certificates, or other material events affecting the tax status of the Certificates;
7. Modifications to rights of Certificateholders, if material;
8. Certificate calls, if material, and tender offers;
9. Defeasances;
10. Release, substitution, or sale of property securing repayment of the Certificates, if material;
11. Rating changes;
12. Bankruptcy, insolvency, receivership or similar event of an obligated person (which is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent, or similar officer for the City in a proceeding under the United States Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or

business of the City, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement, or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the City);

13. The consummation of a merger, consolidation, or acquisition involving an obligated person or the sale of all or substantially all of the assets of the obligated person, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material;
14. Appointment of a successor or additional trustee or the change of name of a trustee, if material.
15. Incurrence of a Financial Obligation of the City, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a Financial Obligation of the City, any of which affect Bondholders, if material.
16. Default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a Financial Obligation of the City, any of which reflect financial difficulties.

The City shall notify the MSRB, in a timely manner, of any failure by the City to provide financial information or operating data in accordance with this Section by the time required by such subsection.

(c) *Limitations, Disclaimers, and Amendments.* (i) The City shall be obligated to observe and perform the covenants specified in this Section for so long as, but only for so long as, the City remains an "obligated person" with respect to the Certificates within the meaning of the Rule, except that the City in any event will give notice of any deposit made in accordance with this Ordinance or applicable law that causes Certificates no longer to be outstanding.

(ii) The provisions of this Section are for the sole benefit of the registered owners and beneficial owners of the Certificates, and nothing in this Section, express or implied, shall give any benefit or any legal or equitable right, remedy, or claim hereunder to any other person. The City undertakes to provide only the financial information, operating data, financial statements, and notices which it has expressly agreed to provide pursuant to this Section and does not hereby undertake to provide any other information that may be relevant or material to a complete presentation of the City's financial results, condition, or prospects or hereby undertake to update any information provided in accordance with this Section or otherwise, except as expressly provided herein. The City

does not make any representation or warranty concerning such information or its usefulness to a decision to invest in or sell Certificates at any future date.

(iii) UNDER NO CIRCUMSTANCE SHALL THE CITY BE LIABLE TO THE REGISTERED OWNER OR BENEFICIAL OWNER OF ANY CERTIFICATE OR ANY OTHER PERSON, IN CONTRACT OR TORT, FOR DAMAGES RESULTING IN WHOLE OR IN PART FROM ANY BREACH BY THE CITY, WHETHER NEGLIGENT OR WITHOUT FAULT ON ITS PART, OF ANY COVENANT SPECIFIED IN THIS SECTION, BUT EVERY RIGHT AND REMEDY OF ANY SUCH PERSON, IN CONTRACT OR TORT, FOR OR ON ACCOUNT OF ANY SUCH BREACH SHALL BE LIMITED TO AN ACTION FOR MANDAMUS OR SPECIFIC PERFORMANCE.

(iv) No default by the City in observing or performing its obligations under this Section shall comprise a breach of or default under this Ordinance for purposes of any other provision of this Ordinance. Nothing in this Section is intended or shall act to disclaim, waive, or otherwise limit the duties of the City under federal and state securities laws.

(v) Should the Rule be amended to obligate the City to make filings with or provide notices to entities other than the MSRB, the City hereby agrees to undertake such obligation with respect to the Certificates in accordance with the Rule as amended. The provisions of this Section may be amended by the City from time to time to adapt to changed circumstances that arise from a change in legal requirements, a change in law, or a change in the identity, nature, status, or type of operations of the City, but only if (1) the provisions of this Section, as so amended, would have permitted an underwriter to purchase or sell Certificates in the primary offering of the Certificates in compliance with the Rule, taking into account any amendments or interpretations of the Rule since such offering as well as such changed circumstances and (2) either (a) the registered owners of a majority in aggregate principal amount (or any greater amount required by any other provision of this Ordinance that authorizes such an amendment) of the outstanding Certificates consent to such amendment or (b) a person that is unaffiliated with the City (such as nationally recognized bond counsel) determined that such amendment will not materially impair the interest of the registered owners and beneficial owners of the Certificates. If the City so amends the provisions of this Section, it shall include with any amended financial information or operating data next provided in accordance with subsection (b) of this Section an explanation, in narrative form, of the reason for the amendment and of the impact of any change in the type of financial information or operating data so provided. The City may also amend or repeal the provisions of this continuing disclosure agreement if the SEC amends or repeals the applicable provision of the Rule or a court of final jurisdiction enters judgment that such provisions of the Rule are invalid, but only if and to the extent that the provisions of this sentence would not prevent an underwriter from lawfully purchasing or selling Certificates in the primary offering of the Certificates.

(d) *Procedures to Monitor Compliance with Continuing Disclosure Covenants.* The City hereby adopts the procedures attached hereto as **Exhibit B** as a means of monitoring compliance with the continuing disclosure covenants made by the City herein.

Section 17. DEFEASANCE. (a) *Deemed Paid.* Any Certificate and the interest thereon shall be deemed to be paid, retired and no longer outstanding (a "*Defeased Certificate*") within the meaning of this Ordinance, except to the extent provided in subsection (e) of this Section, when payment of the principal of such Certificate, plus interest thereon to the due date (whether such due date be by reason of maturity or otherwise) either (i) shall have been made or caused to be made in accordance with the terms thereof, or (ii) shall have been provided for on or before such due date by irrevocably depositing with or making available to the Paying Agent/Registrar in accordance with an escrow agreement or other instrument (the "*Future Escrow Agreement*") for such payment (1) lawful money of the United States of America sufficient to make such payment or (2) Defeasance Securities that mature as to principal and interest in such amounts and at such times as will insure the availability, without reinvestment, of sufficient money to provide for such payment, and when proper arrangements have been made by the City with the Paying Agent/Registrar for the payment of its services until all Defeased Certificates shall have become due and payable. At such time as a Certificate shall be deemed to be a Defeased Certificate hereunder, as aforesaid, such Certificate and the interest thereon shall no longer be secured by, payable from, or entitled to the benefits of, the ad valorem taxes herein levied and pledged or the pledge of Surplus Revenues as provided in this Ordinance, and such principal and interest shall be payable solely from such money or Defeasance Securities.

(b) *Investments.* Any moneys so deposited with the Paying Agent/Registrar may at the written direction of the City be invested in Defeasance Securities, maturing in the amounts and times as hereinbefore set forth, and all income from such Defeasance Securities received by the Paying Agent/Registrar that is not required for the payment of the Certificates and interest thereon, with respect to which such money has been so deposited, shall be turned over to the City, or deposited as directed in writing by the City. Any Future Escrow Agreement pursuant to which the money and/or Defeasance Securities are held for the payment of Defeased Certificates may contain provisions permitting the investment or reinvestment of such moneys in Defeasance Securities or the substitution of other Defeasance Securities upon the satisfaction of the requirements specified in subsection (a)(i) or (ii) above. All income from such Defeasance Securities received by the Paying Agent/Registrar which is not required for the payment of the Defeased Securities, with respect to which such money has been so deposited, shall be remitted to the City or deposited as directed in writing by the City.

(c) *Selection of Defeased Certificates.* In the event that the City elects to defease less than all of the principal amount of Certificates of a maturity, the Paying Agent/Registrar shall select, or cause to be selected, such amount of Certificates by such random method as it deems fair and appropriate.

(d) *Defeasance Securities.* The term "*Defeasance Securities*" means (i) direct, noncallable obligations of the United States of America, including obligations that are unconditionally guaranteed by the United States of America, (ii) noncallable obligations of an agency or instrumentality of the United States, including obligations that are unconditionally guaranteed or insured by the agency or instrumentality and that, on the date the governing body

of the City adopts or approves the proceedings authorizing the issuance of refunding bonds, are rated as to investment quality by a nationally recognized investment rating firm not less than AAA or its equivalent; (iii) noncallable obligations of a state or an agency or a county, municipality, or other political subdivision of a state that have been refunded and that, on the date the governing body of the City adopts or approves the proceedings authorizing the issuance of refunding bonds, are rated as to investment quality by a nationally recognized investment rating firm not less than AAA or its equivalent and (iv) any securities and obligations now or hereafter authorized by State law that are eligible to refund, retire or otherwise discharge obligations such as the Certificates.

(e) *Continuing Duty of Paying Agent/Registrar.* Until all Certificates defeased under this Section of this Ordinance shall become due and payable, the Paying Agent/Registrar for such Certificates shall perform the services of Paying Agent/Registrar for such Certificates the same as if they had not been defeased, and the City shall make proper arrangements to provide and pay for such services.

(f) The Pricing Officer is hereby authorized to modify the securities that are eligible as Defeasance Securities and any such modification shall described in the Pricing Certificate.

Section 18. SALE OF CERTIFICATES; OFFICIAL STATEMENT. (a) The Certificates may be sold by public offering (either through a negotiated or competitive offering) and the terms and provisions of which are to be determined by the Pricing Officer in accordance with Section 2 hereof, and in which the purchasers of the Certificates are designated. The Certificates may be sold pursuant to a purchase agreement or notice of sale and bidding instructions (collectively, the "*Purchase Agreement*") which the Pricing Officer is hereby authorized to execute and deliver and in which the Purchaser of the Certificates shall be designated. The Certificates shall initially be registered in the name of the Purchaser thereof as set forth in the Pricing Certificate.

(b) The City hereby approves the form and content of the draft preliminary official statement relating to the Certificates in the form attached hereto as ***Exhibit C*** and any addenda, supplement or amendment thereto, and deems final the preliminary official statement and approves the distribution of such preliminary official statement in the reoffering of the Certificates by the Purchaser, with such changes therein or additions thereto as the Pricing Officer executing the same may deem advisable or as are required by the Rule. The Pricing Officer is hereby authorized, in the name and on behalf of the City, to approve, distribute, and deliver a final preliminary official statement and a final official statement relating to the Certificates to be used by the Purchaser in the marketing of the Certificates.

(c) The Pricing Officer is authorized, in connection with effecting the sale of the Certificates, to obtain from a municipal bond insurance company so designated in the Pricing Certificate (the "*Insurer*") a municipal bond insurance policy (the "*Insurance Policy*") in support of the Certificates. To that end, should the Pricing Officer exercise such authority and commit the City to obtain a municipal bond insurance policy, for so long as the Insurance Policy is in effect, the requirements of the Insurer relating to the issuance of the Insurance Policy are incorporated by reference into this Ordinance and made a part hereof for all purposes, notwithstanding any other provision of this Ordinance to the contrary. The Pricing Officer shall

have the authority to execute any documents to effect the issuance of the Insurance Policy by the Insurer.

(d) The Mayor and Mayor Pro Tem, the City Manager, the Assistant City Manager, Director of Finance and City Secretary, shall be and they are hereby expressly authorized, empowered and directed from time to time and at any time to do and perform all such acts and things and to execute, acknowledge and deliver in the name and under the corporate seal and on behalf of the City a Paying Agent/Registrar Agreement, in the form presented at the meeting at which this Ordinance is adopted, with the Paying Agent/Registrar and all other instruments, whether or not herein mentioned, as may be necessary or desirable in order to carry out the terms and provisions of this Ordinance, the Certificates, the sale of the Certificates, the Purchase Agreement and the Official Statement. In case any officer whose signature shall appear on any Certificate shall cease to be such officer before the delivery of such Certificate, such signature shall nevertheless be valid and sufficient for all purposes the same as if such officer had remained in office until such delivery.

Section 19. FURTHER PROCEDURES. That the Mayor, the City Secretary, the City Manager, the Assistant City Manager, and Director of Finance, shall be and they are hereby expressly authorized, empowered, and directed from time to time and at any time to do and perform all such acts and things and to execute, acknowledge, and deliver in the name and under the corporate seal and on behalf of the City all such instruments, whether or not herein mentioned, as may be necessary or desirable in order to carry out the terms and provisions of this Ordinance, and the sale and delivery of the Certificates and fixing all details in connection therewith. The City Council hereby authorizes the payment of the fee of the Office of the Attorney General of the State of Texas for the examination of the proceedings relating to the issuance of the Certificates, in the amount determined in accordance with the provisions of Section 1202.004, Texas Government Code.

Section 20. CONSTRUCTION FUND; USE OF PROCEEDS.

(a) The City hereby creates and establishes and shall maintain on the books of the City a separate fund to be entitled the "Series 2019 Certificates of Obligation Construction Fund" (the "*Construction Fund*") for use by the City for payment of all lawful costs associated with the acquisition and construction of the projects as provided in Section 1.

(b) The proceeds from the sale of the Certificates shall be deposited, on the date of closing, in the manner described in a letter of instructions prepared by the City or on behalf of the City by the City's financial advisor. The foregoing notwithstanding, any proceeds representing accrued interest on the Certificates shall be deposited to the credit of the Interest and Sinking Fund.

Section 21. INTEREST EARNINGS. That the interest earnings derived from the investment of proceeds from the sale of the Certificates may be used along with other proceeds for the construction of the permanent improvements set forth in Section 1 hereof for which the Certificates are issued; provided that after completion of such permanent improvements, if any of such interest earnings remain on hand, such interest earnings shall be deposited in the Interest and Sinking Fund. It is further provided, however, that any interest earnings on proceeds which

are required to be rebated to the United States of America pursuant to this Ordinance hereof in order to prevent the Certificates from being arbitrage bonds shall be so rebated and not considered as interest earnings for the purposes of this Section.

Section 22. DEFAULT AND REMEDIES.

(a) *Events of Default.* Each of the following occurrences or events for the purpose of this Ordinance is hereby declared to be an Event of Default:

(i) the failure to make payment of the principal of or interest on any of the Certificates when the same becomes due and payable; or

(ii) default in the performance or observance of any other covenant, agreement or obligation of the City, the failure to perform which materially, adversely affects the rights of the registered owners of the Certificates, including, but not limited to, their prospect or ability to be repaid in accordance with this Ordinance, and the continuation thereof for a period of 60 days after notice of such default is given by any registered owner to the City.

(b) Remedies for Default.

(i) Upon the happening of any Event of Default, then and in every case, any registered owner or an authorized representative thereof, including, but not limited to, a trustee or trustees therefor, may proceed against the City, or any official, officer or employee of the City in their official capacity, for the purpose of protecting and enforcing the rights of the registered owners under this Ordinance, by mandamus or other suit, action or special proceeding in equity or at law, in any court of competent jurisdiction, for any relief permitted by law, including the specific performance of any covenant or agreement contained herein, or thereby to enjoin any act or thing that may be unlawful or in violation of any right of the registered owners hereunder or any combination of such remedies.

(ii) It is provided that all such proceedings shall be instituted and maintained for the equal benefit of all registered owners of Certificates then outstanding.

(c) Remedies Not Exclusive.

(i) No remedy herein conferred or reserved is intended to be exclusive of any other available remedy or remedies, but each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or under the Certificates or now or hereafter existing at law or in equity; provided, however, that notwithstanding any other provision of this Ordinance, the right to accelerate the debt evidenced by the Certificates shall not be available as a remedy under this Ordinance.

(ii) The exercise of any remedy herein conferred or reserved shall not be deemed a waiver of any other available remedy.

(iii) By accepting the delivery of a Certificate authorized under this Ordinance, such registered owner agrees that the certifications required to effectuate any covenants or representations contained in this Ordinance do not and shall never constitute or give rise to a personal or pecuniary liability or charge against the officers, employees or members of the City or the City Council.

(iv) None of the members of the City Council, nor any other official or officer, agent, or employee of the City, shall be charged personally by the registered owners with any liability, or be held personally liable to the registered owners under any term or provision of this Ordinance, or because of any Event of Default or alleged Event of Default under this Ordinance.

Section 23. MISCELLANEOUS PROVISIONS. (a) *Preamble.* The preamble to this Ordinance is incorporated by reference and made a part hereof for all purposes.

(b) *Titles Not Restrictive.* That the titles assigned to the various sections of this Ordinance are for convenience only and shall not be considered restrictive of the subject matter of any section or of any part of this Ordinance.

(c) *Rules of Construction.* The words "herein", "hereof" and "hereunder" and other words of similar import refer to this Ordinance as a whole and not to any particular section or other subdivision. Except where the context otherwise requires, terms defined in this Ordinance to impart the singular number shall be considered to include the plural number and vice versa. References to any named person means that party and its successors and assigns. References to any constitutional, statutory or regulatory provision means such provision as it exists on the date this Ordinance is adopted by the City and any future amendments thereto or successor provisions thereof. Any reference to "FORM OF CERTIFICATE" shall refer to the form of the Certificates set forth in **Exhibit A** to this Ordinance. Any reference to the payment of principal in this Ordinance shall be deemed to include the payment of any mandatory sinking fund redemption payments as may be described herein.

(d) *Inconsistent Provisions.* All ordinances, orders and resolutions, or parts thereof, which are in conflict or inconsistent with any provision of this Ordinance are hereby repealed and declared to be inapplicable, and the provisions of this Ordinance shall be and remain controlling as to the matters prescribed herein.

(e) *Severability.* If any word, phrase, clause, paragraph, sentence, part, portion, or provision of this Ordinance or the application thereof to any person or circumstance shall be held to be invalid, the remainder of this Ordinance shall nevertheless be valid and the City hereby declares that this Ordinance would have been enacted without such invalid word, phrase, clause, paragraph, sentence, part, portion, or provisions.

(f) *Governing Law.* This Ordinance shall be construed and enforced in accordance with the laws of the State of Texas.

(g) *Open Meeting.* The City officially finds and determines that the meeting at which this Ordinance is adopted was open to the public; and that public notice of the time, place, and purpose of such meeting was given, all as required by Chapter 551, Texas Government Code.

(h) *Application of Chapter 1208, Government Code.* Chapter 1208, Texas Government Code, applies to the issuance of the Certificates and the pledge of ad valorem taxes and the Surplus Revenues granted by the City under Section 6(b), and such pledge is therefore valid, effective, and perfected. If Texas law is amended at any time while the Certificates are outstanding and unpaid such that the pledge of the ad valorem taxes and Surplus Revenues granted by the City is to be subject to the filing requirements of Chapter 9, Texas Business & Commerce Code, then in order to preserve to the Registered Owners of the Certificates the perfection of the security interest in said pledge, the City agrees to take such measures as it determines are reasonable and necessary under Texas law to comply with the applicable provisions of Chapter 9, Texas Business & Commerce Code and enable a filing to perfect the security interest in said pledge to occur.

(i) *Immediate Effect.* In accordance with the provisions of Section 1201.028, Texas Government Code, this Ordinance shall be effective immediately upon its adoption by the City Council.

[Remainder of page intentionally left blank.]

PASSED, APPROVED AND EFFECTIVE THIS MAY 13, 2019.

City Secretary; City of College Station

Mayor; City of College Station

(CITY SEAL)

APPROVED:

McCall, Parkhurst & Horton L.L.P., Dallas, Texas
Bond Counsel



Ordinance
City of College Station, Texas
Certificates of Obligation, Series 2019

SIGNATURE PAGE

EXHIBIT A

FORM OF CERTIFICATE

The form of the Certificates, including the form of Paying Agent/Registrar's Authentication Certificate, the form of Assignment and the form of Registration Certificate of the Comptroller of Public Accounts of the State of Texas to be attached only to the Certificates initially issued and delivered pursuant to this Ordinance, shall be, respectively, substantially as follows, with such appropriate variations, omissions, or insertions as are permitted or required by this Ordinance and with the Certificates to be completed with information set forth in the Pricing Certificate. The Form of Certificate as it appears in this Exhibit A shall be completed, amended and modified by Bond Counsel to incorporate the information set forth in the Pricing Certificate but it is not required for the Form of Certificate to be reproduced as an exhibit to the Pricing Certificate.

NO. _____	UNITED STATES OF AMERICA STATE OF TEXAS COUNTY OF BRAZOS CITY OF COLLEGE STATION, TEXAS CERTIFICATES OF OBLIGATION SERIES 2019	Principal Amount \$[]
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<u>MATURITY DATE</u>	<u>INTEREST RATE</u>	<u>DELIVERY DATE</u>	<u>CUSIP NO.</u>
	%	[], 2019	

REGISTERED OWNER:

PRINCIPAL AMOUNT:

ON THE MATURITY DATE SPECIFIED ABOVE, THE CITY OF COLLEGE STATION, TEXAS, in Brazos County (the "City"), being a political subdivision of the State of Texas, hereby promises to pay to the Registered Owner specified above or to the registered assignee hereof (either being hereinafter called the "registered owner") the Principal Amount specified above, and to pay interest thereon (calculated on the basis of a 360-day year of twelve 30-day months), from the Delivery Date specified above, to the Maturity Date specified above, or the date of its redemption prior to scheduled maturity, at the interest rate per annum specified above, with said interest payable on February 15, 20[20], and semiannually on each August 15 and February 15 thereafter until maturity or prior redemption; except that if this Certificate is required to be authenticated and the date of its authentication is later than February 15, 20[20], such interest is payable semiannually on each August 15 and February 15 following such date.

THE PRINCIPAL OF AND INTEREST ON this Certificate are payable in lawful money of the United States of America, without exchange or collection charges. At maturity or redemption prior to maturity, the principal of this Certificate shall be paid to the registered owner hereof upon presentation and surrender of this Certificate at the designated corporate trust office in Dallas, Texas (the "*Designated Trust Office*") of The Bank of New York Mellon Trust Company, N.A., which is the "Paying Agent/Registrar" for this Certificate. The payment of interest on this Certificate shall be made by the Paying Agent/Registrar to the registered owner hereof on each interest payment date by check, dated as of such interest payment date, drawn by the Paying Agent/Registrar on, and payable solely from, funds of the City required by the ordinance authorizing the issuance of this Certificate (the "*Certificate Ordinance*") to be on deposit with the Paying Agent/Registrar for such purpose as hereinafter provided; and such check shall be sent by the Paying Agent/Registrar by United States mail, first-class postage prepaid, on each such interest payment date, to the registered owner hereof, at its address as it appeared on the last business day of the month preceding each such date (the "*Record Date*") on the Registration Books kept by the Paying Agent/Registrar, as hereinafter described. Any accrued interest due at maturity as provided herein shall be paid to the registered owner upon presentation and surrender of this Certificate for payment at the Designated Trust Office of the Paying Agent/Registrar. The City covenants with the registered owner of this Certificate that on or before each principal and interest payment date for this Certificate it will make available to the Paying Agent/Registrar, from the "Interest and Sinking Fund" created by the Certificate Ordinance, the amounts required to provide for the payment, in immediately available funds, of all principal of and interest on the Certificates, when due.

IN THE EVENT OF NON-PAYMENT of interest on a scheduled payment date, and for 30 days thereafter, a new record date for such interest payment (a "*Special Record Date*") will be established by the Paying Agent/Registrar, if and when funds for the payment of such interest have been received from the City. Notice of the Special Record Date and of the scheduled payment date of the past due interest ("Special Payment Date", which shall be 15 days after the Special Record Date) shall be sent at least five business days prior to the Special Record Date by United States mail, first-class postage prepaid, to the address of each registered owner of a Certificate appearing on the Registration Books kept by the Paying Agent/Registrar at the close of business on the last business day next preceding the date of mailing of such notice.

IF THE DATE for the payment of the principal of or interest on this Certificate shall be a Saturday, Sunday, a legal holiday, or a day on which banking institutions in the city where the Designated Trust Office of the Paying Agent/Registrar is located are authorized by law or executive order to close, then the date for such payment shall be the next succeeding day which is not such a Saturday, Sunday, legal holiday, or day on which banking institutions are authorized to close; and payment on such date shall have the same force and effect as if made on the original date payment was due.

THIS CERTIFICATE is one of a Series of Certificates dated as of June 1, 2019, authorized in accordance with the Constitution and laws of the State of Texas in the principal amount of \$[____], for the purpose of paying contractual obligations to be incurred by the City for the following public purposes: (i) constructing and improving streets and roads including related drainage, landscaping, signalization, lighting, pedestrian improvements and signage related thereto; (ii) designing, constructing, equipping and installing parks and recreation equipment and

improvements including park infrastructure improvements and park rehabilitation, lighting, shade structures and pavilions; (iii) purchasing and installing technology improvements including video surveillance, diagnostic systems, fiber optic infrastructure, fuel system rehabilitation, and communication equipment; (iv) designing and constructing a new City Hall; (v) designing and constructing a new police station; (vi) improvements to fleet maintenance facilities consisting of oil pit and storm drain upgrades; (vii) constructing improvements and extensions to the City's combined waterworks, sewer and electric systems including distribution, transmission, system lines, lift stations, metering, wells, plant improvements, and acquisition of interests in land for such purposes; and (viii) the payment of fiscal, engineering and legal fees incurred in connection therewith..

ON FEBRUARY 15, 20[], or on any date thereafter, the Certificates of this Series maturing on February 15, 20[] and thereafter may be redeemed prior to their scheduled maturities, at the option of the City, in whole, or in part, at par and accrued interest to the date fixed for redemption. The years of maturity of the Certificates called for redemption at the option of the City prior to their stated maturity shall be selected by the City. The Certificates or portions thereof redeemed within a maturity shall be selected by lot or other method by the Paying Agent/Registrar; *provided*, that during any period in which ownership of the Certificates is determined only by a book entry at a securities depository for the Certificates, if fewer than all of the Certificates of the same maturity and bearing the same interest rate are to be redeemed, the particular Certificates of such maturity and bearing such interest rate shall be selected in accordance with the arrangements between the City and the securities depository.

AT LEAST THIRTY days prior to the date fixed for any such redemption, a written notice of such redemption shall be given to the registered owner of each Certificate or a portion thereof being called for redemption by depositing such notice in the United States mail, first-class postage prepaid, addressed to each such registered owner at his address shown on the Registration Books of the Paying Agent/Registrar. By the date fixed for any such redemption due provision shall be made by the City with the Paying Agent/Registrar for the payment of the required redemption price for this Certificate or the portion hereof which is to be so redeemed, plus accrued interest thereon to the date fixed for redemption. If such notice of redemption is given, and if due provision for such payment is made, all as provided above, this Certificate, or the portion hereof which is to be so redeemed, thereby automatically shall be redeemed prior to its scheduled maturity, and shall not bear interest after the date fixed for its redemption, and shall not be regarded as being outstanding except for the right of the registered owner to receive the redemption price plus accrued interest to the date fixed for redemption from the Paying Agent/Registrar out of the funds provided for such payment. The Paying Agent/Registrar shall record in the Registration Books all such redemptions of principal of this Certificate or any portion hereof. If a portion of any Certificate shall be redeemed a substitute Certificate or Certificates having the same maturity date, bearing interest at the same rate, in Authorized Denominations, at the written request of the registered owner, and in aggregate principal amount equal to the unredeemed portion thereof, will be issued to the registered owner upon the surrender thereof for cancellation, at the expense of the City, all as provided in the Ordinance.

IF AT THE TIME OF MAILING of notice of optional redemption there shall not have either been deposited with the Paying Agent/Registrar or legally authorized escrow agent immediately available funds sufficient to redeem all the Certificates called for redemption, such

notice must state that it is conditional, and is subject to the deposit of the redemption moneys with the Paying Agent/Registrar or legally authorized escrow agent at or prior to the redemption date, and such notice shall be of no effect unless such moneys are so deposited on or prior to the redemption date. If such redemption is not effectuated, the Paying Agent/Registrar shall, within five days thereafter, give notice in the manner in which the notice of redemption was given that such moneys were not so received and shall rescind the redemption.

ALL CERTIFICATES OF THIS SERIES are issuable solely as fully registered certificates, without interest coupons, in Authorized Denominations. As provided in the Certificate Ordinance, this Certificate may, at the request of the registered owner or the assignee or assignees hereof, be assigned, transferred, and exchanged for a like aggregate principal amount of fully registered certificates, without interest coupons, payable to the appropriate registered owner, assignee, or assignees, as the case may be, having the same maturity date, and bearing interest at the same rate, in Authorized Denominations as requested in writing by the appropriate registered owner, assignee, or assignees, as the case may be, upon surrender of this Certificate to the Paying Agent/Registrar at its Designated Trust Office for cancellation, all in accordance with the form and procedures set forth in the Certificate Ordinance. Among other requirements for such assignment and transfer, this Certificate must be presented and surrendered to the Paying Agent/Registrar at its Designated Trust Office, together with proper instruments of assignment, in form and with guarantee of signatures satisfactory to the Paying Agent/Registrar, evidencing assignment of this Certificate or any portion or portions hereof in an Authorized Denomination to the assignee or assignees in whose name or names this Certificate or any such portion or portions hereof is or are to be transferred and registered. The form of Assignment printed or endorsed on this Certificate may be executed by the registered owner to evidence the assignment hereof, but such method is not exclusive, and other instruments of assignment satisfactory to the Paying Agent/Registrar may be used to evidence the assignment of this Certificate or any portion or portions hereof from time to time by the registered owner. The foregoing notwithstanding, in the case of the exchange of an assigned and transferred Certificate or Certificates or any portion or portions thereof, such fees and charges of the Paying Agent/Registrar will be paid by the City. The one requesting such exchange shall pay the Paying Agent/Registrar's reasonable standard or customary fees and charges for exchanging any Certificate or portion thereof. In any circumstance, any taxes or governmental charges required to be paid with respect thereto shall be paid by the one requesting such assignment, transfer, or exchange as a condition precedent to the exercise of such privilege. In any circumstance, neither the City nor the Paying Agent/Registrar shall be required (1) to make any transfer or exchange during a period beginning at the opening of business 30 days before the day of the first mailing of a notice of redemption of Certificates and ending at the close of business on the day of such mailing, or (2) to transfer or exchange any Certificates so selected for redemption when such redemption is scheduled to occur within 45 calendar days.

WHENEVER the beneficial ownership of this Certificate is determined by a book entry at a securities depository for the Certificates, the foregoing requirements of holding, delivering or transferring this Certificate shall be modified to require the appropriate person or entity to meet the requirements of the securities depository as to registering or transferring the book entry to produce the same effect.

IN THE EVENT any Paying Agent/Registrar for the Certificates is changed by the City, resigns, or otherwise ceases to act as such, the City has covenanted in the Certificate Ordinance that it promptly will appoint a competent and legally qualified substitute therefor, and promptly will cause written notice thereof to be mailed to the registered owners of the Certificates.

IT IS HEREBY certified, recited and covenanted that this Certificate has been duly and validly authorized, issued, and delivered; that all acts, conditions, and things required or proper to be performed, exist, and be done precedent to or in the authorization, issuance, and delivery of this Certificate have been performed, existed, and been done in accordance with law; that this Certificate is a direct obligation of said City, issued on the full faith and credit thereof; and that in accordance with the terms of the Certificate Ordinance, annual ad valorem taxes sufficient to provide for the payment of the interest on and principal of this Certificate, as such interest comes due and such principal matures, have been levied and ordered to be levied against all taxable property in said City, and have been pledged for such payment, within the limit prescribed by law; and that a limited pledge (not to exceed \$1,000) of the Surplus Revenues from the operation of the City's combined municipal electric light and power, waterworks and sewer system remaining after payment of all operation and maintenance expenses thereof and any other obligations heretofore or hereafter incurred to which such revenues have been or shall be encumbered by a lien on and pledge of such revenues superior to the lien on and pledge of such revenues to the Certificates, have been pledged as additional security for the Certificates.

BY BECOMING the registered owner of this Certificate, the registered owner thereby acknowledges all of the terms and provisions of the Certificate Ordinance, agrees to be bound by such terms and provisions, acknowledges that the Certificate Ordinance is duly recorded and available for inspection in the official minutes and records of the City, and agrees that the terms and provisions of this Certificate and the Certificate Ordinance constitute a contract between each registered owner hereof and the City.

IN WITNESS WHEREOF, this Certificate has been signed with the manual or facsimile signature of the Mayor of the City, attested by the manual or facsimile signature of the City Secretary, and the official seal of the City has been duly affixed to, or impressed, or placed in facsimile, on this Certificate.

XXXXXX
City Secretary; City of College Station

XXXXXX
Mayor; City of College Station

(SEAL)

FORM OF PAYING AGENT/REGISTRAR'S AUTHENTICATION CERTIFICATE

PAYING AGENT/REGISTRAR'S AUTHENTICATION CERTIFICATE

It is hereby certified that this Certificate of Obligation has been issued under the provisions of the proceedings adopted by the City as described in the text of this Certificate of

Obligation; and that this Certificate of Obligation has been issued in exchange for or replacement of a Certificate of Obligation of an issue which originally was approved by the Attorney General of the State of Texas and registered by the Comptroller of Public Accounts of the State of Texas.

Dated: _____

The Bank of New York Mellon
Trust Company, N.A.
Paying Agent/Registrar

By: _____
Authorized Representative

[FORM OF COMPTROLLER'S CERTIFICATE ATTACHED TO
THE CERTIFICATE (CERTIFICATE NO. T-1) UPON INITIAL DELIVERY THEREOF]

COMPTROLLER'S CERTIFICATE

OFFICE OF COMPTROLLER

§

REGISTER NO. _____

STATE OF TEXAS

§

I hereby certify that there is on file and of record in my office a certificate of the Attorney General of the State of Texas to the effect that this Certificate has been examined by him as required by law, and that he finds that it has been issued in conformity with the Constitution and laws of the State of Texas, and that it is a valid and binding obligation of the City of College Station, Texas, payable in the manner provided by and in the ordinance authorizing same, and said Certificate has this day been registered by me.

WITNESS MY HAND and seal of office at Austin, Texas this _____.

Comptroller of Public Accounts of
the State of Texas

(SEAL)

FORM OF ASSIGNMENT

ASSIGNMENT

For value received, the undersigned hereby sells, assigns and transfers unto:

Please insert Social Security or Taxpayer Identification Number of Transferee

Please print or type name and address, including zip code of Transferee

the within Certificate and all rights thereunder, and hereby irrevocably constitutes and appoints: _____, attorney, to register the transfer of the within Certificate on the books kept for registration thereof, with full power of substitution in the premises.

Dated: _____.

Signature Guaranteed:

NOTICE: Signature(s) must be guaranteed by an eligible guarantor institution participating in a securities transfer association recognized signature guarantee program.

NOTICE: The signature above must correspond with the name of the registered owner as it appears upon the front of this Certificate in every particular, without alteration or enlargement or any change whatsoever.

INSERTIONS FOR THE INITIAL CERTIFICATE. The initial Certificate shall be in the form set forth in paragraph (a) of this Form of Certificate, except that:

- i. immediately under the name of the Certificate, the headings "INTEREST RATE" and "MATURITY DATE" shall both be completed with the words "As shown below" and "CUSIP NO. ____" shall be deleted.
- ii. the first paragraph shall be deleted and the following will be inserted:

THE CITY OF COLLEGE STATION, TEXAS, in Brazos County, Texas (the "City"), being a political subdivision of the State of Texas, hereby promises to pay to the Registered Owner specified above or to the registered assignee hereof (either being hereinafter called the "registered owner") on the Maturity Dates, in the Principal Amounts and bearing interest at the per annum Interest Rates set forth in the following schedule:

<u>Maturity Date</u>	<u>Principal Amount</u>	<u>Interest Rate</u>
--------------------------	-----------------------------	--------------------------

The City promises to pay interest on the unpaid principal amount hereof (calculated on the basis of a 360-day year of twelve 30-day months) from the Delivery Date above at the respective Interest Rate per annum specified above. Interest is payable on February 15, 20[20] and on each August 15 and February 15 thereafter to the date of payment of the Principal Amounts specified above, or the date of redemption prior to maturity; except, that if this Certificate is required to be authenticated and the date of its authentication is later than the first Record Date (hereinafter defined), such principal amount shall bear interest from the interest payment date next preceding the date of authentication, unless such date of authentication is after any Record Date but on or before the next following interest payment date, in which case such principal amount shall bear interest from such next following interest payment date; provided, however, that if on the date of authentication hereof the interest on the Certificate or Certificates, if any, for which this Certificate is being exchanged is due but has not been paid, then this Certificate shall bear interest from the date to which such interest has been paid in full."

iii. The initial Certificate shall be numbered "T-1."

EXHIBIT B

PROCEDURES REGARDING COMPLIANCE WITH FEDERAL TAX COVENANTS

This Exhibit is intended to assist the City of College Station (the "City") in complying with the federal income tax covenants and securities disclosure covenants as they apply to the issuance of tax-exempt debt securities such as the Certificates of Obligation (the "Obligations"). These procedures should be read together with any federal tax certifications, bond covenants, letters or memoranda from bond counsel and any attachments thereto (collectively, the "Closing Documents"). Failure to comply with federal guidelines could have serious consequences for investors, the City and its officials.

These procedures shall apply to the Obligations, until they are superseded by a change in circumstances at which time the City's bond counsel will propose new procedures to be adopted.

I. FEDERAL TAX LAW

1. Arbitrage Compliance.

Arbitrage refers to the difference between the interest paid on tax-exempt Obligations and the interest earned by investing the proceeds of tax-exempt Obligations in higher-yielding investments. Such higher-yielding investments could take the form of loans, securities, real property, personal property, or other investments that could yield a profit to the City. Federal income tax laws generally restrict the ability to earn arbitrage utilizing the proceeds of tax-exempt Obligations. Generally, any profit from investing Obligation proceeds at a yield above the yield paid on the Obligations belongs to the federal government and must be rebated to the federal government. If the City fails to comply federal tax guidelines, Obligations could be deemed to be "arbitrage bonds" by the Internal Revenue Service (the "IRS"), which would expose the City to monetary liability from the City's investors.

The arbitrage yield on the Obligations is set forth on the IRS Form 8038-G.

The Assistant City Manager and the City Treasurer (including such other employees of the City who report to such officers) (collectively, the "Responsible Person") will review the Closing Documents periodically (at least once a year) to ascertain if an exception to arbitrage compliance applies.

- a. Procedures applicable to the Obligation. The Responsible Person shall undertake the following procedures.
 - i. If the City plans to spend funds currently on hand for a future project with the intent to later repay such funds from a debt issue, the Responsible Person shall contact Bond Counsel to obtain advice regarding a

reimbursement resolution. The Responsible Person shall maintain any official action of the City (such as a reimbursement resolution) stating the City's intent to reimburse with the proceeds of the Obligations any amount expended prior to the Issue Date for the acquisition, renovation or construction of the Project.

- ii. The Responsible Person shall ensure that the applicable information return (e.g., U.S. Internal Revenue Service ("IRS") Form 8038-G, 8038-GC, or any successor forms) is timely filed with the IRS.
- iii. If proceeds of the Obligations are to be invested in interest-earning investments, assure that, unless excepted from rebate and yield restriction under section 148(f) of the Code, excess investment earnings are computed and paid to the U.S. government at such time and in such manner as directed by the IRS (i) at least every 5 years after the Issue Date and (ii) within 30 days after the date the Obligations are retired. If proceeds of the Obligations are to be invested in interest-earning investments, the Responsible Person should contact the City's arbitrage consultant regarding such matters.
- iv. The Responsible Person shall monitor all amounts deposited into a sinking fund or funds pledged (directly or indirectly) to the payment of the Obligations, such as the Interest and Sinking Fund (the "I&S Fund"), to assure that the maximum amount invested within such applicable fund at a yield higher than the yield on the Obligations does not exceed an amount equal to the debt service on the Obligations in the succeeding 12 month period plus a carryover amount equal to one-twelfth of the principal and interest payable on the Obligations for the immediately preceding 12-month period.

NOTE: the purpose of the I&S Fund is to achieve a proper matching of revenues with principal and interest payments within each fiscal year. The I&S Fund should be used a mechanism for payment of current debt service and not as a long-term investment fund for debt service many years in the future.

- v. The Responsible Person shall ensure that no more than 50% of the proceeds of the Obligations are invested in an investment with a guaranteed yield for 4 years or more.
- b. With respect to the investment and expenditure of the proceeds of the Obligations that are issued to finance public improvements or to acquire land or personal property, the Responsible Person shall undertake the following.
- i. The Responsible Person shall instruct the persons who are primarily responsible for the construction, renovation or acquisition of the facilities

financed with Obligations (the “Project”) that the Project must (i) proceed with due diligence toward completion and that (ii) binding contracts for the expenditure of at least 5% of the proceeds of the Obligations will be entered into within six (6) months of the date of closing of the Obligations (the “Issue Date”). The Responsible Person shall monitor that the above requirements are satisfied.

- ii. The Responsible Person shall monitor that at least 85% of the proceeds of the Obligations to be used for the construction, renovation or acquisition of the Project are expended within three years of the Issue Date.
- iii. The Responsible Person shall monitor investment of proceeds of the Obligations and restrict the yield of the investments to the yield on the Obligations after three years of the Issue Date.
- iv. To the extent that there are any unspent proceeds of the Obligations at the time the Obligations are later refunded, or if there are unspent proceeds of the Obligations that are being refunded by a new issuance of Obligations, the Responsible Person shall continue monitoring the expenditure of such unspent proceeds to ensure compliance with federal tax law with respect to both the refunded Obligations and any Obligations being issued for refunding purposes, and shall contact Bond Counsel as necessary.

B. Private Business Use.

Generally, the proceeds of tax-exempt Obligations may not inure to the benefit of entities other than state or local governments (“private business use”). Private business use occurs whenever Obligation proceeds are used to benefit any entity other than a state or local government, *including nonprofit corporations and the federal government.*

A series of Obligations may lose their tax-exempt status if: (i) more than 10% of the proceeds of the Obligations are to be used for any private business use and the payment of the principal or interest on more than 10% of the proceeds of the Obligations is secured by or payable from property used for a private business use, or (ii) the amount of proceeds of the Obligations used to make loans to borrowers other than state and local governments exceeds the lesser of 5% of the proceeds or \$15 million.

With respect to the use of the facilities financed or refinanced with the proceeds of the Obligations, the Responsible Person shall undertake the following to ensure the Obligations do not violate private business use tests.

- a. The Responsible Person shall develop procedures or a “tracking system” to identify, log and record all property financed with tax-exempt debt and identify the issue of Obligations used to finance such property.

- b. The Responsible Person shall monitor and record the date on which the Project is substantially complete and available to be used for the purpose intended.
- c. The Responsible Person shall monitor and record whether, at any time the Obligations are outstanding, any person, other than the City, the employees of the City, the agents of the City or members of the general public has any contractual right (such as a lease, research contract, naming rights agreement, purchase contract, management agreement or other service agreement) with respect to any portion of the Project.
- d. Before entering into any private business use arrangement that involves the use of the Project, the Responsible Person must obtain a description of the proposed private business use arrangement and determine whether such arrangement, if put into effect, will be consistent with the restrictions on private business use of the Project. In connection with the evaluation of any proposed private business use arrangement, the Responsible Person should consult with Bond Counsel to discuss whether such arrangement, if put into effect, will be consistent with the restrictions on private business use of the Project, and, if not, whether any “remedial action” permitted under federal guidelines may be taken as a means of enabling such private business use without adversely affecting the tax-exempt status of the Obligations.
- e. The Responsible Person shall monitor and record whether, at any time the Obligations are outstanding, any person, other than the City, the employees of the City, the agents of the City or members of the general public has a right to use the output of the Project (*e.g.*, water, gas, electricity, capacity) on any basis other than standard rates and charges.
- f. The Responsible Person shall monitor and record whether, at any time the Obligations are outstanding, any person, other than the City, has a naming right for the Project or any other contractual right granting an intangible benefit.
- g. Prior to any sale of property owned by the City (real or personal), the Responsible Person must confirm whether such property was financed with tax-exempt debt, and if so, determine whether the proposed disposition of the property could impact the tax-exempt status of the series of Obligations that financed the acquisition of such property.
- h. The Responsible Person shall take any action necessary to remediate any failure to maintain compliance with the covenants contained in the ordinance authorizing the issuance of the applicable series of Obligations.

C. Record Retention.

The Responsible Person will maintain or cause to be maintained all records relating to the investment and expenditure of the proceeds of the Obligations and the use of the Project financed or refinanced thereby for a period ending three (3) years after the complete extinguishment of the Obligations. If any portion of the Obligations is refunded with the proceeds of another series of Obligations, such records shall be maintained until the three (3) years after the refunding Obligations mature or are otherwise paid off. Such records can be maintained in paper or electronic format.

For purposes of these procedures, the Memorandum of Bond Counsel dated December 1, 2011 styled "Certain Federal Income Tax Considerations for Record Retention – Record Management Program and Periodic Compliance Review" is incorporated herein and should be reviewed periodically, at least once per year, by the Responsible Person.

D. Responsible Person & Continuity.

Each Responsible Person shall receive appropriate training regarding the City's accounting system, contract intake system, facilities management and other systems necessary to track the investment and expenditure of the proceeds and the use of the facilities financed with the proceeds of the Obligations. The foregoing notwithstanding, the Responsible Person is authorized and instructed to retain such experienced advisors and agents as may be necessary to carry out the purposes of these instructions.

Prior to cessation of employment with the City, the Responsible Person should identify their successor to maintain compliance with these procedures.

EXHIBIT C

PRELIMINARY OFFICIAL STATEMENT

PRELIMINARY OFFICIAL STATEMENT

Dated _____, 2019

Ratings:

Moody's: Applied for

S&P: Applied for

Fitch: Applied for

See "OTHER INFORMATION –

Ratings" herein

NEW ISSUE - Book-Entry-Only

In the opinion of Bond Counsel, interest on the Certificates will be excludable from gross income for federal income tax purposes under statutes, regulations, published rulings and court decisions existing on the date thereof, subject to the matters described under "TAX MATTERS" herein.



CITY OF COLLEGE STATION, TEXAS
(a Home-Rule City located in Brazos County, Texas)

\$82,095,000*
CERTIFICATES OF OBLIGATION, SERIES 2019

Dated Date: Date of Delivery

Due: February 15, as shown on inside cover

Interest Accrual Date: Date of Delivery

PAYMENT TERMS. . . Interest on the \$82,095,000* City of College Station, Texas Certificates of Obligation, Series 2019 (the "Certificates") will accrue from the date of delivery, and will be payable February 15 and August 15 of each year commencing February 15, 2020 until maturity or prior redemption and will be calculated on the basis of a 360-day year consisting of twelve 30-day months. The Certificates are being issued by the City of College Station, Texas (the "City") pursuant to the terms of an ordinance (the "Ordinance") to be adopted by the governing body of the City on May 13, 2019, and will be calculated on the basis of a 360-day year consisting of twelve 30-day months. In the Ordinance, the City Council of the City will delegate authority to certain authorized officials of the City to finalize the pricing of the Certificates. The definitive Certificates will be initially registered and delivered only to Cede & Co., the nominee of The Depository Trust Company ("DTC") pursuant to the Book-Entry-Only System described herein. Beneficial ownership of the Certificates may be acquired in denominations of \$5,000 of principal amount or any integral multiples thereof within a maturity. **No physical delivery of the Certificates will be made to the beneficial owners thereof.** Principal of, premium, if any, and interest on the Certificates will be payable by the Paying Agent/Registrar to Cede & Co., which will make distribution of the amounts so paid to the participating members of DTC for subsequent payment to the beneficial owners of the Certificates. See "The Certificates - Book-Entry-Only System" herein. The initial Paying Agent/Registrar is The Bank of New York Mellon Trust Company, N.A., Dallas, Texas (see "THE CERTIFICATES - Paying Agent/Registrar").

AUTHORITY FOR ISSUANCE. . . The Certificates are issued pursuant to the Constitution and general laws of the State of Texas (the "State"), particularly Subchapter C of Chapter 271, Texas Local Government Code, as amended, and constitute direct obligations of the City of College Station, Texas (the "City"), payable from a combination of (i) the levy and collection of a direct and continuing ad valorem tax, levied within the limits prescribed by law, on all taxable property within the City, and (ii) subordinate lien on and pledge of \$1,000 of the surplus revenues of the City's combined utility system, as provided in the Ordinance (see "The Certificates - Authority for Issuance of the Certificates" and "The Certificates - Security and Source of Payment").

PURPOSE. . . Proceeds from the sale of the Certificates will be used for (i) constructing and improving streets and roads including related drainage, landscaping, signalization, lighting, pedestrian improvements and signage related thereto; (ii) designing, constructing, equipping and installing parks and recreation equipment and improvements including park infrastructure improvements and park rehabilitation, lighting, shade structures and pavilions; (iii) purchasing and installing technology improvements including video surveillance, diagnostic systems, fiber optic infrastructure, fuel system rehabilitation, and communication equipment; (iv) designing and constructing a new City Hall; (v) designing and constructing a new police station; (vi) improvements to fleet maintenance facilities consisting of oil pit and storm drain upgrades; (vii) constructing improvements and extensions to the City's combined waterworks, sewer and electric systems including distribution, transmission, system lines, lift stations, metering, wells, plant improvements, and acquisition of interests in land for such purposes; and (viii) professional services rendered in relation to such projects and the financing thereof.

CUSIP PREFIX: 194469

MATURITY SCHEDULE & 9 DIGIT CUSIP

See Schedule on page ii

LEGALITY. . . The Certificates are offered for delivery, when issued, and received by the initial purchaser (the "Initial Purchaser") and subject to the opinion of the Attorney General of the State of Texas and the opinion of McCall, Parkhurst & Horton L.L.P., Dallas, Texas, Bond Counsel for the City (see "APPENDIX C – Form Of Opinion Of Bond Counsel"). Certain legal matters will be passed upon for the City by McCall, Parkhurst & Horton, L.L.P., Dallas, Texas, Disclosure Counsel for the City.

DELIVERY. . . It is expected that the Certificates will be available for delivery through the services of DTC on or about June 10, 2019.

BIDS DUE THURSDAY, MAY 13, 2019, AT 10:00 A.M., CDT

* Preliminary, subject to change. See "CONDITIONS OF SALE - Advanced Adjustment of Principal Amount and/or Types of Bids" and " - POST BID MODIFICATION" in the Notice of Sale and Bidding Instructions.

CUSIP Prefix: 194469⁽¹⁾

MATURITY SCHEDULE*

\$82,095,000*

Certificates of Obligation, Series 2019

Due Feb. 15	Principal	Interest Rate	Yield	CUSIP ⁽¹⁾
2020	\$ 3,545,000			
2021	4,050,000			
2022	4,120,000			
2023	4,215,000			
2024	4,295,000			
2025	4,400,000			
2026	4,495,000			
2027	3,370,000			
2028	3,455,000			
2029	3,540,000			
2030	3,640,000			
2031	3,755,000			
2032	3,870,000			
2033	4,005,000			
2034	4,145,000			
2035	4,295,000			
2036	4,465,000			
2037	4,630,000			
2038	4,805,000			
2039	5,000,000			

(1) CUSIP numbers have been assigned to the Certificates by CUSIP Global Services, managed by S&P Capital IQ on behalf of the American Bankers Association, and are included solely for the convenience of the purchasers of the Certificates. Neither the City, the Financial Advisor nor the Initial Purchaser shall be responsible for the selection or correctness of the CUSIP numbers set forth herein.

OPTIONAL REDEMPTION. . . The City reserves the right, at its option, to redeem Certificates having stated maturities on and after February 15, 2029, in whole or in part in principal amounts of \$5,000 or any integral multiple thereof, on February 15, 2028, or any date thereafter, at the par value thereof plus accrued interest to the date of redemption (see "THE CERTIFICATES – Optional Redemption").

MANDATORY SINKING FUND REDEMPTION . . . In addition to the foregoing optional redemption provision, if in connection with the pricing of the Certificates the principal amounts designated in the Maturity Schedule herein are combined to create Term Certificates, each such Term Certificate shall be subject to mandatory sinking fund redemption commencing on February 15 of the first year which has been combined to form such Term Certificate and continuing on February 15 in each year thereafter until the stated maturity date of that Term Certificate, and the amount required to be redeemed in any year shall be equal to the principal amount for such year set forth in the serial maturity schedule on the inside cover. Term Certificates to be redeemed in any year by mandatory sinking fund redemption shall be redeemed at par and shall be selected by lot from the Term Certificates then subject to redemption (see "THE CERTIFICATES - Mandatory Sinking Fund Redemption").

* Preliminary, subject to change. See "CONDITIONS OF SALE - Advanced Adjustment of Principal Amount and/or Types of Bids" and " - Post Bid Modification" in the Notice of Sale and Bidding Instructions.

For purposes of compliance with Rule 15c2-12 of the United States Securities and Exchange Commission, as amended and in effect on the date hereof (the “Rule”), this document constitutes a Preliminary Official Statement of the City with respect to the Certificates that has been deemed “final” by the City as of its date except for the omission of no more than the information permitted by the Rule.

This Official Statement, which includes the cover page and the Appendices hereto, does not constitute an offer to sell or the solicitation of an offer to buy in any jurisdiction to any person to whom it is unlawful to make such offer, solicitation or sale. No dealer, broker, salesperson or other person has been authorized to give information or to make any representation other than those contained in this Official Statement, and, if given or made, such other information or representations must not be relied upon.

The information set forth herein has been obtained from the City and other sources believed to be reliable, but such information is not guaranteed as to accuracy or completeness and is not to be construed as the promise or guarantee of the Financial Advisor. This Official Statement contains, in part, estimates and matters of opinion which are not intended as statements of fact, and no representation is made as to the correctness of such estimates and opinions, or that they will be realized. CUSIP numbers have been assigned to this issue by CUSIP Global Services, and are included solely for the convenience of the owners of the Certificates. Neither the City, the Financial Advisor nor the Initial Purchaser shall be responsible for the selection or correctness of the CUSIP numbers shown on the inside cover page.

The information and expressions of opinion contained herein are subject to change without notice, and neither the delivery of this Official Statement nor any sale made hereunder will, under any circumstances, create any implication that there has been no change in the affairs of the City or other matters described.

In connection with this offering, the Initial Purchaser may over-allot or effect transactions which stabilize the market price of the issue at a level above that which might otherwise prevail in the open market. Such stabilizing, if commenced, may be discontinued at any time.

The Certificates are exempt from registration with the Securities and Exchange Commission and consequently have not been registered therewith. The registration, qualification, or exemption of the Certificates in accordance with applicable securities law provisions of the jurisdiction in which these securities have been registered or exempted should not be regarded as a recommendation thereof.

NEITHER THE CITY, ITS FINANCIAL ADVISOR NOR THE INITIAL PURCHASER MAKE ANY REPRESENTATION OR WARRANTY WITH RESPECT TO THE INFORMATION CONTAINED IN THIS OFFICIAL STATEMENT REGARDING THE DEPOSITORY TRUST COMPANY (“DTC”) OR ITS BOOK-ENTRY-ONLY SYSTEM.

Any information and expressions of opinion herein contained are subject to change without notice, and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the City or other matters described herein since the date hereof.

The Initial Purchaser has provided the following sentence for inclusion in this Official Statement. The Initial Purchaser has reviewed the information in this Official Statement in accordance with, and as part of, their responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Initial Purchaser does not guarantee the accuracy or completeness of such information.

THIS OFFICIAL STATEMENT CONTAINS “FORWARD-LOOKING” STATEMENTS WITHIN THE MEANING OF SECTION 21E OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED. SUCH STATEMENTS MAY INVOLVE KNOWN AND UNKNOWN RISKS, UNCERTAINTIES AND OTHER FACTORS WHICH MAY CAUSE THE ACTUAL RESULTS, PERFORMANCE AND ACHIEVEMENTS TO BE DIFFERENT FROM THE FUTURE RESULTS, PERFORMANCE AND ACHIEVEMENTS EXPRESSED OR IMPLIED BY SUCH FORWARD-LOOKING STATEMENTS. INVESTORS ARE CAUTIONED THAT THE ACTUAL RESULTS COULD DIFFER MATERIALLY FROM THOSE SET FORTH IN THE FORWARD-LOOKING STATEMENTS. See “OTHER INFORMATION – FORWARD-LOOKING STATEMENTS DISCLAIMER” herein.

References to web site addresses presented herein are for informational purposes only and may be in the form of a hyperlink solely for the reader’s convenience. Unless specified otherwise, such web sites and the information or links contained therein are not incorporated into, and are not part of, this final official statement for purposes of, and as that term is defined in, SEC Rule 15c2-12.

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The cover page hereof, this page, the appendices included herein and any addenda, supplement or amendment hereto, are part of the Official Statement.

OFFICIAL STATEMENT SUMMARY

This summary is subject in all respects to the more complete information and definitions contained or incorporated in this Official Statement. The offering of the Certificates to potential investors is made only by means of this entire Official Statement. No person is authorized to detach this summary from this Official Statement or to otherwise use it without the entire Official Statement.

- THE CITY.....** The City of College Station, Texas (the “City”) is a political subdivision and a home-rule city of the State, located in Brazos County, Texas. The City covers approximately 51.6 square miles (see “INTRODUCTION - Description of The City”).
- THE CERTIFICATES** The Certificates are issued as \$82,095,000* City of College Station, Texas Certificates of Obligation, Series 2019. The Certificates are issued as serial certificates maturing on February 15 in each of the years 2020-2039, inclusive (see “THE CERTIFICATES - General Description”). If two or more serial maturities of the Certificates are grouped into a single maturity (the “Term Certificates”) by the Initial Purchaser, such Term Certificates will be subject to mandatory sinking fund redemption in accordance with applicable provisions of the Ordinance.
- PAYMENT OF INTEREST** Interest on the Certificates will accrue from the date of delivery, and will be payable February 15 and August 15 of each year commencing February 15, 2020 until maturity or prior redemption and will be calculated on the basis of a 360-day year consisting of twelve 30-day months (see “THE CERTIFICATES - General Description”).
- AUTHORITY FOR ISSUANCE OF THE CERTIFICATES** The Certificates are issued pursuant to the general laws of the State, particularly Subchapter C of Chapter 271, Texas Local Government Code, as amended; and an ordinance to be passed by the City Council of the City. In the Ordinance the City Council will delegate pricing of the Certificates to a “Pricing Officer” who will approve the terms of sale of the Certificates (see “THE CERTIFICATES - Authority for Issuance of the Certificates”).
- SECURITY FOR THE CERTIFICATES.....** The Certificates constitute direct obligations of the City, secured by and payable from a combination of (i) the levy and collection of an annual direct and continuing ad valorem tax, within the limits prescribed by law, on all taxable property located within the City, and (ii) a subordinate lien on and pledge of \$1,000 of the surplus revenues derived from the City’s combined utility system (see “THE CERTIFICATES - Security and Source of Payment”). Article XI, Section 5, of the Texas Constitution is applicable to the City, and limits its maximum ad valorem tax rate to \$2.50 per \$100 Taxable Assessed Valuation for all City purposes. The Home-Rule Charter of the City adopts the constitutionally authorized maximum tax rate of \$2.50 per \$100 Taxable Assessed Valuation.
- REDEMPTION** The City reserves the right, at its option, to redeem Certificates having stated maturities on and after February 15, 2029, in whole or in part in principal amounts of \$5,000 or any integral multiple thereof, on February 15, 2028, or any date thereafter, at the par value thereof plus accrued interest to the date of redemption (see “THE CERTIFICATES – Optional Redemption”). Additionally, the Certificates may be subject to mandatory redemption in the event the Initial Purchaser elects to aggregate one or more maturities as a term Certificate. (See “THE CERTIFICATES – Mandatory Sinking Fund Redemption”).
- TAX EXEMPTION** In the opinion of Bond Counsel, the interest on the Certificates will be excludable from gross income for federal income tax purposes under existing law. See “TAX MATTERS” for a discussion of the opinion of Bond Counsel and Exhibit C.
- USE OF CERTIFICATE PROCEEDS.....** Proceeds from the sale of the Certificates will be used for (i) constructing and improving streets and roads including related drainage, landscaping, signalization, lighting, pedestrian improvements and signage related thereto; (ii) designing, constructing, equipping and installing parks and recreation equipment and improvements including park infrastructure improvements and park rehabilitation, lighting, shade structures and pavilions; (iii) purchasing and installing technology improvements including video surveillance, diagnostic systems, fiber optic infrastructure, fuel system rehabilitation, and communication equipment; (iv) designing and constructing a new City Hall; (v) designing and constructing a new police station; (vi) improvements to fleet maintenance facilities consisting of oil pit and storm drain upgrades; (vii) constructing improvements and extensions to the City’s combined waterworks, sewer and electric systems including distribution, transmission, system lines, lift stations, metering, wells, plant improvements, and acquisition of interests in land for such purposes; and (viii) the payment of fiscal, engineering and legal fees incurred in connection therewith (see “THE CERTIFICATES – Sources and Use of Certificate Proceeds”).

* Preliminary, subject to change. See "CONDITIONS OF SALE - Advanced Adjustment Of Principal Amount and/or Types Of Bids" and " - Post Bid Modification" in the Notice of Sale and Bidding Instructions.

RATINGS The presently outstanding tax supported debt of the City are rated “Aa1” by Moody's Investors Service, Inc. (“Moody's”) and “AA+” by Standard & Poor's Ratings Services, a Standard & Poor's Financial Services LLC business (“S&P”), without regard to credit enhancement (see “OTHER INFORMATION – Ratings”). Applications have been made to Moody's, S&P and Fitch Ratings Services for contract ratings on the Certificates.

BOOK-ENTRY-ONLY

SYSTEM The definitive Certificates will be initially registered and delivered only to Cede & Co., the nominee of The Depository Trust Company (“DTC”) pursuant to the Book-Entry-Only System described herein. Beneficial ownership of the Certificates may be acquired in denominations of \$5,000 of principal amount or any integral multiples thereof. No physical delivery of the Certificates will be made to the beneficial owners thereof. Principal of and interest on the Certificates will be payable by the Paying Agent/Registrar to Cede & Co., which will make distribution of the amounts so paid to the participating members of DTC for subsequent payment to the beneficial owners of the Certificates (see “THE CERTIFICATES - Book-Entry-Only System”).

PAYMENT RECORD Other than a late payment on the City's Certificates of Obligation, Series 2002 that occurred in 2003, the City has never defaulted in payment of its general obligation tax debt.

SELECTED FINANCIAL INFORMATION

Fiscal Year Ended 9/30	Estimated City Population ⁽¹⁾	Taxable Assessed Valuation ⁽²⁾	Per Capita Taxable Assessed Valuation	Net Ad Valorem Tax Debt ⁽³⁾	Per Capita Net Ad Valorem Tax Debt	Ratio Tax Debt to	
						Taxable Assessed Valuation	Percent Total Collection
2015	106,465	\$ 6,654,600,834	\$ 62,505	\$ 101,630,000	\$ 955	1.53%	99.17%
2016	109,859	7,162,738,280	65,199	118,350,000	1,077	1.65%	100.03%
2017	109,936	7,623,964,171	69,349	169,595,000	1,543	2.22%	100.31%
2018	117,841	8,902,090,555	75,543	175,400,000	1,488	1.97%	99.91%
2019	121,150	9,487,074,377 ⁽⁴⁾	78,308	178,425,000 ⁽⁵⁾	1,473 ⁽⁵⁾	1.88% ⁽⁵⁾	90.39% ⁽⁶⁾

(1) Source: The City.

(2) As reported by the Brazos Central Appraisal District; subject to change during the ensuing year.

(3) Payable from ad valorem taxes. Does not include self-supporting debt. See “TABLE 10 – Self-Supporting Debt” for detail on the City's self-supported tax debt.

(4) Certified taxable assessed valuation for tax year 2018 as reported by the Brazos Central Appraisal District. This amount is subject to change during ensuing year.

(5) Projected, includes the Certificates.

(6) Collections as of February 28, 2019. A portion of the City's taxpayer base has elected to provide split payments to the City which will be due in part on June 30, 2019.

GENERAL FUND CONSOLIDATED STATEMENT SUMMARY

	For Fiscal Year Ended September 30,				
	2018	2017	2016	2015	2014
Beginning Balance	\$ 22,514,523	\$ 19,133,202	\$ 22,423,064	\$ 20,244,248	\$ 15,925,531
Total Revenue	67,484,355	64,795,371	60,087,950	58,378,174	50,325,825
Total Expenditures	82,128,812	76,897,859	77,508,715	68,827,167	61,303,335
Other Financing Sources	16,214,241	15,483,809	14,130,903	12,627,809	15,296,227
Prior Period Adjustment	2,706,262	-	-	-	-
Ending Balance ⁽¹⁾	\$ 26,790,569	\$ 22,514,523	\$ 19,133,202	\$ 22,423,064	\$ 20,244,248

(1) The City's financial policies require a General Fund balance of 15% of budgeted appropriations at year end. To the extent that the General Fund balance exceeds this amount, this surplus may be expended in future years for one time expenditures such as capital items and short term projects.

UTILITY SYSTEM CONDENSED STATEMENT OF OPERATIONS

	For Fiscal Year Ended September 30,				
	2018	2017	2016	2015	2014
Revenues:					
Electric	\$ 102,511,712	\$ 99,179,570	\$ 98,904,688	\$ 98,763,293	\$ 95,677,765
Water and Wastewater	33,602,131	31,333,922	29,484,851	28,732,968	27,550,262
Interest	1,262,551	697,655	346,312	180,423	116,433
Other	2,520,335	3,179,821	3,636,420	3,546,138	2,890,061
Total Revenues	\$ 139,896,729	\$ 134,390,968	\$ 132,372,271	\$ 131,222,822	\$ 126,234,521
Expenses:					
Total Expenses	\$ 77,828,073	\$ 78,766,516	\$ 76,771,094	\$ 82,079,813	\$ 100,235,329
Net Available for Debt Service	\$ 62,068,656	\$ 55,624,452	\$ 55,601,177	\$ 49,143,009	\$ 25,999,192
Water (Units Served)	44,995	43,199	41,709	41,540	40,768
Wastewater (Units Served)	46,031	42,840	40,866	40,806	39,128
Electric (Units Served)	39,435	39,300	40,141	43,471	38,198

CITY OFFICIALS, STAFF AND CONSULTANTS

ELECTED OFFICIALS

Name	Position	Length of Service	Term Expiration	Occupation
Karl P. Mooney	Mayor	1.5 Years ⁽¹⁾	November 2019	Texas A&M University Administrator
Bob Brick	Council Member	0.5 Years	November 2020	Research Scientist
Jerome Rektorik	Council Member	1.5 Years	November 2019	Retired
Linda Harvell	Council Member	1.5 Years	November 2020	Business Owner
Eliador Vessali	Council Member	0.5 Years	November 2021	Business Owner
John Nichols	Council Member	0.5 Years ⁽²⁾	November 2020	Retired Professor
Dennis Maloney	Council Member	0.5 Years	November 2021	Business Owner

(1) Elected November 2016 - Former City of College Station Council Member 2011-2016.

(2) Prior Council Member for 4 years prior to his current term.

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SELECTED ADMINISTRATIVE STAFF

Name	Position	Length of Service to the City (in Years)
Bryan Woods	City Manager	< 1
Jeff Capps	Deputy City Manager	26.0 ⁽¹⁾
Jeff Kersten	Assistant City Manager, CFO	28.0 ⁽²⁾
Carla Robinson	City Attorney	17.5
Tanya D. Smith	City Secretary	11.0 ⁽³⁾
Ty Elliott	Internal Auditor	11.5
Mary Ellen Leonard	Director of Finance	3.0
Gary Mechler	Director of Water Services	<1 ⁽⁴⁾
Timothy Crabb	Director of Electric Utility	12.5 ⁽⁵⁾
Sindhu Menon	Director of Information Technology	1.0 ⁽⁶⁾
David Schmitz	Director of Parks and Recreation	11.0 ⁽⁷⁾
Jennifer Prochazka	Director of Development Services	17.0 ⁽⁸⁾
Donald Harmon	Director of Public Works and CIP	19.5 ⁽⁹⁾
Alison Pond	Director of Human Resources	10.5
Jay Socol	Public Communications Director	9.5

- (1) Assistant City Manager since June 2014; previously served as Chief of Police.
 (2) Assistant City Manager and Chief Financial Officer since January 2014; previously served as Executive Director of Business Services and Chief Financial Officer .
 (4) Appointed City Secretary in July 2017. Previously served as Deputy City Secretary since 2008.
 (5) New Hire Director of Water Services August 2018.
 (6) Director of Electric Utility since December 2012; previously served as Assistant Director of Electric Utility.
 (7) New hire as Director of Information Technology in March 2018.
 (8) Director of Parks and Recreation since May 2011; previously served as Assistant Director of Parks and Recreation.
 (9) Named Director of Development Services September 2018; previously Manager of Economic Development.
 (10) Director of Public Works and CIP since January 2014; previously Assistant Director of Public Works and CIP.

CONSULTANTS AND ADVISORS

AuditorsBKD CPAs & Advisors
Houston, Texas

Bond Counsel McCall, Parkhurst & Horton L.L.P.
Dallas, Texas

Financial AdvisorHilltop Securities Inc.
Houston, Texas

For additional information regarding the City, please contact:

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or

W. Boyd London, Jr
Marti Shew
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Dallas, Texas 75270
(214) 953-4000

PRELIMINARY OFFICIAL STATEMENT
RELATING TO
CITY OF COLLEGE STATION, TEXAS
(a Home-Rule City located in Brazos County, Texas)

\$82,095,000*
CERTIFICATES OF OBLIGATION SERIES 2019

INTRODUCTION

This Official Statement, which includes the cover pages and Appendices hereto, provides certain information regarding the issuance of the \$82,095,000* City of College Station, Texas Certificates of Obligation, Series 2019 (the "Certificates"). Capitalized terms used in this Official Statement, except as otherwise indicated herein, have the same meanings assigned to such terms in the ordinance authorizing the issuance of the Certificates (the "Ordinance").

There follows in this Official Statement descriptions of the Certificates and certain information regarding the City and its finances. All descriptions of documents contained herein are only summaries and are qualified in their entirety by reference to each such document. Copies of such documents may be obtained from the City's Financial Advisor, Hilltop Securities Inc., Houston, Texas.

Description of the City . . . The City is a political subdivision and municipal corporation of the State of Texas (the "State"), duly organized and existing under the laws of the State, including the City's Home Rule Charter. The City was incorporated in October 1938, and first adopted its Home-Rule Charter in October 1938, which was last amended in November 2012. The City operates under a Council/City Manager form of government with a City Council comprised of the Mayor and six Council members. Some of the services that the City provides are: public safety (police and fire protection), highways and streets, electric, water and sanitary sewer utilities, health and social services, culture-recreation, public transportation, public improvements, planning and zoning, and general administrative services. The 2010 Census population was 93,857 and the current estimated population of the City is 121,150. The City covers approximately 51.6 square miles.

THE CERTIFICATES

GENERAL DESCRIPTION . . . The Certificates will bear interest from the date of delivery to the Initial Purchaser, and mature on February 15 in each of the years and in the amounts shown on the inside cover page hereof. Interest on the Certificates will be calculated on the basis of a 360-day year consisting of twelve 30-day months and will be payable February 15 and August 15 of each year commencing February 15, 2020 until maturity or prior redemption. The definitive Certificates will be issued only in fully registered form in any integral multiple of \$5,000 in principal amount for any one maturity and will be initially registered and delivered only to Cede & Co., the nominee of The Depository Trust Company, New York, New York ("DTC") pursuant to the Book-Entry-Only System described herein. No physical delivery of the Certificates will be made to the beneficial owners thereof. Principal of and interest on the Certificates will be payable by the Paying Agent/Registrar to Cede & Co., which will make distribution of the amounts so paid to the participating members of DTC for subsequent payment to the beneficial owners of the Certificates (see "Book-Entry-Only System").

AUTHORITY FOR ISSUANCE OF THE CERTIFICATES . . . The Certificates are being issued pursuant to the Constitution and general laws of the State of Texas, particularly Subchapter C of Chapter 271, Texas Local Government Code, as amended; and the Ordinance.

SECURITY AND SOURCE OF PAYMENT . . . The Certificates are secured by and payable from an annual continuing ad valorem taxes levied against all taxable property in the City, within the legal limits prescribed by law and payable from a subordinate lien on and pledge of \$1,000 of the surplus revenues of the City's combined utility system.

TAX RATE LIMITATION . . . All taxable property within the City is subject to the assessment, levy and collection by the City of a continuing, direct annual ad valorem tax sufficient to provide for the payment of principal of and interest on all ad valorem tax debt within the limits prescribed by law. Article XI, Section 5, of the Texas Constitution is applicable to the City, and limits its maximum ad valorem tax rate to \$2.50 per \$100 Taxable Assessed Valuation for all City purposes. The Home-Rule Charter of the City adopts the constitutionally authorized maximum tax rate of \$2.50 per \$100 Taxable Assessed Valuation. Administratively, the Attorney General of the State of Texas will permit allocation of \$1.50 of the \$2.50 maximum tax rate for all debt service for obligations payable from annual ad valorem property taxes, as calculated at the time of issuance.

* Preliminary, subject to change. See "CONDITIONS OF SALE - Advanced Adjustment Of Principal Amount and/or Types Of Bids" and " - Post Bid Modification" in the Notice of Sale and Bidding Instructions.

OPTIONAL REDEMPTION . . . The City reserves the right, at its option, to redeem Certificates having stated maturities on and after February 15, 2029, in whole or in part in principal amounts of \$5,000 or any integral multiple thereof, on February 15, 2028, or any date thereafter, at the par value thereof plus accrued interest to the date of redemption. If less than all of the Certificates are to be redeemed, the City shall determine the Certificates, or portions thereof, within such maturity to be redeemed. If Certificates (or any portion of the principal sum thereof) shall have been called for redemption and notice of such redemption shall have been given, such Certificates (or the principal amount thereof to be redeemed) shall become due and payable on such redemption date and interest thereon shall cease to accrue from and after the redemption date, provided funds for the payment of the redemption price and accrued interest thereon are held by the Paying Agent/Registrar on the redemption date.

MANDATORY SINKING FUND REDEMPTION . . . In addition to the foregoing optional redemption provision, if principal amounts designated in the serial maturity schedule shown on the inside cover page hereof are combined to create term certificates (the “Term Certificates”), each such Term Certificate shall be subject to mandatory sinking fund redemption commencing on February 15 of the first year which has been combined to form such Term Certificate and continuing on February 15 in each year thereafter until the stated maturity date of that Term Certificate, and the amount required to be redeemed in any year shall be equal to the principal amount for such year set forth in the Maturity Schedule herein. Term Certificates to be redeemed in any year by mandatory sinking fund redemption shall be redeemed at par and shall be selected by lot from the Term Certificates then subject to redemption. The City, at its option, may credit against any mandatory sinking fund redemption requirement Term Certificates of the maturity then subject to redemption which at least 45 days prior to the mandatory sinking fund redemption date have been purchased and canceled by the City or have been redeemed and not theretofore applied as a credit against any mandatory sinking fund redemption requirement.

NOTICE OF REDEMPTION . . . Not less than 30 days prior to a redemption date for the Certificates, the City shall cause a notice of redemption to be sent by United States mail, first class, postage prepaid, to the registered owners of the Certificates to be redeemed, in whole or in part, at the address of the registered owner appearing on the registration books of the Paying Agent/Registrar. ANY NOTICE SO MAILED SHALL BE CONCLUSIVELY PRESUMED TO HAVE BEEN DULY GIVEN, WHETHER OR NOT THE REGISTERED OWNER RECEIVES SUCH NOTICE. NOTICE HAVING BEEN SO GIVEN, THE CERTIFICATES CALLED FOR REDEMPTION SHALL BECOME DUE AND PAYABLE ON THE SPECIFIED REDEMPTION DATE, AND NOTWITHSTANDING THAT ANY CERTIFICATE OR PORTION THEREOF HAS NOT BEEN SURRENDERED FOR PAYMENT, INTEREST ON SUCH CERTIFICATE OR PORTION THEREOF SHALL CEASE TO ACCRUE.

With respect to any optional redemption of the Certificates, unless certain prerequisites to such redemption required by the Ordinance have been met and moneys sufficient to pay the principal of and premium, if any, and interest on the Certificates to be redeemed shall have been received by the Paying Agent/Registrar prior to the giving of such notice of redemption, such notice shall state that said redemption may, at the option of the City, be conditional upon the satisfaction of such prerequisites and receipt of such moneys by the Paying Agent/Registrar on or prior to the date fixed for such redemption, or upon any prerequisite set forth in such notice of redemption. If a conditional notice of redemption is given and such prerequisites to the redemption and sufficient moneys are not received, such notice shall be of no force and effect, the City shall not redeem such Certificates and the Paying Agent/Registrar shall give notice, in the manner in which the notice of redemption was given, to the effect that the Certificates have not been redeemed.

BOOK-ENTRY-ONLY SYSTEM . . . *This section describes how ownership of the Certificates is to be transferred and how the principal of and interest on the Certificates are to be paid to and credited by the DTC while the Certificates are registered in its nominee name. The information in this section concerning DTC and the Book-Entry-Only System has been provided by DTC for use in disclosure documents such as this Official Statement. The City, the Financial Advisor and the Initial Purchaser believe the source of such information to be reliable, but take no responsibility for the accuracy or completeness thereof.*

The City, the Financial Advisor and the Initial Purchaser cannot and do not give any assurance that (1) DTC will distribute payments of debt service on the Certificates, or redemption or other notices, to DTC Participants, (2) DTC Participants or others will distribute debt service payments paid to DTC or its nominee (as the registered owner of the Certificates), or redemption or other notices, to the Beneficial Owners, or that they will do so on a timely basis, or (3) DTC will serve and act in the manner described in this Official Statement. The current rules applicable to DTC are on file with the Securities and Exchange Commission, and the current procedures of DTC to be followed in dealing with DTC Participants are on file with DTC.

DTC will act as securities depository for the Certificates. The Certificates will be issued as fully-registered securities in the name of Cede & Co. (DTC’s partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered certificate for each maturity will be issued for the Certificates, in the aggregate principal amount of such maturity, and will be deposited with DTC.

DTC, the world’s largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a “banking organization” within the meaning of the New York Banking Law, a member of the Federal Reserve System, a “clearing corporation” within the meaning of the New York Uniform Commercial Code, and a “clearing agency” registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity, corporate and municipal debt issues, and money market instrument from over 100 countries that DTC’s participants (“Direct Participants”) deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities through electronic computerized book-entry transfers and pledges between Direct Participants’ accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust

& Clearing Corporation (“DTCC”). DTCC is the holding company for DTC, National Securities Clearing Corporation, and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly (“Indirect Participants”). Direct Participants and Indirect Participants are referred to collectively herein as “Participants”. DTC is rated AA+ by Standard and Poor’s. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.

Purchases of Certificates under the DTC system must be made by or through Direct Participants, which will receive a credit for such purchases on DTC’s records. The ownership interest of each actual purchaser of each Certificate (“Beneficial Owner”) is in turn to be recorded on the Participants’ records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction as well as periodic statements of their holdings, from the Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Certificates are to be accomplished by entries made on the books of Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the Certificates, except in the event that use of the book-entry system described herein is discontinued.

To facilitate subsequent transfers, all Certificates deposited by Direct Participants with DTC are registered in the name of DTC’s partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of Certificates with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Certificates; DTC’s records reflect only the identity of the Direct Participants to whose accounts such Certificates are credited, which may or may not be the Beneficial Owners. The Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of Certificates may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Certificates, such as redemptions, tenders, defaults, and proposed amendments to the Certificate documents. For example, Beneficial Owners of Certificates may wish to ascertain that the nominee holding the Certificates for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the Certificates within a maturity in the series are being redeemed, DTC’s practice is to determine by lot the amount of the interest of each Direct Participant in such maturity to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to Certificates unless authorized by a Direct Participant in accordance with DTC’s Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the City as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.’s consenting or voting rights to those Direct Participants to whose accounts Certificates are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Payments on the Certificates will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC’s practice is to credit Direct Participants’ accounts upon DTC’s receipt of funds and corresponding detail information from the City and the Paying Agent/Registrar, on payable date in accordance with their respective holdings shown on DTC’s records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in “street name,” and will be the responsibility of such Participant and not of DTC nor its nominee, the Paying Agent/Registrar, or the City, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds, principal and interest payments to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the City and the Paying Agent/Registrar. Disbursement of such payments to Direct Participants will be the responsibility of DTC, and reimbursement of such payments to the Beneficial Owners will be the responsibility of Participants.

DTC may discontinue providing its services as depository with respect to the Certificates at any time by giving reasonable notice to the City and the Paying Agent/Registrar. Under such circumstances, in the event that a successor depository is not obtained, Certificates are required to be printed and delivered.

The City may decide to discontinue use of the system of book-entry transfers through DTC (or a successor securities depository). In that event, Certificates will be printed and delivered.

Use of Certain Terms in Other Sections of this Official Statement. In reading this Official Statement it should be understood that while the Certificates are in the Book-Entry-Only System, references in other sections of this Official Statement to registered owners should be read to include the person for which the Participant acquires an interest in the Certificates, but (i) all rights of ownership must be exercised through DTC and the Book-Entry-Only System, and (ii) except as described above, notices that are to be given to registered owners under the Ordinance will be given only to DTC.

Information concerning DTC and the Book-Entry System has been obtained from DTC and is not guaranteed as to accuracy or completeness by, and is not to be construed as a representation by the City or the Initial Purchaser.

PAYING AGENT/REGISTRAR . . . The initial Paying Agent/Registrar is The Bank of New York Mellon Trust Company, N.A., Dallas, Texas. In the Ordinance, the City retains the right to replace the Paying Agent/Registrar. The City covenants to maintain and provide a Paying Agent/Registrar at all times until the Certificates are duly paid and any successor Paying Agent/Registrar must be a bank, trust company, financial institution, or other entity duly qualified and legally authorized to serve as and perform the duties and services of Paying Agent/Registrar for the Certificates. Upon any change in the Paying Agent/Registrar for the Certificates, the City will promptly cause a written notice thereof to be sent to each registered owner of the Certificates by United States mail, first class, postage prepaid, which notice will also include the address of the new Paying Agent/Registrar.

TRANSFER, EXCHANGE AND REGISTRATION . . . In the event the Book-Entry-Only System should be discontinued, the Certificates may be transferred and exchanged on the registration books of the Paying Agent/Registrar only upon presentation and surrender thereof to the Paying Agent/Registrar and such transfer or exchange will be without expense or service charge to the registered owner, except for any tax or other governmental charges required to be paid with respect to such registration, exchange and transfer. Certificates may be assigned by the execution of an assignment form on the respective Certificates or by other instrument of transfer and assignment acceptable to the Paying Agent/Registrar. New Certificates will be delivered by the Paying Agent/Registrar, in lieu of the Certificates being transferred or exchanged, at the corporate trust office of the Paying Agent/Registrar, or sent by United States mail, first class, postage prepaid, to the new registered owner or his designee. To the extent possible, new Certificates issued in an exchange or transfer of Certificates will be delivered to the registered owner or assignee of the registered owner in not more than three business days after the receipt of the Certificates to be canceled, and the written instrument of transfer or request for exchange duly executed by the registered owner or his duly authorized agent, in form satisfactory to the Paying Agent/Registrar. New Certificates registered and delivered in an exchange or transfer will be in any integral multiple of \$5,000 for any one maturity and for a like aggregate principal amount as the Certificates surrendered for exchange or transfer. See "BOOK-ENTRY-ONLY SYSTEM" herein for a description of the system to be utilized initially in regard to ownership and transferability of the Certificates. Neither the City nor the Paying Agent/Registrar will be required to transfer or exchange any Certificate called for redemption, in whole or in part, within 45 days of the date fixed for redemption; provided, however, such limitation of transfer will not be applicable to an exchange by the registered owner of the uncalled balance of a Certificate.

RECORD DATE FOR INTEREST PAYMENT . . . The record date ("Record Date") for determining the person to whom the interest is payable on the Certificates on any interest payment date means the close of business on the last business day of the preceding month.

In the event of a non-payment of interest on a scheduled payment date, and for 30 days thereafter, a new record date for such interest payment (a "Special Record Date") will be established by the Paying Agent/Registrar, if and when funds for the payment of such interest have been received from the City. Notice of the Special Record Date and of the scheduled payment date of the past due interest (a "Special Payment Date," which will be 15 days after the Special Record Date) will be sent at least five days prior to the Special Record Date by United States mail, first class, postage prepaid, to the address of each Holder of a Certificate appearing on the registration books of the Paying Agent/Registrar at the close of business on the day next preceding the date of mailing of such notice.

DEFEASANCE . . . The Ordinance provides for the defeasance of the Certificates when the payment of the principal of and premium, if any, on the Certificates, plus interest thereon to the due date thereof (whether such due date be by reason of maturity, redemption, or otherwise), is provided by irrevocably depositing with a paying agency, in trust (1) money sufficient to make such payment or (2) Defeasance Securities, certified by an independent public accounting firm of national reputation to mature as to principal and interest in such amounts and at such times to insure the availability, without reinvestment, of sufficient money to make such payment, and all necessary and proper fees, compensation and expenses of the paying agent for the Certificates. The Ordinance provides that "Defeasance Securities" means (a) direct, noncallable obligations of the United States of America, including obligations that are unconditionally guaranteed by the United States of America, (b) noncallable obligations of an agency or instrumentality of the United States of America, including obligations that are unconditionally guaranteed or insured by the agency or instrumentality and that are rated as to investment quality by a nationally recognized investment rating firm not less than AAA or its equivalent, (c) noncallable obligations of a state or an agency or a county, municipality, or other political subdivision of a state that have been refunded and that rated as to investment quality by a nationally recognized investment rating firm not less than AAA or its equivalent and (d) any securities and obligations now or hereafter authorized by Texas law that are eligible to refund, retire or otherwise discharge obligations such as the Certificates. In the Ordinance, the Pricing Officer is authorized to restrict such eligible securities and obligations as deemed appropriate to accommodate requests from potential investors. The City has additionally reserved the right, subject to satisfying the requirement of (1) and (2) above, to substitute other Defeasance Securities for the Defeasance Securities originally deposited, to reinvestment the uninvested moneys on deposit for such defeasance and to withdraw for the benefit of the City moneys in excess of the amount required for such defeasance.

REMEDIES OF HOLDERS OF CERTIFICATES . . . The Ordinance establishes specific events of default with respect to the Certificates. If the City defaults in the payment of the principal of or interest on the Certificates when due or the City defaults in the observance or performance of any of the covenants, conditions, or obligations of the City, the failure to perform which materially, adversely affects the rights of the owners of the Certificates including but not limited to, their prospect or ability to be repaid in accordance with the Ordinance, and the continuation thereof for a period of 60 days after notice of such default is given by any owner to the City, the Ordinance provides that any registered owner is entitled to seek a writ of mandamus from a court of proper jurisdiction requiring the City to make such payment or observe and perform such covenants, obligations, or conditions. The issuance of a writ of mandamus may be sought if there is no other available remedy at law to compel performance of the Certificates or the Ordinance and the City's obligations are not uncertain or disputed. The issuance of a writ of mandamus is controlled by equitable principles, so rests with the discretion of the court, but may not be arbitrarily refused. There is no acceleration of maturity of the Certificates in the event of default and, consequently, the remedy of mandamus may have

to be relied upon from year to year. The Ordinance does not provide for the appointment of a trustee to represent the interest of the holders of the Certificates upon any failure of the City to perform in accordance with the terms of the Ordinance, or upon any other condition and accordingly all legal actions to enforce such remedies would have to be undertaken of the initiative of, and be financed by, the registered owners of the Certificates. On June 30, 2006, the Texas Supreme Court ruled in *Tooke v. City of Mexia*, 197 S.W.3d 325 (Tex. 2006) that a waiver of sovereign immunity in a contractual dispute must be provided for by statute in “clear and unambiguous” language. Because it is unclear whether the Texas legislature has effectively waived the City’s sovereign immunity from a suit for money damages, registered owners of the Certificates may not be able to bring such a suit against City for breach of the Certificates of covenants contained in either Ordinance. Even if a judgment against the City could be obtained, it could not be enforced by direct levy and execution against the City’s property. Further, the registered owners cannot themselves foreclose on property within the City or sell property within the City to enforce the tax lien on taxable property to pay the principal of and interest on the Certificates.

The City is eligible to seek relief from its creditors under Chapter 9 of the U.S. Bankruptcy Code (“Chapter 9”). Although Chapter 9 provides for the recognition of a security interest represented by a specifically pledged source of revenues, the pledge of ad valorem taxes in support of a general obligation of a bankrupt entity is not specifically recognized as a security interest under Chapter 9. Chapter 9 also includes an automatic stay provision that would prohibit, without Bankruptcy Court approval, the prosecution of any other legal action by creditors or registered owners of the Certificates of an entity which has sought protection under Chapter 9. Therefore, should the City avail itself of Chapter 9 protection from creditors, the ability to enforce would be subject to the approval of the Bankruptcy Court (which could require that the action be heard in Bankruptcy Court instead of other federal or state court); and the Bankruptcy Code provides for broad discretionary powers of a Bankruptcy Court in administering any proceeding brought before it. The opinion of Bond Counsel will note that all opinions relative to the enforceability of the Certificates are qualified with respect to the customary rights of debtors relative to their creditors, principles of sovereign immunity and by general principles of equity which permit the exercise of judicial discretion.

SOURCES AND USES OF CERTIFICATE PROCEEDS . . . Proceeds from the sale of the Certificates, are expected to be expended as follows:

Sources of Funds	
Par Amount	\$ -
Original Issue Premium	
Total Uses of Funds	<u><u>\$ -</u></u>
 Use of Funds	
Deposit to Project Fund	\$ -
Underwriters' Discount	
Costs of Issuance	
Total Uses of Funds	<u><u>\$ -</u></u>

TAX INFORMATION

AD VALOREM TAX LAW . . . The appraisal of property within the City is the responsibility of the Brazos Central Appraisal District (the “Appraisal District”). Excluding agricultural and open-space land, which may be taxed on the basis of productive capacity, the Appraisal District is required under Title 1, Texas Tax Code (referred to herein as the “Property Tax Code”) to appraise all property within the Appraisal District on the basis of 100% of its market value and is prohibited from applying any assessment ratios. In determining the market value of property, different methods of appraisal may be used, including the cost method of appraisal, the income method of appraisal and the market data comparison method of appraisal, and the method considered most appropriate by the chief appraiser is to be used. State law further limits the appraised value of a residence homestead for a tax year to an amount not to exceed the lesser of (1) the property’s market value in the most recent tax year in which the market value was determined by the Appraisal District or (2) the sum of (a) 10% of the property’s appraised value for the preceding tax year, (b) the appraised value of the property for the preceding tax year and (c) the market value of all new improvements to the property. The value placed upon property within the Appraisal District is subject to review by an Appraisal Review Board, consisting of three members appointed by the Board of Directors of the Appraisal District. The Appraisal District is required to review the value of property within the Appraisal District at least every three years. The City may require annual review at its own expense, and is entitled to challenge the determination of appraised value of property within the City by petition filed with the Appraisal Review Board.

Reference is made to the Property Tax Code, for identification of property subject to taxation; property exempt or which may be exempted from taxation, if claimed; the appraisal of property for ad valorem taxation purposes; and the procedures and limitations applicable to the levy and collection of ad valorem taxes.

Article VIII of the State Constitution (“Article VIII”) and State law provide for certain exemptions from property taxes, the valuation of agricultural and open-space lands at productivity value, and the exemption of certain personal property from ad valorem taxation.

Under Section 1-b, Article VIII, and State law, the governing body of a political subdivision, at its option, may grant: (1) An exemption of not less than \$3,000 of the market value of the residence homestead of persons 65 years of age or older; (2) An exemption to the disabled from all ad valorem taxes thereafter levied by the political subdivision; and (3) An exemption of up to 20% of the market value of residence homesteads. The minimum exemption under this provision is \$5,000. In addition State law mandates a complete exemption for the residential homestead of disabled veterans determined to be 100% disabled by the U.S. Department of Veterans Affairs. Further, the surviving spouse of a deceased veteran who had received a disability rating of 100% is entitled to receive a residential homestead exemption equal to the exemption received by the deceased spouse until such surviving spouse remarries.

In the case of residence homestead exemptions granted under Section 1-b, Article VIII, ad valorem taxes may continue to be levied against the value of homesteads exempted where ad valorem taxes have previously been pledged for the payment of debt if cessation of the levy would impair the obligation of the contract by which the debt was created.

State law and Section 2, Article VIII, mandate an additional property tax exemption for disabled veterans or the surviving spouse or children of a deceased veteran who died while on active duty in the armed forces; the exemption applies to either real or personal property with the amount of assessed valuation exempted ranging from \$5,000 to a maximum of \$12,000.

Article VIII provides that eligible owners of both agricultural land (Section 1-d) and open-space land (Section 1-d-1), including open-space land devoted to farm or ranch purposes or open-space land devoted to timber production, may elect to have such property appraised for property taxation on the basis of its productive capacity. The same land may not be qualified under both Section 1-d and 1-d-1. Article VIII, Section 1-n of the Texas Constitution provides for an exemption from taxation for “goods-in-transit,” which are defined as (i) personal property acquired or imported into the State and transported to another location inside or outside the State, (ii) stored under a contract for bailment in public warehouses not in any way owned or controlled by the owner of the stored goods, and (iii) transported to another location inside or outside the State within 175 days of the date the property was acquired or imported into the State. The exemption excludes oil, natural gas, petroleum products, aircraft and special inventory, including motor vehicle, vessel and out-board motor, heavy equipment and manufactured housing inventory. On December 8, 2011, the Council passed an ordinance approving taxation on certain goods-in-transit. After taking such official action, the goods-in-transit remain subject to taxation by the taxing unit until the governing body of the taxing unit rescinds or repeals its previous action to tax goods-in-transit. If, however, a taxing unit took official action prior to October 1, 2011 to tax goods-in-transit and pledged the taxes imposed on the goods-in-transit for the payment of a debt, taxes may continue to be imposed on goods-in-transit until the debt is discharged, if cessation of the imposition of the tax would impair the obligation of the contract by which the debt was created.

Nonbusiness personal property, such as automobiles or light trucks, are exempt from ad valorem taxation unless the governing body of a political subdivision elects to tax this property. Boats owned as nonbusiness property are exempt from ad valorem taxation.

Article VIII, Section 1-j, provides for “freeport property” to be exempted from ad valorem taxation. Freeport property is defined as goods detained in Texas for 175 days or less for the purpose of assembly, storage, manufacturing, processing or fabrication. Decisions to continue to tax may be reversed in the future; decisions to exempt freeport property are not subject to reversal.

The City and the other taxing bodies within its territory may agree to jointly create tax increment financing zones within the City, under which the tax values on property in the zone are “frozen” at the value of the property at the time of creation of the zone. The City also may enter into tax abatement agreements to encourage economic development. Under the agreements, a property owner agrees to construct certain improvements on its property. The City in turn agrees not to levy a tax on all or part of the increased value attributable to the improvements until the expiration of the agreement. The abatement agreement could last for a period of up to 10 years. See “- TAX ABATEMENT POLICY” for a discussion of the City’s economic development guidelines and criteria.

CONSTITUTIONAL AMENDMENT . . . In a statewide election held on September 13, 2003, voters approved an amendment to Section 1-b, Article VIII of the Texas Constitution, that authorized a county, city, town or junior college district to establish an ad valorem tax freeze on residence homesteads of the disabled and of the elderly and their spouses. City Council did not take action to establish the tax limitation. Voters within the City were authorized to submit a petition signed by five percent of the registered voters of the City requiring the City Council to call an election to determine by majority vote whether to establish the tax limitation.

A petition was submitted and an election was held on May 10, 2008. The voters of College Station voted to approve the ad valorem tax freeze. The City can provide no assurances of the impact, if any, implementation of this ad valorem tax freeze may have on the City’s finances.

Under the tax freeze, the total amount of ad valorem taxes imposed by the City on a homestead that receives the exemption may not be increased while it remains the residence homestead of that person or that person's spouse who is disabled or sixty-five years of age or older, except to the extent the value of the homestead is increased by improvements other than repairs. If a disabled or elderly person dies in a year in which the person received a residence homestead exemption, the total amount of ad valorem taxes imposed on the homestead by the taxing unit may not be increased while it remains the residence homestead of that person's surviving spouse if the spouse is fifty-five years of age or older at the time of the person's death. In addition, the Texas Legislature by general law may provide for the transfer of all or a proportionate amount of the tax limitation applicable to a person's homestead to be transferred to the new homestead of such person if the person moves to a different residence within the taxing unit. Once established, the governing body of the taxing unit may not repeal or rescind the tax limitation.

EFFECTIVE TAX RATE AND ROLLBACK TAX RATE . . . By the later of September 28th or 60 days after the certified appraisal roll is delivered to the City, the City Council adopts a tax rate per \$100 taxable value for the current year. The tax rate consists of two components: (1) a rate for funding of maintenance and operation expenditures, and (2) a rate for debt service.

Under the Property Tax Code, the City must annually calculate and publicize its “effective tax rate” and “rollback tax rate”. A tax rate cannot be adopted by the City Council that exceeds the lower of the rollback tax rate or the effective tax rate until two public hearings are held on the proposed tax rate following a notice of such public hearing (including the requirement that notice be posted on the City’s website if City owns, operates or controls an internet website and public notice be given by television if the City has a free access to a television channel) and the City Council has otherwise complied with the legal requirements for the adoption of such tax rate. If the adopted tax rate exceeds the rollback tax rate the qualified voters of the City by petition may require that an election be held to determine whether or not to reduce the tax rate adopted for the current year to the rollback tax rate.

“Effective tax rate” means the rate that will produce last year’s total tax levy (adjusted) from this year’s total taxable values (adjusted). “Adjusted” means lost values are not included in the calculation of last year’s taxes and new values are not included in the year’s taxable values.

“Rollback tax rate” means the rate that will produce last year’s maintenance and operation tax levy (adjusted) from this year’s values (adjusted) multiplied by 1.08 plus a rate that will produce this year’s debt service from this year’s values (unadjusted) divided by the anticipated tax collection rate.

The Property Tax Code provides that certain cities and counties in the State may submit a proposition to the voters to authorize an additional one-half cent sales tax on retail sales of taxable items. If the additional tax is levied, the effective tax rate and the rollback tax rate calculations are required to be offset by the revenue that will be generated by the sales tax in the current year.

Reference is made to the Property Tax Code for definitive requirements for the levy and collection of ad valorem taxes and the calculation of the various defined tax rates.

PROPERTY ASSESSMENT AND TAX PAYMENT . . . Property within the City is generally assessed as of January 1 of each year. Business inventory may, at the option of the taxpayer, be assessed as of September. Effective January 1, 2012, oil and gas reserves are assessed on the basis of a valuation process that uses pricing information contained in the most recent published Early Release Overview of the Annual Energy Outlook published by the United States Energy Information Administration, as well as appraisal formulas developed by the State Comptroller of Public Accounts. Taxes become due October 1 of the same year, and become delinquent on February 15 of the following year. Taxpayers 65 years old or older are permitted by State law to pay taxes on homesteads in four installments with the first due before February 15 of each year and the final installment due before August 15.

PENALTIES AND INTEREST . . . Charges for penalties and interest on the unpaid balance of delinquent taxes are made as follows:

Month	Cumulative Penalty	Cumulative Interest	Total
February	6%	1%	7%
March	7	2	9
April	8	3	11
May	9	4	13
June	10	5	15
July	12	6	18

After July, penalty remains at 12%, and interest increases at the rate of 1% each month. In addition, if an account is delinquent in July, an amount up to 20% attorney’s collection fee is added to the total tax penalty and interest charge. Under certain circumstances, taxes which become delinquent on the homestead of a taxpayer 65 years old or older incur a penalty of 8% per annum with no additional penalties or interest assessed. In general, property subject to the City’s lien may be sold, in whole or in parcels, pursuant to court order to collect the amounts due. Federal law does not allow for the collection of penalty and interest against an estate in bankruptcy. Federal bankruptcy law provides that an automatic stay of action by creditors and other entities, including governmental units, goes into effect with the filing of any petition in bankruptcy. The automatic stay prevents governmental units from foreclosing on property and prevents liens for post-petition taxes from attaching to property and obtaining secured creditor status unless, in either case, an order lifting the stay is obtained from the bankruptcy court. In many cases post-petition taxes are paid as an administrative expense of the estate in bankruptcy or by order of the bankruptcy court.

CITY APPLICATION OF PROPERTY TAX CODE . . . The City grants a 5% exemption to the market value of the residence homestead. It also grants an exemption to the market value of the residence homestead of persons 65 years of age or older of \$30,000.

Ad valorem taxes are not levied by the City against the exempt value of residence homesteads for the payment of debt.

The City does not tax nonbusiness personal property.

The City does permit split payments, but discounts are not allowed.

The City does collect the additional one-half cent sales tax for reduction of ad valorem taxes.

The City has adopted a tax abatement policy.

An election was held on May 10, 2008 and the voters of College Station approved the ad valorem tax freeze for residential homesteads for disabled and age 65 or older persons.

Brazos County collects the taxes for the City.

TAX ABATEMENT POLICY . . . The City has established tax abatement guidelines and criteria for economic development prospects in the City. In order to be eligible for designation as a Reinvestment Zone and receive tax abatement, the planned improvement:

1. Must be expected to have an increased appraised ad valorem tax value of at least \$1,000,000 based upon the Brazos Central Appraisal District's assessment of the eligible property.
2. Must be expected to prevent the loss of payroll or retain, increase or create a payroll on a permanent basis in the City.

The following factors among others should be considered in determining whether to grant tax abatement and, if so, the percentage of value to be abated and the duration of the tax abatement:

1. Value of land and existing improvements, if any;
2. Type and value of proposed improvements;
3. Productive life of proposed improvements;
4. Number of existing jobs to be retained by proposed improvements;
5. Number of type of new jobs to be created by proposed improvements;
6. Amount of local payroll to be created;
7. Whether persons residing or projected to reside within the City will have the opportunity to fill the new jobs being created;
8. Amount of local taxes to be generated directly;
9. Amount of property tax base valuation which will be increased during term of abatement and after abatement, which shall include a definitive commitment that such valuation shall not, in any case, be less than \$1,000,000;
10. The costs to be incurred by the City to provide facilities or services directly resulting from the new improvements;
11. The amount of ad valorem taxes to be paid to the City during the abatement period considering (a) the existing values, (b) the percentage of new value abated, (c) the abatement period, and (d) the value after expiration of the abatement period;
12. The population growth of the City that occurs directly as result of new improvements;
13. The types of public improvements, if any, to be made by the applicant seeking abatement;
14. Whether the proposed improvements compete with existing businesses to the detriment of the local economy;
15. The impact on the business opportunities of existing businesses;
16. The attraction of other new businesses to the area;
17. The overall compatibility with the zoning ordinances and comprehensive plan for the area; and/or
18. Whether the project is environmentally compatible with no negative impact on quality of life perceptions.

Neither a Reinvestment Zone nor abatement agreement shall be authorized if it is determined that:

1. There would be substantial adverse affect on the provision of government service or tax base;
2. The applicant has insufficient financial capacity;
3. Planned or potential use of the property would constitute a hazard to public safety, health or morals;
4. Violation of other code or laws;
5. The agreement was signed after the commencement of construction, alteration or installation of improvements related to the project; or
6. Any other reason deemed appropriate by the City Council

ECONOMIC DEVELOPMENT . . . In the fall of 2013, the College Station City Council adopted an Economic Development Master Plan. This document represents the City's first such effort and joins the many other Master Plans, Neighborhood, Corridor, and District Plans created to aid in successful implementation of the Comprehensive Plan. The Master Plan defines the goals and objectives of the City's economic development efforts and lays out strategies and detailed actions to achieve these goals and objectives. The plan specifically identified six strategic initiatives that the City's economic development program area should focus its efforts on: sustain and enhance high quality of life; support and partner with Texas A&M University and the Texas A&M University System; support retail development; support and stimulate biotechnology research and advanced manufacturing; support and stimulate health and wellness market; and support and stimulate sports, entertainment, and hospitality market.

Furthermore, the Plan also details how the plan should be monitored and updated over time, and identifies a series of formal economic development policy guidelines that were also adopted. These guidelines state that in order to ensure the ongoing competitiveness of the community, no State authorized incentive should immediately be discounted. The Texas Constitution and multiple State statutes identify the role of economic development by both the State and its municipalities as a public purpose. While recognizing there is no standard strategy, policy, or program for economic development, the Texas Legislature has created a vast array of tools that local governments have at their disposal. The objective of these tools is to not only encourage development and diversification of the Texas economy, but to simultaneously enhance the participating community's overall quality of life. Incentives to consider may include, but not be limited to: Chapter 380 financing; development fee rebates; enterprise zone program sponsorship; Freeport exemptions; infrastructure assistance; land transactions; delayed

annexation or limited purpose annexation; special districts; reinvestment zones (tax abatement or tax increment); and fast track development process.

The City and the City of Bryan, Texas have also entered into an “Interlocal Cooperation and Joint Development Agreement” (the “Interlocal Agreement”) in connection with implementing a joint economic development program known as the Joint Research Valley BioCorridor Development Project (the “Project”). Under the terms of the Interlocal Agreement, the City will make funds available to the City of Bryan, and the City of Bryan will make funds available to the City, for certain defined public infrastructure projects that are intended to enhance development of the Project. The obligations of each city under the Interlocal Agreement shall not constitute a debt for purposes of any provision of the State Constitution, and are intended to be paid from the general revenues of each city.

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TABLE 1 - VALUATION, EXEMPTIONS AND GENERAL OBLIGATION DEBT

2018/2019 Market Valuation Established by Brazos Central Appraisal District (excluding exempt property)		\$ 9,914,209,750
Less Exemptions/Reductions at 100% Market Value:		
Productivity Loss	\$ 106,298,092	
Over 65 Homestead Exemptions	96,409,710	
Cap Loss	26,009,975	
Pollution Control	314,700	
Member Armed Service Surviving Spouse	633,967	
Solar	39,800	
Freeport	13,020,237	
Disabled Veteran	33,957,345	
Homestead	144,445,601	
Abatements	6,005,946	427,135,373
2018/2019 Taxable Assessed Valuation		<u>\$ 9,487,074,377 ⁽¹⁾</u>
Debt Payable from Ad Valorem Taxes (as of 3/1/2019)		
General Obligation Improvement Bonds, Series 2008	435,000	
Certificates of Obligation, Series 2008	1,300,000	
General Obligation Refunding Bonds, Series 2009	465,000	
Certificates of Obligation, Series 2009	2,505,000	
General Obligation Improvement Bonds, Series 2009	335,000	
General Obligation Refunding Bonds, Series 2010	8,700,000	
Certificates of Obligation, Series 2010	1,865,000	
General Obligation Improvement Bonds, Series 2010	12,640,000	
Certificates of Obligation, Series 2011	5,540,000	
Certificates of Obligation, Series 2012	11,930,000	
General Obligation Improvement and Refunding Bonds, Series 2012	9,960,000	
Certificates of Obligation, Series 2013	7,920,000	
General Improvement and Refunding Bonds, Series 2013	12,845,000	
Certificates of Obligation, Series 2014	26,195,000	
General Improvement and Refunding Bonds, Series 2014	23,415,000	
Certificates of Obligation, Series 2016	21,565,000	
General Improvement and Refunding Bonds, Series 2016	34,930,000	
General Improvement and Refunding Bonds, Series 2017	28,725,000	
Certificates of Obligation, Series 2017	52,265,000	
Certificates of Obligation, Series 2018	33,955,000	
The Certificates ⁽²⁾	<u>82,095,000</u>	<u>379,585,000</u>
Less: Self Supporting Debt ⁽³⁾		\$ 178,250,000
Less: Interest and Sinking Fund as of 2/1/2019		<u>21,128,277</u>
Net Debt Payable from Ad Valorem Taxes ⁽⁴⁾		<u>\$ 180,206,723</u>
Ratio of Net Debt Payable from Ad Valorem Taxes to Taxable Assessed Valuation ⁽⁴⁾		1.90%
2019 Estimated Population - 121,150		
Per Capita Taxable Assessed Valuation - \$78,308		
Per Capita Net Funded Debt - \$1,487 ⁽⁴⁾		

- (1) Certified taxable assessed valuation for tax year 2018 as reported by the Brazos Central Appraisal District. This amount is subject to change during ensuing year.
- (2) The debt service on a portion of the Certificates will be internally allocated by the City as being payable from the surplus revenues from the respective enterprise funds. Although the City expects to pay for this portion of the Certificates with surplus enterprise funds, the Certificates are secured solely by a pledge of ad valorem taxes and by a pledge of combined utility system surplus net revenues limited to \$1,000. See "THE CERTIFICATES- Security and Source of Payment." There is no guarantee that payments from these enterprise funds will be made. If payments are not made from the enterprise funds, the City will be required to levy ad valorem taxes in amounts sufficient to make such payments.

- (3) In the past, the City has sold certificates of obligation to finance projects for the City's water and sewer system, and electric system and has internally allocated portions of this debt as payable from the respective enterprise funds. The self-supporting amounts listed above are projections of debt that is expected to be retired by the City based on actual historical payments from these funds to pay for debt service the outstanding certificates of obligation. There is no guarantee that payments from these funds will continue in the future. Includes a portion of the Certificates. See "DEBT INFORMATION – TABLE 10 – Self Supporting Debt."
- (4) Net of Interest and Sinking Fund as of February 1, 2019.

TABLE 2 - TAXABLE ASSESSED VALUATIONS BY CATEGORY

Category	Taxable Appraised Value, Fiscal Year Ending September 30,					
	2019		2018		2017	
	Amount	% of Total	Amount	% of Total	Amount	% of Total
Real, Residential, Single-Family	\$ 5,420,353,263	54.67%	\$ 4,891,101,082	53.32%	\$ 4,470,806,990	56.58%
Real, Residential, Multi-Family	2,014,388,746	20.32%	1,951,938,574	21.28%	1,275,467,653	16.14%
Real, Vacant Lots/Tracts	181,379,036	1.83%	166,018,722	1.81%	158,722,669	2.01%
Real, Acreage (Land Only)	107,486,185	1.08%	117,980,979	1.29%	87,626,228	1.11%
Real, Farm and Ranch Improvements	92,572,477	0.93%	95,828,034	1.04%	113,059,943	1.43%
Real, Commercial/Industrial	1,612,617,746	16.27%	1,497,083,484	16.32%	1,340,756,747	16.97%
Real, Oil, Gas & Other Mineral Reserves	12,619,033	0.13%	4,375,082	0.05%	5,036,746	0.06%
Real and Tangible Personal, Utilities	40,945,210	0.41%	40,806,430	0.44%	40,325,800	0.51%
Tangible Personal, Business	389,192,346	3.93%	360,514,767	3.93%	371,077,880	4.70%
Tangible Personal, Other	2,441,400	0.02%	2,449,980	0.03%	1,988,130	0.03%
Real Property Inventory	23,400,278	0.24%	31,155,861	0.34%	23,079,643	0.29%
Special Inventory	16,814,030	0.17%	13,855,490	0.15%	13,282,100	0.17%
Total Appraised Value Before Exemptions	\$ 9,914,209,750	100.00%	\$ 9,173,108,485	100.00%	\$ 7,901,230,529	100.00%
Less: Total Exemptions/Reductions	427,135,373		271,017,930		277,266,358	
Taxable Assessed Value	<u>\$ 9,487,074,377</u>		<u>\$ 8,902,090,555</u>		<u>\$ 7,623,964,171</u>	

Category	Taxable Appraised Value, Fiscal Year Ending September 30,			
	2016		2015	
	Amount	% of Total	Amount	% of Total
Real, Residential, Single-Family	\$ 3,942,774,761	53.35%	\$ 3,657,836,541	53.15%
Real, Residential, Multi-Family	1,326,289,539	17.95%	1,296,417,661	18.84%
Real, Vacant Lots/Tracts	142,089,823	1.92%	141,077,944	2.05%
Real, Acreage (Land Only)	92,882,946	1.26%	109,675,903	1.59%
Real, Farm and Ranch Improvements	108,202,479	1.46%	74,289,622	1.08%
Real, Commercial/Industrial	1,330,864,915	18.01%	1,204,879,922	17.51%
Real, Oil, Gas & Other Mineral Reserves	10,793,941	0.15%	3,227,032	0.05%
Real and Tangible Personal, Utilities	30,944,850	0.42%	37,673,140	0.55%
Tangible Personal, Business	369,625,180	5.00%	330,937,290	4.81%
Tangible Personal, Other	2,024,340	0.03%	2,096,570	0.03%
Real Property Inventory	17,672,671	0.24%	13,256,668	0.19%
Special Inventory	15,787,080	0.21%	10,534,560	0.15%
Exempt Property Adjustment	-	0.00%	-	0.00%
Total Appraised Value Before Exemptions	\$ 7,389,952,525	100.00%	\$ 6,881,902,853	100.00%
Less: Total Exemptions/Reductions	227,214,245		227,302,019	
Taxable Assessed Value	<u>\$ 7,162,738,280</u>		<u>\$ 6,654,600,834</u>	

NOTE: Valuations shown are certified taxable assessed values reported by the Brazos Central Appraisal District to the State Comptroller of Public Accounts. Certified values are subject to change throughout the year as contested values are resolved and the Appraisal District updates records.

TABLE 3 - VALUATION AND GENERAL OBLIGATION DEBT HISTORY

Fiscal Year Ended 9/30	Estimated Population ⁽¹⁾	Taxable Assessed Valuation ⁽²⁾	Taxable Assessed Valuation Per Capita	Net G.O. Tax Debt ⁽³⁾	Ratio of Net G.O. Tax Debt to Taxable Assessed Valuation	Net G.O. Tax Debt Per Capita
2015	102,117	\$ 6,654,600,834	\$ 65,166	\$ 101,630,000	1.53%	\$ 995
2016	106,465	7,162,738,280	67,278	118,350,000	1.65%	1,112
2017	109,936	7,623,964,171	69,349	169,595,000	2.22%	1,543
2018	117,841	8,902,090,555	75,543	175,400,000	1.97%	1,488
2019	121,150	9,487,074,377 ⁽⁴⁾	78,308	178,425,000 ⁽⁵⁾	1.88% ⁽⁵⁾	1,473 ⁽⁵⁾

(1) Source: The City.

(2) As reported by the Brazos Central Appraisal District; subject to change during the ensuing year.

(3) Payable from ad valorem taxes. Does not include self-supporting debt.

(4) Certified taxable assessed valuation for tax year 2018 as reported by the Brazos Central Appraisal District. This amount is subject to change during ensuing year.

(5) Projected, includes the Certificates. Preliminary, subject to change.

TABLE 4 - TAX RATE, LEVY AND COLLECTION HISTORY

Fiscal Year Ended 9/30	Tax Rate	General Fund	Interest and Sinking Fund	Tax Levy	% Current Collections	% Total Collections
2015	\$ 0.4525	\$ 0.2594	\$ 0.1931	\$ 29,803,314	98.70%	99.17%
2016	0.4525	0.2594	0.1931	32,065,351	98.95%	100.03%
2017	0.4725	0.2772	0.1953	37,007,711	100.08%	100.31%
2018	0.4975	0.2772	0.2203	43,300,209	98.90%	98.90%
2019	0.5058	0.2855	0.2203	46,446,351	90.30% ⁽¹⁾	90.39% ⁽¹⁾

(1) Collections as of February 28, 2019. A portion of the City's taxpayer base has elected to provide split payments to the City which will be due in part on June 30, 2019.

TABLE 5 - TEN LARGEST TAXPAYERS

Name of Taxpayer	Nature of Property	2018/2019 Taxable Assessed Valuation	% of Total Taxable Assessed Valuation
CPP College Station I LLC	Real Estate	\$ 72,000,000	0.76%
FujiFilm Diosynth Biotechnologies Texas LLC	Manufacturing	70,935,780	0.75%
Woodridge College Station LLC	Mall	61,134,650	0.64%
Woodridge College Station Phase II LLC	Mall	60,907,991	0.64%
POM-College Station LLC	Mall	57,067,490	0.60%
College Station Hospital LP	Hospital	53,353,290	0.56%
Culpepper Family LP	Real Estate	52,228,023	0.55%
SHP-The Callaway House LP	Apartment Buildings	51,000,790	0.54%
Israel Weinberg	Commercial	49,767,058	0.52%
SW Meadows Point LP	Apartment Buildings	49,007,719	0.52%
		<u>\$ 577,402,791</u>	<u>6.09%</u>

GENERAL OBLIGATION DEBT LIMITATION . . . No general obligation debt limitation is imposed on the City under current State law or the City's Home Rule Charter (see "THE CERTIFICATES - Tax Rate Limitation").

TABLE 6 - TAX ADEQUACY

Net Maximum Tax Supported Principal and Interest Requirements (2020).....	\$ 20,910,951 ⁽¹⁾
\$0.22265 Tax Rate at 99% Collection Produces	\$ 20,911,741
Net Average Tax Supported Principal and Interest Requirements (2019-2038).....	\$ 13,483,683 ⁽¹⁾
\$0.14357 Tax Rate at 99% Collection Produces	\$ 13,484,387

(1) Includes the Certificates and excludes self-supporting debt. Preliminary, subject to change.

TABLE 7 - ESTIMATED OVERLAPPING DEBT

Expenditures of the various taxing entities within the territory of the City are paid out of ad valorem taxes levied by such entities on properties within the City. Such entities are independent of the City and may incur borrowings to finance their expenditures. This statement of direct and estimated overlapping ad valorem tax debt ("Tax Debt") was developed by the City from information obtained from the Brazos Central Appraisal District. Except for the amounts relating to the City, the City has not independently verified the accuracy or completeness of such information, and no person should rely upon such information as being accurate or complete. Furthermore, certain of the entities listed may have issued additional debt since the date hereof, and such entities may have programs requiring the issuance of substantial amounts of additional debt, the amount of which cannot be determined. The following table reflects the estimated share of overlapping Tax Debt of the City.

	2018/2019 Taxable Assessed Value	2019 Tax Rate	Total Net Tax Debt as of 3/1/2019	Estimated % Applicable	City's Overlapping Tax Debt as of 3/1/2019
City of College Station	\$ 9,487,074,377 ⁽¹⁾	0.5058	\$ 180,206,723 ⁽²⁾	100.00%	\$ 180,206,723
Brazos County	18,879,697,829	0.4850	79,135,000	49.18%	38,918,593
Bryan ISD	7,500,303,568	1.3400	197,820,000	2.55%	5,044,410
College Station ISD	9,441,619,756	1.3720	341,940,000	88.85%	303,813,690
Total Direct and Overlapping Funded Tax Debt					\$ 527,983,416
Ratio of Direct and Overlapping Funded Tax Debt to Taxable Assessed Valuation					5.565%
Per Capita Overlapping Funded Tax Debt					\$ 4,358

Source: Municipal Advisory Council of Texas.

(1) Certified taxable assessed valuation for tax year 2018 as reported by the Brazos Central Appraisal. This amount is subject to change during ensuing year.

(2) Projected, includes the Certificates and excludes self-supporting debt. Preliminary, subject to change.

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DEBT INFORMATION

TABLE 8 - PRO-FORMA AD VALOREM TAX DEBT SERVICE REQUIREMENTS*

Year End 9/30	Outstanding Debt Service			The Certificates ⁽¹⁾			Less: Self-Supporting Debt Service ⁽²⁾	Total Net Tax Supported Debt Service Requirements	% of Principal Retired
	Principal	Interest	Total	Principal	Interest	Total			
2019	\$ 25,005,000	\$13,022,225	\$ 38,027,225	\$ -	\$ -	\$ -	\$ 17,512,294	\$ 20,514,931	
2020	23,755,000	11,713,451	35,468,451	3,545,000	2,759,545	6,304,545	20,862,045	20,910,951	
2021	23,125,000	10,727,483	33,852,483	4,050,000	2,260,200	6,310,200	20,509,730	19,652,952	
2022	21,595,000	9,766,533	31,361,533	4,120,000	2,180,535	6,300,535	18,402,957	19,259,110	
2023	21,630,000	8,765,638	30,395,638	4,215,000	2,097,592	6,312,592	17,430,726	19,277,504	32.39%
2024	21,955,000	7,729,715	29,684,715	4,295,000	2,010,349	6,305,349	17,094,683	18,895,381	
2025	21,000,000	6,717,454	27,717,454	4,400,000	1,917,066	6,317,066	16,559,271	17,475,249	
2026	20,720,000	5,738,088	26,458,088	4,495,000	1,816,974	6,311,974	15,943,776	16,826,285	
2027	18,890,000	4,888,018	23,778,018	3,370,000	1,724,841	5,094,841	13,925,924	14,946,935	
2028	17,535,000	4,205,448	21,740,448	3,455,000	1,640,695	5,095,695	12,632,609	14,203,534	62.08%
2029	15,785,000	3,596,426	19,381,426	3,540,000	1,549,554	5,089,554	11,544,092	12,926,888	
2030	14,390,000	3,029,930	17,419,930	3,640,000	1,449,520	5,089,520	9,844,079	12,665,370	
2031	13,265,000	2,483,500	15,748,500	3,755,000	1,338,907	5,093,907	9,619,880	11,222,527	
2032	13,200,000	1,956,348	15,156,348	3,870,000	1,217,811	5,087,811	9,025,959	11,218,199	
2033	12,270,000	1,481,280	13,751,280	4,005,000	1,086,044	5,091,044	7,876,763	10,965,562	83.76%
2034	11,350,000	1,064,839	12,414,839	4,145,000	943,370	5,088,370	7,126,570	10,376,639	
2035	8,600,000	733,240	9,333,240	4,295,000	791,428	5,086,428	5,292,200	9,127,468	
2036	8,880,000	460,615	9,340,615	4,465,000	631,094	5,096,094	5,304,605	9,132,104	
2037	7,150,000	204,623	7,354,623	4,630,000	461,903	5,091,903	4,879,583	7,566,942	
2038	2,395,000	43,709	2,438,709	4,805,000	283,795	5,088,795	3,996,193	3,531,311	98.76%
2039	-	-	-	5,000,000	96,250	5,096,250	2,634,761	2,461,489	100.00%
	<u>\$ 322,495,000</u>	<u>\$ 98,328,559</u>	<u>\$ 420,823,559</u>	<u>\$ 82,095,000</u>	<u>\$ 28,257,471</u>	<u>\$ 110,352,471</u>	<u>\$ 248,018,698</u>	<u>\$ 283,157,333</u>	

(1) Average life of the Certificates – 10.480 years. Interest calculated at an average rate for purposes of illustration. Preliminary, subject to change.

(2) In the past, the City has sold certificates of obligation to finance projects for the City’s water and sewer system, and electric system and has internally allocated portions of this debt as payable from the respective enterprise funds. The self-supporting amounts listed above are projections of debt that is expected to be retired by the City based on actual historical payments from these funds to pay for debt service the outstanding certificates of obligation. There is no guarantee that payments from these funds will continue in the future. Includes a portion of the Certificates. See “Table 10 – Self Supporting Debt” and the accompanying footnotes.

TABLE 9 - INTEREST AND SINKING FUND BUDGET PROJECTION

Total Net Tax Supported Debt Service Requirements, Fiscal Year Ending September 30, 2019 ⁽¹⁾		\$ 20,514,931
Interest and Sinking Fund, September 30, 2018	\$ 5,272,810	
Budgeted Interest and Sinking Fund Tax Levy	20,209,296	
Budgeted Investment Earnings	130,000	
Budgeted Transfers	397,855	26,009,961
Estimated Balance, September 30, 2019		\$ 5,495,030

(1) Excludes self-supporting debt. Includes the Certificates. Preliminary, subject to change.

TABLE 10 – SELF-SUPPORTING DEBT⁽¹⁾

Year End 9/30	Electric Fund	Wastewater Fund	Water Fund	Convention Cente	Landfill	Parking Garage	Total Self-Supporting Debt Service
2019	\$ 6,008,004	\$ 4,891,553	\$ 6,024,912	\$ 12,388	\$ 352,963	\$ 222,475	\$ 17,512,294
2020	6,687,683	6,636,709	6,952,303	7,100	353,850	224,400	20,862,045
2021	6,669,099	6,589,243	6,890,438	6,900	354,050	-	20,509,730
2022	6,567,436	5,685,445	5,820,102	6,675	323,300	-	18,402,957
2023	6,340,465	5,349,556	5,412,730	6,425	321,550	-	17,430,726
2024	5,994,368	5,328,662	5,436,428	6,175	329,050	-	17,094,683
2025	5,682,883	5,074,381	5,465,408	5,925	330,675	-	16,559,271
2026	5,424,378	5,073,988	5,108,186	5,675	331,550	-	15,943,776
2027	4,208,547	4,859,387	4,520,890	5,425	331,675	-	13,925,924
2028	4,051,149	4,489,735	3,762,099	5,225	324,400	-	12,632,609
2029	3,590,288	4,333,651	3,285,203	5,075	329,875	-	11,544,092
2030	2,729,864	4,341,656	2,772,559	-	-	-	9,844,079
2031	2,536,439	4,313,516	2,769,926	-	-	-	9,619,880
2032	2,178,939	4,084,844	2,762,177	-	-	-	9,025,959
2033	1,631,830	3,675,399	2,569,534	-	-	-	7,876,763
2034	1,033,030	3,523,653	2,569,888	-	-	-	7,126,570
2035	430,653	2,743,750	2,117,798	-	-	-	5,292,200
2036	432,185	2,748,538	2,123,882	-	-	-	5,304,605
2037	432,893	2,748,527	1,698,163	-	-	-	4,879,583
2038	432,756	2,418,834	1,144,603	-	-	-	3,996,193
2039	-	1,732,725	902,036	-	-	-	2,634,761
	<u>\$ 73,062,886</u>	<u>\$ 90,643,748</u>	<u>\$ 80,109,264</u>	<u>\$ 72,988</u>	<u>\$ 3,682,938</u>	<u>\$ 446,875</u>	<u>\$ 248,018,698</u>

(1) The debt service described in this table is general obligation debt for which repayment is provided from revenues from other sources. It is the City's current policy to provide these payments from such sources. There is no assurance that the use of these sources to make these payments will continue in the future. If payments are not made from such sources in the future, the difference will be paid for with ad valorem taxes. Includes a portion of the Certificates. Preliminary, subject to change.

TABLE 11 - AUTHORIZED BUT UNISSUED TAX BONDS

Date of Authorization	Purpose	Amount Authorized	Issued To Date	Unissued
11/4/2003	Municipal Complex Improvements	\$ 7,610,000	\$ 3,955,000	\$ 3,655,000
11/4/2008	Park Improvements	12,790,000	12,145,000	645,000
		<u>\$ 77,570,000</u>	<u>\$ 73,270,000</u>	<u>\$ 4,300,000</u>

ANTICIPATED ISSUANCE OF GENERAL OBLIGATION DEBT

The City has no firm plans for the issuance of additional general obligation debt payable from ad valorem taxes within the next twelve months.

OTHER OBLIGATIONS

Currently, the City has no outstanding capital leases or loans.

PENSION FUND

Plan Description

The City accounts for pension cost under GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*. The City of College Station participates as one of over 880 plans in the multi-employer, nontraditional, joint contributory, hybrid defined benefit pension plan administered by the Texas Municipal Retirement System (TMRS). TMRS is an agency created by the State of Texas and administered in accordance with the TMRS Act, Subtitle G, Title 8, Texas Government Code (the TMRS Act) as an agent multiple-employer retirement system for municipal employees in the State of Texas. The TMRS Act places the general administration and management of the System with a six-member Board of Trustees. Although the Governor, with the advice and consent of the Senate, appoints the Board, TMRS is not fiscally dependent on the State of Texas. TMRS's defined benefit pension plan is a tax-qualified plan under Section 401 (a) of the Internal Revenue Code. TMRS issues a publicly available comprehensive annual financial report (CAFR) that can be obtained at www.tmr.com. All eligible employees of the city are required to participate in TMRS.

TMRS provides retirement, disability, and death benefits. Benefit provisions are adopted by the governing body of the City, within the options available in the state statutes governing TMRS.

At retirement, the benefit is calculated as if the sum of the employee's contributions, with interest, and the city-financed monetary credits, with interest, were used to purchase an annuity. Members may choose to receive their retirement benefit in one of seven actuarially equivalent payment options. Members may also choose to receive a portion of their benefit as a Partial Lump Sum Distribution in an amount equal to 12, 24, or 36 monthly payments, which cannot exceed 75% of the member's deposits and interest.

Plan provisions for the City were as follows:

Employee deposit rate	7.00%
Matching ratio (City to Employee)	2 to 1
Years required for vesting	5
Service retirement eligibility	20 years at any age; 5 years at age 60 and above
Updated service credit	75% repeating transfers
Annuity increase (to retirees)	50% of CPI repeating

Employees covered by benefit terms at the December 31, 2017 valuation and measurement date are as follows:

Inactive employees or beneficiaries currently receiving benefits	445
Inactive employees entitled to but not yet receiving benefits	520
Active employees	905
Total	<u>1870</u>

Contributions

The contribution rates for employees in TMRS are either 5%, 6%, or 7% of employee gross earnings, and the city matching percentages are either 100%, 150%, or 200%, both as adopted by the governing body of the city. Under the state law governing TMRS, the contribution rate for each city is determined annually by the actuary, using the Entry Age Normal (EAN) actuarial cost method. The actuarially determined rate is the estimated amount necessary to finance the cost of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability.

Employees for the City of College Station were required to contribute 7% of their annual gross earnings during the fiscal year. The contribution rates for the City of College Station were 13% and 13% in calendar years 2018 and 2017, respectively. The City's contributions to TMRS for fiscal year 2018 were \$7,501,446 and were greater than the required contributions of \$7,483,465.

Net Pension Liability

The City's Net Pension Liability (NPL) was measured as of December 31, 2017, and the Total Pension Liability (TPL) used to calculate the Net Pension Liability was determined by an actuarial valuation as of that date.

Actuarial Assumptions

The Total Pension Liability in the December 31, 2017 actuarial valuation was determined using the following actuarial assumptions:

Inflation	2.5% per year
Overall payroll growth	3.00%
Investment rate of return	6.75%, net of pension plan investment expense including inflation

Salary increases were based on service-related tables. Mortality rates for active members, retirees, and beneficiaries were based on the gender-distinct RP2000 Combined Mortality Table with Blue Collar Adjustment, with male rates multiplied by 109% and female rates multiplied by 103%. The rates are projected on a fully generational basis by scale BB to account for future mortality improvements. For disabled annuitants, the gender-distinct RP2000 Disabled Retiree Mortality Table is used, with slight adjustments.

Actuarial assumptions used in the December 31, 2017 valuation were based on the results of actuarial experience studies. Assumptions are reviewed annually.

The long-term expected rate of return on pension plan investments is 6.75%. The pension plan's policy with regard to the allocation of invested assets is established and may be amended by the TMRS Board of Trustees. Plan assets are managed on a total return basis with an emphasis on both capital appreciation as well as the production of income, in order to satisfy the short-term and long-term funding needs of TMRS. The long-term expected rate of return on pension plan investments was determined using a building-block method in which best estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return
Domestic Equity	17.50%	4.55%
International Equity	17.50%	6.35%
Core Fixed Income	10.00%	1.00%
Non-Core Fixed Income	20.00%	36.90%
Real Return	10.00%	3.80%
Real Estate	10.00%	4.50%
Absolute Return	10.00%	3.75%
Private Equity	5.00%	7.50%
Total	100.00%	

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Discount Rate

The discount rate used to measure the Total Pension Liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that employee contributions will remain at the current 7.0% and employer contributions will be made at the rates specified in statute. Based on that assumption, the pension plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

	Total Pension Liability (a)	Increase (Decrease) Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balance at 12/31/2016	\$ 267,674,838	\$ 226,024,775	\$ 41,650,063
Changes for the year:			
Service Cost	8,418,324	-	8,418,324
Interest	17,986,722	-	17,986,722
Change of benefit terms	-	-	-
Differences between expected and actual experience	1,192,275	-	1,192,275
Changes of assumptions	-	-	-
Contributions - employer	-	7,223,267	(7,223,267)
Contributions - employee	-	3,773,603	(3,773,603)
Net investment income	-	31,325,172	(31,325,172)
Benefit payments, including refunds of employee contributions;	(10,828,101)	(10,828,101)	-
Administrative expenses		(162,346)	162,346
Other		(8,228)	8,228
Net changes	16,769,220	31,323,367	(14,554,147)
Ending Balance	\$ 284,444,058	\$ 257,348,142	\$ 27,095,915

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the City, as well as what the City's net pension liability (asset) would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

	1% Decrease in Discount Rate (5.75%)	Discount Rate (6.75%)	1% Increase in Discount Rate (7.75%)
City's net pension liability	\$ 69,618,084	\$ 27,095,915	\$ (7,527,694)

Pension Plan Fiduciary Net Position

Detailed information about the pension plan's Fiduciary Net Position is available in a separately-issued TMRS financial report. That report may be obtained on the Internet at www.tmr.com.

Pension Expense

For the year ended September 30, 2018, the City recognized pension expense of \$8,761,018.

Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pension

At September 30, 2018, the City reported deferred outflows and inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual economic experience	\$ 1,657,969	\$ 266,287
Changes in actual assumptions	1,434,725	-
Difference between projected and actual investment earnings	-	6,554,487
Contributions subsequent to the measurement date	5,492,869	-
Total	<u>\$ 8,585,563</u>	<u>\$ 6,820,774</u>

Deferred outflows of resources, of \$5,492,869 related to pensions resulting from contributions subsequent to the measurement date, will be recognized as a reduction of the net pension liability for the measurement year ending December 31, 2018 and recognized in the City's financial statements as of September 30, 2019.

Other amounts reported as deferred outflows and inflows of resources related to pensions will be recognized in pension expense in the following years indicated below:

Fiscal Year Ended Sept. 30:	Net deferred outflows (inflows) of resources
2019	\$ 1,215,672
2020	885,422
2021	(2,857,280)
2022	(2,971,894)
Thereafter	-
	<u>\$ (3,728,080)</u>

OTHER POST EMPLOYMENT BENEFITS

Plan Description

Plan administration: As required by state laws, in addition to the pension benefits described above, the City makes available certain postretirement benefits to employees who meet TMRS retirement qualifications, retire from City employment, and enroll in the plan before the effective date of their retirement. The City's OPEB Plan is a single employer defined benefit plan, defined by City policy. The OPEB Plan does not issue a separate report that includes financial statements and required supplementary information for the OPEB Plan.

Plan membership. At September 30, 2018 membership consisted of the following:

	Medical and/or Dental Benefits	Life Insurance Benefits
Retirees and Retiree Spouses	82	180
Active Employees	887	887
	<u>969</u>	<u>1,067</u>

Benefits provided: The City's defined benefit Other Post-Employment Benefits (OPEB) Plan offers medical, dental, vision, drug, and life insurance benefits to retired employees and their eligible dependents. The OPEB Plan is a single employer defined benefit OPEB plan administered by the City. The benefit levels offered to retired employees and eligible dependents are the same as those afforded to active employees as the City's group health insurance plan covers both active and retired members. All medical, dental, vision and drug care benefits are provided through the City's self-insured health plan. As long as monthly premium payments are made, the healthcare plan provides coverage until age 65 for retired employees and eligible dependents enrolled in the City's OPEB Plan. The life insurance offered through the OPEB Plan provides a \$10,000, fully insured death benefit coverage upon retirement, which ceases upon attainment of age 65. The Life insurance benefit for eligible retirees is paid entirely by the City.

Contributions: Benefit provisions, as well as retiree premium contributions, are established by City management. The City determines the employer and participant contribution rates annually, based on recommendations of City staff and the City's benefit consultant. For the year ended September 30, 2018, the City's average contribution rate was 2.6 percent of covered-employee payroll.

Investments

Investment policy: The goal of the Plan's investment program is to generate adequate long-term returns that, when combined with contributions, will result in sufficient assets to pay the present and future obligations of the Plan. The Plan has a Balanced Risk Tolerance with a Strategic Asset Allocation of the following:

Asset Class	Target Allocation	Allocation Range
Cash	5.0%	0-20%
Fixed Income	35.0%	30%-50%
Equity	60.0%	50%-70%
Total	100.0%	

Concentrations: Assets of the OPEB plan are held in Trust by PARS which is fully discussed in the OPEB trust below.

Rate of return: For the year ended December 31, 2017, the annual money-weighted rate of return on investments, net of investment expense, was 1.88 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Receivables

The OPEB plan has no receivables from long-term contracts with the City for contributions at September 30, 2018.

Allocated Insurance Contracts

The OPEB plan has no allocated insurance contracts excluded from OPEB plan assets at September 30, 2018.

Reserves

The OPEB plan has no reserves recorded at September 30, 2018.

Net OPEB Liability

The components of the net OPEB liability of the City at September 30, 2018 based on the December 31, 2017 measurement and actuarial valuation date, were as follows:

Total OPEB liability - ending	\$ 7,815,261
Plan fiduciary net position - ending	(1,521,285)
Net OPEB liability - ending	<u>6,293,976</u>
Plan fiduciary net position as a percentage of total OPEB liability	19.47%

Changes in the Net OPEB Liability

For the year ended September 30, 2018, the City recognized reduction in the OPEB liability of \$11,528,149. Effective January 1, 2018, the City has made the following changes to the benefits offered under its Other Post Employment Benefit Plan. To be eligible for premium pricing for medical, dental, vision, and drug benefits at the time of retirement, employees must:

- Meet TMRS retirement qualifications,
- Be 55 years of age or older,
- Have five (5) years of employment at the City of College Station,
- Be enrolled in the plan before the effective date of their retirement.

In addition, certain actuarial changes were made when enacting GASB 75 that affected the Net OPEB Liability. Those changes included:

- The Entry Age Normal Actuarial Cost Method must be used to attribute the actuarial present value of benefits to service periods in determining the OPEB Liability. This differed from the Projected Unit Credit Cost Method previously used by the City.
- Discount Rate changes were allowed under GASB 75. Those changes included that for the unfunded portion of the plan, the discount rate is based on yields of 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher. For the funded portion, however, the City could continue to use an assumption similar to the current discount rate.

Instead of recording expense equal to the Annual Required Contribution (ARC), GASB No. 75 required expensing the change in Net OPEB Liability from one period to the next. Some sources of this change are expensed immediately, while others are amortized over a period of approximately ten to twenty years depending on plan demographics.

Components of the change in the Net OPEB Liability is as follows:

	Increase (Decrease)		
	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
Balances as of December 31, 2016	\$ 17,822,125	\$ -	\$ 17,822,125
Changes for the year:			
Service cost	941,652	-	941,652
Interest	698,156	-	698,156
Changes of benefit terms	(7,476,535)	-	(7,476,535)
Differences between expected and actual experience	(707,212)	-	(707,212)
Changes of assumptions of other inputs	(2,874,882)	-	(2,874,882)
Contributions-employer	-	2,081,852	(2,081,852)
Net investment income	-	28,378	(28,378)
Administrative expenses	-	(902)	902
Benefit payments, including refunds of employee contributions	(588,043)	(588,043)	-
Net changes	(10,006,864)	1,521,285	(11,528,149)
Balances as of December 31, 2017	<u>\$ 7,815,261</u>	<u>\$ 1,521,285</u>	<u>\$ 6,293,976</u>

Actuarial assumptions. The total OPEB liability for the year ended September 30, 2018 as measured as of December 31, 2017 was determined by an actuarial valuation as of that date using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Inflation	3.0%
Salary increases	4% to 11% including inflation
Discount rate	7.00% (3.78% in prior year before establishment of Trust)
Healthcare cost trend rates	8.0% in FY19 declining by 0.5% per year to rate of 4.75% in FYE 2026 and beyond

Mortality rates were based on the RP-2000 Combined Mortality Table for Males or Females, as appropriate, with adjustments for mortality improvements based on Scale BB. The actuarial assumptions used in the December 31, 2017 valuation were based on the results of an actuarial experience study for the period December 31, 2010 to December 31, 2014.

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the target asset allocation are summarized in the following table:

Asset Class	Target Allocation	Expected Real Rate of Return	Weighted Average
Cash	5.0%	0.8%	0.0%
Fixed Income	35.0%	3.6%	1.3%
Equity	60.0%	5.8%	3.5%
Total	100.0%	N/A	4.7%

Discount rate. The discount rate used to measure the total OPEB liability was 7.0 percent. The discount rate used to determine the total OPEB Liability as of the beginning of the measurement year prior to the establishment of the OPEB trust was 3.78%. The weighted average of the Expected Real Rate of Return is added to the Expected Long-Term Inflation assumption and reduced by expected investment expenses ($4.74\% + 3.00\% - 0.75\% = 6.99\%$). This result is then rounded to the nearest 25 basis points to obtain the Expected Long-Term Rate of Return of 7.00%.

The projected cash flows into the plan are equal to projected benefit payments out of the plan plus prefunding contributions that have been approved by the City Council. The projection of cash flows used to determine the discount rate assumed that City contributions will be made at rates equal to the actuarially determined contribution rates.

The assumed rate of general inflation has been updated since the valuation used for the September 30, 2017 liability to reflect the actuary's best expectation of future plan experience.

The long-term expected rate of return for the plan is 7.0 percent. The plan operates on a pay as you go basis and accumulates assets in trust in addition to the pay as you go amount.

Based on the discount rate assumptions, the OPEB plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

Sensitivity of the net OPEB liability to changes in the discount rate. The following presents the net OPEB liability of the City, as well as what the City's net OPEB liability would be if it were calculated using a discount rate that is 1-percentage point lower (6.0 percent) or 1-percentage-point higher (8.0 percent) than the current discount rate:

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Net OPEB liability	\$ 5,535,091	\$ 6,293,976	\$ 7,184,860

Sensitivity of the net OPEB liability to changes in the healthcare cost trend rates. The following presents the net OPEB liability of the City, as well as what the City's net OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower (7.0 percent decreasing to 3.75 percent) or 1-percentage-point higher (9.0 percent decreasing to 5.75 percent) than the current healthcare cost trend rates:

	1% Decrease (7.00% decreasing to 3.75%)	Current Healthcare Cost Trend Rates (8.00% decreasing to 4.75%)	1% Increase (9.00% decreasing to 5.75%)
Net OPEB liability	\$ 5,535,091	\$ 6,293,976	\$ 7,184,860

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

For the fiscal year ended September 30, 2018, the City recognized OPEB expense/(income) of \$(6,358,056). At September 30, 2018, the City reported changes to deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources as follows:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual economic experience	\$ -	\$ 609,396
Changes in actual assumptions	-	2,477,250
Difference between projected and actual investment earnings	-	1,595
Contributions subsequent to the measurement date	1,323,623	-
Total	<u>\$ 1,323,623</u>	<u>\$ 3,088,241</u>

Deferred outflows of resources, of \$1,323,623 related to OPEB resulting from contributions subsequent to the measurement date, will be recognized as a reduction of the net OPEB liability for the measurement year ending December 31, 2018 and recognized in the City's financial statements as of September 30, 2019. Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Fiscal Year Ended Sept. 30:	Deferred inflows of resources
2019	\$ (495,874)
2020	(495,847)
2021	(495,847)
2022	(495,846)
2023	(495,448)
Thereafter	(609,406)
	<u>\$ (3,088,268)</u>

OPEB Trust

On September 11, 2017, the City Council approved a resolution adopting the Public Agencies Retirement Services (PARS) Post-Retirement Health Care Plan Trust and on September 25, 2017, the City Council passed resolution 2017-0564 appropriating the funds. Effective September 27, 2017, the City entered into a section 115 Irrevocable Exclusive Benefit agent multiple-employer trust to fund its Other Postemployment Benefits Obligation. Trust and Investment Management Services are provided by Public Agency Retirement Services (PARS) and is administered by the City. The investment manager that executes investment transactions is Highmark Capital Management, Inc. and the custodian of the trust's funds is US Bank.

With the establishment of the trust, the City can pre-fund (make annual payments in advance of the obligation) and allocate funds for the express purpose of funding future OPEB costs. The investment returns can be used to reduce the actuarial contributions and can result in lower long-term costs of the plan. As of September 30, 2018 the trust's balance was \$2,646,668.

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FINANCIAL INFORMATION

TABLE 12 - GENERAL FUND REVENUES AND EXPENDITURE HISTORY

	Fiscal Year Ended September 30,				
	2018	2017	2016	2015	2014
Revenues:					
Taxes	\$ 56,329,528	\$ 53,749,315	\$ 48,737,894	\$ 46,750,120	\$ 41,951,522
Licenses & Permits	1,772,959	2,127,142	2,132,802	1,500,777	1,424,598
Intergovernmental	910,169	828,510	1,373,950	355,083	189,103
Charges for Services	3,940,837	3,863,744	3,809,206	3,572,684	2,987,778
Fines, Forfeits and Penalties	3,211,536	2,917,735	3,255,051	2,693,647	3,038,926
Investment Income	449,880	241,880	148,302	116,074	66,264
Rents & Royalties	219,538	284,351	187,328	136,228	542,816
Contributions	7,361	7,580	8,880	1,251	11,016
Other	642,547	775,114	434,537	3,252,310	113,802
Total Revenues	\$ 67,484,355	\$ 64,795,371	\$ 60,087,950	\$ 58,378,174	\$ 50,325,825
Expenditures:					
General Government	\$ 6,165,016	\$ 6,228,021	\$ 5,524,471	\$ 4,853,358	\$ 5,108,448
Fiscal Services	3,954,488	3,815,223	3,733,550	3,314,990	3,029,566
Police Department	22,631,648	21,372,560	20,170,450	18,533,889	17,080,568
Fire Department	19,624,919	17,001,580	16,916,819	14,881,983	13,585,022
Planning & Development Services	3,740,969	3,741,263	3,243,768	3,106,143	2,867,857
Parks and Recreation	9,129,079	8,621,075	9,279,126	8,194,670	4,596,645
Information Technology	4,488,885	4,600,556	4,491,009	4,112,987	4,207,305
Public Works	9,575,300	8,151,055	11,162,508	9,156,069	7,611,303
Library Services	1,118,522	1,097,876	1,098,326	1,138,568	1,078,851
Contributions	1,380,580	1,280,215	1,220,251	1,187,500	1,184,115
Other	-	-	863	217,114	222,034
Capital Improvement Projects	319,406	988,435	667,574	129,896	731,621
Total Expenditures	\$ 82,128,812	\$ 76,897,859	\$ 77,508,715	\$ 68,827,167	\$ 61,303,335
Other Financing Sources (Uses):					
Sale of General Fixed Assets	\$ -	\$ 47,478	\$ -	\$ 8,974,205	\$ 4,582,111
Operating Transfers In	19,245,943	18,347,351	16,507,346	15,094,866	15,158,581
Operating Transfers Out	(3,031,702)	(2,911,020)	(2,376,443)	(11,441,262)	(4,444,465)
Total Other Financing Sources (Uses)	\$ 16,214,241	\$ 15,483,809	\$ 14,130,903	\$ 12,627,809	\$ 15,296,227
Net Change in Fund Balance	\$ 1,569,784	\$ 3,381,321	\$ (3,289,862)	\$ 2,178,816	\$ 4,318,717
Fund Balance, Beginning of Year	22,514,523	19,133,202	22,423,064	20,244,248	15,925,531
Prior Period Adjustment	2,706,262	-	-	-	-
Fund Balance, End of Year	\$ 26,790,569	\$ 22,514,523	\$ 19,133,202	\$ 22,423,064	\$ 20,244,248

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TABLE 13 - MUNICIPAL SALES TAX HISTORY

The City has adopted the Municipal Sales and Use Tax Act, Texas, Tax Code, Chapter 321, which grants the City the power to impose and levy a 1% Local Sales and Use Tax within the City; the proceeds are credited to the General Fund and are not pledged to the payment of the Certificates. Collections and enforcements are effected through the offices of the Comptroller of Public Accounts, State of Texas, who remits the proceeds of the tax, after deduction of a 2% service fee, to the City monthly. In May 1990, the voters of the City approved the imposition of an additional sales and use tax of one-half of one percent ($\frac{1}{2}$ of 1%) for property tax reduction. The total sales tax rate for the City is 1.5%.

Fiscal Year Ended	Total Collected ⁽¹⁾	% of Ad Valorem Tax Levy	Equivalent of Ad Valorem Tax Rate	Per Capita ⁽²⁾
9/30				
2015	\$ 26,687,963	89.55%	\$ 0.41	\$ 261
2016	27,163,480	84.71%	0.38	255
2017	28,561,762	77.18%	0.36	260
2018	28,799,040	66.51%	0.33	244
2019	10,482,189 ⁽³⁾	22.57%	0.11	87

(1) Provided by the City.

(2) Based on population estimates provided by the City.

(3) Collections as of February 28, 2019.

The sales tax breakdown for the City is as follows:

Brazos County Sales & Use Tax	1/2 %
Property Tax Reduction	1/2 %
City Sales & Use Tax	1 %
State Sales & Use Tax	6 1/4 %
Total	8 1/4 %

FINANCIAL POLICIES

Basis of Accounting . . . The accounts of the City are organized and operated on the basis of funds and account groups. A fund is an independent fiscal and accounting entity with a self-balancing set of accounts. Fund accounting segregates funds according to their intended purpose and is used to aid management in demonstrating compliance with finance-related legal and contractual provisions. The minimum number of funds is maintained consistent with legal and managerial requirements. Account groups are a reporting device to account for certain assets and liabilities of the governmental funds not recorded directly in those funds. Government funds are used to account for the City's general government activities. Governmental fund types use the flow of current financial resources measurement focus and the modified accrual basis of accounting.

General Fund . . . The General Fund is the City's primary operating fund. It is used to account for all activities typically considered governmental functions of the City. These include Public Safety, Public Works, Parks and Recreation, Economic and Planning and Development Services, the support functions for these areas, and the administrative functions for the City.

The General Fund for the 2018-2019 fiscal year is influenced by current policies and any approved policy changes. The policies include inter-fund equity; maintaining a balance between revenues and expenditures; and maintaining the level of service currently provided as the City experiences residential and commercial growth.

The City's financial policies are for a General Fund balance of 15% of budgeted appropriations at year end. To the extent that the General Fund balance exceeds this amount, this surplus is to be expended in future years for one time expenditures such as capital items and short term projects.

Debt Service Fund . . . The Debt Service Fund accounts for the servicing of general long-term debt not being financed by proprietary or nonexpendable trust funds. It is the City's policy to maintain at least 8 1/3% of annual appropriated expenditures for debt service and any associated fees as the Debt Service Fund balance at fiscal yearend. The City is in compliance with that policy.

Budgetary Procedures . . . Prior to September 1, the City Manager submits to the City Council a proposed operating budget for the fiscal year commencing the following October 1. The operating budget includes proposed expenditures and the means of financing them. All budget requests are compiled by the Finance Department and presented with comparative and supporting data to the Mayor and City Council for review. Public hearings are properly advertised and conducted at City Hall for taxpayer comments. Prior to September 27, the budget is legally enacted through passage of an ordinance. The City Council must approve all transfers of budgeted amounts between departments within any fund and any revision that alters the total expenditure of any fund. An amount is also budgeted each year for contingencies which may arise.

THE COMBINED UTILITY SYSTEM

WATERWORKS SYSTEM

Since December 1981, the City has had the capability to produce and deliver 100% of its water. The system has been expanded to a system of nine wells, with a combined capacity of 29 million gallons per day. The water is delivered to the distribution system by 14 miles of 30-inch diameter and 36 inch diameter pipeline and two pumping stations.

Two of the wells mentioned above are shallow wells, less than 1,500 feet deep, drilled into the Carrizo and Sparta aquifers. The remaining seven are deep wells, approximately 3,000 feet, drilled in the Simsboro Sand formation of the Carrizo-Wilcox aquifer. This is a very prolific aquifer of high quality water that has the capacity to provide an adequate water supply for the City and surrounding communities through the year 2060, and well beyond, if managed properly.

The Simsboro Sand, and all local aquifers, are regulated by the Brazos Valley Groundwater Conservation District, and permitting requirements have been implemented for all new water wells. College Station has obtained a Drilling/Operating Permit from the Groundwater District for the City to drill another Simsboro Well, Well #9, which will complete construction in FY-18. This well will meet our projected demands for water for many years into the future. Well #10 remains in the planning stages, and would be constructed in approximately 2022, depending upon the rate of growth of water demands. College Station is also investigating other water supply strategies for the future. One example is Aquifer Storage and Recovery (ASR), which would store treated wastewater effluent in an aquifer for future use, most likely during summer peaks. If implemented, this ASR system would greatly reduce the demand on the groundwater production system and ensure a very stable water supply for the City.

The City has completed a Water Reclamation project, which pumps effluent from the wastewater treatment plant up to Veteran's Park for irrigation of playing fields, reducing the demand on the potable water system by approximately 350,000 gallons per day during watering season. Additional phases of the reclaimed water system are in the planning stages. In 2016, the City completed a two year agreement with an oil company, which provided the City with \$470,000 of revenue for providing just under 200 million gallons of reclaimed water, and is currently in a second contract that has generated \$125,000 of revenue so far.

The City also has stand by generators at strategic locations sufficient to provide adequate potable water for health and safety during an extended area-wide electrical power outage.

Water rates were established by ordinance, passed and approved by the City Council, and the following rates will become effective July 1, 2018. The Residential rates are inclined block rates to encourage water conservation.

Type of Customer	Usage Charge (per 1,000 gallons)	Service Charge	Meter Size
Residential, Commercial and Industrial		10.80 per mo.	3/4"
		13.55 per mo.	1"
		20.17 per mo.	1 1/2"
		31.85 per mo.	2"
		100.53 per mo.	3"
		149.35 per mo.	4"
		181.82 per mo.	6"
		181.82 per mo.	8"
Residential	\$2.40 for usage from 0-10,000 gallons		
	\$3.12 for usage from 11,000-15,000 gallons		
	\$3.83 for usage from 16,000-20,000 gallons		
	\$4.54 for usage from 21,000-25,000 gallons		
	\$5.26 for usage from 26,000 gallons and more		
Commercial	\$2.64 per 1,000 gallons		
Commercial Irrigation Usage Charge	\$2.84 per 1,000 gallons		
Commercial Irrigation Multifamily 3+ units	\$2.64 per 1,000 gallons		
MUD #1 Residential and Commercial	Rates as above with an added 50% surcharge		

WASTEWATER SYSTEM

The City's waste water is treated by three City-owned wastewater treatment plants, Carter Creek Treatment Plant, Lick Creek Treatment Plant, and Carter's Lake Treatment Plant located within the City limits. The three plants have a combined treatment capacity of 11.5 mgd as compared to annual average daily demand of 7.4 mgd. The treatment plant's capacity is estimated to be adequate to serve a population of 125,000.

Sewer rates were established by ordinance, passed and approved by the City Council, and became effective on October 1, 2016.

Residential (metered water)	\$20.28 including 4,000 gallons of metered water
Usage Charge	\$4.06 per 1,000 gallons of additional metered water
	\$44.64 maximum per month
Residential (without meter to each unit).....	\$25.80 per unit per month
Commercial and Industrial	\$17.40 per month
Usage Charge	\$4.83 per 1,000 gallons of metered water usage
.....	

There are 2,476 customers (units) who receive their water from Wellborn Water, but sewer is provided by the City of College Station. Those customers pay an initial usage charge of \$44.64 per month. After six months of documented waste water usage, rates can be adjusted downward on a tiered scale.

ELECTRIC SUPPLY SOURCE

The City has multiple Power Purchase Agreements (PPAs) in order to meet its load requirements. The PPAs are currently with AEPEP (AEP Energy Partners) and Garland Power and Light (GP&L). With AEPEP, the City has fixed block ATC PPA that expires in 2027. The City also has a PPA with AEPEP for wind power that expires in 2028. The City has a load following PPA with GP&L that expires in 2021. While the PPAs with AEPEP are considered base load power, the load following PPA with GP&L covers the load above the base power provided by AEPEP's PPAs. GP&L is also the City's Qualified Scheduling Entity (QSE). GP&L's QSE schedules and settles all the contract resources owned by the City. On City's advice the QSE also procures any replacement power as needed on behalf of the City.

Other wholesale/power supply costs include Congestion costs, Ancillary Services and Transmission Cost of Service (TCOS). Since the City owns transmission assets, it not only pays but also receives TCOS payments based on TCOS rates approved by the Public Utility Commission of Texas.

The City owns 20 miles of 138kV transmission lines, seven substations, and 458 miles of distribution lines. ERCOT serves as the RTO/ISO for the area.

The current electric rates were established by ordinance passed and approved by the City Council and became effective on October 1, 2016. The electric rates are subject to a transmission delivery adjustment (TDA) charge which requires that the net energy charge per kilowatt hour must be increased or decreased by an amount per kilowatt hour equal to additional transmission charges above those accounted for in the wholesale rate. The TDA is currently set at \$0.005 per kilowatt hour of energy consumed.

In January 2009, College Station Utilities began offering residential electric customers renewable wind energy. In February 2010, the renewable wind energy program was expanded to include commercial customers. Wind energy is generated from the South Trent Mesa Wind Project located west of Abilene, Texas.

Single Family Residential	Service Charge	\$7.00 per month
	plus:	
	kWh (May through October)	\$0.1169 per kWh
	kWh (November through April)	\$0.1123 per kWh
	Tax	1.50%
	Transmission Delivery Adjustment (TDA) ..	\$0.005 per kWh
Master Metered Multiple Dwelling Units .	Service Charge	\$100.00 per month per master meter
	plus:	
	kWh (May through October)	\$0.1181 per kWh
	kWh (November through April)	\$0.1134 per kWh
	Tax	1.50%
	TDA	\$0.005 per kWh
Small Commercial (1-10 KW demand).....	Service Charge.....	\$9.00 per month
	plus:	
	First 1,000 kWh	\$0.1344 per kWh
	Over 1,000 kWh	\$0.1028 per kWh

	Tax	8.25%
	TDA	\$0.005 per kWh
Medium Commercial (15-300 KW)	Service Charge.....	\$25.00 per month
	plus:	
	Demand Charge (Per KW)	\$10.40 per KW
	Energy Charge All kWh.....	\$0.0729 per KW
	Minimum Monthly Charge	\$181.00
	Tax	8.25%
	TDA	\$0.005 per kWh
Large Commercial (300 – 1,500 KW)	Service Charge.....	\$75.00 per month
	plus:	
	Demand Charge (Per KW)	\$10.40 per KW
	Energy Charge All kWh.....	\$0.0703 per KW
	Minimum Monthly Charge	\$3,195.00
	Tax	8.25%
	TDA	\$0.005 per kWh
Industrial (1,500 KW and over).....	Service Charge	\$250.00 per month
	plus:	
	Demand Charge (Per KW).....	\$9.85
	Energy Charge (first 500,000 kWh)	\$0.0689 per KW
	Minimum Monthly	\$15,034.85
	Tax.....	8.25%
	TDA.....	\$0.005 per kWh

WIND WATT RATES

Wind rates were established by Ordinance #2012-3397 on February 23, 2012, passed and approved by the City Council, and became effective on March 1, 2012.

Participation Level: Residential & Commercial

10%	\$0.0005 per KW
50%	\$0.0025 per KW
100%	\$0.005 per KW

TABLE 14 - HISTORICAL UTILITY USERS (UNITS SERVED)

	Fiscal Year Ended September 30,				
	2018	2017	2016	2015	2014
Water	44,995	43,199	41,709	41,540	40,768
Wastewater	46,031	42,840	40,866	40,806	39,128
Electric	39,435	39,300	40,141	43,471	38,198

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TABLE 15 - TEN LARGEST UTILITY CUSTOMERS

Utility Customer	Type of Business	FY 2018 KWH Consumption	Total Percent of KWH Consumed
CSISD	Schools	24,299,527	2.90%
City of College Station	Municipality	21,743,761	2.60%
Scott & White	Clinic/Hospital/Pharmacy	17,778,777	2.12%
Texas A&M	University	12,780,958	1.53%
Biotechnologies Texas LLC	Medical	9,617,500	1.15%
Wal-Mart	Retail	9,166,320	1.09%
CBL & Associates	Retail Mall	8,910,640	1.06%
College Station Medical Center	Medical	8,689,756	1.04%
HEB Grocery	Retail	8,426,400	1.01%
Dealer Computer Services Inc	Retail	6,444,480	0.77%
		<u>127,858,119</u>	<u>15.26%</u>

TABLE 16 - CONDENSED STATEMENT OF OPERATIONS

	For Fiscal Year Ended September 30,				
	2018	2017	2016	2015	2014
Revenues:					
Electric	\$ 102,511,712	\$ 99,179,570	\$ 98,904,688	\$ 98,763,293	\$ 95,677,765
Water and Wastewater	33,602,131	31,333,922	29,484,851	28,732,968	27,550,262
Interest	1,262,551	697,655	346,312	180,423	116,433
Other	2,520,335	3,179,821	3,636,420	3,546,138	2,890,061
Total Revenues	<u>\$ 139,896,729</u>	<u>\$ 134,390,968</u>	<u>\$ 132,372,271</u>	<u>\$ 131,222,822</u>	<u>\$ 126,234,521</u>
Expenses:					
Total Expenses	<u>\$ 77,828,073</u>	<u>\$ 78,766,516</u>	<u>\$ 76,771,094</u>	<u>\$ 82,079,813</u>	<u>\$ 100,235,329</u>
Net Available for Debt Service	<u>\$ 62,068,656</u>	<u>\$ 55,624,452</u>	<u>\$ 55,601,177</u>	<u>\$ 49,143,009</u>	<u>\$ 25,999,192</u>
Water (Units Served)	44,995	43,199	41,709	41,540	40,768
Wastewater (Units Served)	46,031	42,840	40,866	40,806	39,128
Electric (Units Served)	39,435	39,300	40,141	43,471	38,198

TABLE 17 – VALUE OF THE SYSTEM

	Fiscal Year Ended September 30,				
	2018	2017	2016	2015	2014
Utility Systems	\$ 579,717,873	\$ 553,774,054	\$ 527,435,531	\$ 507,758,485	\$ 459,071,713
Construction in Progress	46,447,061	30,240,705	23,520,025	13,213,020	43,281,736
	<u>\$ 626,164,934</u>	<u>\$ 584,014,759</u>	<u>\$ 550,955,556</u>	<u>\$ 520,971,505</u>	<u>\$ 502,353,449</u>
Less: Accumulated Depreciation	246,243,993	229,374,628	213,325,487	198,339,390	183,756,067
Net System Value	<u>\$ 379,920,941</u>	<u>\$ 354,640,131</u>	<u>\$ 337,630,069</u>	<u>\$ 322,632,115</u>	<u>\$ 318,597,382</u>

TABLE 18 – CITY’S EQUITY IN THE SYSTEM

Resources	Fiscal Year Ended September 30,				
	2018	2017	2016	2015	2014
Net System Value	\$ 379,920,941	\$ 354,640,131	\$ 337,630,069	\$ 322,632,115	\$ 318,597,382
Current Assets	102,382,543	70,636,223	63,085,837	52,023,881	42,939,476
Restricted Assets	11,296,693	30,149,917	21,849,829	19,977,038	27,760,893
Other Resources	-	-	-	-	0
Deferred Charges	3,506,226	5,197,104	5,425,502	2,381,933	1,305,356
Total	\$ 497,106,403	\$ 460,623,375	\$ 427,991,237	\$ 397,014,967	\$ 390,603,107
Obligations					
Current Liabilities	\$ 12,467,547	\$ 10,681,761	\$ 9,511,319	\$ 13,688,841	\$ 19,092,357
Current Liabilities Payable from					
Restricted Assets	15,872,611	15,887,617	15,462,903	10,735,825	7,292,731
General Obligation Debt	52,738,157	59,325,710	55,626,759	43,175,000	47,995,000
Certificates of Obligation	91,642,717	77,282,370	78,814,496	83,445,000	87,210,000
Revenue Bond Debt	-	-	-	13,395,000	14,920,000
Other Debt ⁽¹⁾	8,016,706	8,899,938	9,418,425	8,593,734	9,385,034
Total Liabilities	\$ 180,737,738	\$ 172,077,396	\$ 168,833,902	\$ 173,033,400	\$ 185,895,122
City's Equity in System	\$ 316,368,665	\$ 288,545,979	\$ 259,157,335	\$ 223,981,567	\$ 204,707,985
Percentage of Equity in System	63.64%	62.64%	60.55%	56.42%	52.41%

(1) Includes OPEB Net Pension Obligations.

TABLE 19 – UTILITY REVENUE BOND AND SYSTEM SUPPORTED CERTIFICATE DEBT SERVICE

Series	Original Principal Amount	Outstanding Principal as of 9/30/2018
2008 ⁽²⁾	15,925,000	1,600,000
2009 ⁽²⁾	19,490,000	2,850,000
2010 ⁽²⁾	2,850,000	1,995,000
2010 ⁽¹⁾⁽³⁾	25,905,000	9,730,000
2011 ⁽²⁾	7,920,000	5,880,000
2012 ⁽²⁾	16,415,000	12,655,000
2012 ⁽¹⁾⁽³⁾	9,570,000	4,720,000
2013 ⁽²⁾	10,230,000	8,335,000
2013 ⁽¹⁾⁽³⁾	6,255,000	3,620,000
2014 ⁽²⁾	23,555,000	20,135,000
2014 ⁽¹⁾⁽³⁾	14,455,000	8,090,000
2016 ⁽²⁾	7,250,000	6,685,000
2016 ⁽¹⁾⁽³⁾	18,710,000	17,170,000
2017 ⁽²⁾	12,140,000	11,830,000
2017 ⁽¹⁾⁽³⁾	9,205,000	9,205,000
2018 ⁽²⁾	19,150,000	19,150,000
2019 ⁽²⁾	38,370,000	38,370,000
	<u>\$ 257,395,000</u>	<u>\$ 182,020,000</u>

(1) Represents refunding bonds.

(2) Certificates of Obligation supported in whole or in part by Utility System revenues.

(3) General Obligation Improvement Bonds supported in part by the Utility System revenues.

INVESTMENTS

The City invests its investable funds in investments authorized by Texas law in accordance with investment policies approved by the City Council. Both state law and the City's investment policies are subject to change.

LEGAL INVESTMENTS

Under State law, the City is authorized to invest in: (1) obligations of the United States or its agencies and instrumentalities, including letters of credit; (2) direct obligations of the State or its agencies and instrumentalities; (3) collateralized mortgage obligations directly issued by a federal agency or instrumentality of the United States, the underlying security for which is guaranteed by an agency or instrumentality of the United States; (4) other obligations, the principal of and interest on which are unconditionally guaranteed or insured by, or backed by the full faith and credit of, the State or the United States or their respective agencies and instrumentalities, including obligations that are fully guaranteed or insured by the Federal Deposit Insurance Corporation or by the explicit full faith and credit of the United States; (5) obligations of states, agencies, counties, cities, and other political subdivisions of any state rated as to investment quality by a nationally recognized investment rating firm not less than A or its equivalent; (6) bonds issued, assumed, or guaranteed by the State of Israel; (7) certificates of deposit and share certificates (i) issued by a depository institution that has its main office or a branch office in the State of Texas, that are guaranteed or insured by the Federal Deposit Insurance Corporation or the National Credit Union Share Insurance Fund, or are secured as to principal by obligations described in clauses (1) through (6) or in any other manner and amount provided by law for City deposits, or (ii) where (a) the funds are invested by the City through (I) a broker that has its main office or a branch office in the State of Texas and is selected from a list adopted, at least annually, by the City as required by law or (II) a depository institution that has its main office or a branch office in the State of Texas that is selected by the City; (b) the broker or the depository institution selected by the City arranges for the deposit of the funds in certificates of deposit in one or more federally insured depository institutions, wherever located, for the account of the City; (c) the full amount of the principal and accrued interest of each of the certificates of deposit is insured by the United States or an instrumentality of the United States, and (d) the City appoints the depository institution selected under (a) above, a custodian as described by Section 2257.041(d) of the Texas Government Code, or a clearing broker-dealer registered with the Securities and Exchange Commission and operating pursuant to Securities and Exchange Commission Rule 15c3-3 (17 C.F.R. Section 240.15c3-3) as custodian for the City with respect to the certificates of deposit; (8) fully collateralized repurchase agreements that have a defined termination date, are fully secured by a combination of cash and obligations described in clause (1) which are pledged to the City, held in the City's name, and deposited at the time the investment is made with the City or with a third party selected and approved by the City and are placed through a primary government securities dealer, as defined by the Federal Reserve, or a financial institution doing business in the State of Texas; (9) bankers' acceptances with the remaining term of 270 days or less, if the short-term obligations of the accepting bank or its parent are rated at least "A-1" or "P-1" or the equivalent by at least one nationally recognized credit rating agency; (10) commercial paper that is rated at least "A-1" or "P-1" or the equivalent by either (a) two nationally recognized credit rating agencies or (b) one nationally recognized credit rating agency if the paper is fully secured by an irrevocable letter of credit issued by a bank organized and existing under the laws of the United States or any state; (11) no-load money market mutual funds regulated by the Securities and Exchange Commission that have a dollar weighted average portfolio maturity of 90 days or less and include in their investment objectives the maintenance of a stable net asset value of \$1 for each share; (12) no-load mutual funds registered with the Securities and Exchange Commission that: have an average weighted maturity of less than two years; invests exclusively in obligations described in the preceding clauses; and are continuously rated as to investment quality by at least one nationally recognized investment rating firm of not less than "AAA" or its equivalent; provided, however, that the City is not authorized to invest in the aggregate more than 15% of its monthly average fund balance, excluding bond proceeds and reserves and other funds held for debt service, in such no-load mutual funds, and (13) for bond proceeds, guaranteed investment contracts that have a defined termination date, are secured by obligations of the United States or its agencies and instrumentalities in an amount equal to the amount invested under the contract, and are pledged to the City and deposited with the City or a third party selected and approved by the City.

The City is also authorized to invest its funds through an eligible investment pool if the governing body of the City by rule, ordinance, or resolution, as appropriate, authorizes investment in the particular pool. To be eligible to receive funds from and invest funds on behalf of the City, an investment pool must furnish to the investment officer or other authorized representative of the City an offering circular or other similar disclosure instrument that contains, at a minimum, the following information: (1) the types of investments in which money is allowed to be invested; (2) the maximum average dollar-weighted maturity allowed, based on the stated maturity date, of the pool; (3) the maximum stated maturity date any investment security within the portfolio has; (4) the objectives of the pool; (5) the size of the pool; (6) the names of the members of the advisory board of the pool and the dates their terms expire; (7) the custodian bank that will safekeep the pool's assets; (8) whether the intent of the pool is to maintain a net asset value of one dollar and the risk of market price fluctuation; (9) whether the only source of payment is the assets of the pool at market value or whether there is a secondary source of payment, such as insurance or guarantees, and a description of the secondary source of payment; (10) the name and address of the independent auditor of the pool; (11) the requirements to be satisfied for an entity to deposit funds in and withdraw funds from the pool and any deadlines or other operating policies required for the entity to invest funds in and withdraw funds from the pool; and (12) the performance history of the pool, including yield, average dollar-weighted maturities, and expense ratios.

Governmental bodies in the State are authorized to implement securities lending programs if (i) the securities loaned under the program are 100% collateralized, a loan made under the program allows for termination at any time and a loan made under the program is either secured by (a) obligations that are described in clauses (1) through (6) of the first paragraph under this subcaption, (b) irrevocable letters of credit issued by a state or national bank that is continuously rated by a nationally recognized investment rating firm not less than "A" or its equivalent, or (c) cash invested in obligations that are described in clauses (1) through (6) and (10) through (12) of the first paragraph under this subcaption, or an authorized investment pool; (ii) securities held as collateral under a loan are pledged to the governmental body, held in the name of the governmental body and deposited at the time the investment is made with the City or a third party designated by the City; (iii) a loan made under the program is placed through either a primary government securities dealer or a financial institution doing business in the State; and (iv) the agreement to lend securities has a term of one year or less.

The City may invest in such obligations directly or through government investment pools that invest solely in such obligations provided that the pools are rated no lower than “AAA” or “AAAm” or an equivalent by at least one nationally recognized rating service. The City is specifically prohibited from investing in: (1) obligations whose payment represents the coupon payments on the outstanding principal balance of the underlying mortgage-backed security collateral and pays no principal; (2) obligations whose payment represents the principal stream of cash flow from the underlying mortgage-backed security and bears no interest; (3) collateralized mortgage obligations that have a stated final maturity of greater than 10 years; and (4) collateralized mortgage obligations the interest rate of which is determined by an index that adjusts opposite to the changes in a market index.

INVESTMENT POLICIES

Under Texas law, the City is required to invest its funds under written investment policies that primarily emphasize safety of principal and liquidity; that address investment diversification, yield, maturity, and the quality and capability of investment management; and that includes a list of authorized investments for City funds, maximum allowable stated maturity of any individual investment and the maximum average dollar-weighted maturity allowed for pooled fund groups, methods to monitor the market price of investments acquired with public funds, a requirement for settlement of all transactions, except investment pool funds and mutual funds, on a delivery versus payment basis, and procedures to monitor rating changes in investments acquired with public funds and the liquidation of such investments consistent with the PFIA. All City funds must be invested consistent with a formally adopted “Investment Strategy Statement” that specifically addresses each funds’ investment. Each Investment Strategy Statement will describe its objectives concerning (1) suitability of investment type, (2) preservation and safety of principal, (3) liquidity, (4) marketability of each investment, (5) diversification of the portfolio, and (6) yield.

Under Texas law, City investments must be made “with judgment and care, under prevailing circumstances, that a person of prudence, discretion, and intelligence would exercise in the management of the person’s own affairs, not for speculation, but for investment, considering the probable safety of capital and the probable income to be derived.” At least quarterly the investment officers of the City will submit an investment report detailing (1) the investment position of the City, (2) that all investment officers jointly prepared and signed the report, (3) the beginning market value and ending market value for each pooled fund group, (4) the book value and market value of each separately listed asset at the end of the reporting period, (5) the maturity date of each separately invested asset, (6) the account or fund or pooled fund group for which each individual investment was acquired, and (7) the compliance of the investment portfolio as it relates to: (a) adopted investment strategy statements and (b) state law. No person may invest City funds without express written authority from the City Council.

ADDITIONAL PROVISIONS

Under Texas law the City is additionally required to: (1) annually review its adopted policies and strategies; (2) require any investment officers’ with personal business relationships or relatives with firms seeking to sell securities to the entity to disclose the relationship and file a statement with the Texas Ethics Commission and the City Council; (3) require the registered principal of firms seeking to sell securities to the City to: (a) receive and review the City’s investment policy, (b) acknowledge that reasonable controls and procedures have been implemented to preclude imprudent investment activities, and (c) deliver a written statement attesting to these requirements; (4) perform an annual audit of the management controls on investments and adherence to the City’s investment policy; (5) provide specific investment training for the Finance Director, Treasurer, Assistant City Manager and investment officers; (6) restrict reverse repurchase agreements to not more than 90 days and restrict the investment of reverse repurchase agreement funds to no greater than the term of the reverse repurchase agreement; (7) restrict the investment in non-money market mutual funds of any portion of bond proceeds, reserves and funds held for debt service and to no more than 15% of the entity’s monthly average fund balance, excluding bond proceeds and reserves and other funds held for debt service; (8) require local government investment pools to conform to the new disclosure, rating, net asset value, yield calculation, and advisory board requirements and (9) at least annually review, revise, and adopt a list of qualified brokers that are authorized to engage in investment transactions with the City.

Under Texas law, the City may contract with an investment management firm registered under the Investment Advisers Act of 1940 (15 U.S.C. Section 80b-1 et seq.) or with the State Securities Board to provide for the investment and management of its public funds or other funds under its control for a term up to two years, but the City retains ultimate responsibility as fiduciary of its assets. In order to renew or extend such a contract, the City must do so by order, ordinance or resolution. The City has not contracted with, and has no present intention of contracting with, any such investment management firm or the State Securities Board to provide such services.

CITY’S INVESTMENT POLICY

The Assistant City Manager or his designee will promptly cause all City funds to be deposited with the bank depository and invested in accordance with the provisions of the current Bank Depository Agreement or in any negotiable instrument that the City Council has authorized under the provisions of the PFIA, as amended, and in accordance with the City Council approved Investment Policies.

At the end of each fiscal year, a report on investment performance will be provided to the City Council. In conjunction with the quarterly financial report, the Assistant City Manager or his designee will prepare and provide a written recapitulation of the City’s investment portfolio to the Council, detailing each City investment instrument with its rate of return and maturity date.

The City’s adopted investment policy permits the City to invest its funds and funds under its control in all of the enumerated investments authorized by the PFIA.

TABLE 20 - CURRENT INVESTMENTS

As of February 28, 2019, the City's investable funds were invested in the following categories:

Investment Type	Book Value	Market Value
Cash	\$ 5,000,000	\$ 5,000,000
Local Government Investment Pool	8,172,247	8,172,247
Money Market Mutual Fund	233,088,934	233,088,934
US Agencies and Securities	35,000,000	34,724,800
	<u>\$ 281,261,181</u>	<u>\$ 280,985,981</u>

TAX MATTERS

OPINION . . . On the date of initial delivery of the Certificates, McCall, Parkhurst & Horton L.L.P., Dallas, Texas, Bond Counsel, will render its opinion that, in accordance with statutes, regulations, published rulings and court decisions existing on the date thereof ("Existing Law"), (1) interest on the Certificates for federal income tax purposes will be excludable from the "gross income" of the holders thereof and (2) the Certificates will not be treated as "specified private activity bonds" the interest on which would be included as an alternative minimum tax preference item under section 57(a)(5) of the Internal Revenue Code of 1986 (the "Code"). Except as stated above, Bond Counsel will express no opinion as to any other federal, state or local tax consequences of the purchase, ownership or disposition of the Certificates. See Appendix C - Form of Opinion of Bond Counsel.

In rendering its opinion, Bond Counsel will rely upon (a) certain information and representations of the City, including information and representations contained in the City's federal tax certificate, and (b) covenants of the City contained in the Ordinance authorizing the Certificates relating to certain matters, including arbitrage and the use of the proceeds of the Certificates and the property financed or refinanced therewith. Failure of the City to comply with these representations or covenants could cause the interest on the Certificates, as the case may be, to become includable in gross income retroactively to their date of issuance.

The Code and the regulations promulgated thereunder contain a number of requirements that must be satisfied subsequent to the issuance of the Certificates in order for interest on the Certificates to be, and to remain, excludable from gross income for federal income tax purposes. Failure to comply with such requirements may cause interest on the Certificates to be included in gross income retroactively to the date of issuance of the Certificates. The opinions of Bond Counsel are rendered in reliance upon the compliance by the City with such requirements, and Bond Counsel has not been retained to monitor compliance with these requirements subsequent to the issuance of the Certificates.

Bond Counsel's opinions are not a guarantee of a result, but represent its legal judgment based upon its review of Existing Law and reliance on the aforementioned information, representations and covenants. Existing Law is subject to change by the Congress and to subsequent judicial and administrative interpretation by the courts and the Department of the Treasury. There can be no assurance that Existing Law or the interpretation thereof will not be changed in a manner which would adversely affect the tax treatment of the purchase, ownership or disposition of the Certificates.

A ruling was not sought from the Internal Revenue Service by the Issuer with respect to the Certificates or the property financed or refinanced with proceeds of the Certificates. No assurances can be given as to whether the Internal Revenue Service will commence an audit of the Certificates, or as to whether the Internal Revenue Service would agree with the opinion of Bond Counsel. If an Internal Revenue Service audit is commenced, under current procedures the Internal Revenue Service is likely to treat the Issuer as the taxpayer and the Certificate holders may have no right to participate in such procedure. No additional interest will be paid upon any determination of taxability.

FEDERAL INCOME TAX ACCOUNTING TREATMENT OF ORIGINAL ISSUE DISCOUNT . . . The initial public offering price to be paid for one or more maturities of the Certificates may be less than the principal amount thereof or one or more periods for the payment of interest on the Certificates may not be equal to the accrual period or be in excess of one year (the "Original Issue Discount Certificates"). In such event, the difference between (i) the "stated redemption price at maturity" of each Original Issue Discount Certificate, and (ii) the initial offering price to the public of such Original Issue Discount Certificate would constitute original issue discount. The "stated redemption price at maturity" means the sum of all payments to be made on the Certificates less the amount of all periodic interest payments. Periodic interest payments are payments which are made during equal accrual periods (or during any unequal period if it is the initial or final period) and which are made during accrual periods which do not exceed one year.

Under Existing Law, any owner who has purchased such Original Issue Discount Certificate in the initial public offering is entitled to exclude from gross income (as defined in section 61 of the Code) an amount of income with respect to such Original Issue Discount Certificate equal to that portion of the amount of such original issue discount allocable to the accrual period. For a discussion of certain collateral federal tax consequences, see discussion set forth below.

In the event of the redemption, sale or other taxable disposition of such Original Issue Discount Certificate prior to stated maturity, however, the amount realized by such owner in excess of the basis of such Original Issue Discount Certificate in the hands of such owner (adjusted upward by the portion of the original issue discount allocable to the period for which such Original Issue Discount Certificate was held by such initial owner) is includable in gross income.

Under Existing Law, the original issue discount on each Original Issue Discount Certificate is accrued daily to the stated maturity thereof (in amounts calculated as described below for each accrual period within each accrual period) and the accrued amount is added to an initial owner's basis for such Original Issue Discount Certificate for purposes of determining the amount of gain or loss recognized by such owner upon the redemption, sale or other disposition thereof. The amount to be added to basis for each accrual period is equal to (a) the sum of the issue price and the amount of original issue discount accrued in prior periods multiplied by the yield to stated maturity (determined on the basis of compounding at the close of each accrual period and properly adjusted for the length of the accrual period) less (b) the amounts payable as current interest during such accrual period on such Original Issue Discount Certificate.

The federal income tax consequences of the purchase, ownership, redemption, sale or other disposition of Original Issue Discount Certificates which are not purchased in the initial offering at the initial offering price may be determined according to rules which differ from those described above. All owners of Original Issue Discount Certificates should consult their own tax advisors with respect to the determination for federal, state and local income tax purposes of the treatment of interest accrued upon redemption, sale or other disposition of such Original Issue Discount Certificates and with respect to the federal, state, local and foreign tax consequences of the purchase, ownership, redemption, sale or other disposition of such Original Issue Discount Certificates.

COLLATERAL FEDERAL INCOME TAX CONSEQUENCES . . . The following discussion is a summary of certain collateral federal income tax consequences resulting from the purchase, ownership or disposition of the Certificates. This discussion is based on Existing Law, which is subject to change or modification, retroactively.

The following discussion is applicable to investors, other than those who are subject to special provisions of the Code, such as financial institutions, property and casualty insurance companies, life insurance companies, individual recipients of Social Security or Railroad Retirement benefits, individuals allowed an earned income credit, certain S corporations with accumulated earnings and profits and excess passive investment income, foreign corporations subject to the branch profits tax, taxpayers qualifying for the health insurance premium credit and taxpayers who may be deemed to have incurred or continued indebtedness to purchase tax-exempt obligations.

THE DISCUSSION CONTAINED HEREIN MAY NOT BE EXHAUSTIVE. INVESTORS, INCLUDING THOSE WHO ARE SUBJECT TO SPECIAL PROVISIONS OF THE CODE, SHOULD CONSULT THEIR OWN TAX ADVISORS AS TO THE TAX TREATMENT WHICH MAY BE ANTICIPATED TO RESULT FROM RECENTLY ENACTED LEGISLATION OR FROM THE PURCHASE, OWNERSHIP AND DISPOSITION OF TAX-EXEMPT OBLIGATIONS BEFORE DETERMINING WHETHER TO PURCHASE THE CERTIFICATES.

Under section 6012 of the Code, holders of tax-exempt obligations, such as the Certificates, may be required to disclose interest received or accrued during each taxable year on their returns of federal income taxation.

Section 1276 of the Code provides for ordinary income tax treatment of gain recognized upon the disposition of a tax-exempt obligation, such as the Certificates, if such obligation was acquired at a "market discount" and if the fixed maturity of such obligation is equal to, or exceeds, one year from the date of issue. Such treatment applies to "market discount bonds" to the extent such gain does not exceed the accrued market discount of such bonds; although for this purpose, a de minimis amount of market discount is ignored. A "market discount bond" is one which is acquired by the holder at a purchase price which is less than the stated redemption price at maturity or, in the case of a bond issued at an original issue discount, the "revised issue price" (i.e., the issue price plus accrued original issue discount). The "accrued market discount" is the amount which bears the same ratio to the market discount as the number of days during which the holder holds the obligation bears to the number of days between the acquisition date and the final maturity date.

STATE, LOCAL AND FOREIGN TAXES . . . Investors should consult their own tax advisors concerning the tax implications of the purchase, ownership or disposition of the Certificates under applicable state or local laws. Foreign investors should also consult their own tax advisors regarding the tax consequences unique to investors who are not United States persons.

Subject to certain exceptions, information reports describing interest income, including original issue discount, with respect to the Certificates will be sent to each registered holder and to the Internal Revenue Service. Payments of interest and principal may be subject to backup withholding under section 3406 of the Code if a recipient of the payments fails to furnish to the payor such owner's social security number or other taxpayer identification number ("TIN"), furnishes an incorrect TIN, or otherwise fails to establish an exemption from the backup withholding tax. Any amounts so withheld would be allowed as a credit against the recipient's federal income tax. Special rules apply to partnerships, estates and trusts, and in certain circumstances, and in respect of Non-U.S. Holders, certifications as to foreign status and other matters may be required to be provided by partners and beneficiaries thereof.

INFORMATION REPORTING AND BACKUP WITHHOLDING . . . Subject to certain exceptions, information reports describing interest income, including original issue discount, with respect to the Certificates will be sent to each registered holder and to the IRS. Payments of interest and principal may be subject to backup withholding under section 3406 of the Code if a recipient of the payments fails to furnish to the payor such owner's social security number or other taxpayer identification number ("TIN"), furnishes an incorrect TIN, or otherwise fails to establish an exemption from the backup withholding tax. Any amounts so withheld would be allowed as a credit against the recipient's federal income tax. Special rules apply to partnerships, estates and trusts, and in certain circumstances, and in respect of Non-U.S. Holders, certifications as to foreign status and other matters may be required to be provided by partners and beneficiaries thereof.

FUTURE AND PROPOSED LEGISLATION . . . Tax legislation, administrative actions taken by tax authorities, or court decisions, whether at the federal or state level, may adversely affect the tax-exempt status of interest on the Certificates under federal or state law, and could affect the market price or marketability of the Certificates. Any of the foregoing could limit the value of certain deductions and exclusions, including the exclusion for tax-exempt interest. The likelihood of any of the foregoing becoming effective cannot be predicted. Prospective purchasers of the Certificates should consult their own tax advisors regarding the foregoing matters.

CONTINUING DISCLOSURE OF INFORMATION

In the Ordinance, the City has made the following agreement for the benefit of the holders and beneficial owners of Certificates. The City is required to observe the agreement for so long as it remains obligated to advance funds to pay the Certificates. Under the agreement, the City will be obligated to provide certain updated financial information and operating data annually, and timely notice of specified events, to the Municipal Securities Rulemaking Board (the "MSRB"). This information will be publicly available at no cost on the Electronic Municipal Market Access of the MSRB, with the web address www.emma.msrb.org ("EMMA"). The agreement specifies that all documents provided to the MSRB shall be accompanied by identifying information as prescribed by the MSRB.

ANNUAL REPORTS . . . The City will provide certain updated financial information and operating data to the MSRB on an annual basis in an electronic format that is prescribed by the MSRB and available via the Electronic Municipal Market Access System ("EMMA") at www.emma.msrb.org. The information to be updated includes all quantitative financial information and operating data with respect to the City of the general type included in this Official Statement under Tables numbered 1 through 6; 8 through 20 and in Appendix B. The City will update and provide the information in Tables 1 through 6 and 8 through 20 within six months after the end of each fiscal year ending in and after 2019. The City will additionally provide audited financial statements when and if available, and in any event, within 12 months after the end of each fiscal year ending in or after 2019. If the audit of such financial statements is not complete within 12 months after any such fiscal year end, then the City will file unaudited financial statements within such 12 month period and audited financial statements for the applicable fiscal year, when and if the audit report on such statements becomes available. Any such financial statements will be prepared in accordance with the accounting principles described in Appendix B or such other accounting principles as the City may be required to employ from time to time pursuant to State law or regulation.

The financial information and operating data to be provided may be set forth in full in one or more documents or may be included by specific reference to any document available to the public on the MSRB's Internet Web site identified below or filed with the United States Securities and Exchange Commission (the "SEC"), as permitted by SEC Rule 15c2-12 (the "Rule").

The City's current fiscal year end is September 30. Accordingly, the City must provide updated information included in Tables 1 through 6 and 8 through 20 by the last day of March in each year, and audited financial statements for the preceding fiscal year (or unaudited financial statements if the audited financial statements are not yet available) as described above. If the City changes its fiscal year, it will file notice of the change (and of the date of the new fiscal year end) with the MSRB prior to the next date by which the City otherwise would be required to provide financial information and operating data as set forth above.

EVENT NOTICES . . . The City will also provide timely notices of certain events to the MSRB. The City will provide notice of any of the following events with respect to the Certificates to the MSRB in a timely manner (but not in excess of ten business days after the occurrence of the event): (1) principal and interest payment delinquencies; (2) non-payment related defaults, if material; (3) unscheduled draws on debt service reserves reflecting financial difficulties; (4) unscheduled draws on credit enhancements reflecting financial difficulties; (5) substitution of credit or liquidity providers, or their failure to perform; (6) adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB), or other material notices or determinations with respect to the tax status of the Certificates, or other material events affecting the tax status of the Certificates; (7) modifications to rights of holders of the Certificates, if material; (8) Certificate calls, if material, and tender offers; (9) defeasances; (10) release, substitution, or sale of property securing repayment of the Certificates, if material; (11) rating changes; (12) bankruptcy, insolvency, receivership, or similar event of the City, which shall occur as described below; (13) the consummation of a merger, consolidation, or acquisition involving the City or the sale of all or substantially all of its assets, other than in the ordinary course of business, the entry into of a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material; (14) appointment of a successor or additional trustee or the change of name of a trustee, if material; and (15) Incurrence of a financial obligation of the City, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a financial obligation of the City, any of which affect security holders, if material; and (16) Default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a financial obligation of the City, any of which reflect financial difficulties. In addition, the City will provide timely notice of any failure by the City to provide annual financial information in accordance with their agreement described above under "Annual Reports." Neither the Certificates nor the Ordinance provide for debt service reserves, liquidity enhancement, or credit enhancement. In addition, the City will provide timely notice of any failure by the City to provide annual financial information in accordance with their agreement described above under "Annual Reports."

For the events listed in clause (15) and (16) above, the term "financial obligation" means a: (A) debt obligation; (B) derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation; or (c) a guarantee of either (A) or (B). The term "financial obligation" shall not include municipal securities as to which a final official statement has been provided to the MSRB consistent with the Rule.

For these purposes, any event described in clause (12) is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent, or similar officer for the City in a proceeding under the United States Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the City, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement, or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the City.

The City will provide each notice described in the previous paragraph to the MSRB through EMMA, in accordance with the Rule.

LIMITATIONS AND AMENDMENTS . . . The City has agreed to update information and to provide notices of specified events only as described above. The City has not agreed to provide other information that may be relevant or material to a complete presentation of its financial results of operations, condition, or prospects or agreed to update any information that is provided, except as described above. The City makes no representation or warranty concerning such information or concerning its usefulness to a decision to invest in or sell Certificates at any future date. The City disclaims any contractual or tort liability for damages resulting in whole or in part from any breach of its continuing disclosure agreement or from any statement made pursuant to its agreement, although holders of Certificates may seek a writ of mandamus to compel the City to comply with its agreement.

The City may amend its continuing disclosure agreement from time to time to adapt to changed circumstances that arise from a change in legal requirements, a change in law, or a change in the identity, nature, status, or type of operations of the City, if (i) the agreement, as amended, would have permitted an underwriter to purchase or sell Certificates in the offering described herein in compliance with the Rule, taking into account any amendments or interpretations of the Rule to the date of such amendment, as well as such changed circumstances, and (ii) either (a) the holders of a majority in aggregate principal amount of the outstanding Certificates consent to the amendment or (b) any person unaffiliated with the City (such as nationally recognized bond counsel) determines that the amendment will not materially impair the interests of the holders and beneficial owners of the Certificates. If the City so amends the agreement, it has agreed to include with the next financial information and operating data provided in accordance with its agreement described above under "ANNUAL REPORTS" an explanation, in narrative form, of the reasons for the amendment and of the impact of any change in the type of financial information and operating data so provided.

COMPLIANCE WITH PRIOR UNDERTAKINGS . . . In connection with prior transactions, the City has entered into undertakings pursuant to which it agreed to provide certain updated financial information and operating data within six months of the end of the City's fiscal year along with notices of specified material events at required times. In addition, the City previously agreed to provide audited financial statements within six months of the end of the City's fiscal year if audited financial statements were available by such time. If audited financial statements were not available, the City agreed to provide unaudited financial statements for the applicable fiscal year.

During the last five years, the City has not failed to comply in any material respect with any material provisions of the continuing disclosure agreements made by the City in accordance with Rule 15c2-12.

OTHER INFORMATION

RATINGS

The presently outstanding tax supported debt of the City is rated "Aa1" by Moody's and "AA+" by S&P, without regard to credit enhancement. Applications have been made to Moody's, S&P and Fitch Ratings Services for contract ratings on the Certificates. The ratings reflect only the respective views of such organizations and the City makes no representation as to the appropriateness of the ratings. There is no assurance that such ratings will continue for any given period of time or that they will not be revised downward or withdrawn entirely by either or both of such rating companies, if in the judgment of either or both companies, circumstances so warrant. Any such downward revision or withdrawal of such ratings, or either of them, may have an adverse effect on the market price of the Certificates.

LITIGATION

The City is a party to legal proceedings, many of which occur in the normal course of operations. It is not possible at the present time to estimate ultimate outcome or liability, if any, of the city with respect to the various proceedings. The City's management believes that the ultimate outcome of the various lawsuits will not have a material adverse effect on the City's financial position.

REGISTRATION AND QUALIFICATION OF CERTIFICATES FOR SALE

The sale of the Certificates has not been registered under the federal Securities Act of 1933, as amended, in reliance upon the exemption provided thereunder by Section 3(a)(2); and the Certificates have not been qualified under the Securities Act of Texas in reliance upon various exemptions contained therein; nor have the Certificates been qualified under the securities acts of any jurisdiction. The City assumes no responsibility for qualification of the Certificates under the securities laws of any jurisdiction in which the Certificates may be sold, assigned, pledged, hypothecated or otherwise transferred. This disclaimer of responsibility for qualification for sale or other disposition of the Certificates must not be construed as an interpretation of any kind with regard to the availability of any exemption from securities registration provisions.

LEGAL INVESTMENTS AND ELIGIBILITY TO SECURE PUBLIC FUNDS IN TEXAS

Section 1201.041 of the Public Security Procedures Act (Chapter 1201, Texas Government Code) provides that the Certificates are negotiable instruments, investment securities governed by Chapter 8, Texas Business and Commerce Code, and are legal and authorized investments for insurance companies, fiduciaries, and trustees, and for the sinking funds of municipalities or other political subdivisions or public agencies of the State of Texas. With respect to investment in the Certificates by municipalities or other political subdivisions or public agencies of the State of Texas, the PFIA requires that the Certificates be assigned a rating of at least "A" or its equivalent as to investment quality by a national rating agency. See "OTHER INFORMATION - Ratings" herein. In addition, various provisions of the Texas Finance Code provide that, subject to a prudent investor standard, the Certificates are legal investments for state banks, savings banks, trust companies with at

capital of one million dollars or more, and savings and loan associations. The Certificates are eligible to secure deposits of any public funds of the State, its agencies, and its political subdivisions, and are legal security for those deposits to the extent of their market value. The City has made no investigation of other laws, rules, regulations or investment criteria which might apply to such institutions or entities or which might limit the suitability of the Certificates for any of the foregoing purposes or limit the authority of such institutions or entities to purchase or invest in the Certificates for such purposes. No review by the City has been made of the laws in other states to determine whether the Certificates are legal investments for various institutions in those states.

LEGAL OPINIONS

The City will furnish to the Initial Purchaser a complete transcript of proceedings had incident to the authorization and issuance of the Certificates, including the unqualified approving legal opinion of the Attorney General of Texas approving the Initial Certificate and to the effect that the Certificates are valid and legally binding obligations of the City, and based upon examination of such transcript of proceedings, the approving legal opinion of Bond Counsel. The customary closing papers, including a certificate to the effect that no litigation of any nature has been filed or is then pending to restrain the issuance and delivery of the Certificates or which would affect the provision made for their payment or security, or in any manner questioning the validity of said Certificates will also be furnished. In its capacity as Bond Counsel, such firm has reviewed the information describing the Certificates in the Notice of Sales and Bidding Instructions, the Official Bid Forms and the Official Statement to verify that such information conforms to the provisions of the Ordinance. Certain legal matters will be passed upon for the City by McCall, Parkhurst & Horton, L.L.P., Dallas, Texas, Disclosure Counsel for the City. In connection with the transactions described in the Official Statement, Bond Counsel represents only the City. The legal fee to be paid Bond Counsel for services rendered in connection with the issuance of the Certificates is contingent on the sale and delivery of the Certificates. The legal opinion will accompany the Certificates deposited with DTC or will be printed on the Certificates in the event of the discontinuance of the Book-Entry-Only System.

The various legal opinions to be delivered concurrently with the delivery of the Certificates express the professional judgment of the attorneys rendering the opinions as to the legal issues explicitly addressed therein. In rendering a legal opinion the attorney does not become an insurer or guarantor of the expression of professional judgment, of the transaction opined upon, or of the future performance of the parties to the transaction. Nor does the rendering of an opinion guarantee the outcome of any legal dispute that may arise from the transaction.

The various legal opinions to be delivered concurrently with the delivery of the Certificates express the professional judgment of the attorneys rendering the opinions as to the legal issues explicitly addressed therein. In rendering a legal opinion, the attorney does not become an insurer or guarantor of that expression of professional judgment, of the transaction opined upon, or of the future performance of the parties to the transaction, nor does the rendering of an opinion guarantee the outcome of any legal dispute that may arise out of the transaction.

AUTHENTICITY OF FINANCIAL DATA AND OTHER INFORMATION

The financial data and other information contained herein have been obtained from City records, audited financial statements and other sources which are believed to be reliable. There is no guarantee that any of the assumptions or estimates contained herein will be realized. All of the summaries of the statutes, documents and resolutions contained in this Official Statement are made subject to all of the provisions of such statutes, documents and resolutions. These summaries do not purport to be complete statements of such provisions and reference is made to such documents for further information. Reference is made to original documents in all respects.

FINANCIAL ADVISOR

Hilltop Securities Inc. is employed as Financial Advisor to the City in connection with the issuance of the Certificates. The Financial Advisor's fee for services rendered with respect to the sale of the Certificates is contingent upon the issuance and delivery of the Certificates. Hilltop Securities Inc., in its capacity as Financial Advisor, has relied on the opinions of Bond Counsel and has not verified and does not assume any responsibility for the information, covenants and representations contained in any of the legal documents with respect to the federal income tax status of the Certificates, or the possible impact of any present, pending or future actions taken by any legislative or judicial bodies.

The Financial Advisor has reviewed the information in this Official Statement in accordance with, and as part of, its responsibilities to the City and, as applicable, to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Financial Advisor does not guarantee the accuracy or completeness of such information.

CERTIFICATION OF THE OFFICIAL STATEMENT AND NO-LITIGATION CERTIFICATE

At the time of payment for and delivery of the Certificates, the Initial Purchaser will be furnished a certificate, executed by the proper City officials, acting in their official capacity, to the effect that to the best of their knowledge and belief: (a) the descriptions and statements of or pertaining to the City contained in its Official Statement and any addenda, supplement or amendment thereto, for its Certificates on the date of such Official Statement, on the date of purchase of said Certificates, and on the date of delivery, were and are true and correct in all material respects; (b) insofar as the City and its affairs, including its financial affairs, are concerned, such Official Statement did not and does not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; (c) insofar as the descriptions and statements, including financial data, of, or pertaining to, entities other than the City and their activities contained in such Official Statement are concerned, such statements and data have been obtained from sources which the City believes to be reliable and that the City has no reason to believe that they are untrue in any material respect; (d) there has been no material adverse change in the financial condition of the City since September 30, 2018, the date of the last audited financial statements of the City and (e) except as disclosed herein, no litigation of

any nature has been filed or is pending, as of that date, of which the City has notice to restrain or enjoin the issuance, execution or delivery of the Certificates, in any manner questioning the authority or proceedings for the issuance, execution, or delivery of the Certificates; or which would affect the provisions made for their payment or security, or in any manner question the validity of the Certificates.

FORWARD-LOOKING STATEMENTS

The statements contained in this Official Statement, and in any other information provided by the City, that are not purely historical, are forward-looking statements, including statements regarding the City's expectations, hopes, intentions, or strategies regarding the future. Readers should not place undue reliance on forward-looking statements. All forward-looking statements included in this Official Statement are based on information available to the City on the date hereof, and the City assumes no obligation to update any such forward-looking statements. The City's actual results could differ materially from those discussed in such forward-looking statements.

The forward-looking statements included herein are necessarily based on various assumptions and estimates and are inherently subject to various risks and uncertainties, including risks and uncertainties relating to the possible invalidity of the underlying assumptions and estimates and possible changes or developments in social, economic, business, industry, market, legal, and regulatory circumstances and conditions and actions taken or omitted to be taken by third parties, including customers, suppliers, business partners and competitors, and legislative, judicial, and other governmental authorities and officials. Assumptions related to the foregoing involve judgments with respect to, among other things, future economic, competitive, and market conditions and future business decisions, all of which are difficult or impossible to predict accurately and many of which are beyond the control of the City. Any of such assumptions could be inaccurate and, therefore, there can be no assurance that the forward-looking statements included in this Official Statement will prove to be accurate.

INITIAL PURCHASER

After requesting competitive bids for the Certificates, the City accepted the bid of _____ (the "Initial Purchaser of the Certificates") to purchase the Certificates at the interest rates shown on the (inside) cover page of the Official Statement at a price of _____(%) of par plus a cash premium of \$_____. The Initial Purchaser of the Certificates can give no assurance that any trading market will be developed for the Certificates after their sale by the City to the Initial Purchaser of the Certificates. The City has no control over the price at which the Certificates are subsequently sold and the initial yield at which the Certificates will be priced and reoffered will be established by and will be the responsibility of the Initial Purchaser of the Certificates.

MISCELLANEOUS

The Ordinance authorizing the issuance of the Certificates will also approve the form and content of this Official Statement, and any addenda or amendment thereto, and authorize its further use in the reoffering of the Certificates by the Initial Purchaser.

ATTEST:

Mayor
City of College Station, Texas

City Secretary
City of College Station, Texas

APPENDIX A

GENERAL INFORMATION REGARDING THE CITY

THE CITY

The City, located in Brazos County, is situated in the middle of a triangle bounded by Dallas/Fort Worth, Houston, and San Antonio/Austin. Approximately 80% of the Texas population is located within a 200 mile radius of the City. In addition to being a residential community for faculty, students and other personnel of Texas A&M University, the City also serves as a regional manufacturing, retail and health care hub.

The City was incorporated in 1938 and has a Council-City Manager form of government with City employees totaling 1,001.50 currently.

The City adopted and enforces comprehensive zoning and building restrictions aimed at assuring orderly growth and development. The City's ordinances require all subdividers, at their own expense and without provision for refund, to install streets and water and wastewater lines in any planned subdivision. These facilities are constructed under the City's specifications and inspection and when completed are deeded to the City free and clear. All areas within the City are now adequately served with water, wastewater and electric service.

Proximity to three of the nation's largest cities, college-town cultural amenities, low cost of living, varied housing options, warm climate and low crime rate have resulted in significant population growth over the last decade.

CITY OWNED FACILITIES

The City maintains approximately 543 linear miles of streets within city limits, 99% of which are hard surface. The City has a complete water distribution, wastewater collection and treatment system with 786 miles of wastewater and water lines. The City owns the electrical distribution system with approximately 471 miles of distribution lines and 20 miles of 138kv transmission lines.

The City has a fully equipped police department with 144 full time police officers and 76 support personnel. The department has 70 police patrol cars and one holding facility with a capacity of 17. The fire department consists of 152 full time fire fighters and 8 support personnel. There are six stations and a total of 8 engines, 6 ambulances, 2 command vehicles, 1 rescue truck, 2 ladder trucks, 1 tanker truck, and 1 grass fire truck.

EDUCATIONAL FACILITIES

The College Station Independent School District (the "School District") is a fully accredited system offering 18 educational campuses for pre-kindergarten through high school. The School District has a student enrollment in excess of 13,500 and employs close to 1,700 people. On November 3, 2015 the voters passed a bond proposition for the School District that includes the construction of additional facilities. The bonds would fund a tenth elementary school in the 2018-2019 school year. The School District's facilities are also used by Blinn College, a community college offering two years of college level courses.

College Station is home to Texas A&M University which provides higher education, offering both four year college programs and graduate degree programs to approximately 66,000 enrolled students.

HEALTH CARE

College Station Medical Center, affectionately called 'The Med', is a 200,000 square foot community healthcare provider located on 25 acres within the city limits of College Station. The Med is a 167-bed facility and is a licensed Level III Trauma unit. College Station Medical Center is the only hospital in the Brazos Valley Region to receive national certification in joint replacement from the Joint Commission. They are also an accredited Chest Pain Center, a certified Primary Stroke Center and the region's first accredited Sleep Center. The over 650 healthcare professionals work every day to be a place of healing, caring and connection for patients and families in the community.

Rock Prairie Behavioral Health is a 72-bed state-of-the-art psychiatric hospital built specifically with patients' needs in mind and is dedicated to providing quality behavioral health care to promote growth and recovery for patients and families throughout the state of Texas. The acute psychiatric hospital treats adolescents, adults, and seniors in both inpatient and outpatient settings. The treatment facility is located in the heart of the Brazos Valley, conveniently located in College Station.

Baylor Scott & White Medical Center – College Station is a 403,000 square foot, five story, 143-bed hospital located on a 98 acre campus near the intersection of Texas Highway 6 and Rock Prairie Road within the City of College Station. Baylor Scott & White Medical Center – College Station is a nationally accredited Chest pain Center as well as a Level III Trauma Center. Scott & White Clinic – Rock Prairie, a four-story medical office building, is also located on the campus adjacent to the hospital. Baylor Scott and White Medical Center - College Station houses an emergency department, cardiac services including cath labs, neonatal intensive care unit, comprehensive cancer services, operating rooms, maternity services suites, endoscopic procedure suites, intra operative robotics and other specialty services, all supported by a pharmacy, comprehensive state-of-the-art imaging technology and other diagnostic capabilities.

Other area health care providers include: St. Joseph Regional Health Care Center, Baylor Scott and White Clinic, and The Physicians Centre.

Medical District

The City recently amended its Comprehensive Plan to include the College Station Medical District Master Plan. The Master Plan establishes guiding principles for the development of approximately 1,700 acres in south College Station to accommodate medical facilities, walkable village centers, commercial space, and a variety of residential unit types, all in close proximity to parks, open space, and trails. To ensure the long-term success of the District, the City has created a Tax Increment Reinvestment Zones to help fund the necessary infrastructure. The City activated a Municipal Management District along the relatively undeveloped east side of State Highway 6 to be used as a tool for development of these areas as well.

TRANSPORTATION

U.S. Highway 190/State Highway 21 links the City to Interstate 45 which is located approximately 35 miles to the east. State Highway 21 via U.S. Highway 290 also links the City to Austin, located approximately 110 miles to the west. State Highway 6 links the City to Waco (100 miles) and Interstate 35 to the north and Houston (90 miles) to the south. Also, State Highway 30 links the City to Huntsville (45 miles) and Interstate 45 to the east.

Airlines	Commercial, corporate and private airport facilities are provided by Easterwood Airport, which is located on the City's west side and is owned and operated by Texas A&M University. American Eagle Airlines provides daily flights to and from Dallas-Fort Worth Airport out of Easterwood. United Airlines provides daily flights to and from Houston Bush Intercontinental Airport out of Easterwood. This airport recently completed a \$15 million renovation to the terminal. Coulter Field is located north of the City of Bryan and provides a 4,000 foot lighted runway. Coulter Field offers all types of services for the private aircraft.
Bus Lines	Two bus lines serve the City with daily service connecting the City with Houston and Dallas.
Railroads	Rail freight service is provided by the Union Pacific Railroad. Union Pacific Railroad operates a main freight line from Houston through Bryan-College Station to Dallas-Fort Worth and beyond.

RECREATION

The College Station park system presently includes 58 parks encompassing 1448 acres, including a 515 acre wilderness park, and a 150-acre regional athletic park. Collectively, these parks contain 63 playgrounds, 33 soccer fields, 26 basketball courts, 43 softball/baseball backstops, 14 tennis courts, 3 swimming pools, a spray park, a skate park, a gymnasium, an outdoor amphitheater with a green room and plaza area, 1 festival site and a number of picnic shelters and 8 picnic pavilions. The Parks and Recreation Department sponsors a variety of organized athletic and aquatic programs as well as many special events throughout the year.

POPULATION

	Official U.S. Census ⁽¹⁾				
	1970	1980	1990	2000	2010
City of College Station	17,676	37,272	52,456	67,890	93,857
Brazos County	57,978	93,588	121,862	152,415	194,851

(1) U.S. Census Bureau, American Community Survey

ECONOMIC BACKGROUND

Texas A&M University and System

Texas A&M opened its doors in 1876 as the state's first public institution of higher learning. Located in College Station, Texas (about 90 miles northwest of Houston and within a two to three-hour drive from Austin and Dallas), Texas A&M's main campus is home to over 66,000 students, with more than 469,000 former students worldwide. As one of only 62 members of the prestigious Association of American Universities (AAU), an association of leading public and private research universities in the United States and Canada, Texas A&M boasts some of the top programs in academic research and scholarship. Texas A&M and the Texas A&M University System employ more than 27,000 full and part-time personnel.

Texas A&M is one of only 17 institutions in the nation to hold the triple designation as a land-grant, sea-grant, and space-grant university.

In May 2016, the Chancellor of The Texas A&M University System unveiled plans to invest \$150 million to create a new research and development campus to help companies move ideas from the laboratory to the marketplace while also offering a new path toward a college degree. The facility, to be located at a revamped and renamed Riverside Campus in Brazos County, initially will include a

cluster of seven new buildings and test beds to encourage the private sector to develop secure research facilities adjacent to the System's site. The facility, named the RELLIS Campus will focus on robotics, driverless and connected vehicles, advanced manufacturing, large-scale testing as well as smart power grids and water systems.

George Bush Presidential Library and Museum

The City is the site of the George Bush Presidential Library and Museum, located on the campus of Texas A&M University. Texas A&M provides programs and facilities such as research and instructional programs related to the library and museum, a conference center, communications center, educational museum/library center, and family-oriented facilities such as a park surrounding the presidential library and museum. The Presidential Library and Museum is also part of the George Bush Presidential Library Center which is home to the prestigious Bush School of Government and Public Service.

Century Square

The City continues to experience a sustained period of growth. The growth has resulted in continued retail development, especially in the Tower Point and Caprock developments in the southern part of the City with new restaurants and other businesses opening and others under construction to serve the ever growing residential populations in that area of the City. However, that growth has expanded to the north side of College Station where mixed-used facilities and additional hotels near the Texas A&M campus are under construction.

One such development is Century Square. This 60-acre development creates a dynamic community center where people congregate from across the region to experience a walkable, urban destination. The project features premier retail and restaurant establishments, entertainment venues, 60,000 SF of Class-A office, two full-service hotels: The George and Cavalry Court, luxury apartment homes: 100 Park, and an activated central gathering space.

Athletics

Athletics is an integral part of College Station. Texas A&M University, along with the City, hosts a multitude of athletic events. Texas A&M University is the home of Kyle Field, Reed Arena, Olsen Field at Bluebell Park, Aggie Softball Complex, George P. Mitchell Tennis Center and Gilliam Indoor Track Stadium. Several of Texas A&M teams have won both conference and national titles over the past five years with every university varsity level team competing in post-season play for the 2015-2016 season. This has positioned the University to host regional payoffs as well as national championship games. Texas A&M's move to the Southeastern Conference (SEC) in 2012 has proved positive for the City. For the Texas A&M's football team ranked sixth in the nation in average attendance for the 2018 season with average attendance of 99,844 for home games, according to figures released by the NCAA.

The City's sport complexes as well as the ease to get around makes College Station attractive to several organizations. Over the past several years, the Amateur Softball Association and the Texas Amateur Athletic Federation have chosen College Station to host state tournaments and events. In addition, the City facilitates two major softball tournaments, a soccer tournament, a 7 on 7 flag football tournament and baseball tournaments throughout the year. The City plans to add 2 additional synthetic athletic fields at Veterans Park and Athletic Complex. This is anticipated to allow additional tournaments to be held in this area.

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MAJOR AREA EMPLOYERS

Firm Name	Product	Number of Employees
Texas A&M University and System	Education/Research	27,000+
Bryan ISD	Education	2000+
College Station ISD	Education	2000+
Texas A&M Health Science Center	Education	2000+
Reynolds & Reynolds	Computer Hardware and Software	1800+
Blinn College - Bryan Campus	Education	1000+
Sanderson Farms, Inc.	Poultry Processing	1000+
CHI St. Joseph's Regional Hospital	Health Service	1000+
Wal-Mart/Sam's	Retail	1000+
HEB Grocery	Retail	1000+
City of College Station	Government	1000+
Brazos County	Government	500-999
City of Bryan	Government	500-999
College Station Medical Center	Health Service	500-999
Ply Gem Windows	Manufacturing	500-999
Baylor Scott & White	Health Service	500-999

Source: Research Valley Partnership

Employment is provided by a variety of high growth industries located in, or adjacent to, the City which include ambulatory health care services; professional, scientific, and technical services; specialty trade contractors; food manufacturing; administrative and support services as identified in the Local Employment Dynamics data. Additionally College Station is also home to the 350 acre Research Park, located on the Texas A&M University campus, which houses 30 public-private tenants including the Research Valley Partnership, Schlumberger, Texas A&M Transportation Institute, and Offshore Technology Research Center. The City also developed the 200-acre, Class "A" Business Center at College Station (BCCS), tenants of which include Reynolds and Reynolds Cognizant Technology Solution, Suddenlink Media, Stata Corporation, Heat Transfer Research, Inc. (HTRI), and the Texas A&M University System. In addition, the City has worked to develop a new Science Park at Research Valley, which currently houses Lynntech, Inc. and RBC Technologies.

LABOR STATISTICS

College Station

Year	Labor Force	Total Employment	Unemployment	Rate
2015	54,870	53,132	1,738	3.2%
2016	57,047	55,110	1,937	3.4%
2017	58,104	56,319	1,785	3.1%
2018	60,034	58,319	1,715	2.9%
2019 ⁽¹⁾	60,274	58,386	1,888	3.1%

Brazos County

Year	Labor Force	Total Employment	Unemployment	Rate
2015	13,095,837	12,513,692	582,145	4.4%
2016	13,347,311	12,731,137	616,174	4.6%
2017	13,589,208	13,002,828	586,380	4.3%
2018	13,848,080	13,314,203	533,877	3.9%
2019	13,987,561	13,397,655	589,906	4.2%

Source: Texas Workforce Commission.

(1) Average as of January 2019.

BUILDING PERMITS

College Station has grown rapidly over the past 30 years as evidenced by an increase in population from 37,272 in 1980 to 93,857 in 2010. As of 2018, the estimated population of College Station was 117,841. The following table sets forth the number and value of construction permits issued by the City over the past several years.

Calendar Year	Residential Construction		Commercial Construction		Total	
	Number of Permits	Value	Number of Permits	Value	Number of Permits	Value
2014	1,167	\$ 211,909,494	338	\$ 67,570,229	1,505	\$ 279,479,723
2015	1,687	206,336,883	294	78,209,095	1,981	284,545,978
2016	1,802	325,247,597	424	207,892,402	2,226	533,139,999
2017	1,190	257,998,990	208	170,405,189	1,398	428,404,179
2018	1,953	177,627,344	461	103,143,722	2,414	280,771,066 ⁽¹⁾

Source: The City.

(1) Reflects January through December 2018.

COUNTY CHARACTERISTICS

Brazos County was created in 1841 from Robertson and Washington Counties. The economy is diversified primarily by agribusiness, computer manufacturing, research and development, and education. The Texas Almanac designates cattle, hogs, sorghums, corn, cotton, wheat, oats and pecans as the principal sources of agricultural income.

The County had a 2010 population of 194,851, an increase of 27.8% since 2000. Minerals produced in the County include sand and gravel, lignite, gas and oil.

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APPENDIX B

EXCERPTS FROM THE
CITY OF COLLEGE STATION, TEXAS
ANNUAL FINANCIAL REPORT

For the Year Ended September 30, 2018

The information contained in this Appendix consists of excerpts from the City of College Station, Texas Annual Financial Report for the Year Ended September 30, 2018, and is not intended to be a complete statement of the City's financial condition. Reference is made to the complete Report for further information.

APPENDIX C

FORM OF OPINION OF BOND COUNSEL

Legislation Details (With Text)

File #:	19-0209	Version:	1	Name:	Huntington Change In Use Resolution
Type:	Resolution	Status:		Status:	Agenda Ready
File created:	4/12/2019	In control:		In control:	City Council Regular
On agenda:	5/13/2019	Final action:		Final action:	
Title:	Public Hearing, presentation, discussion, and possible action regarding a resolution of the City Council, authorizing the establishment of Public Utility Easements for the Huntington Sanitary Sewer Trunk Line Project within 2.079 acre and 0.079 acre portions of College Station greenways located generally east of Lakeway Drive and north of William D. Fitch Parkway, plus the City Council determination that the use of greenway property is allowable and that no other feasible or prudent alternative exists for the Public Utility Easements for the project, and that all reasonable planning measures have been taken to minimize the harm to such greenways.				
Sponsors:	Erika Bridges				
Indexes:					
Code sections:					
Attachments:	Change in Use Resolution Exhibit A - Metes & Bounds and Exhibits Map - Huntington Sewer Trunk Line				

Date	Ver.	Action By	Action	Result
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Public Hearing, presentation, discussion, and possible action regarding a resolution of the City Council, authorizing the establishment of Public Utility Easements for the Huntington Sanitary Sewer Trunk Line Project within 2.079 acre and 0.079 acre portions of College Station greenways located generally east of Lakeway Drive and north of William D. Fitch Parkway, plus the City Council determination that the use of greenway property is allowable and that no other feasible or prudent alternative exists for the Public Utility Easements for the project, and that all reasonable planning measures have been taken to minimize the harm to such greenways.

Relationship to Strategic Goals:

- Core Services and Infrastructure
- Diverse Growing Economy

Recommendation: Staff recommends approval of the resolution.

Summary: Approval of this item will establish public utility easements within 2.079 acre and 0.079 acre portions of College Station greenways located generally east of Lakeway Drive and north of William D. Fitch Parkway.

Public Utility Easements are being proposed along the perimeter of City-owned greenways property and will allow for development of the Huntington Sanitary Sewer Trunk Line Project as well as existing and future utilities. A map, survey plats, and legal descriptions illustrating the easements are attached. It is anticipated that the granting of the easements will not have any potential negative impact to the greenways or its operations.

Utilization of parkland and greenways for easements is considered a use or taking of protected land in the Texas Parks and Wildlife Code. Chapter 26.001: PROTECTED LAND; NOTICE OF TAKING (a) states:

“A department, agency, political subdivision, county, or municipality of this state may not approve any program or project that requires the use or taking of any public land designated and used prior to the arrangement of the program or project as a park, recreation area, scientific area, wildlife refuge, or historic site, unless the department, agency, political subdivision, county, or municipality, acting through its duly authorized governing body or officer determines that:

- (1) there is no feasible and prudent alternative to the use or taking of such land; and
- (2) the program or project includes all reasonable planning to minimize harm to the land, as a park, recreation area, scientific area, wildlife refuge, or historic site, resulting from the use or taking.”

Texas Parks and Wildlife Code Chapter 26.002: Notice of Hearing sets out the requirements for notification of the public hearing required in these situations. To comply with this requirement, announcements of today's Public Hearing on this topic were posted in the Bryan/College Station Eagle on April 15, April 22, April 29, and May 6.

Reviewed and Approved by Legal: Yes

Budget & Financial Summary: N/A

Attachments:

1. Resolution with Exhibit “A”
2. Change In Use Map

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF COLLEGE STATION, TEXAS, AUTHORIZING THE ESTABLISHMENT OF PUBLIC UTILITY EASEMENTS WITHIN A 2.079 ACRE AND A 0.079 ACRE PORTION OF COLLEGE STATION GREENWAYS.

WHEREAS, the Texas Parks and Wildlife Code Chapter 26.001: PROTECTED LAND; NOTICE OF TAKING et. seq. establishes the requirements for the use or taking of land currently designated and used as a park, recreation area, scientific area, wildlife refuge, or historic site; and

WHEREAS, the City of College Station wishes to install and maintain wastewater lines and other utilities, and provide access to public utilities for the Huntington Sanitary Sewer Trunk Line project within a College Station greenways section located generally east Lakeway Drive and north of William D. Fitch Parkway; and

WHEREAS, in compliance with statutory requirements recited above, notice and a public hearing were held where all interested persons present who were entitled to speak did so speak; now, therefore,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COLLEGE STATION, TEXAS:

- PART 1: That the facts and recitations set forth in the preamble of this resolution are hereby declared true and correct.
- PART 2: That the City Council of the City of College Station, Texas, hereby determines there is no feasible and prudent alternative to the use of the 2.079 acre and 0.079 acre College Station greenways sections generally located east of Lakeway Drive and north of William D. Fitch Parkway for the installation of wastewater lines and access to public utilities as set forth in Exhibit "A" attached hereto.
- PART 3: That the City Council of College Station, Texas, hereby determines that the use of the greenway as described in this resolution includes all reasonable planning to minimize harm to the greenways.
- PART 4: That, based upon the above, the City Council of the City of College Station, Texas, hereby approves the use of a portion of the said 2.079 acre and 0.079 acre College Station greenways sections for the establishment of Public Utility Easements as set forth herein.
- PART 5: That this Resolution shall take effect immediately from and after its passage.

ADOPTED this _____ day of _____, 2019.

ATTEST:

APPROVED:

City Secretary

MAYOR

APPROVED:

City Attorney

PART 1

**METES AND BOUNDS DESCRIPTION
OF A
2.079 ACRE PUBLIC UTILITY EASEMENT
THOMAS CARUTHERS LEAGUE, A-9
COLLEGE STATION, BRAZOS COUNTY, TEXAS**

METES AND BOUNDS DESCRIPTION OF ALL THAT CERTAIN EASEMENT LYING AND BEING SITUATED IN THE THOMAS CARUTHERS LEAGUE, ABSTRACT NO. 9, COLLEGE STATION, BRAZOS COUNTY, TEXAS. SAID EASEMENT BEING A PORTION OF A CALLED 100.64 ACRE TRACT OF LAND AS DESCRIBED BY A DEED TO THE CITY OF COLLEGE STATION, TEXAS RECORDED IN VOLUME 6927, PAGE 226 OF THE OFFICIAL PUBLIC RECORDS OF BRAZOS COUNTY, TEXAS.

SAID EASEMENT BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

COMMENCING AT A ½ INCH IRON ROD FOUND MARKING THE NORTHEAST CORNER OF SAID 100.64 ACRE TRACT AND THE SOUTHEAST CORNER OF THE REMAINDER OF A CALLED 111.679 ACRE TRACT OF LAND AS DESCRIBED BY A DEED TO COLLEGE STATION DOWNTOWN RESIDENTIAL, LLC RECORDED IN VOLUME 14405, PAGE 186 OF THE OFFICIAL PUBLIC RECORDS OF BRAZOS COUNTY, TEXAS. COORDINATES AND BEARING SYSTEM SHOWN HEREIN ARE NAD83 (TEXAS STATE PLANE CENTRAL ZONE GRID NORTH) BASED ON THE PUBLISHED COORDINATES OF THE CITY OF COLLEGE STATION CONTROL MONUMENT CS94-130 (Y:10200590.80, X:3569863.02) AND AS ESTABLISHED BY GPS OBSERVATION. DISTANCES SHOWN HEREIN ARE GRID DISTANCES. TO DETERMINE SURFACE DISTANCES MULTIPLY BY A COMBINED SCALE FACTOR OF 1.0001012177 (CALCULATED USING GEOID12B);

THENCE: S 77° 55' 55" W ALONG THE COMMON LINE OF SAID 100.64 ACRE TRACT AND SAID REMAINDER OF 111.679 ACRE TRACT FOR A DISTANCE OF 694.52 FEET TO THE **POINT OF BEGINNING** (Y:10197048.76, X:3576800.80) OF THIS HEREIN DESCRIBED EASEMENT;

THENCE: THROUGH SAID 100.64 ACRE TRACT FOR THE FOLLOWING CALLS:

S 12° 04' 05" E FOR A DISTANCE OF 40.00 FEET TO A POINT;

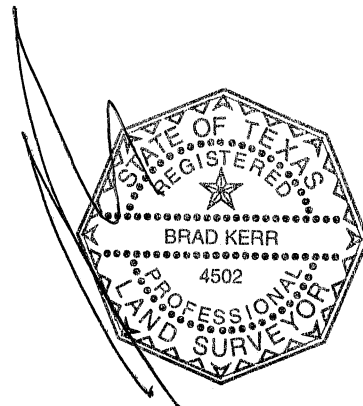
S 77° 55' 55" W FOR A DISTANCE OF 2242.14 FEET TO A POINT ON THE COMMON LINE OF SAID 100.64 ACRE TRACT AND A CALLED 46.60 ACRE TRACT OF LAND AS DESCRIBED BY A DEED TO THE CITY OF COLLEGE STATION, TEXAS RECORDED IN VOLUME 3310, PAGE 321 OF THE OFFICIAL PUBLIC RECORDS OF BRAZOS COUNTY, TEXAS;

THENCE: N 59° 14' 00" W ALONG SAID COMMON LINE FOR A DISTANCE OF 58.83 FEET TO A 12 INCH FENCE CORNER POST FOUND MARKING A NORTHEAST CORNER OF SAID 46.60 ACRE TRACT, THE MOST SOUTHERLY CORNER OF THE REMAINDER OF A CALLED 24.352 ACRE TRACT OF LAND AS DESCRIBED BY A DEED TO COLLEGE STATION TOWN CENTER, INC. RECORDED IN VOLUME 14296, PAGE 25 OF THE OFFICIAL PUBLIC RECORDS OF BRAZOS COUNTY, TEXAS, AND THE WEST CORNER OF SAID 100.64 ACRE TRACT. FOR REFERENCE, A ½ INCH IRON ROD WITH CAP STAMPED 'H.P.MAYO RPLS 5045' FOUND BEARS: S 71° 40' 45" W FOR A DISTANCE OF 1.79 FEET;

THENCE: N 77° 55' 55" E ALONG THE NORTHWEST LINE OF SAID 100.64 ACRE TRACT FOR A DISTANCE OF 2285.28 FEET TO THE **POINT OF BEGINNING** CONTAINING 2.079 ACRES OF LAND, MORE OR LESS, AS SURVEYED ON THE GROUND DECEMBER 2018. SEE PLAT PREPARED REVISED MARCH 2019, FOR MORE DESCRIPTIVE INFORMATION.

BRAD KERR
REGISTERED PROFESSIONAL
LAND SURVEYOR NO. 4502

\\JOBS\18-646\18-646-EASE-1.docx
REVISED 03-11-19



COORDINATES AND BEARING SYSTEM SHOWN HEREON ARE NAD83 (TEXAS STATE PLANE CENTRAL ZONE GRID NORTH) BASED ON THE PUBLISHED COORDINATES OF THE CITY OF COLLEGE STATION CONTROL MONUMENT CS94-130 (Y:10200590.80, X:3569863.02) AND AS ESTABLISHED BY GPS OBSERVATION.

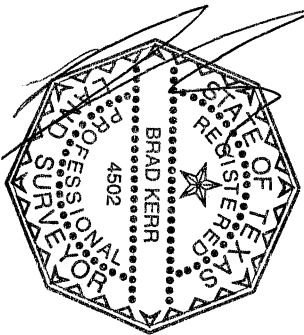
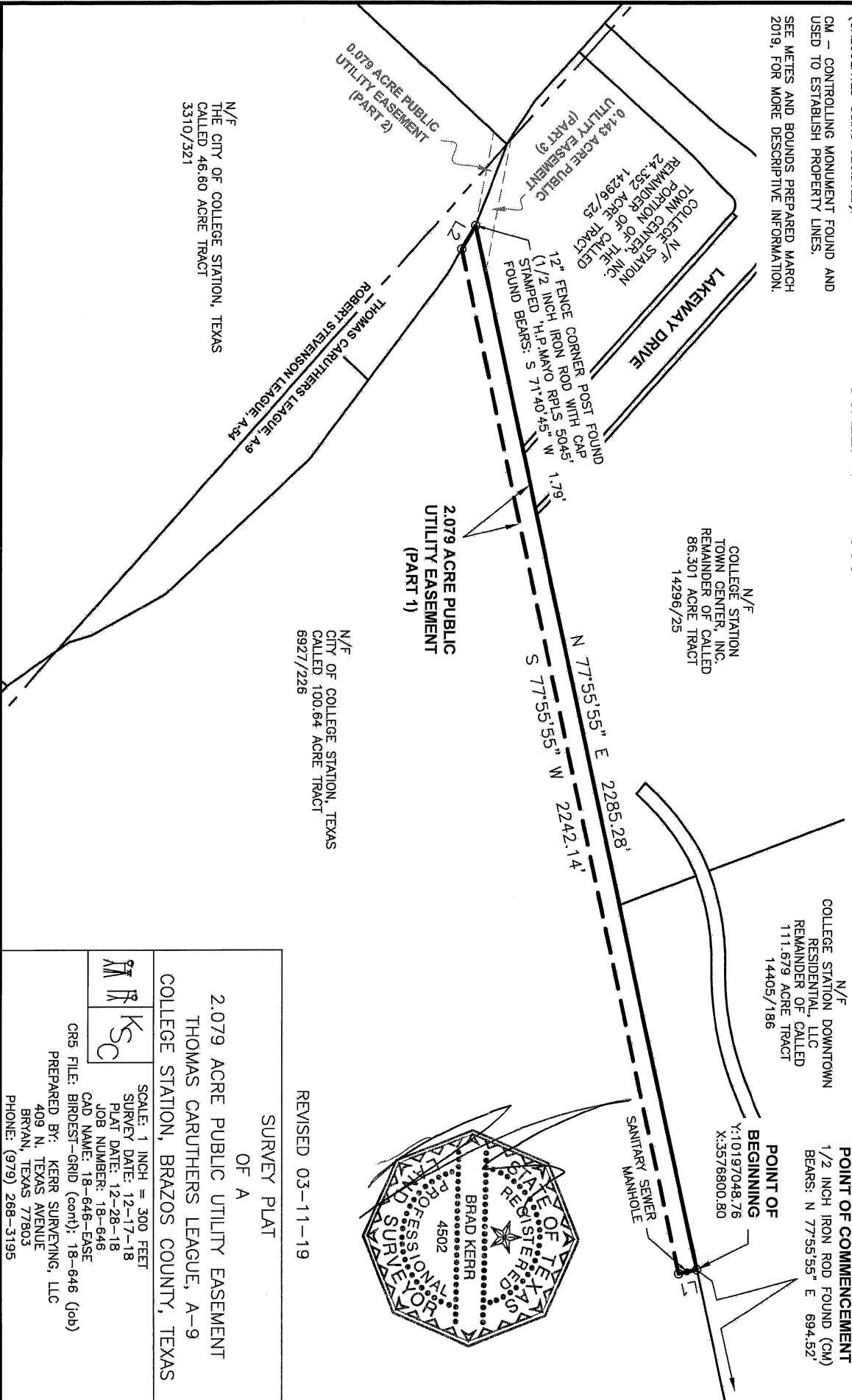
DISTANCES SHOWN HEREON ARE GRID DISTANCES UNLESS OTHERWISE NOTED. TO OBTAIN SURFACE DISTANCES MULTIPLY BY A COMBINED SCALE FACTOR OF 1.0001012177 (CALCULATED USING GEOID12B).

CM - CONTROLLING MONUMENT FOUND AND USED TO ESTABLISH PROPERTY LINES. SEE METES AND BOUNDS PREPARED MARCH 2019, FOR MORE DESCRIPTIVE INFORMATION.



SCALE: 1" = 300'

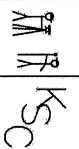
LINE	BEARING	DISTANCE
L1	S 12°04'05" E	40.00'
L2	N 59°14'00" W	58.83'



REVISED 03-11-19

SURVEY PLAT
OF A

2.079 ACRE PUBLIC UTILITY EASEMENT
THOMAS CARUTHERS LEAGUE, A-9
COLLEGE STATION, BRAZOS COUNTY, TEXAS



SCALE: 1 INCH = 300 FEET
SURVEY DATE: 12-17-18
PLAT DATE: 12-28-18
JOB NUMBER: 18-646
CAD NAME: 18-646-EASE
CRS FILE: BRDEST-GRID (cont): 18-646 (job)
PREPARED BY: KERR SURVEYING, LLC
409 N. TEXAS AVENUE
BRYAN, TEXAS 77803
PHONE: (979) 268-3195

PART 2

**METES AND BOUNDS DESCRIPTION
OF A
0.079 ACRE PUBLIC UTILITY EASEMENT
ROBERT STEVENSON LEAGUE, A-54
THOMAS CARUTHERS LEAGUE, A-9
COLLEGE STATION, BRAZOS COUNTY, TEXAS**

METES AND BOUNDS DESCRIPTION OF ALL THAT CERTAIN EASEMENT LYING AND BEING SITUATED IN THE ROBERT STEVENSON LEAGUE, ABSTRACT NO. 54 AND THE THOMAS CARUTHERS LEAGUE, ABSTRACT NO. 9, COLLEGE STATION, BRAZOS COUNTY, TEXAS. SAID EASEMENT BEING A PORTION OF A CALLED 46.60 ACRE TRACT OF LAND AS DESCRIBED BY A DEED TO THE CITY OF COLLEGE STATION, TEXAS RECORDED IN VOLUME 3310, PAGE 321 OF THE OFFICIAL PUBLIC RECORDS OF BRAZOS COUNTY, TEXAS.

SAID EASEMENT BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT A 12 INCH FENCE CORNER POST FOUND (Y:10196570.97, X:3574566.03) MARKING A NORTHEAST CORNER OF SAID 46.60 ACRE TRACT, THE MOST SOUTHERLY CORNER OF THE REMAINDER OF A CALLED 24.352 ACRE TRACT OF LAND AS DESCRIBED BY A DEED TO COLLEGE STATION TOWN CENTER, INC. RECORDED IN VOLUME 14296, PAGE 25 OF THE OFFICIAL PUBLIC RECORDS OF BRAZOS COUNTY, TEXAS, AND THE WEST CORNER OF A CALLED 100.64 ACRE TRACT OF LAND AS DESCRIBED BY A DEED TO THE CITY OF COLLEGE STATION, TEXAS RECORDED IN VOLUME 6927, PAGE 226 OF THE OFFICIAL PUBLIC RECORDS OF BRAZOS COUNTY, TEXAS. FOR REFERENCE, A ½ INCH IRON ROD WITH CAP STAMPED 'H.P.MAYO RPLS 5045' FOUND BEARS: S 71° 40' 45" W FOR A DISTANCE OF 1.79 FEET AND A ½ INCH IRON ROD FOUND MARKING THE NORTHEAST CORNER OF SAID 100.64 ACRE TRACT BEARS: N 77° 55' 55" E FOR A DISTANCE OF 2979.80 FEET. COORDINATES AND BEARING SYSTEM SHOWN HEREIN ARE NAD83 (TEXAS STATE PLANE CENTRAL ZONE GRID NORTH) BASED ON THE PUBLISHED COORDINATES OF THE CITY OF COLLEGE STATION CONTROL MONUMENT CS94-130 (Y:10200590.80, X:3569863.02) AND AS ESTABLISHED BY GPS OBSERVATION. DISTANCES SHOWN HEREIN ARE GRID DISTANCES. TO DETERMINE SURFACE DISTANCES MULTIPLY BY A COMBINED SCALE FACTOR OF 1.0001012177 (CALCULATED USING GEOID12B);

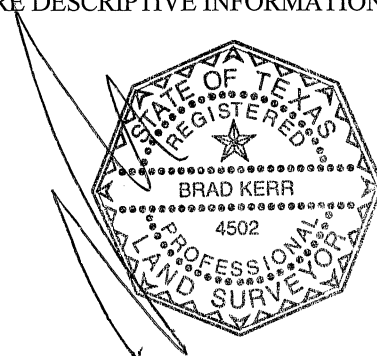
THENCE: N 79° 04' 36" W THROUGH SAID 46.60 ACRE TRACT FOR A DISTANCE OF 204.50 FEET TO A POINT ON THE COMMON LINE OF SAID 46.60 ACRE TRACT AND THE REMAINDER OF A CALLED 71.52 ACRE TRACT OF LAND AS DESCRIBED AS TRACT TWO BY A DEED TO M. D. WHEELER, LTD. RECORDED IN VOLUME 3007, PAGE 341 OF THE OFFICIAL PUBLIC RECORDS OF BRAZOS COUNTY, TEXAS. FOR REFERENCE, A ½ INCH IRON ROD FOUND MARKING THE NORTHWEST CORNER OF SAID 46.60 ACRE TRACT BEARS: S 42° 59' 20" W FOR A DISTANCE OF 1025.28 FEET AND THE CITY OF COLLEGE STATION CONTROL MONUMENT CS94-131 BEARS: S 71° 42' 05" W FOR A DISTANCE OF 1928.71 FEET;

THENCE: N 42° 59' 20" E ALONG SAID COMMON LINE FOR A DISTANCE OF 39.59 FEET TO A POINT MARKING THE NORTH CORNER OF SAID 46.60 ACRE TRACT, THE WEST CORNER OF SAID REMAINDER OF 71.52 ACRE TRACT AND A SOUTHWEST CORNER OF SAID REMAINDER OF 24.352 ACRE TRACT;

THENCE: S 68° 42' 56" E ALONG THE COMMON LINE OF SAID 46.60 ACRE TRACT AND SAID REMAINDER OF 24.352 ACRE TRACT FOR A DISTANCE OF 186.53 FEET TO THE POINT OF BEGINNING CONTAINING 0.079 OF AN ACRE OF LAND (3,430 SQUARE FEET), MORE OR LESS, AS SURVEYED ON THE GROUND DECEMBER 2018. SEE PLAT REVISED MARCH 2019, FOR MORE DESCRIPTIVE INFORMATION.

BRAD KERR
REGISTERED PROFESSIONAL
LAND SURVEYOR NO. 4502

\\JOBS\18-646\18-646-EASE-2.docx



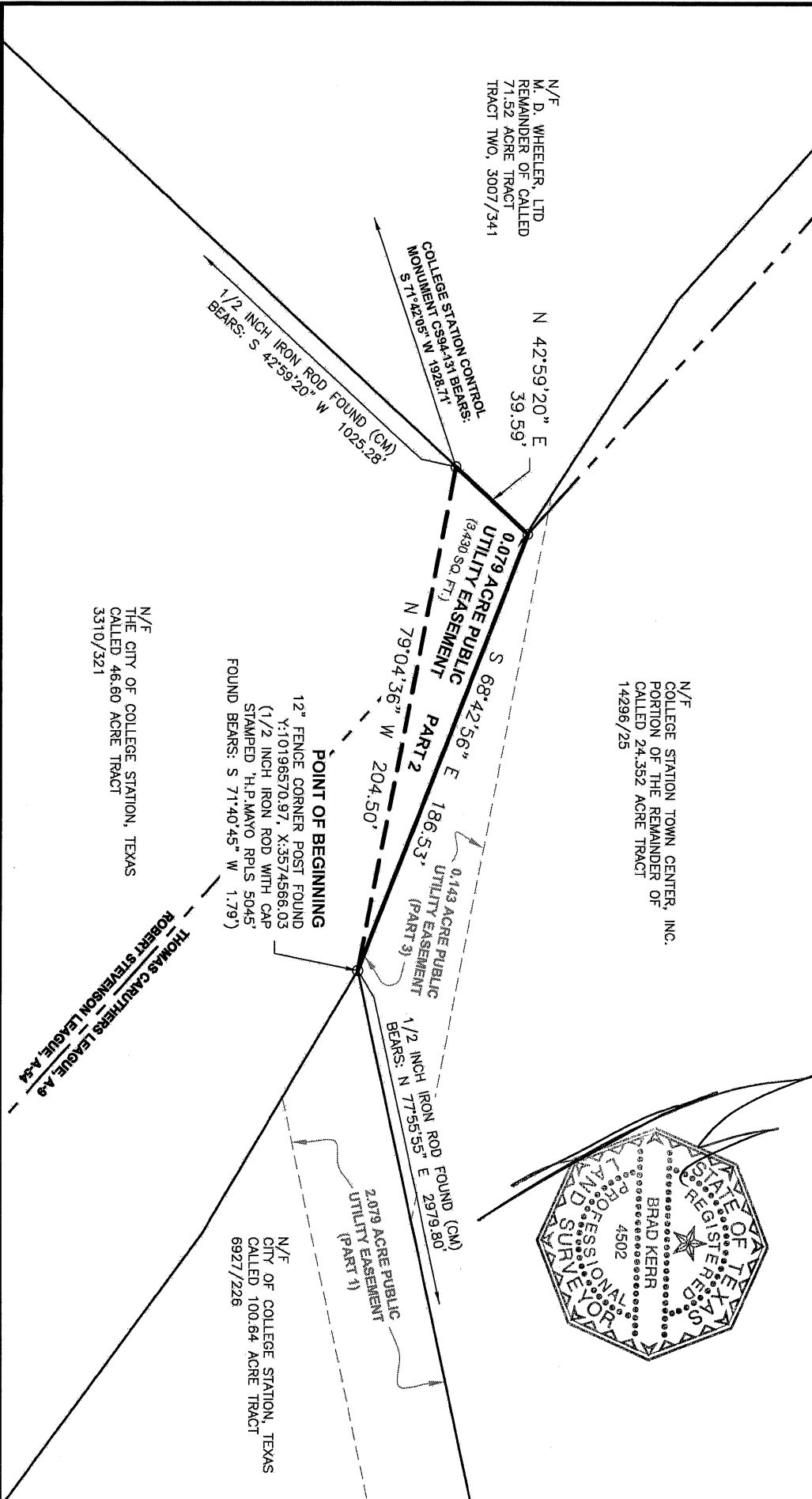
COORDINATES AND BEARING SYSTEM SHOWN HEREON ARE NAD83 (TEXAS STATE PLANE CENTRAL ZONE GRID NORTH) BASED ON THE PUBLISHED COORDINATES OF THE CITY OF COLLEGE STATION CONTROL MONUMENT CS94-130 (Y:10200590.80, X:3569863.02) AND AS ESTABLISHED BY GPS OBSERVATION. DISTANCES SHOWN HEREON ARE GRID DISTANCES UNLESS OTHERWISE NOTED. TO OBTAIN SURFACE DISTANCES MULTIPLY BY A COMBINED SCALE FACTOR OF 1.0001012177 (CALCULATED USING GEOID12B).

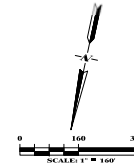
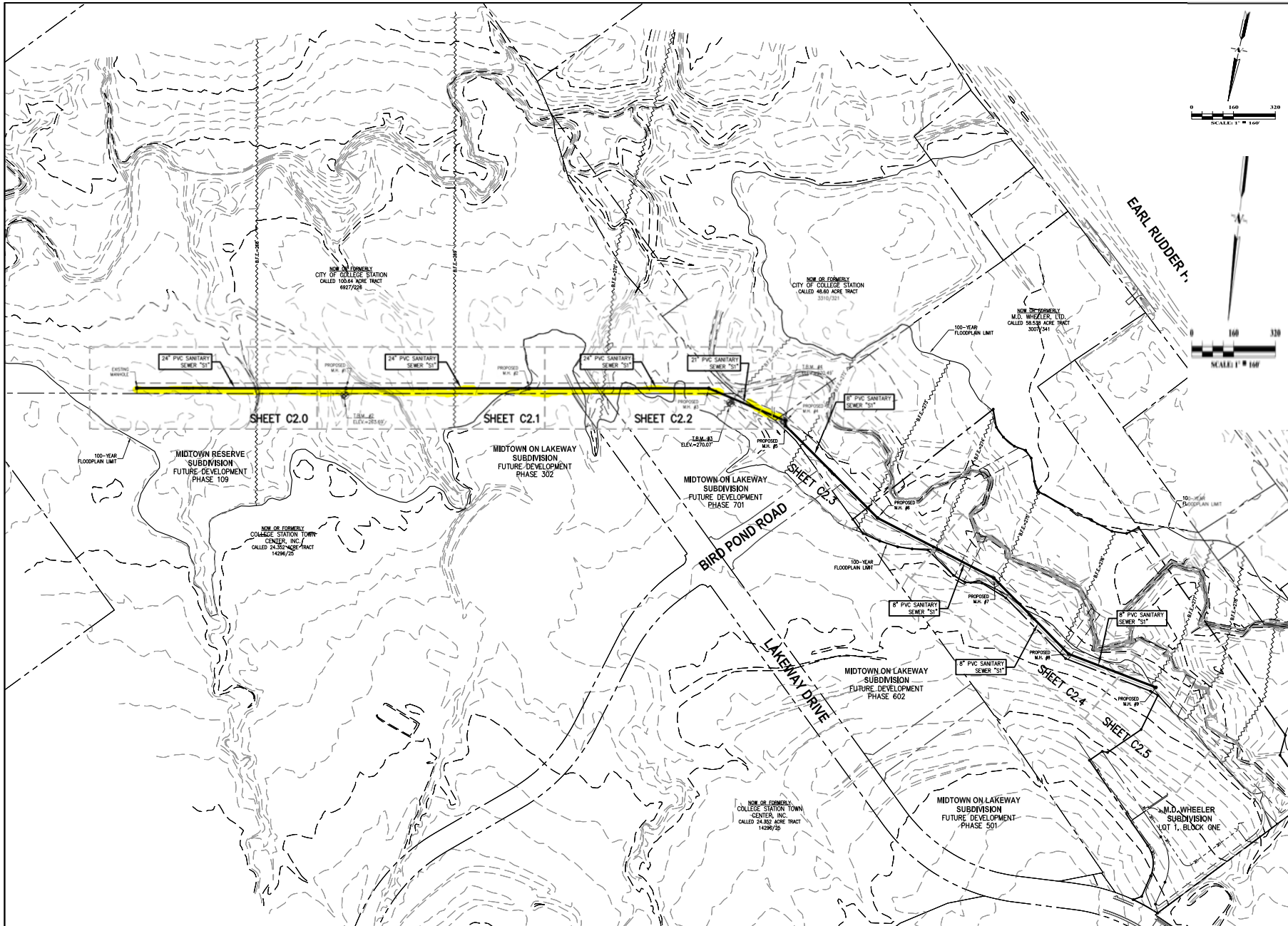
CM - CONTROLLING MONUMENT FOUND AND USED TO ESTABLISH PROPERTY LINES. SEE METES AND BOUNDS PREPARED MARCH 2019, FOR MORE DESCRIPTIVE INFORMATION.

SCALE: 1" = 60'



SURVEY PLAT OF A 0.079 ACRE PUBLIC UTILITY EASEMENT ROBERT STEVENSON LEAGUE, A-54 THOMAS CARUTHERS LEAGUE, A-9 COLLEGE STATION, BRAZOS COUNTY, TEXAS	
	SCALE: 1 INCH = 60 FEET SURVEY DATE: 12-17-18 PLAT DATE: 03-08-19 JOB NUMBER: 18-646 CAD NAME: 18-646-EASE CRS FILE: BIRDEST-GRID (cont.); 18-646 (job) PREPARED BY: KERR SURVEYING, LLC 409 N. TEXAS AVENUE BRYAN, TEXAS 77803 PHONE: (979) 268-3195





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FOR THE
OVERALL KEY MAP
ROCK PRAIRIE MANAGEMENT
DISTRICT No. 2
8", 21" & 24" SEWER TRUNK LINE
COLLEGE STATION, BRAZOS COUNTY, TEXAS

CLIENT INFORMATION
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RYNKEY@OSCENGINEERING.COM
PH: (979) 268-2000
MB: (979) 777-0802

FILENAME: 068351A SCALE: 1"=160'
SUBMITTED DATE: 3/7/19, 3/8/19, 3/28/19

DRAWN BY: R.A.M. CHECKED BY: R.A.M.
FIELD BOOK: N/A PAGES: N/A
RME CONSULTING ENGINEERS
CLIENT NO. PROJECT NO.
325 - 0683

C1.0
SHEET 4 OF 13



Legislation Details (With Text)

File #:	19-0210	Version:	1	Name:	Parks Board Appointment
Type:	Appointment	Status:		Status:	Agenda Ready
File created:	4/15/2019	In control:		In control:	City Council Regular
On agenda:	5/13/2019	Final action:		Final action:	
Title:	Presentation, discussion, and possible action regarding an appointment to the Parks and Recreation Board.				
Sponsors:	Tanya Smith				
Indexes:					
Code sections:					
Attachments:					

Date	Ver.	Action By	Action	Result
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Presentation, discussion, and possible action regarding an appointment to the Parks and Recreation Board.

Relationship to Strategic Goals:

- Good Governance

Recommendation(s): None

Summary: Rhys Blavier had tendered his resignation from this committee. Mr. Blavier's resignation was effective as of May 15 2019. The position is an unexpired, and the appointment needs to be made for the unexpired term, January 2020. Advertisement for the position has been ongoing until position was filled.

Budget & Financial Summary: None

Attachments: None