

**Sterling Public Schools
Board Of Education Agenda- Regular Meeting
Sterling Public Schools Library, 400 S. Tiger Blvd., Sterling, OK 73567
Tuesday, September 10, 2024 at 7:00 PM**

AGENDA

{{Name: Agenda Item Name}}

1. Roll call and call to order.
2. Pledge of Allegiance - Brian Moore
3. Recognitions -
Southwest Shootout volunteers
Summit Energy
Sterling Volunteer Fire Department
Sterling Police Department.
City of Sterling
JH and HS athletes
JH and HS coaches
4. Discussion/Approval Items
 1. Consent agenda: All of the following items, which concern reports and items of a routine nature normally approved, will be approved by one vote, unless any board member desires to have a separate vote on any or all of these items. The consent agenda consists of the discussion, consideration, and approval of the following items:
 1. Approve minutes of the previous meetings.
 2. Approve financial statements.
 3. Approve transfers within activity account.
 4. Approve activity accounts.
 5. Approve purchase orders and warrants for the following funds: general, building, sinking, and any change order list.
 6. Discussion and possible vote to approve the Gifted and Talented Plan for 2024-2025
 7. Discussion and possible vote to approve policy EMI (Voluntary Prayer).
 8. Discussion and possible vote to approve the hazard mitigation plan with Comanche County.
 9. Discussion and possible vote to approve the Healthy/Safe School Committee, the Gifted and Talented Committee, the Reading Sufficiency Committee, the Title I Committee,

CLEP, Technology, and the Professional Development Committee for the 2024-2025 school year.

10. Discussion concerning the choice of the ACT exam for juniors as the State Test.
11. Discussion and possible vote to approve the Title I School Wide Comprehensive Plan for 2024-2025.
12. Approve resignations - No new resignations at this time.
2. Discussion and possible vote to approve the estimate of needs for 2024-2025 school year.
3. Discussion and Possible vote to approve an adjunct teacher salary scale for the 2024-2025 school year.
5. Administrative reports.
 1. Principal Reports
6. Superintendent report - Pool Report, SW Shootout workers, District Financial Status, School Resource Officer Grant
7. New Business
8. Adjourn

This agenda was posted at the superintendent's office door and the west entrance/ high school principal's office entrance of the high school building not later than 3:20 p.m.

_____,20____

Trent Parrish, Superintendent

Board Of Education Agenda- Regular Meeting

Tuesday, August 13, 2024 7:00 PM

Sterling Public Schools Library, 400 S. Tiger Blvd., Sterling, OK 73567

Attendance Taken at 7:01 PM.

Mallory Geiger: Present

Jeff Milam: Present

Brian Moore: Present

Candra Turpin Present

Present: 4, Absent:

1. Roll call and call to order.

2. Pledge of Allegiance

3. Discussion/Approval Items

3.1. Discussion and possible vote to appoint John Hergenrether to the open seat 5 on the Sterling Public Schools Board of Trustees.

Motion to appoint John Hergenrether to the open seat 5 on the Sterling Public Schools Board of Trustees.

Passed with a motion by Candra Turpin and a second by Mallory Geiger.

Mallory Geiger: Yea, Jeff Milam: Yea, Brian Moore: Yea, Candra Turpin: Yea

Yea: 4, Nay: 0, Absent: 0

3.2. Issue oath of office for new board member John Hergenether.

3.3. Consent agenda: All of the following items, which concern reports and items of a routine nature normally approved, will be approved by one vote, unless any board member desires to have a separate vote on any or all of these items. The consent agenda consists of the discussion, consideration, and approval of the following items:

Motion to approve the consent agenda Passed with a motion by Brian Moore and a second by Candra Turpin.

John Hergenrether: Yea, Mallory Geiger: Yea, Jeff Milam: Yea, Brian Moore: Yea, Candra Turpin: Yea

Yea: 5, Nay: 0, Absent: 0

3.3.1. Approve minutes of the previous meetings.

3.3.2. Approve financial statements.

3.3.3. Approve purchase orders and warrants for the following funds: general, building, , bond, sinking, and any change order list.

3.3.4. Approve activity accounts.

3.3.5. Approve transfers for activity accounts.

3.3.6. Discussion and possible vote to approve the Oklahoma Department of Career and Technology Education Notice of Allocation of State or federal Aid to Districts for FY 2025 and approve the Career and Technology Contract for the upcoming school year.

3.3.7. Discussion and possible vote to approve the Alternative Education Cooperative Memorandum of Understanding with Elgin Public Schools.

3.3.8. Discussion and possible vote to approve participation in an alternative education cooperative with Elgin Public Schools for the 2024-2025 school year.

3.3.9. Discussion and Possible vote to change the name of Sterling FCA to The Lighthouse.

3.4. Resignations:

Lisa Pawlowski

Aaron Mead

Motion to accept the resignations Passed with a motion by Brian Moore and a second by Mallory Geiger.

John Hergenrether: Yea, Mallory Geiger: Yea, Jeff Milam: Yea, Brian Moore: Yea, Candra Turpin: Yea

Yea: 5, Nay: 0, Absent: 0

3.5. Discussion and possible vote to hire Chris Wilmeth as a Teaching Assistant for the 2024-2025 school year.

Motion to hire Chris Wilmeth as a Teaching assistant for the 2024-2025 school year at \$10.23 hr Passed with a motion by Candra Turpin and a second by John Hergenrether.

John Hergenrether: Yea, Mallory Geiger: Yea, Jeff Milam: Yea, Brian Moore: Yea, Candra Turpin: Yea

Yea: 5, Nay: 0, Absent: 0

3.6. Discussion and possible vote to approve Mike Moore and Autumn Lee-Shady as volunteer coaches for the 2024-2025 school year.

Motion to approve Mike Moore and Autumn Lee-Shady as volunteer coaches for the 2024-2025 school year. Passed with a motion by Brian Moore and a second by John Hergenrether.

John Hergenrether: Yea, Mallory Geiger: Yea, Jeff Milam: Yea, Brian Moore: Yea, Candra Turpin: Yea

Yea: 5, Nay: 0, Absent: 0

3.7. Discussion of the State Aid Formula for the upcoming school year.

3.8. Discussion and possible vote to approve the following adjunct teachers.

Sierra Dodson as an adjunct Media Arts teacher.

Zoe Forehand as an adjunct teacher teaching Art.

Jacob Wilson as an adjunct teacher teaching Physical Education, Midlevel Science, Art, and Physical Education.

Kylee Birdwell as an adjunct teacher teaching Physical Education and Geography.

Amanda Lewis as an adjunct teacher teaching Midlevel Math.

Taylor Break as an adjunct teacher teaching Midlevel science.

Lacy Clements as an adjunct teacher teaching Music.

Motion to approve the following adjunct teachers. Sierra Dodson as an adjunct Media Arts teacher. Zoe Forehand as an adjunct teacher teaching Art. Jacob Wilson as an adjunct teacher teaching Physical Education, Midlevel Science, Art, and Physical Education. Kylee Birdwell as an adjunct teacher teaching Physical Education and Geography. Amanda Lewis as an adjunct teacher teaching Midlevel Math. Taylor Break as an adjunct teacher teaching Midlevel science. Passed with a motion by Brian Moore and a second by Mallory Geiger.

John Hergenrether: Yea, Mallory Geiger: Yea, Jeff Milam: Yea, Brian Moore: Yea, Candra Turpin: Yea

Yea: 5, Nay: 0, Absent: 0

3.9. Discussion and possible vote to approve a revised FY 25 Support Salary Schedule.

Motion to approve a revised FY 25 Support Salary Schedule. Passed with a motion by Candra Turpin and a second by Brian Moore.

John Hergenrether: Yea, Mallory Geiger: Yea, Jeff Milam: Yea, Brian Moore: Yea, Candra Turpin: Yea
Yea: 5, Nay: 0, Absent: 0

3.10. Tabled approving the following signatures cards at the First National Bank of Fletcher:
Account 78*: Ronita Bridges, Lori King, Trent Parrish, Anna Curry, Marty Curry

Account 532***: John Hergenrether, Brian Moore, Jeff Milam, Mallory Geiger, Candra Turpin, Ronita
Bridges, Trent Parrish

3.11. Discussion and Possible vote to approve the Indian Policies and Procedures for the 2024-2025 school
year.

Motion to approve the Indian Policies and Procedures for the 2024-2025 school year. Passed with a motion
by Brian Moore and a second by Mallory Geiger.

John Hergenrether: Yea, Mallory Geiger: Yea, Jeff Milam: Yea, Brian Moore: Yea, Candra Turpin: Yea
Yea: 5, Nay: 0, Absent: 0

4. Administrative reports.

4.1. Principal Reports

5. Superintendent report - current enrollment, beginning of year, SRO grant, Bible mandate.

6. New Business

Motion Passed with a motion by Candra Turpin and a second by Mallory Geiger.

John Hergenrether: Yea, Mallory Geiger: Yea, Jeff Milam: Yea, Brian Moore: Yea, Candra Turpin: Yea
Yea: 5, Nay: 0, Absent: 0

7. Adjourn

Chairperson

Superintendent

TREASURER'S CASH BALANCES
AS OF AUGUST 31, 2024

FNB OF FLETCHER

CHECKING .40
 ACTIVITY FUND
 GENERAL FUND
 BUILDING FUND
 BOND FUND 31
 SINKING FUND

\$136,216.43
 \$531,676.72
 \$196,091.99
 \$10,122.53
 \$1,080.42
\$875,188.09

\$0.00

TOTAL CASH @ FNB OF FLETCHER

\$875,188.09

TOTAL PLEDGES AS OF 08/31/2024

1,938,282.89

269
 -159

 110 ↑ (true#)

GENERAL FUND
 BUILDING FUND
 BOND FUND 31
 SINKING FUND
 ACTIVITY FUND

8/31/2024
 \$531,676.72
 \$196,091.99
 \$10,122.53
 \$1,080.42
 \$136,216.43
\$0.00
\$875,188.09

8/31/2023
\$261,817.52
\$115,870.34
\$15,342.83
\$1,196.88
\$117,793.83

+/-
 \$269,859.20 *
 \$80,221.65
 -\$5,220.30
 -\$116.46
 \$18,422.60

See next pg.

Sterling Schools

Receipt Analysis

Options: Date Range: 8/1/2024 - 8/31/2024

| Year | Receipt No. Date | Received From | Amount |
|--|------------------|---------------------|--------------|
| 3436 SCHOOL RESOURCE OFFICER PGM | | | |
| 2025 | 20 8/19/2024 | OK STATE DEPT OF ED | \$91,829.62 |
| 2025 | 21 8/20/2024 | osde | \$67,927.89 |
| 3436 SCHOOL RESOURCE OFFICER PGM Total | | | \$159,757.51 |
| Fund - 11 GEN FUND-FOR OP Total | | | \$400,599.99 |



School Resource Officer grant

Sterling Schools

Receipt Analysis

Options: Date Range: 8/1/2024 - 8/31/2024

| Year | Receipt No | Date | Received From | Amount |
|---|------------|-----------|----------------------------------|---------------------|
| Fund - 11 GEN FUND-FOR OP | | | | |
| 1120 AD VALOREM TAX LEVY (PR.YRS) | | | | |
| 2025 | 9 | 8/9/2024 | GRADY CO/LOVES GRANT/STEPHENS CO | \$183.46 |
| 2025 | 11 | 8/12/2024 | ELGIN LIBRARY DONATION/COM CO | \$4,480.96 |
| 1120 AD VALOREM TAX LEVY (PR.YRS) Total | | | | \$4,664.42 |
| 1130 REVENUE IN LIEU OF TAXES | | | | |
| 2025 | 9 | 8/9/2024 | GRADY CO/LOVES GRANT/STEPHENS CO | \$310.03 |
| 1130 REVENUE IN LIEU OF TAXES Total | | | | \$310.03 |
| 1190 OTHER TAXES | | | | |
| 2025 | 11 | 8/12/2024 | ELGIN LIBRARY DONATION/COM CO | \$4,246.59 |
| 1190 OTHER TAXES Total | | | | \$4,246.59 |
| 1310 INTEREST EARNINGS | | | | |
| 2025 | 25 | 8/31/2024 | FNB FLETCHER | \$198.61 |
| 1310 INTEREST EARNINGS Total | | | | \$198.61 |
| 1350 INTEREST ON TAXES | | | | |
| 2025 | 11 | 8/12/2024 | ELGIN LIBRARY DONATION/COM CO | \$1.15 |
| 1350 INTEREST ON TAXES Total | | | | \$1.15 |
| 1540 LOST TEXTBOOKS | | | | |
| 2025 | 19 | 8/15/2024 | TALIAFERRO | \$10.00 |
| 1540 LOST TEXTBOOKS Total | | | | \$10.00 |
| 1590 MISCELLANEOUS REIMBURSEMENTS | | | | |
| 2025 | 24 | 8/1/2024 | AM FID/ REIMBURSEMENT | \$41.67 |
| 1590 MISCELLANEOUS REIMBURSEMENTS Total | | | | \$41.67 |
| 1610 CONTRIBUTIONS/DONATIONS-PRIV. | | | | |
| 2025 | 9 | 8/9/2024 | GRADY CO/LOVES GRANT/STEPHENS CO | \$6,000.00 |
| 2025 | 11 | 8/12/2024 | ELGIN LIBRARY DONATION/COM CO | \$400.00 |
| 2025 | 12 | 8/13/2024 | DONATION CAFETERIA | \$500.00 |
| 1610 CONTRIBUTIONS/DONATIONS-PRIV. Total | | | | \$6,900.00 |
| 1710 STUDENTS' LUNCHES | | | | |
| 2025 | 23 | 8/31/2024 | CNF AUGUST | \$3,380.25 |
| 1710 STUDENTS' LUNCHES Total | | | | \$3,380.25 |
| 2100 COUNTY 4 MILL AD VALOREM TAX | | | | |
| 2025 | 11 | 8/12/2024 | ELGIN LIBRARY DONATION/COM CO | \$949.80 |
| 2100 COUNTY 4 MILL AD VALOREM TAX Total | | | | \$949.80 |
| 2200 COUNTY APPORT.(MORTGAGE TAX) | | | | |
| 2025 | 11 | 8/12/2024 | ELGIN LIBRARY DONATION/COM CO | \$905.43 |
| 2200 COUNTY APPORT.(MORTGAGE TAX) Total | | | | \$905.43 |
| 3110 GROSS PRODUCTION TAX | | | | |
| 2025 | 10 | 8/10/2024 | OTC | \$19,949.03 |
| 3110 GROSS PRODUCTION TAX Total | | | | \$19,949.03 |
| 3140 STATE SCHOOL LAND EARNINGS | | | | |
| 2025 | 22 | 8/22/2024 | COMM OF THE LAND OFFICE | \$3,617.24 |
| 3140 STATE SCHOOL LAND EARNINGS Total | | | | \$3,617.24 |
| 3150 VEHICLE TAX STAMPS | | | | |
| 2025 | 11 | 8/12/2024 | ELGIN LIBRARY DONATION/COM CO | \$15.46 |
| 3150 VEHICLE TAX STAMPS Total | | | | \$15.46 |
| 3210 FOUNDATION AND SALARY INCEN. | | | | |
| 2025 | 15 | 8/14/2024 | OK STATE DEPT OF EDUC | \$150,844.43 |
| 3210 FOUNDATION AND SALARY INCEN. Total | | | | \$150,844.43 |
| 3250 EDUCATION FLEX.BENEFIT ALLOW. | | | | |
| 2025 | 13 | 8/14/2024 | OK STATE DEPT OF EDUC | \$983.35 |
| 2025 | 16 | 8/14/2024 | OK STATE DEPT OF EDUC | \$15,413.78 |
| 2025 | 17 | 8/14/2024 | OK STATE DEPT OF EDUC | \$301.15 |
| 2025 | 18 | 8/14/2024 | OK STATE DEPT OF ED | \$7,750.93 |
| 3250 EDUCATION FLEX.BENEFIT ALLOW. Total | | | | \$24,449.21 |
| 3420 STATE TEXTBOOK | | | | |
| 2025 | 14 | 8/14/2024 | OK STATE DEPT OF EDUC | \$20,359.16 |
| 3420 STATE TEXTBOOK Total | | | | \$20,359.16 |

VA Exemption →

*Mrs Ingram - \$6,000.00
pool - \$400.00
cafeteria - \$500.00
= \$6,900.00*

Sterling Schools Receipt Analysis

Options: Date Range: 8/1/2024 - 8/31/2024

| Year | Receipt No | Date | Received From | Amount |
|--|------------|--------------|----------------------------------|-------------------|
| Fund - 21 Building | | | | |
| 1120 AD VALOREM TAX LEVY (PR.YRS) | | | | |
| 2025 | | 9 8/9/2024 | GRADY CO/LOVES GRANT/STEPHENS CO | \$26.20 |
| 2025 | | 11 8/12/2024 | ELGIN LIBRARY DONATION/COM CO | \$640.47 |
| 1120 AD VALOREM TAX LEVY (PR.YRS) Total | | | | \$666.67 |
| 1130 REVENUE IN LIEU OF TAXES | | | | |
| 2025 | | 9 8/9/2024 | GRADY CO/LOVES GRANT/STEPHENS CO | \$44.25 |
| 1130 REVENUE IN LIEU OF TAXES Total | | | | \$44.25 |
| 1190 OTHER TAXES | | | | |
| 2025 | | 11 8/12/2024 | ELGIN LIBRARY DONATION/COM CO | \$606.98 |
| 1190 OTHER TAXES Total | | | | \$606.98 |
| 1310 INTEREST EARNINGS | | | | |
| 2025 | | 25 8/31/2024 | FNB FLETCHER | \$71.64 |
| 1310 INTEREST EARNINGS Total | | | | \$71.64 |
| Fund - 21 Building Total | | | | \$1,389.54 |

Sterling Schools

Receipt Analysis

Options: Date Range: 8/1/2024 - 8/31/2024

| Fund - 41 Sinking | Year | Receipt No | Date | Received From | Amount |
|--|------|------------|--------------|----------------------------------|-------------------|
| 1120 AD VALOREM TAX LEVY (PR.YRS) | | | | | |
| | 2025 | | 9 8/9/2024 | GRADY CO/LOVES GRANT/STEPHENS CO | \$35.43 |
| | 2025 | | 11 8/12/2024 | ELGIN LIBRARY DONATION/COM CO | \$868.41 |
| 1120 AD VALOREM TAX LEVY (PR.YRS) Total | | | | | \$903.84 |
| 1130 REVENUE IN LIEU OF TAXES | | | | | |
| | 2025 | | 9 8/9/2024 | GRADY CO/LOVES GRANT/STEPHENS CO | \$59.39 |
| 1130 REVENUE IN LIEU OF TAXES Total | | | | | \$59.39 |
| 1190 OTHER TAXES | | | | | |
| | 2025 | | 11 8/12/2024 | ELGIN LIBRARY DONATION/COM CO | \$805.56 |
| 1190 OTHER TAXES Total | | | | | \$805.56 |
| 1310 INTEREST EARNINGS | | | | | |
| | 2025 | | 25 8/31/2024 | FNB FLETCHER | \$0.39 |
| 1310 INTEREST EARNINGS Total | | | | | \$0.39 |
| Fund - 41 Sinking Total | | | | | \$1,769.18 |

Sterling Schools Receipt Analysis

Options: Date Range: 8/1/2024 - 8/31/2024

| Year | Receipt No | Date | Received From | Amount |
|---|------------|-----------|--|---|
| Fund - 60 SCHOOL ACTIVITY FNDS | | | | |
| 1310 INTEREST EARNINGS | | | | |
| 2025 | 60 | 8/30/2024 | FNB-FLETCHER | \$57.94 |
| | | | | 1310 INTEREST EARNINGS Total |
| | | | | \$57.94 |
| 1610 CONTRIBUTIONS/DONATIONS-PRIV. | | | | |
| 2025 | 35 | 8/12/2024 | BREAK-ATHLETICS-DONATION | \$300.00 |
| 2025 | 38 | 8/13/2024 | PARRISH & MILLER-ELEMENTARY DONATION | \$200.00 |
| 2025 | 43 | 8/15/2024 | CURRY & BRIDGES-POOL SPONSORSHIP | \$150.00 |
| 2025 | 52 | 8/21/2024 | BUDD-CHEER DONATION & DUES | \$1,785.64 |
| 2025 | 55 | 8/22/2024 | BREAK-GENERAL PRINCIPAL DONATION | \$100.00 |
| | | | | 1610 CONTRIBUTIONS/DONATIONS-PRIV. Total |
| | | | | \$2,535.64 |
| 1910 ADMISSIONS | | | | |
| 2025 | 31 | 8/1/2024 | JACKSON & SHADY-POOL DEPOSIT | \$655.00 |
| 2025 | 32 | 8/1/2024 | SHADY & JACKSON-POOL ADMISSION & CONCESSION | \$300.00 |
| 2025 | 33 | 8/6/2024 | SHADY & JACKSON-POOL | \$600.00 |
| | | | | 1910 ADMISSIONS Total |
| | | | | \$1,555.00 |
| 1920 CONCESSION SALES | | | | |
| 2025 | 31 | 8/1/2024 | JACKSON & SHADY-POOL DEPOSIT | \$159.50 |
| 2025 | 32 | 8/1/2024 | SHADY & JACKSON-POOL ADMISSION & CONCESSION | \$58.06 |
| 2025 | 33 | 8/6/2024 | SHADY & JACKSON-POOL | \$122.25 |
| 2025 | 36 | 8/13/2024 | INGRAM & ALVARADO-JR CLASS CONCESSION | \$499.30 |
| 2025 | 37 | 8/13/2024 | GARRETT & INGRAM-JR CLASS CONCESSION | \$254.16 |
| 2025 | 39 | 8/14/2024 | INGRAM & GARRETT-JR CLASS CONCESSION | \$281.50 |
| 2025 | 41 | 8/14/2024 | GARRETT & WHITTAKER-JR CLASS CONCESSION | \$318.75 |
| 2025 | 45 | 8/19/2024 | BREAK-STUCO CONCESSION | \$418.00 |
| 2025 | 46 | 8/19/2024 | INGRAM & INGRAM-JR CLASS CONCESSION | \$140.25 |
| 2025 | 47 | 8/19/2024 | CURRY & BREAK-JR CLASS & ATHLETICS CONCESSION | \$147.20 |
| 2025 | 47 | 8/19/2024 | CURRY & BREAK-JR CLASS & ATHLETICS CONCESSION | \$220.80 |
| 2025 | 49 | 8/20/2024 | BREAK-GENERAL WATER MACHINE | \$100.00 |
| 2025 | 50 | 8/20/2024 | INGRAM & WHITTAKER-JR CLASS CONCESSION | \$226.75 |
| 2025 | 51 | 8/21/2024 | INGRAM, INGRAM, GARRETT & BRADSHAW-JR CONCESSION | \$375.50 |
| 2025 | 51 | 8/21/2024 | INGRAM, INGRAM, GARRETT & BRADSHAW-JR CONCESSION | \$179.75 |
| 2025 | 53 | 8/22/2024 | BREAK-STUCO CONCESSION | \$269.70 |
| 2025 | 59 | 8/27/2024 | GARRETT & BRADSHAW-JR CLASS CONCESSION | \$188.50 |
| | | | | 1920 CONCESSION SALES Total |
| | | | | \$3,959.97 |
| 1950 RESALE MERCH.(NOT STU. STORE) | | | | |
| 2025 | 40 | 8/14/2024 | DODSON-YEARBOOK-23/24 YEARBOOK | \$95.00 |
| 2025 | 42 | 8/19/2024 | SMART-FCA LIGHTHOUSE T SHIRTS | \$120.00 |
| 2025 | 44 | 8/19/2024 | DODSON-YEARBOOK-23/24 YEARBOOK | \$35.00 |
| 2025 | 48 | 8/20/2024 | DODSON-YEARBOOK- 22/23 & 23/24 YEARBOOK | \$70.00 |
| 2025 | 54 | 8/22/2024 | DODSON-YEARBOOK-23/24 YEARBOOK | \$35.00 |
| 2025 | 57 | 8/26/2024 | SMART-FCA LIGHTHOUSE T SHIRTS | \$120.00 |
| 2025 | 58 | 8/27/2024 | DODSON-YEARBOOK-23/24 YEARBOOK | \$35.00 |
| | | | | 1950 RESALE MERCH.(NOT STU. STORE) Total |
| | | | | \$510.00 |
| 1970 STUDENT CLUBS & ORGANIZATIONS | | | | |
| 2025 | 52 | 8/21/2024 | BUDD-CHEER DONATION & DUES | \$350.00 |
| | | | | 1970 STUDENT CLUBS & ORGANIZATIONS Total |
| | | | | \$350.00 |
| 1971 FEES OR DUES | | | | |
| 2025 | 56 | 8/27/2024 | ROWAN-FFA ENTRY FEES | \$40.00 |
| | | | | 1971 FEES OR DUES Total |
| | | | | \$40.00 |
| 5120 CASH OR CHANGE | | | | |
| 2025 | 33 | 8/6/2024 | SHADY & JACKSON-POOL | \$100.00 |
| 2025 | 34 | 8/6/2024 | SHADY & JACKSON-POOL | \$100.00 |
| | | | | 5120 CASH OR CHANGE Total |
| | | | | \$200.00 |
| | | | | Fund - 60 SCHOOL ACTIVITY FNDS Total |
| | | | | \$9,208.55 |

Sterling Schools

Receipt Analysis

Options: Date Range: 8/1/2024 - 8/31/2024

| Year | Receipt No | Date | Received From | Amount |
|-----------------------|------------|------|---------------|---------------------|
| Receipts Total | | | | \$412,967.26 |

Sterling Schools

Revenue/Expenditure Summary

Options: Fund: 60, Date Range: 8/1/2024 - 8/31/2024

| | Begin Balance | Receipts | Adjusting Entries | Payments | Cash End Balance | Unpaid POs | End Balance |
|-------------------------------|---------------------|-------------------|----------------------|--------------------|---------------------|---------------|---------------------|
| 801 GENERAL | \$2,198.54 | \$257.94 | \$0.00 | \$35.00 | \$2,421.48 | \$0.00 | \$2,421.48 |
| 802 ATHLETICS | \$4,863.96 | \$447.20 | \$0.00 | \$4,358.39 | \$952.77 | \$0.00 | \$952.77 |
| 803 FCCLA NATIONAL CONFERENCE | \$1,217.35 | \$0.00 | (\$717.35) | \$0.00 | \$500.00 | \$0.00 | \$500.00 |
| 804 FCA | \$159.22 | \$240.00 | \$0.00 | \$0.00 | \$399.22 | \$0.00 | \$399.22 |
| 805 FLOWER FUND | \$86.61 | \$0.00 | \$0.00 | \$0.00 | \$86.61 | \$0.00 | \$86.61 |
| 806 FFA | \$43,703.13 | \$40.00 | \$0.00 | \$1,554.50 | \$42,188.63 | \$0.00 | \$42,188.63 |
| 807 FCCLA | \$61.84 | \$0.00 | \$717.35 | \$330.00 | \$449.19 | \$0.00 | \$449.19 |
| 808 ACADEMIC TEAM | \$107.24 | \$0.00 | \$0.00 | \$0.00 | \$107.24 | \$0.00 | \$107.24 |
| 809 POOL | \$18,380.82 | \$2,244.81 | \$0.00 | \$1,064.75 | \$19,560.88 | \$0.00 | \$19,560.88 |
| 810 AG SCHOLARSHIP | \$2,700.00 | \$0.00 | \$0.00 | \$0.00 | \$2,700.00 | \$0.00 | \$2,700.00 |
| 811 STUDENT COUNCIL | \$1,158.96 | \$687.70 | \$0.00 | \$300.00 | \$1,546.66 | \$0.00 | \$1,546.66 |
| 813 LIBRARY | \$2,951.44 | \$0.00 | \$0.00 | \$0.00 | \$2,951.44 | \$0.00 | \$2,951.44 |
| 815 JH & HS CHEERLEADING | \$3,161.11 | \$2,135.64 | \$0.00 | \$75.00 | \$5,221.75 | \$0.00 | \$5,221.75 |
| 816 YEARBOOK | \$13,936.19 | \$270.00 | \$0.00 | \$118.58 | \$14,087.61 | \$0.00 | \$14,087.61 |
| 818 ELEMENTARY | \$3,795.00 | \$200.00 | \$0.00 | \$1,564.92 | \$2,430.08 | \$0.00 | \$2,430.08 |
| 819 GENERAL SCHOLARSHIP FUNDS | \$1,500.00 | \$0.00 | \$0.00 | \$0.00 | \$1,500.00 | \$0.00 | \$1,500.00 |
| 820 JAMES BRAGG SCHOLARSHIP | \$540.41 | \$0.00 | \$0.00 | \$0.00 | \$540.41 | \$0.00 | \$540.41 |
| 821 BASEBALL | \$5,112.00 | \$0.00 | \$0.00 | \$0.00 | \$5,112.00 | \$0.00 | \$5,112.00 |
| 830 TEACHER/SUPPORT OF YEAR | \$117.52 | \$0.00 | \$0.00 | \$0.00 | \$117.52 | \$0.00 | \$117.52 |
| 847 2025 SENIORS | \$28,437.45 | \$0.00 | \$0.00 | \$416.49 | \$28,020.96 | \$0.00 | \$28,020.96 |
| 848 2026 SENIORS | \$3,036.72 | \$2,685.26 | \$0.00 | \$400.00 | \$5,321.98 | \$0.00 | \$5,321.98 |
| Total | \$137,225.51 | \$9,208.55 | \$0.00 | \$10,217.63 | \$136,216.43 | \$0.00 | \$136,216.43 |

Sterling Schools

Cash Balances

Options: Fiscal Years: 2025, Funds: 60, As Of Date: 8/31/2024, Account Types: AC

Cash By Account and Fund

| | | | | |
|---------|----------------------------|----------------------|---------------|---------------------|
| AC 0102 | FNB FLETCHER/ACTIVITY FUND | | | |
| 2025 | 60 | SCHOOL ACTIVITY FNDS | | \$136,216.43 |
| | | | Total AC 0102 | \$136,216.43 |
| | | | | <u>\$136,216.43</u> |

Cash By Fund

| | | | | |
|------|----|----------------------|--|---------------------|
| 2025 | 60 | SCHOOL ACTIVITY FNDS | | \$136,216.43 |
| | | | | <u>\$136,216.43</u> |

Board Meeting Date: SEPT 10, 2024

FY 25 GENERAL FUND

Vote to approve warrants #46 thru #117 in the amount of \$149641.29

FY 25 BUILDING FUND

Vote to approve warrants #5 thru #10 in the amount of \$37940.89

Vote to approve purchase orders #22 thru #24 in the amount of \$3350.00

Sterling Schools

Payment Register

Options: Year: 2024-2025, Fund: GEN FUND-FOR OP, Date Range: 8/1/2024 - 8/31/2024, Print Payroll Payments: True, Print Details: False

| Year | Fund | No | Date | Vendor | Date Type | Date Registered | Clearing Date | Clearing No | Amount |
|------|------|----|------------|---------------------------------|-----------|-----------------|---------------|-------------|------------------|
| 2025 | 11 | 46 | 08/05/2024 | AMAZON CAPITAL SERVICES, INC | | 8/5/2024 | 8/31/2024 | 2 | \$286.16 |
| 2025 | 11 | 47 | 08/05/2024 | OKLAHOMA DEPT OF CAREER TECH | | 8/5/2024 | 8/31/2024 | 2 | \$250.00 |
| 2025 | 11 | 48 | 08/05/2024 | GOVERNMENT ACCOUNT SERVICES | | 8/5/2024 | 8/31/2024 | 2 | \$47.10 |
| 2025 | 11 | 49 | 08/05/2024 | POSTMASTER | | 8/5/2024 | 8/31/2024 | 2 | \$365.00 |
| 2025 | 11 | 50 | 08/05/2024 | RENAISSANCE LEARNING, INC | | 8/5/2024 | 8/31/2024 | 2 | REW - \$4,481.52 |
| 2025 | 11 | 51 | 08/05/2024 | STERLING PUB. WORKS AUTHORITY | | 8/5/2024 | 8/31/2024 | 2 | \$196.00 |
| 2025 | 11 | 52 | 08/09/2024 | AMERICAN FIDELITY ASSURANCE CO | R | 8/9/2024 | 8/31/2024 | 2 | \$799.05 |
| 2025 | 11 | 53 | 08/09/2024 | AMERICAN FIDELITY ASSURANCE CO | R | 8/9/2024 | 8/31/2024 | 2 | \$41.67 |
| 2025 | 11 | 54 | 08/09/2024 | American Fidelity HSA Admin | R | 8/9/2024 | 8/31/2024 | 2 | \$100.00 |
| 2025 | 11 | 55 | 08/09/2024 | CCOSA | R | 8/9/2024 | 8/31/2024 | 2 | \$73.50 |
| 2025 | 11 | 56 | 08/09/2024 | INTERNAL REVENUE SERVICE | R | 8/9/2024 | 8/31/2024 | 2 | \$6,939.65 |
| 2025 | 11 | 57 | 08/09/2024 | FNB OF FLETCHER | R | 8/9/2024 | 8/31/2024 | 2 | \$19,150.32 |
| 2025 | 11 | 58 | 08/09/2024 | EMPLOYEE DEPOSIT ACCOUNT | R | 8/9/2024 | 8/31/2024 | 2 | \$700.00 |
| 2025 | 11 | 59 | 08/09/2024 | OMES | R | 8/9/2024 | 8/31/2024 | 2 | \$4,573.88 |
| 2025 | 11 | 60 | 08/09/2024 | OKLAHOMA TAX COMMISSION | R | 8/9/2024 | 8/31/2024 | 2 | \$865.00 |
| 2025 | 11 | 61 | 08/09/2024 | OK TEACHERS' RETIREMENT SYSTEM | R | 8/9/2024 | 8/31/2024 | 2 | \$4,762.74 |
| 2025 | 11 | 62 | 08/09/2024 | PROFESSIONAL OK. EDUCATORS FOU | R | 8/9/2024 | 8/31/2024 | 2 | \$38.45 |
| 2025 | 11 | 63 | 08/09/2024 | UNUM Life Insurance | R | 8/9/2024 | 8/31/2024 | 2 | \$20.80 |
| 2025 | 11 | 64 | 08/09/2024 | AVA ELIZABETH ALEXANDER | PN | 8/9/2024 | 8/31/2024 | 2 | \$740.59 |
| 2025 | 11 | 65 | 08/09/2024 | KINLEE GRACE ALVARADO | PN | 8/9/2024 | 8/31/2024 | 2 | \$970.39 |
| 2025 | 11 | 66 | 08/09/2024 | RONITA BRIDGES | PD | 8/9/2024 | | | \$0.00 |
| 2025 | 11 | 67 | 08/09/2024 | MARTIN CURRY | PD | 8/9/2024 | | | \$0.00 |
| 2025 | 11 | 68 | 08/09/2024 | EMERY ENGLEHARDT | PN | 8/9/2024 | 8/31/2024 | 2 | \$363.22 |
| 2025 | 11 | 69 | 08/09/2024 | TRACE MICHAEL HAGGERTY | PN | 8/9/2024 | 8/31/2024 | 2 | \$683.13 |
| 2025 | 11 | 70 | 08/09/2024 | HAIDYN XAVIER HEATH | PN | 8/9/2024 | 8/31/2024 | 2 | \$689.31 |
| 2025 | 11 | 71 | 08/09/2024 | JADA RENEE HUITT | PN | 8/9/2024 | 8/31/2024 | 2 | \$440.97 |
| 2025 | 11 | 72 | 08/09/2024 | AUTUMN LEE SHADY | PD | 8/9/2024 | | | \$0.00 |
| 2025 | 11 | 73 | 08/09/2024 | KATIE LEIGH MILAM | PN | 8/9/2024 | 8/31/2024 | 2 | \$723.69 |
| 2025 | 11 | 74 | 08/09/2024 | TRENT PARRISH | PD | 8/9/2024 | | | \$0.00 |
| 2025 | 11 | 75 | 08/09/2024 | KIEL ROWAN | PD | 8/9/2024 | | | \$0.00 |
| 2025 | 11 | 76 | 08/09/2024 | CHRISTOPHER WILMETH | PD | 8/9/2024 | | | \$0.00 |
| 2025 | 11 | 77 | 08/15/2024 | ALLIANCE NETWORK SOLUTIONS, LLC | | 8/15/2024 | 8/31/2024 | 2 | REW \$7,003.64 |
| 2025 | 11 | 78 | 08/15/2024 | ALLIED LAB, INC. | | 8/15/2024 | 8/31/2024 | 2 | \$45.00 |
| 2025 | 11 | 79 | 08/15/2024 | AMAZON CAPITAL SERVICES, INC | | 8/15/2024 | 8/31/2024 | 2 | \$351.35 |
| 2025 | 11 | 80 | 08/15/2024 | BENNETT'S | | 8/15/2024 | 8/31/2024 | 2 | \$721.00 |
| 2025 | 11 | 81 | 08/15/2024 | CARLS REFRIGERATION CO. INC. | | 8/15/2024 | 8/31/2024 | 2 | \$493.20 |
| 2025 | 11 | 82 | 08/15/2024 | CCOSA | | 8/15/2024 | 8/31/2024 | 2 | \$75.00 |
| 2025 | 11 | 83 | 08/15/2024 | DIAMOND D PERFORMANCE TIRE & L | | 8/15/2024 | 8/31/2024 | 2 | \$218.45 |
| 2025 | 11 | 84 | 08/15/2024 | SIERRA DODSON | | 8/15/2024 | 8/31/2024 | 2 | \$73.40 |
| 2025 | 11 | 85 | 08/15/2024 | ELAN FINANCIAL SERVICES | | 8/15/2024 | 8/31/2024 | 2 | \$2,426.50 |
| 2025 | 11 | 86 | 08/15/2024 | IMAGINE LEARNING LLC | | 8/15/2024 | 8/31/2024 | 2 | \$7,350.00 |
| 2025 | 11 | 87 | 08/15/2024 | OSAG | | 8/15/2024 | 8/31/2024 | 2 | \$9,769.00 |
| 2025 | 11 | 88 | 08/15/2024 | OSSBA | | 8/15/2024 | 8/31/2024 | 2 | \$7,248.00 |
| 2025 | 11 | 89 | 08/15/2024 | KIEL ROWAN | | 8/15/2024 | 8/31/2024 | 2 | \$62.13 |
| 2025 | 11 | 90 | 08/15/2024 | SUTHERLAND'S | | 08/15/2024 | | | \$0.00 |
| 2025 | 11 | 91 | 08/15/2024 | SYLOGISTED, INC | | 8/15/2024 | 8/31/2024 | 2 | \$10,235.79 |
| 2025 | 11 | 92 | 08/15/2024 | TIGER PAW QUICK MART | | 8/15/2024 | 8/31/2024 | 2 | \$725.57 |
| 2025 | 11 | 93 | 08/15/2024 | SOUTHERN HARDLINES, INC.-ELGIN | | 8/15/2024 | 8/31/2024 | 2 | \$122.53 |
| 2025 | 11 | 94 | 08/22/2024 | SHANE BURK GLASS AND MIRROR | | 8/22/2024 | 8/31/2024 | 2 | \$530.00 |
| 2025 | 11 | 95 | 08/22/2024 | HOUGHTON MIFFLIN | | 8/22/2024 | 8/31/2024 | 2 | \$3,744.00 |
| 2025 | 11 | 96 | 08/22/2024 | LOWES BUSINESS ACCOUNT/SYNCB | | 8/22/2024 | 8/31/2024 | 2 | \$427.39 |
| 2025 | 11 | 97 | 08/22/2024 | OSIG | | 8/22/2024 | 8/31/2024 | 2 | \$32,360.00 |
| 2025 | 11 | 98 | 08/22/2024 | RUSH TRUCK CENTER, WICHITA FALL | | 08/22/2024 | | 2 | 1/3 pmt \$0.00 |

Sterling Schools Payment Register

Options: Year: 2024-2025, Fund: GEN FUND-FOR OP, Date Range: 8/1/2024 - 8/31/2024, Print Payroll Payments: True, Print Details: False

| Year | Fund | No | Date | Vendor | Type | Date Voided | Date Registered | Clearing Date | Clearing No | Amount |
|------|------|-----|------------|---------------------------------|------|----------------|--------------------|------------------|----------------|------------|
| 2025 | 11 | 99 | 08/22/2024 | TOWN OF STERLING | | | 8/22/2024 | 8/31/2024 | 2 | \$2,422.13 |
| 2025 | 11 | 100 | 08/22/2024 | JANICE RENEE WILSON | | | 8/22/2024 | 8/31/2024 | 2 | \$1,000.00 |
| 2025 | 11 | 101 | 08/22/2024 | ALISHA M ESTRADA | | PN | 8/22/2024 | 8/31/2024 | 2 | \$984.85 |
| 2025 | 11 | 102 | 08/22/2024 | AMERICAN FIDELITY ASSURANCE CO | R | | 8/22/2024 | | | \$78.10 |
| 2025 | 11 | 103 | 08/22/2024 | INTERNAL REVENUE SERVICE | R | | 8/22/2024 | | | \$182.12 |
| 2025 | 11 | 104 | 08/22/2024 | OMES | R | | 8/22/2024 | | | \$21.66 |
| 2025 | 11 | 105 | 08/22/2024 | OK TEACHERS' RETIREMENT SYSTEM | R | | 8/22/2024 | | | \$261.11 |
| 2025 | 11 | 106 | 08/22/2024 | UNUM Life Insurance | R | | 8/22/2024 | | | \$5.20 |
| 2025 | 11 | 107 | 08/22/2024 | RUSH TRUCK CENTER, WICHITA FALL | | | 8/22/2024 | 8/31/2024 | 2 | \$3,041.36 |
| 2025 | 11 | 108 | 08/29/2024 | ADVANCED PEST AND TERMITE, LLC | | | 8/29/2024 | | | \$165.00 |
| 2025 | 11 | 109 | 08/29/2024 | ALLIANCE NETWORK SOLUTIONS, LLC | | | 8/29/2024 | | | \$925.00 |
| 2025 | 11 | 110 | 08/29/2024 | B & B GARAGE | | | 8/29/2024 | | | \$510.74 |
| 2025 | 11 | 111 | 08/29/2024 | KYLEE BIRDWELL | | | 8/29/2024 | | | \$85.00 |
| 2025 | 11 | 112 | 08/29/2024 | RACHEL BUSH | | | 8/29/2024 | 8/31/2024 | 2 | \$2,000.00 |
| 2025 | 11 | 113 | 08/29/2024 | DIAMOND P SPORTS | | | 8/29/2024 | | | \$1,038.00 |
| 2025 | 11 | 114 | 08/29/2024 | TOMMY GARDNER | | | 8/29/2024 | | | \$1,744.00 |
| 2025 | 11 | 115 | 08/29/2024 | HD SUPPLY | | | 8/29/2024 | | | \$929.64 |
| 2025 | 11 | 116 | 08/29/2024 | JOHNSON PLUMBING | | | 8/29/2024 | | | \$600.00 |
| 2025 | 11 | 117 | 08/29/2024 | PUBLIC SERVICE CO. OF OKLAHOMA | | | 8/29/2024 | | | \$1,363.29 |

| | |
|---------------------------|---------------------|
| Non-Payroll Total: | \$105,431.89 |
| Payroll Total: | \$44,209.40 |
| Balance Foward: | \$51,266.50 |
| Total: | \$200,907.79 |

Sterling Schools

Payment Register

Options: Year: 2024-2025, Fund: Building, Date Range: 8/1/2024 - 8/31/2024, Print Payroll Payments: True, Print Details: False

| Year | Fund | No | Date | Vendor | Date Type | Date Registered | Clearing Date | Clearing No | Amount |
|---------------------------|------|----|------------|--------------------------------|--------------|--------------------|------------------|----------------|--------------------|
| 2025 | 21 | 5 | 08/15/2024 | 4D LANDSCAPE & IRRIGATION | | 8/15/2024 | 8/31/2024 | 2 | \$190.00 |
| 2025 | 21 | 6 | 08/15/2024 | CHARLES PUCCIO | | 8/15/2024 | 8/31/2024 | 2 | \$100.00 |
| 2025 | 21 | 7 | 08/15/2024 | ELAN FINANCIAL SERVICES | | 8/15/2024 | 8/31/2024 | 2 | \$1,838.38 |
| 2025 | 21 | 8 | 08/15/2024 | JOHNSON PLUMBING | | 8/15/2024 | 8/31/2024 | 2 | \$224.00 |
| 2025 | 21 | 9 | 08/22/2024 | OSIG | | 8/22/2024 | 8/31/2024 | 2 | \$30,000.00 |
| 2025 | 21 | 10 | 08/29/2024 | PUBLIC SERVICE CO. OF OKLAHOMA | | 8/29/2024 | | | \$5,588.51 |
| Non-Payroll Total: | | | | | | | | | \$37,940.89 |
| Payroll Total: | | | | | | | | | \$0.00 |
| Balance Foward: | | | | | | | | | \$7,079.91 |
| Total: | | | | | | | | | \$45,020.80 |

Sterling Schools
Encumbrance Register

Options: Year: 2024-2025, Date Range: 7/1/2024 - 6/30/2025, PO Range: 22 - 99, Fund Codes: 21

| Fund | PO No | Date | Vendor No | Vendor | Description | Amount |
|---------------------------|--------------|-------------|------------------|------------------------------|---------------------|-------------------|
| 21 | 22 | 08/15/2024 | 941 | AMAZON CAPITAL SERVICES, INC | SUPPLIES | 3,000.00 |
| 21 | 23 | 08/24/2024 | 22228 | THE SHERWIN-WILLIAMS CO. | PAINT & SUPPLIES | 250.00 |
| 21 | 24 | 08/27/2024 | 80056 | RONITA BRIDGES | REIMB. FOR SUPPLIES | 100.00 |
| Non-Payroll Total: | | | | | | \$3,350.00 |
| Payroll Total: | | | | | | \$0.00 |
| Balance Forward: | | | | | | \$0.00 |
| Report Total: | | | | | | \$3,350.00 |

STERLING SCHOOLS GIFTED PLAN

STERLING PUBLIC SCHOOLS

2024 - 2025

Adopted January 9, 1995

Reviewed August 28, 2024

INTRODUCTION

Sterling Schools feels a strong commitment to the uniqueness of all students enrolled. Sterling Schools will strive to identify and provide appropriate educational experiences for students who demonstrate that they are capable of high performance in creative thinking ability, leadership ability, visual or performing arts ability, and specific academic ability and those who need educational activities/services beyond those provided by the regular school program.

In order to satisfy this goal Sterling Schools will:

- * Assess the instructional level of identified students and consider the unique learning characteristics of each student.
- * Provide differentiated curriculum to meet the unique needs.
- * Provide flexible pacing.
- * Match programs and services to individual.
- * Provide an atmosphere that will accommodate the unique needs of gifted students.

I. G/T Student Identification

A. Site Committee for G/T (Appendix A)

1. The committee will include the principal, counselor, teachers, parents, and others as may be appropriate.

2. In keeping with this GEP, State Board of Education regulations and state statutes, the committee will coordinate and implement the identification process for PK through grade twelve and communicate these procedures to the entire school staff.

B. Identification process

1. The identification process will be nondiscriminatory with respect to race, economic background, national origin or disabling conditions for all students PK through grade twelve.

2. Nominations will come from:

a. Teachers

b. Parents

c. Community leaders

3. Data will be collected on nominated students.

a. Testing methods that may be used:

1. Non-culturally biased standardized intelligence tests.

2. Others that may be used as deemed appropriate.

b. Non-testing Methods under multiple criteria:

1. Student achievement/leadership outside the school's curriculum (students must meet two or more of the listed criteria)

2. Others as may be appropriate

3. Portfolios

4. Site committee analyzes data and makes placement decisions.

a. With a score in the top 3% on a nationally standardized test for intellectual ability results in automatic placement in G/T program.

b. Uniform identification procedures using multiple criteria will be used to identify students from G/T program. However no single criterion or cutoff score will be used to exclude a student from G/T programs.

c. In realizing that not all children test well and that test could be biased when dealing with some cultures and backgrounds, the site committee for placement may make decisions based on referral, student performance, and other relevant information. Test scores will not be a necessity.

d. Identification of gifted students based on a nationally standardized test of intellectual ability is valid for a minimum of three years and may be valid for the student's educational experience.

e. Placement will be made according to the student's needs, interest and/or abilities with parental approval.

f. Useful information collected about individual students during the identification process will be communicated to appropriate staff members regardless of final placement.

5. Identification of gifted students is an ongoing process extending from school entry through grade twelve.

a. Opportunities will exist for students to be placed throughout their school experience.

b. Identification of students based on nationally standardized test or intellectual ability will be valid for the student's educational experience.

c. Students who have been identified as G/T by other school districts will be considered for placement by the site committee as quickly as possible.

d. Student's may be removed from a program which is not meeting their needs following a conference with a parent. Counseling, pullout or a different avenue may be necessary.

e. Strict confidentiality procedures will be used as per board policy, regarding information and data collected on students.

f. Records on nominated students will be maintained for a minimum of five years.

g. Students placed in G/T program for reasons other than standardized test will be evaluated annually.

h. Evaluation of the appropriateness of students' placement in a gifted educational programming shall be ongoing.

6. Identification and placement will include parental involvement.

a. Parents will be asked to grant written permission for individual testing.

b. Parents may request additional evaluation, but will bear the expense of the additional testing.

c. Parents will be notified in writing that their child has been identified for placement in G/T program.

d. Parents will be provided with a summary of the gifted educational programming to be offered to their child and will be filed in individual student files.

e. Parents may appeal a placement decision. Appeals will begin with the site committee- further appeals may be made to the district superintendent.

II. Differentiated Education

A. Differentiated or accelerated education will provide for identified students by one or more of the following programming options as deemed necessary by the school administration, in breadth, pace, and depth:

1. Programming Options

a. Programming options will be coordinated by the site coordinator and counselor to guide development of gifted students through graduation from high school.

b. Students will be placed according to their abilities, needs and interests.

c. Gifted child educational programming is ongoing and a part of the school schedule. Differentiated education shall be in place within three weeks of the beginning of the school term.

d. Concurrent enrollment- Qualified students will be given the opportunity to enroll in college classes while satisfying the requirements for a high school diploma.

e. Mentorships- An appropriate mentor (role model/advisor) will be selected for gifted students and spend approximately 20 hours with that mentor. A list of expectations will be developed by teachers and the mentor.

f. Enrichment of Content- Experience provided in the regular classrooms with particular students in mind (AP courses available).

g. Academic Competitions- Students will be given the opportunity to join/participate team and at academic competitions coordinated by local universities.

h. Guidance/Counseling- Policies that assist G/T students in planning their academic careers in school and after graduation.

i. Students identified with specific academic areas will have option of contracting for honors credit. If the students score at 90% or above in content area that is differentiated in breadth, depth, and pace the course will be designated on transcript.

j. Additional activities as may be appropriate for selected students.

2. Curriculum

a. Curriculum for the gifted extends or replaces the regular curriculum.

b. Curriculum is differentiated in content, process and/or product.

1. Content is differentiated in breadth, depth and pace.

2. Process for G/T students will stress creativity and higher level thinking skills.

c. Curriculum is planned to assure continuity.

B. Appropriate Flexible Pacing

1. Proficiency Based Promotion

2. Enriched Classes

3. Instructional Groups

4. Other

C. Appropriate Learning Opportunities will be provided for G/T through site developed programs which are a part of a total school program.

1. The district will review the GEP (appropriate for all sites) on a yearly basis.

2. The Sterling School Faculty will plan curriculum opportunities to allow students to move through the curriculum at the appropriate pace, and provide differentiated curriculum to meet unique needs, and facilitate academic/social support.

3. When appropriate, differentiation will occur in content, process, product and learning environment.

4. The Sterling Staff will receive staff development training in the way of films, seminars, and other means appropriate.

D. Site plans will include selections from flexible pacing, enrichment, academic/social support and staff development.

1. Sterling School Plan will strive to incorporate the following components into the G/T program.

a. Enrichment of content in Regular Classrooms

i. Learning Centers

ii. Guest Speakers

iii. Other

b. Creative and Academic Competitions

i. Poster Contests

ii. Speech Contests

iii. Essay Contests

c. Interest groups (Short term)

d. Short term pull out for computer time (and others as appropriate).

2. Academic/Social Support

a. Guidance and counseling- Planned activities, sessions and policies that assist in planning their academic career in school and after high school.

b. Other

III. Evaluation

A. A systematic plan for ongoing evaluation is part of the program planning and implementation. An on-going evaluation will be established by the Local Advisory Committee on Gifted Education. An evaluation process will be provided.

B. Students, teachers, parents and administrators will annual evaluate gifted educational programming. Results will be communicated in a timely and meaningful manner to program decision makers and as appropriate, to the public.

C. The evaluation process of G/T programming will include the following components:

1. Identification

2. Instructional program

3. Professional development

4. Teacher selection

5. Local Advisory Committee/Community involvement

6. Program Management

7. Evaluation Process

D. The evaluation process will focus upon appropriateness of educational programming for G/T students.

E. Data for evaluation will be developed from a variety of instruments, procedures and information sources.

F. Student progress will be assessed with attention to mastery of content, higher level thinking skills and creativity.

G. Appropriateness of students' individual needs will be focused upon in keeping and inserting new students into the program.

IV. Local Advisory Committee

A. The local advisory committee will be appointed by the board of education upon the recommendation of the superintendent. The committee will consist of at least three (3) but no more than eleven (11) members, at least one third of whom shall be selected from a list of nominations submitted by associations whose purpose is advocacy for gifted and talented children. {70 O.S.1210.308(C)}

B. The Local Advisory Committee will be representative of the community.

C. The Local Advisory Committee will be appointed no later than September 15 of each year for two consecutive years. All meetings are subject to the Provisions of the Oklahoma Open Meeting Act.

D. Meetings - The GT Coordinator will call the first meeting no later than October 1 of each year.

E. The Local Advisory Committee will assist in the formulation of district goals, development of plan, preparation of the district report on gifted education, and perform other duties as requested by the board of education. {70 O.S.1210.308(C)}

F. District will furnish staff trained in gifted education for the advisory committee.

V. Qualifications and responsibilities of staff.

A. Qualifications of Staff:

1. Teachers must hold valid teacher's license appropriate to grade level in the program.

2. Gifted educational program coordinators hold valid teaching certificate.

3. Teachers who are in direct contact of students shall participate in in-service training or college training to assist them in the area of gifted education.

4. Program coordinators and administration for G/T will attend professional development related to each site each year.

B. Responsibilities of gifted educational staff:

1. The superintendent will be responsible for working with the local advisory committee, overseeing the site coordinators and site plans, and filing such reports and information as are required by the State Department of Education relative to gifted educational programming.

2. The School principal or site coordinator will be responsible for working with site committee. As well as reporting back to the superintendent any reports or information pertaining to that site.

3. The school committee will work with principal each year to provide an ongoing process and plan.

4. The Building Principal will clearly delineate roles, responsibilities and coordination procedures in regard to gifted education.

5. Regular classroom teachers will work to implement appropriate flexible pacing, plan enrichment, coordinate resources and facilitate academic/social support when needed.

VI. Budget

A. The district superintendent, in conjunction with building principal will formulate budget for gifted programming.

B. The budget for gifted will be prepared on forms required by the State Department of Education and submitted as required.

C. The building budget for gifted will be approved by the board of education before filing with the State Department of Education.

VII. Expenditures Report

A. An expenditure report for the previous school year will be submitted by the superintendent to the SDE by August 1 of each year as required by 70 O.S. 1210.307 (D).

B. The report will outline the expenditures made by the school during that year for gifted educational programming. {70 O.S. 1210.307(D)}

C. The report will identify expenditures by major object codes and program classifications pursuant to the Oklahoma Cost Accounting System.

APPENDIX A

Sterling School District

Gifted and Talented Plan

Site Committee 2024-2025:

Tasha Garrett

Kelley Bridges

Amanda Lewis

Lacey Clements

Janie Ingram

Jessica Smart

Ashlyn McCall

Jayson Wilson

Jennifer Taylor (Parent)

VOLUNTARY PRIVATE PRAYER AND MOMENT OF SILENCE

It shall be the policy of this Sterling Board of Education that no sectarian or religious doctrine shall be taught or inculcated into the curriculum or activities of the school. However, those students who wish to do so may participate in voluntary prayer so long as it is during noninstructional time and does not interfere with the rights of other students.

School employees are free to engage in private religious prayer during school events, including sporting events and graduation ceremonies when employees are free to attend briefly to personal matters and students are engaged in other activities in accordance with the holding in *Kennedy v. Bremerton School District.*, 142 S.Ct. 2407 (2022).

Each school site within the district shall observe one minute of silence each day for the purpose of allowing each student to meditate, pray, or engage in any other silent activity that does not interfere with, distract, or impede other students in the exercise of their choice. All school personnel are to afford these options to all students, who will individually make the selection as to which of these behaviors they will engage in during the moment of silence. These options will also be included in the student handbooks.

The minute of silence will be held at the start of the day 8:05. The minute of silence will be announced over the intercom the appointed time. The minute of silence shall be announced over the public address system as follows: “We now pause for a minute of silence in which students may reflect, meditate, pray, or engage in any other silent activity that does not interfere with, distract, or impede other students in the exercise of their individual choices”

If the district or a school employee is sued for providing a moment of silence to students, the district must notify the Attorney General within five (5) days. The Attorney General will provide legal representation to the district or employee named as a defendant in an action related to this statutory requirement.

Individuals who wish to file a complaint regarding a violation of 70 O.S. §11-101.1 or §11-101.2 should notify the building principal in writing of the specific issue that has occurred. The building principal will notify the superintendent that a complaint has been received. The building principal shall investigate the issue and determine whether a violation of the law has occurred. If the law has been violated, a plan of corrective action should be taken to address the issue.

REFERENCE: 70 O.S. §11-101.1
 70 O.S. §11-101.2
Accreditation Standard 210:35-3-251
Accreditation Standard 210:35-3-252
Kennedy v. Bremerton School Dist., 142 S. Ct. 2407 (2022)

**A POLICY ON THIS TOPIC IS REQUIRED
 BY THE REFERENCED RULES EFFECTIVE 2024**

Hazard Mitigation Plan

(Name of Jurisdiction) Comanche / Sterling / Sterling Public School
(Governing Body) Comanche/ Sterling / Sterling School Board
(Address) 400 S Tiger St, Sterling / Comanche / Sterling Public Schools

RESOLUTION

WHEREAS, Sterling Public Schools, with the assistance from the Hazard Mitigation Planning Team, has gathered information and prepared the Sterling Hazard Mitigation Plan; and

WHEREAS, the Sterling Hazard Mitigation Plan has been prepared in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS, Comanche / Sterling / Sterling Public Schools is a local unit of government that has afforded the citizens an opportunity to comment and provide input in the Plan and the actions in the Plan; and

WHEREAS, Comanche / Sterling / Sterling Public School have reviewed the Plan and affirms that the Plan will be updated no less than every five years;

NOW THEREFORE, BE IT RESOLVED by Comanche / Sterling / Sterling School Board that Comanche / Sterling / Sterling Public School adopts the Sterling Hazard Mitigation Plan as this jurisdiction's Natural Hazard Mitigation Plan.

ADOPTED this 10th day of (September), 2024 at the meeting of the Comanche / Sterling / Sterling Public Schools School Board.

(Commissioner) or (Mayor) or (Superintendent)

(Clerk)

Comanche County – Lawton

Multi-Jurisdictional Multi-Hazard Mitigation Plan

2024-2029

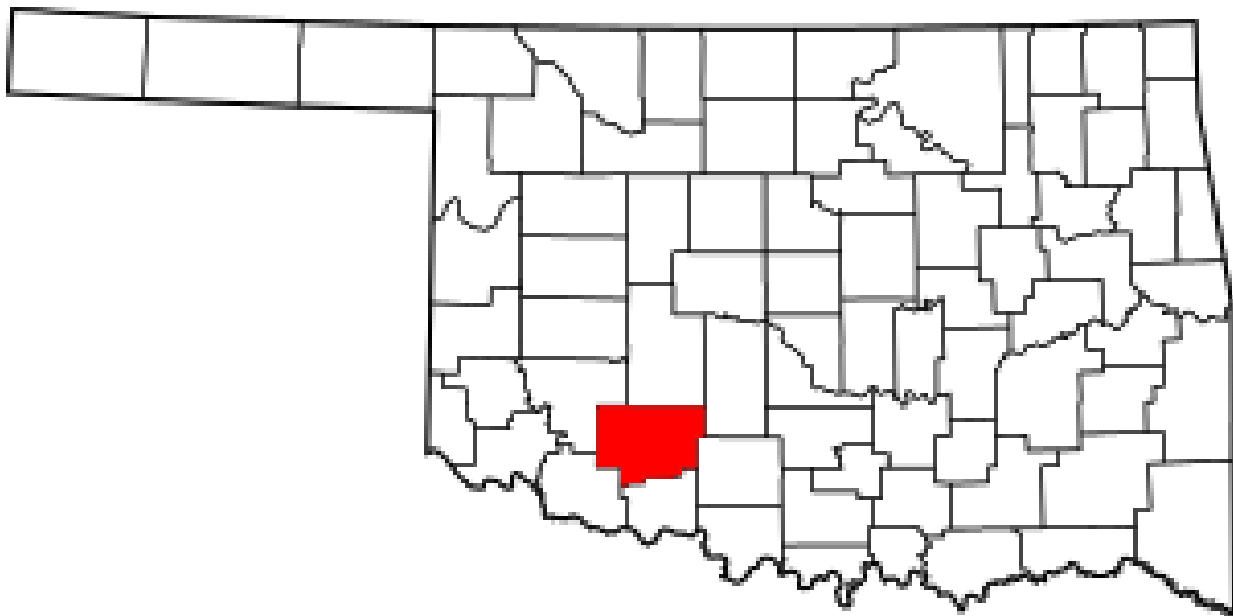


TABLE OF CONTENTS

| | |
|---|-----|
| ACKNOWLEDGEMENTS | 3 |
| EXECUTIVE SUMMARY | 4 |
| CHAPTER ONE: INTRODUCTION | 7 |
| CHAPTER TWO: PLANNING PROCESS | 26 |
| CHAPTER THREE: HAZARD IDENTIFICATION RISK ASSESSMENT..... | 36 |
| CHAPTER FOUR: MITIGATION STRATEGY | 181 |
| CHAPTER FIVE: PLAN MAINTENANCE | 208 |

ACKNOWLEDGEMENTS

The Comanche County Multi-Jurisdictional Multi-Hazard Mitigation Plan includes the communities of Lawton, Cache, Chattanooga, Elgin, Faxon, Fletcher, Geronimo, Indianola, Medicine Park, Meers, and Sterling. It also includes the public schools of Lawton, Geronimo, Cache, and Sterling. The Comanche County Multi-Jurisdictional Multi-Hazard Mitigation Plan was developed under the direction and guidance of the Comanche County Board of County Commissioners as well as the City Manager of City of Lawton, Oklahoma.

Comanche County Administration & Staff

| | |
|-----------------|---|
| John O'Brien | Commissioner, District 1 |
| Johnny Owens | Commissioner, District 2 |
| Josh Powers | Commissioner, District 3 |
| Grant Edwards | Comanche County Assessor |
| Clint Langford | Comanche County – Lawton Emergency Management Director |
| Alana Pack | Comanche County – Lawton Emergency Management Deputy Director |
| Thad Hulbert | Comanche County – Lawton Emergency Management Specialist |
| Rhonda Brantley | Comanche County Treasurer |
| Carrie Tubbs | Comanche County Clerk |
| Amy Sims | Comanche County Election Board Secretary |

City of Lawton Administration & Staff

| | |
|------------------|------------------------------------|
| John Ratliff | Interim City Manager |
| Dwayne Burke | Deputy City Manager |
| Jared Williams | Lawton Fire Department, Fire Chief |
| James Smith | Lawton Police Department, Chief |
| Cynthia Williams | Public Works Deputy |

Numerous other government and educational officials, agencies, organizations, and individuals participated in the study. Acknowledgements of these important contributors appear throughout the document.

Executive Summary



Oklahoma's location at the intersections of the hot arid zone to the west, the temperate zone to the northeast, and the hot humid zone to the southeast make it subject to a wide variety of potentially violent weather and natural hazards.

Making people and businesses as safe as possible from a variety of natural and man-made hazards is the first step in making the area attractive for new residents

and expanding businesses. The Comanche County Multi-Jurisdictional Multi-Hazard Mitigation Plan is a comprehensive effort to identify potential hazards and develop a sound plan to mitigate their impacts with the goal of saving the lives and property of the citizens of Comanche county, the incorporated and unincorporated communities, and the public-school systems of Comanche County. This Plan fulfills the requirements of the Pre-Disaster Mitigation Grant Program, and Hazard Mitigation Grant Program of the Federal Emergency Management Agency (FEMA) and Oklahoma Emergency Management (OEM).



In December 2005, the Multi-hazard Mitigation Council of the National Institute of Building

Sciences completed a study to assess future savings from mitigation activities. Their findings reflected the fact that mitigation activities in general produced over \$4 in savings for every \$1 invested in mitigation actions, with the greatest savings in the areas of flood-related events and wind related events. In addition, the report concluded, *"Mitigation is most effective when carried out on a comprehensive, community-wide, and long-term basis. Single activities can help but*

carrying out a slate of coordinated mitigation activities over time is the best way to ensure that communities will be physically, socially, and economically resilient to future hazard impacts."

Approval of this plan will qualify all unincorporated areas of Comanche County, the incorporated communities of Lawton, Cache, Elgin, Chattanooga, Geronimo, Faxon, Sterling, Fletcher, and Medicine Park and the public-school systems therein to apply for Pre-Disaster Mitigation (PDM) as well as Hazard Mitigation Grant Program (HMGP) disaster mitigation funds following a federal disaster declaration, as provided under Robert T. Stafford Disaster and Emergency Assistance Act as amended.



Overview of Planning Area

Comanche County is in Southwest Oklahoma, approximately 95 miles south of Oklahoma City on Interstate 44. As of the 2020 census, the population of Comanche County was 121,125 making it the 4th largest county in Oklahoma. Lawton is the largest city and county seat. Built on former reservation lands of the Comanche, Kiowa, and Apache in Indian Territory, Comanche County was open for settlement on August 16, 1901, by lottery. The region has three cities and seven towns as well as the Fort Sill military installation and Wichita Mountains Wildlife Refuge. The landscape of the county is typical of the Great Plains with flat topography and gently rolling hills, while the areas in the north are marked by the Wichita Mountains. Interstate 44 and three major US Highways serve the county by ground, while the Lawton-Fort Sill Regional Airport serves the county by air.

Comanche County's economy is largely based in the government sector which consists of half of the county's Gross Domestic Product. The governance of the county is led by a three-commission board, which are elected in four-year staggered terms. The county is served by several school districts and Cameron University in education as well as three hospitals for health care.

Comanche County and its cities are vulnerable to natural and man-made hazards. The Comanche County Hazard Mitigation Committee identified 8 hazards most likely to affect the county as a whole. These hazards include Dam Failure, Drought, Earthquake, Extreme Heat, Flood, Severe Thunderstorms, Severe Winter Storms, and Wildfire.

Purpose

The purpose of this plan is to:

- Assess the ongoing mitigation activities within each jurisdiction
- Identify and assess the hazards that pose a threat to citizens and property
- Evaluate additional mitigation measures that should be undertaken
- Outline a strategy for implementation of mitigation projects

The objective of this plan is to provide guidance for community activities for the next five years. It will ensure that Comanche County will implement activities that are most effective and appropriate for mitigating the identified natural and manmade hazards.

Comanche County Hazard Mitigation Planning Committee (HMPC)

Citizens and professionals active in disasters provided important input in the development of the plan and recommended goals and objectives, mitigation measures, and priorities for actions. The HMPC is comprised of citizen leaders of the county and the various communities appointed by the County Commissioners and representatives of the included public-school districts appointed by their various boards of education.

The Planning Process

Planning for the Comanche County Multi-Jurisdictional Multi-Hazard Mitigation Plan followed a ten-step process, based on guidance and requirements of FEMA for the PDM grant program, HMGP, the Flood Mitigation Assistance (FMA) program, and the Community Rating System (CRS).

1. Organize to prepare the plan
2. Involve the public
3. Coordinate with other agencies and organizations
4. Assess the hazards
5. Assess the problem
6. Set Goals
7. Review possible activities
8. Draft the action plan.
9. Adopt the plan
10. Implement, evaluate, and revise

Plan Summary

The Comanche County Multi-Jurisdictional Multi-Hazard Mitigation Plan provides guidance to help citizens protect life and property from natural hazards. The plan identifies the hazards that are most likely to strike each jurisdiction, provides a profile and risk assessment of each hazard, identifies mitigation measures for each hazard and present and action plan for implementation of the mitigation measures.

Mitigation Action Plan

The mitigation action plan includes strategies for implement the mitigation measures, including information on the responsible agency, time frame, cost estimate, funding sources and a statement of measurable results.

For further information about the Comanche County Multi-Jurisdictional Multi-Hazard Mitigation Plan, contact:

Primary Contact:

Clint Langford
Director
Comanche County/Lawton
Emergency Management
315 SW 5th St. Ste 107
Lawton, Ok 73501

580-355-0535
clangford@comanchecountyok.gov

Secondary Contact:

Alana Pack
Deputy Director
Comanche County/Lawton
Emergency Management
315 SW 5th St. Ste 107
Lawton, Ok 73501

580-355-0535
apack@comanchecountyok.gov

Chapter 1: Introduction

1.1 About the Plan

This document is the Multi-Jurisdictional Multi-Hazard Mitigation Plan 2023 Update for Comanche County. This strategic plan follows the provisions for the Hazard Mitigation Grant Program (HMGP) of the Federal Emergency Management Agency (FEMA) in accordance with the U.S. Stafford Disaster Relief and Emergency Assistance Act, as administered by the Oklahoma Department of Emergency Management (OEM). The Stafford Act provides the opportunity for federal assistance to state and local governments to alleviate suffering and damage from disasters. Amendments to the Act have broadened regulations to provide for programs to encourage strategies and measures to mitigate the impact of natural and man-made hazards, as well as continuation of long-standing programs for disaster preparedness and emergency operations plans and flood insurance coverage. The revisions to the Act make it clear that no federal assistance is available to an otherwise eligible jurisdiction if no Hazard Mitigation Plan has been adopted and is in effect.

The Plan addresses 8 natural hazards that can affect people and property in Comanche County.

Purpose

The purpose of the Plan Update is to:

- Describe the Multi-Hazard Mitigation Planning Process used to identify and select natural and man-made hazards, identify appropriate mitigation measures, and to develop the plan
- Provide a description of the planning area and assess the ongoing mitigation activities in Comanche County
- Identify and assess the hazards that pose a threat to residents, businesses, and property in the County, its incorporated communities and Public-School Districts.
- Identify Goals and Objectives of the County, Communities and Public-school districts to lessen and eliminate the loss of life and property damage due to natural and man-made hazards.
- Evaluate mitigation measures that should be undertaken by the County, cities, and towns to protect residents, businesses, and property and by Public Schools to protect students, faculty, and staff. Identify and recommend an Action Plan for implementation of mitigation strategies and measures.
- Develop a strategy for the adoption, maintenance, upkeep, and revisions of the Comanche County Multi-Jurisdictional Multi-Hazard Mitigation Plan.

The object of this plan is to provide guidance for countywide mitigation activities for the next five years. It will ensure that Comanche County and other partners implement hazard mitigation activities that are most effective and appropriate for the natural and man-made hazards that threaten the County, Communities and School Districts of Comanche County.

Scope

The scope of the Comanche County Multi-Jurisdictional Multi-Hazard Mitigation Plan 2023 Update includes the areas of incorporated and unincorporated Comanche County. The Comanche County Hazard Mitigation Plan addresses all-natural hazards deemed a threat to the citizens of Comanche County. Both short-term and long-term hazard mitigation opportunities are addressed beyond existing federal, state, and local funding programs.

Participating Jurisdictions

Planning Area includes unincorporated areas of Comanche County, incorporated cities and towns including the City of Lawton, The City of Cache, The City of Elgin; The Towns of Indianahoma, Geronimo, Chattanooga, Faxon, Sterling, Medicine Park, and Fletcher; and the public-school districts of Lawton Public Schools, Geronimo Public Schools, Cache Public Schools, and Sterling Public Schools. Previous iterations of this Hazard Mitigation Plan did not include the City of Lawton or Lawton Public Schools; in the interest of creating a true ‘countywide’ Multijurisdictional Hazard Mitigation Plan, those two entities were included, and this plan includes information drawn from the current City of Lawton Hazard Mitigation Plan. Elgin Public Schools, Indianahoma Public Schools, Fletcher Public Schools, Flower Mound Public Schools, Bishop Public Schools, Cameron University, and Great Plains Technology Center were included in the previous Hazard Mitigation Plan (2017-2022), however representation from these entities did not participate in community planning efforts nor did they submit updated jurisdictional capability or hazard information, thus they have not been included in the 2023-2028 Hazard Mitigation Plan.

Plan Goals

The Comanche County Hazard Mitigation Planning Committee (HMPC) developed the goals for the *Comanche County Multi-Jurisdictional Multi-Hazard Mitigation Plan*, with input from interested citizens. The local goals were developed considering the hazard mitigation strategies and goals of the federal and state governments.

Comanche County’s Multi-Jurisdictional Goal

To improve the safety and well-being of the citizens residing and working in Comanche County, and attending and working at all Comanche County Public Schools, by reducing the potential of deaths, injuries, property damage, environmental and other losses from natural and man-made hazards in a manner that creates a disaster-resistant community, enhances economic development opportunities, and advances community goals and quality of life, resulting in more livable, viable, and sustainable communities.

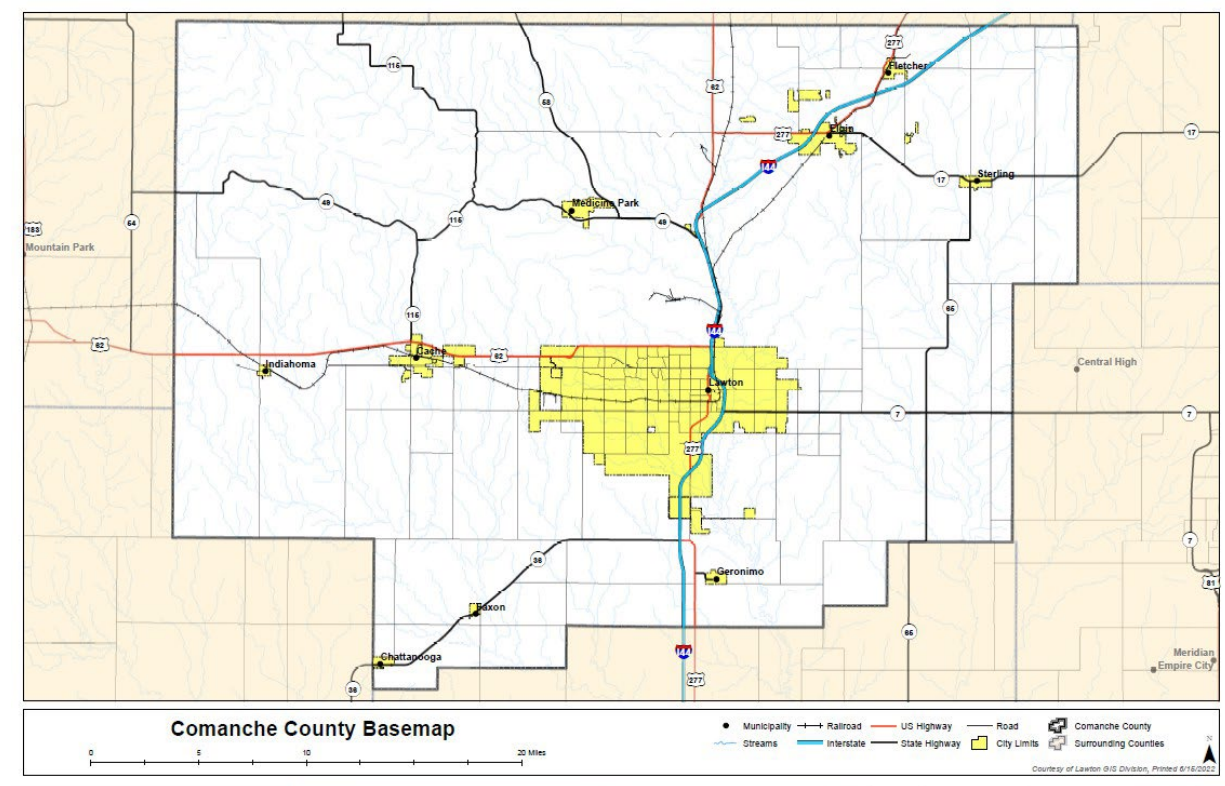
Comanche County Public Schools’ Goal

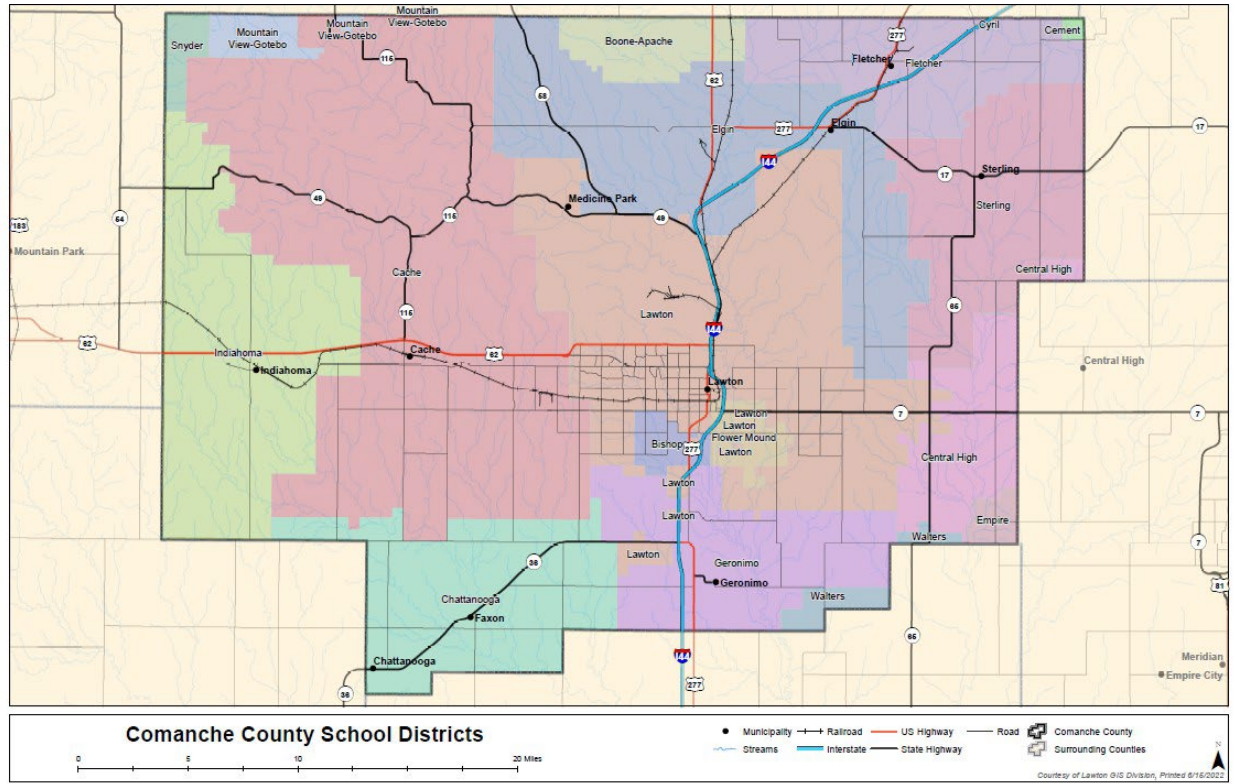
The primary goal of the Comanche County Public Schools Systems is to collaborate with Comanche County – Lawton Emergency Management to identify potential natural hazards and to plan mitigation action plans that would prevent or soften the impact of identified hazards on sites that comprise the Public School District. The participating school districts

with safe rooms/buildings to protect school communities from weather related hazards and provide neighborhood residents with an all-hazard shelter option near their homes will soften the impact of disasters and natural hazards as they occur.

1.2 Comanche County Overview

Comanche County consists of 1,084 sq. miles (1,069 sq mi of land, 14 sq mi of water) in the Great Plains of Southwest Oklahoma. Comanche County is faced with a variety of both natural and man-made hazards. In recent years, severe winter weather, severe thunderstorms, floods, and wildfires have made national headlines. In fact, any part of the county can be impacted by high winds, drought, hail, urban fires, hazardous material events, earthquakes, and other threats. In some cases, such as flooding and dam failure, the area's most at risk have been mapped and delineated.





Governance

Since achieving Statehood in 1907, each of Oklahoma’s counties has had identical forms of government. All 77 counties have, as their chief administrative body, a three-member board of county commissioners. One commissioner is elected from each of the three county election districts, each district being approximately equal in population in accordance with the decennial U.S. Census. Each board elects its chairman annually. The towns that are participating in the Plan Update are governed either by elected city councils or elected boards of trustees. Each body elects its own mayor. The independent public-schools districts participating in the plan update are governed by their boards of education whose members are elected from the districts. Each board of education elects its own chairperson or president.

Geography

Latitude: 34.40N Longitude: 98.28W

FIPS Code: 40031

Comanche County consists of 1084 square miles in southwest Oklahoma (1069 square miles of land and 14 square miles of water). Lawton serves as the County Seat. Comanche County is home to several smaller towns/townships including Cache, Chattanooga, Elgin, Faxon, Fletcher, Geronimo, Indiahoma, Medicine Park, Meers, and Sterling. Comanche County is bordered by six

other counties; They include Kiowa County, Tillman County, Cotton County, Stephens County, Grady County, and Caddo County. Also in Comanche County is the 90,000-acre military installation, Fort Sill, a U.S. Army Field Artillery Training Center, and the Air Defense Artillery.

Comanche County lies in an area that is typical of the Great Plains with prairie, few trees, and generally flat topography with gently rolling hills. The north region of the county consists of the Wichita Mountains including Mount Scott and Mount Pinchot, the area's highest peaks. The area consists mostly of Permian Post Oak Conglomerate limestone on the northern sections of the county. In the south sections of the county, Permian Garber Sandstone is commonly found with some Hennessey Group shale. Area creeks including East Cache Creek and West Cache Creek contain deposits of Quaternary alluvium. To the northwest, the Wichita Mountains consist primarily of Wichita Granite Group from the Cambrian Period.

Climate

Comanche County lies in a dry subtropical climate, with frequent variations in weather daily, except during the constantly hot and dry summer months. Frequent strong winds, usually from the south or south-southeast during the summer, help to lessen the hotter weather. Northerly winds during the winter can occasionally intensify cold periods.

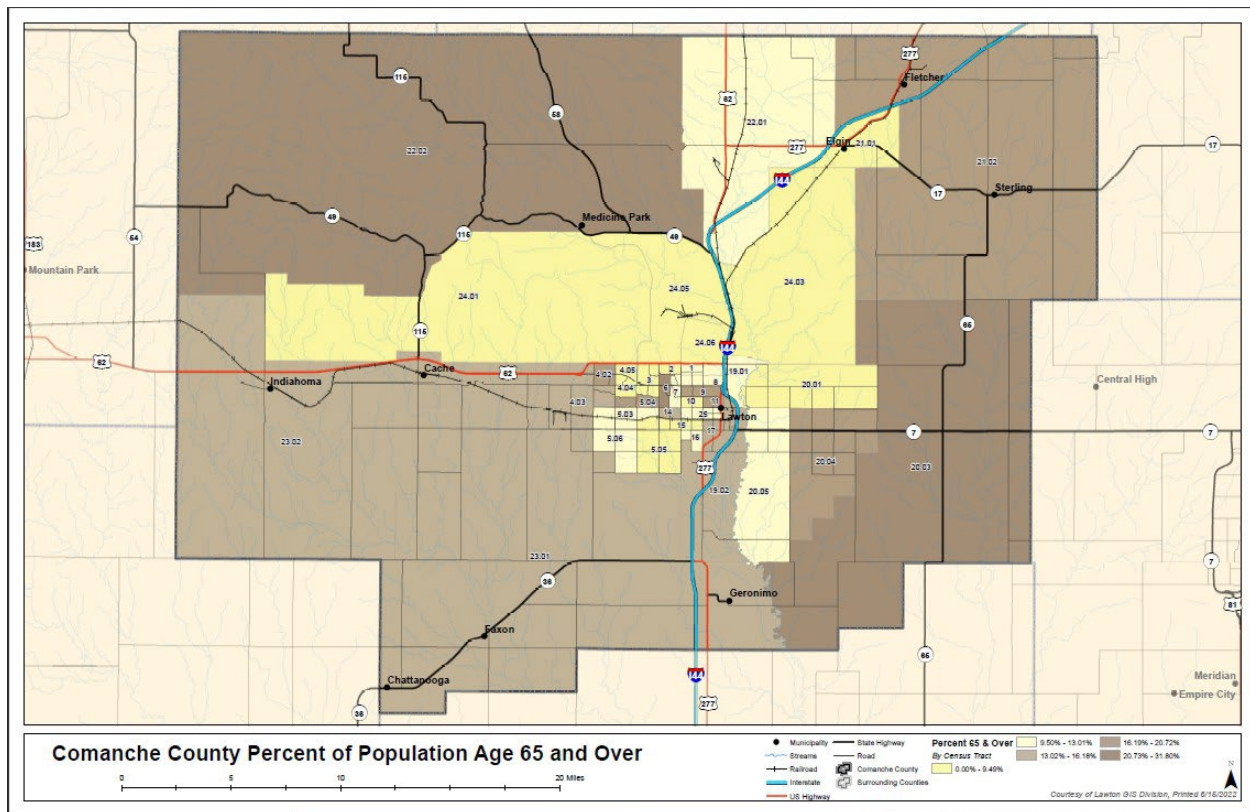
The average mean temperature for southwest Oklahoma is 61.9 °F (16.6 °C). The summers can be extremely hot with an average 21 days with temperatures of 100 °F (37.8 °C) and above. The winter months are typically mild, though there can be periods of extreme cold. The area averages eight days per year that fail to rise above freezing. The region receives about 31.6 inches (800 mm) of precipitation and less than 3 inches (80 mm) of snow annually.

Typically, in late April through early June, Comanche County is prone to severe weather which can include tornadoes, lightning, hail, and high winds.

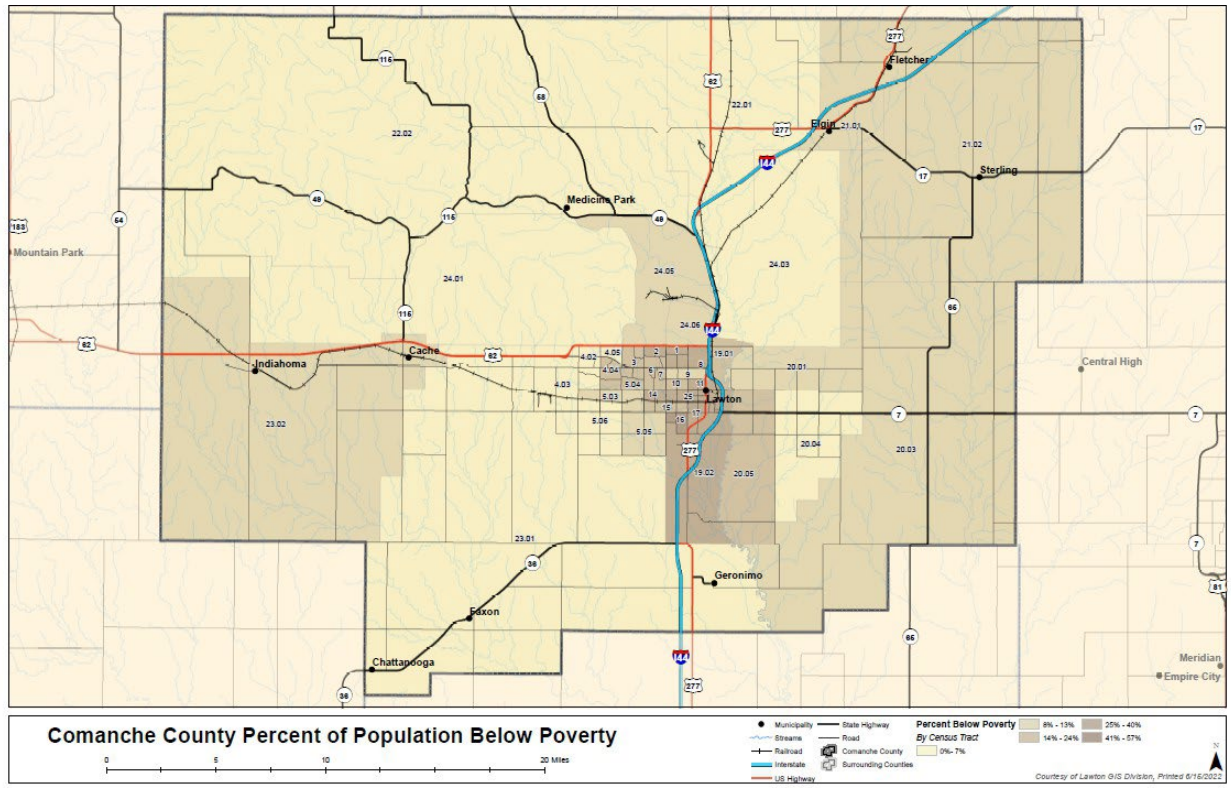
Demographics

Between the Census of 2010 and 2020, Comanche County had a decrease in population from 124,098 to 121,125. According to 2022 data from the U.S. Census Bureau, the median household income is \$54,483.¹

| Comanche County Population 2020 Census | |
|---|---------|
| Total Population | 121,125 |
| Under 5 Years of Age | 6.7% |
| 18 years and under | 23.8% |
| 65 Years and older | 13.6% |
| White | 65.4% |
| African American | 16.87% |
| Native American | 6.9% |
| Hispanic | 15% |
| Other | 8.1% |
| Poverty Status | 19.2% |



¹ <https://www.census.gov/quickfacts/fact/table/comanchecountyoklahoma,lawtoncityoklahoma/RHI825221?>



Lifelines

Lifelines are the systems that are necessary for human life and community function, especially during emergencies. Transportation, utilities, and emergency services are considered the lifelines of a community. Transportation systems include interstate, US, and state highways, roadways, railways, waterways, ports, harbors, and airports. Utility systems consist of electric power, gas and liquid fuels, telecommunications, water, and wastewater. Emergency service facilities include Emergency Alert System (EAS) communication facilities, hospitals, and the police and fire departments.

Utility Systems

Utilities are one of the primary lifelines for individuals and business in any community and county. The table below contains a summary of the utility companies present in Comanche County and the subsequent sections discuss each area in more detail.

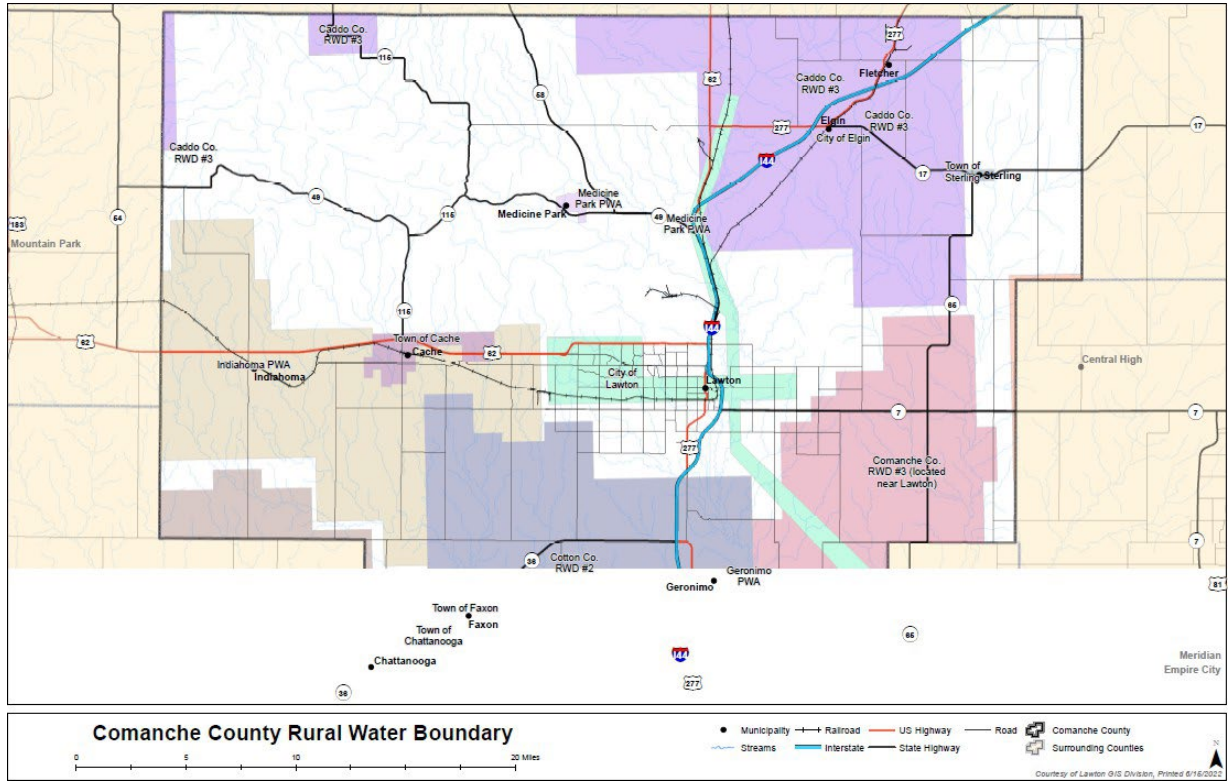
| Community | Population | Natural Gas | Electric |
|---------------|------------|------------------|----------------------|
| Cache | 2,796 | Summit Utilities | PSO, Cotton Electric |
| Chattanooga | 461 | N/a | Cotton Electric |
| Elgin | 2,156 | Summit Utilities | PSO, Cotton Electric |
| Geronimo | 1,268 | | Cotton Electric |
| Fletcher | 1,177 | | PSO |
| Indiahoma | 344 | | Cotton Electric |
| Lawton | 96,867 | Summit Utilities | PSO |
| Medicine Park | 382 | | Cotton Electric |
| Sterling | 793 | Summit Utilities | PSO |

Electricity

Comanche County's electrical service is provided by American Electric Power (dba Public Service Company of Oklahoma PSO), Cotton Electric Co-op, CKenergy Electric Co-op, Rural Electric Co-op, and Southwest Rural Electric Association.

Wastewater Treatment

In the unincorporated areas of the County, most wastewater is treated by individual septic tank systems. Of Comanche County's 52,603 housing units in 2022, 44,572 were on public sewer systems and 8,031 were on individual septic systems.



Community Water Systems²

| Population Served | Water System Name | Primary Source Water Type |
|-------------------|-----------------------------|---------------------------|
| 2371 | Cache | Groundwater |
| 627 | Chattanooga PWS | Groundwater |
| 47 | Clemmer Water Association | Surface Water Purchased |
| 2800 | Comanche Co RWD #1 | Surface Water Purchased |
| 1840 | Comanche Co RWD #2 | Groundwater |
| 2325 | Comanche Co RWD #3 | Surface Water Purchased |
| 3574 | Comanche Co RWD #4 | Surface Water Purchased |
| 3300 | Elgin Public Works Auth | Groundwater |
| 134 | Faxon | Groundwater Purchased |
| 1022 | Fletcher | Groundwater |
| 1200 | Geronimo | Surface Water Purchased |
| 50 | Hwy 7 East Water Assn | Surface Water Purchased |
| 350 | Indiahoma Public Works Auth | Surface Water Purchased |
| 114,387 | Lawton | Surface Water |
| 382 | Medicine Park | Surface Water Purchased |

2

<http://sdwis.deq.state.ok.us/DWW/JSP/WaterSystems.jsp?PointOfContactType=none&number=&name=&county=Comanche>

| | | |
|------|-------------------------------------|-------------------------|
| 77 | Mountain Village Development | Groundwater |
| 1000 | Pecan Valley RWD | Surface Water Purchased |
| 51 | Southeast Water Assn | Surface Water Purchased |
| 762 | Sterling Public Works Auth | Groundwater |
| 50 | Sunnyside Water Assn | Surface Water Purchased |
| 42 | Valley View Estates Homeowners Assn | Surface Water Purchased |
| 25 | Valley View Water Assn | Surface Water Purchased |

Natural Gas Service

The natural gas service in Comanche County is provided by Oklahoma Natural Gas (ONG), and Summit Utilities. In the locations not served by these companies, the communities rely on propane only.

Telephone, Internet, and Cable Service

With some exceptions telephone service for Comanche County is provided by Fidelity Communication and Hilliary Communications, which also provides high-speed Internet to the area.

Transportation Systems

Highways and Roads

Several major US highways and Interstates cross Comanche County along with several State highways. These are described below.

- **Interstate 44** runs diagonally northeast-southwest through Oklahoma for 329 miles (529 km), connecting Wichita Falls, Texas, to Lawton, Oklahoma City, Tulsa, and St. Louis, Missouri. I-44 runs south to north through Lawton and directly adjacent to Elgin.
- **US Highway 62** runs from the US-Mexico border at El Paso, Texas to Niagara Falls, New York. It is the only east-west US Route that connects Mexico and Canada. Parts of US Hwy 62 follow what once was the Ozark Trail, including the historic bridge across the South Canadian River in Newcastle, which was the first structure built with federal highway funds in Oklahoma. US Hwy 62 runs diagonally from the Texas state line near Hollis to the Arkansas state line near Fayetteville. The highway passes through Lawton, Chickasha, Blanchard, Newcastle, and Oklahoma City, then on to Henryetta, Okmulgee, Muskogee, and Tahlequah.
- **State Highway 7** (abbreviated **SH-7**) is a 150.5-mile (242.2 km) highway in southern Oklahoma. This lengthy highway connects many towns in Oklahoma's "Little Dixie" area. It runs from Interstate 44 in Lawton to U.S. 69/US-75 in Atoka.
- **US Highway 277** runs from south to north beginning at Del Rio, Texas and terminating at I44 in Newcastle. From Chickasha to Newcastle US 277 is duplexed with US Hwy 62 and is a 4-lane expressway from Blanchard north to Newcastle,

where it becomes the city's Main St. and Meridian Ave.

- **US 281** enters the state of Oklahoma at the Red River bridge north of Burkburnett, Texas on a route concurrent with I-44 starting in Wichita Falls. About six miles (9.7 km) north of the Red River, US 281 leaves I-44 at Randlett and follows a two-lane roadway parallel to the newer I-44, which becomes the Wichita Falls–Lawton section of the H.E. Bailey Turnpike, from Randlett to a point six miles (9.7 km) south of Lawton. Through the Lawton/Fort Sill metropolitan area, US 281 again overlaps a toll-free section of I-44, while the former US 281 alignment through the city of Lawton is designated as Business US 281 between I-44 exits 34 and 39B. About eight miles (13 km) north of downtown Lawton, US 281 departs from I-44 to continue north through the cities of Apache, Anadarko, Gracemont, Binger and Hinton
- **State Highway 65** begins at US-70 12 miles (19 km) east of Randlett in Cotton County. From there, it heads north towards Temple. On the western outskirts of that town, SH-65 meets SH-5, and begins a short concurrency with it. As the highway leaves town, it curves back to a due north course. SH-65 continues northward, meeting SH-53. SH-65 enters Comanche County just south of Hulen, where it turns east to briefly parallel the county line before turning back to the north. The highway passes through Letitia before it crosses SH-7 in unincorporated Pumpkin Center. The route then continues north for 13 miles (21 km) before ending at SH-17 in Sterling.
- **Southern State Highway 58** begins at an intersection with State Highway 49 in Medicine Park in Comanche County. It heads north, passing Lake Lawtonka before meeting State Highway 19, which overlaps for four miles (6.4 km). After splitting off, it meets State Highway 9 in Carnegie. It passes through the unincorporated community of Alfalfa, after which it has a two-mile (3.2 km) concurrency with State Highway 152
- **State Highway 49** begins in Kiowa County at SH-54 south of Cooperton and heads due east. The highway crosses into Comanche County about 2 miles (3.2 km) east of that point. The road continues east for about two miles more, where it makes a ninety-degree turn to the north. It continues north for around a half-mile (0.8 km), then angles northeast. It then enters the Wichita Mountains Wildlife Refuge.
- **State Highway 115** begins at an interchange with U.S. Highway 62 (a freeway at this point) near Cache. It goes due north from here, passing through a remote part of Fort Sill before reaching the Wichita Mountains Wildlife Refuge. After entering the refuge, SH-115 is unsigned, appearing only as a nameless road. The road intersects State Highway 49 at the Cache Wye.
- **State Highway 36** (abbreviated **SH-36** or **OK-36**) is a state highway in Oklahoma. It runs for 44.4 miles (71.5 km), forming a western loop route from Interstate 44, which it connects to at both ends. As Highway 36 crosses into Comanche County, it also enters the town of Chattanooga, which it passes through on 3rd Street. Leaving town, the route continues due east, then curves towards the northeast, crossing Spring Creek. SH-36 next runs through Faxon, continuing northeast; after leaving the town, it bridges West Cache Creek. The highway then resumes a due east course and continues for

nearly 5.5 miles (8.9 km) before reuniting with I-44. At this interchange, the SH-36 designation ends. The roadbed continues east through the interchange; a motorist continuing straight will then be on southbound US-277/US-281 towards Geronimo.

- **State Highway 17**, abbreviated as **SH-17**, is an east–west highway in Oklahoma. It is a relatively short highway, extending for only 20.86 miles (33.57 km) from U.S. Highway 277 (US-277) in Elgin to Business US-81 in Rush Springs. SH-17 begins at U.S. Highway 277 in the north-central part of Elgin. SH-17 proceeds due east out of town for approximately 1½ miles (2.4 km) before turning southeast. Around 2½ miles (4.0 km) west of Sterling, the route returns to a due east course, then curves slightly to the south as it enters town. On the west side of town, SH-17 serves as the northern terminus of SH-65, which follows 5th Avenue southward out of town. SH-17 continues east through Sterling along Main Street. East of Sterling, SH-17 crosses Beaver Creek near its source. About five miles (8.0 km) east of SH-65, SH-17 crosses the Comanche–Grady County line.

Airports

Comanche County is served by 2 airports and 3 heliports, listed below:

- **Lawton-Ft. Sill Regional Airport** Located at 34.567714, -98.416637, 2 miles south of Lawton in Comanche County. It is a Primary Commercial Service airport with one concrete runway at approximately 8,599 feet in length.
- **Henry Post Airfield:** A military airfield owned by the US Army; Henry Post is located at 34.643164094, -98.401331728 on Ft. Still. It has one concrete runway that is approximately 5,001 feet in length.
- **Comanche Co Memorial Hospital Heliport:** Located in the City of Lawton, at 34.609166, -98.435555. The heliport is a part of Comanche County Memorial Hospital and is run as such.
- **Cameron University Heliport:** Located in the City of Lawton just west of Comanche Co Memorial Hospital on Gore Blvd at 34.608333, -98.441944. is Cameron University's Heliport. Primary use was for the hospital before they received one.
- **Southwestern Medical Center Heliport:** Located in the City of Lawton, just west of 52nd Street on Lee Blvd at 34.592777, -98.3463888.

Railroads

Comanche County is served by one railway. Burlington North Santa Fe (BNSF) railway enters Comanche County just north of Fletcher Oklahoma. It turns and runs parallel to I44 until the center of Lawton where it turns west and continues until it leaves the county just northwest of Indianahoma.

Bus Transport

The Lawton Area Transit System (LATS) is the public transportation in the county. LATS has been serving the residents of Lawton for over eighteen (18) years providing fixed route and para-transit service during those years. LATS is governed by the Trust, a body composed of the elected council members for Lawton. LATS has been managed on behalf of the Trust by

HTG (Hendrickson Transportation Group). The buses move in clockwise and counterclockwise direction along with the routes with a fifteen-minute separation between the directions of movement. LATS also operates a shuttle service to the Fort Sill Artillery Base. LATS operates a fixed route bus system five (5) days a week, being closed on Saturdays and Sundays.

Economy

Ranching and farming have always been a major economic factor in Comanche County. Major crops are cotton, grains, and hay. In 2017 there were 1,055 farms in Comanche County (down 5% from 2012), with 467,180 acres being farmed (a 1% increase from 2012), that produced \$81,010,000.00 in sales (a 71% increase from 2012). About 81% of farm revenue was from livestock sales, and 19% from crops. About 61% of Comanche County farmland is devoted to pasture and 34% to crops.³

Comanche County Major Employers⁴

| Employer | Community | Activity |
|--|------------------------|----------------------|
| <i>Ft. Sill Military Installation</i> | <i>Comanche County</i> | <i>Government</i> |
| <i>Lawton Public School</i> | <i>City of Lawton</i> | <i>Education</i> |
| <i>Goodyear Tire and Rubber</i> | <i>Comanche County</i> | <i>Manufacturing</i> |
| <i>Comanche County Memorial Hospital</i> | <i>City of Lawton</i> | <i>Healthcare</i> |
| <i>City of Lawton</i> | <i>City of Lawton</i> | <i>Government</i> |
| <i>Bar-S Foods</i> | <i>City of Lawton</i> | <i>Manufacturing</i> |
| <i>Chemical Packaging Corp</i> | <i>City of Lawton</i> | <i>Manufacturing</i> |
| <i>Republic Paperboard</i> | <i>Comanche County</i> | <i>Manufacturing</i> |
| <i>Georgia-Pacific</i> | <i>Comanche County</i> | <i>Manufacturing</i> |
| <i>Silverline Plastics</i> | <i>City of Lawton</i> | <i>Manufacturing</i> |

According to census.gov Comanche County has an income per capita of \$28,512 and a median household income of \$54,483 with an unemployment rate of 3.4% (national average 6.0%). The primary industries upon which the civilian economy of Comanche County is reliant upon is educational services, and health care and social assistance (28%),

³ [cp40031.pdf \(usda.gov\)](#)

⁴ Oklahoma Department of Commerce

[Demographics | Lawton-Fort Sill Economic Development Corporation \(lawtonedc.com\)](#)
[Economy in Comanche County, Oklahoma \(bestplaces.net\)](#)

retail trade (11.1%), arts, entertainment, recreation, accommodation, and food services (10.7%), public administration (9.8%), and manufacturing (9.5%).

Changes in Development, Hazard Vulnerability and Impacts

Approximately 40% of all housing structures within Comanche County are occupied by short-term occupants, with 78% of the population residing within the urbanized area of the City of Lawton. Housing development is trending upwards, specifically around the emerging urbanized areas of the City of Elgin and the City of Cache. A veteran-friendly property tax environment has also accelerated development within these areas, in addition to sought-after primary and secondary education opportunities. Comanche County experiences an ebb and flow in overall population numbers due in part to the large transient population which is a result of the Fort Sill Military Installation and the associated military population. Overall, the population estimate of 123,046 as of July 1st, 2022 shows a 1.6% increase from April 1st, 2020, which is a 2.3% decrease from the 2010 Census⁵.

As Comanche County experiences population growth, the risk of natural hazards affecting its residents intensifies, particularly in specific areas prone to various environmental threats.

Furthermore, population growth exacerbates the vulnerability of socially marginalized groups. New developments may displace underserved populations, including those experiencing homelessness or residing in low-income housing. Additionally, the expansion of population centers puts state assets at increased risk from varying natural hazards, contingent upon their geographic location within the county.

Economic Impact

The economic impact of natural disasters can significantly increase vulnerability within communities, often leading to a rise in at-risk populations, including those experiencing homelessness. Displacement, loss of livelihoods, and property damage can exacerbate existing socioeconomic disparities, pushing individuals and families into precarious situations. The disruption of essential services and infrastructure further compounds these challenges, hindering recovery efforts and prolonging the cycle of vulnerability. As such, addressing the economic fallout of disasters is critical in preventing homelessness and supporting the resilience of our community.

⁵ Census.gov

Summary of Jurisdictional Change

| Jurisdiction | Summary of Jurisdictional Change |
|-----------------|---|
| Comanche County | <p>Comanche County has continued to see changes in population growth since 2000. According to the 2010 census, Comanche County’s Population was 125,401. By the time the 2020 Census, the population had decreased to 121,125, a decrease of about 0.4%. This attributed to the Permanent Change of Station (PCS) environment created by U.S. Army Garrison Fort Sill, which contributes to population fluctuation as soldiers and their families pass through the county. In 2023, the estimated population has resurged to 123,654, an increase of 0.49%. Regardless, this population continues to influence the population in smaller communities such as Elgin, Fletcher, and Cache. This has also influenced the rapid development of subdivisions in unincorporated Comanche County. These subdivisions are generally located outside of an incorporated municipality which does not require zoning or planning permits. This has led to an increase in structures being built inside Special Flood Hazard Areas due to an inability to properly track and account for the development due to having no zoning process. We still continue to enforce FEMA regulations for development within a floodplain, however without the ability to have visibility on all development, retroactive action has had to occur. This increase in structures and population in unincorporated areas have increased the Planning Areas’ vulnerability to multiple hazards, including:</p> <ul style="list-style-type: none"> • Wildfire • Flooding • Severe Thunderstorms • Dam Failure • Severe Winter Weather • Earthquake |
| City of Lawton | <p>According to the 2000 Census, Lawton’s population was 92,800 and has continued to see consistent growth of 0.59% annually, despite a slight decrease to 90,517 in the 2020 census. The estimated population in 2023 is 92,688, an increase of 2.4%. Aging infrastructure and buildup of subdivisions adjacent to city limits has increased vulnerability, especially for wildfires and utility impacts due to severe weather events. Lawton has also seen an increase in vulnerable populations, particularly the unhoused</p> |

| | |
|-----------------------|--|
| | population which creates additional vulnerabilities to Extreme Heat, Severe Winter Weather, and Dam Failure. |
| Lawton Public Schools | Lawton Public Schools has an annual enrollment of 14,000 students. Lawton Public Schools has added a training and conference center since 2020 and has also increased their virtual and long-distance learning capability. They have increased their involvement in community planning and their Emergency Operations Plan was updated in August of 2023. Their level of vulnerability has neither increased nor decreased. |
| City of Cache | Cache has continued to see sustained annual growth with a population of 2,915 in the 2020 census increasing 11% to an estimated 3,239 in 2023. The City of Cache has been identified by the U.S. Census Bureau as one of the fastest growing municipalities in Oklahoma. ⁶ Continuing expansion of infrastructure as well as housing structures has increased the city's vulnerability since the last update, but especially to wildfires as the wildland urban interface continues to push into the unincorporated areas of Comanche County without comparable increase in public safety capability. Additionally, Cache lies downstream of two identified High Hazard Potential Dams, and the increased number of residential structures in the inundation area increases Cache's vulnerability to dam failure and flood. |
| Cache Public Schools | Cache Public Schools has an annual enrollment of 2,100 students and this is expected to increase as the population continues to increase. The addition of a new Junior High building and plans to build a new sports complex since the last update has increased vulnerability for Cache Public Schools particularly to Severe Thunderstorms. |
| Town of Chattanooga | The Town of Chattanooga's population reported in the 2020 census was 414. There has been no significant increase or decrease in the overall population or capability. The level of vulnerability has neither increased nor decreased since the last update. |
| City of Elgin | Elgin is the fastest growing community in Comanche County. Quickly becoming a bedroom community of Lawton, it is home to the majority of personnel employed or stationed at Fort Sill Military Installation. Elgin has a sustained annual growth of 1.82% |

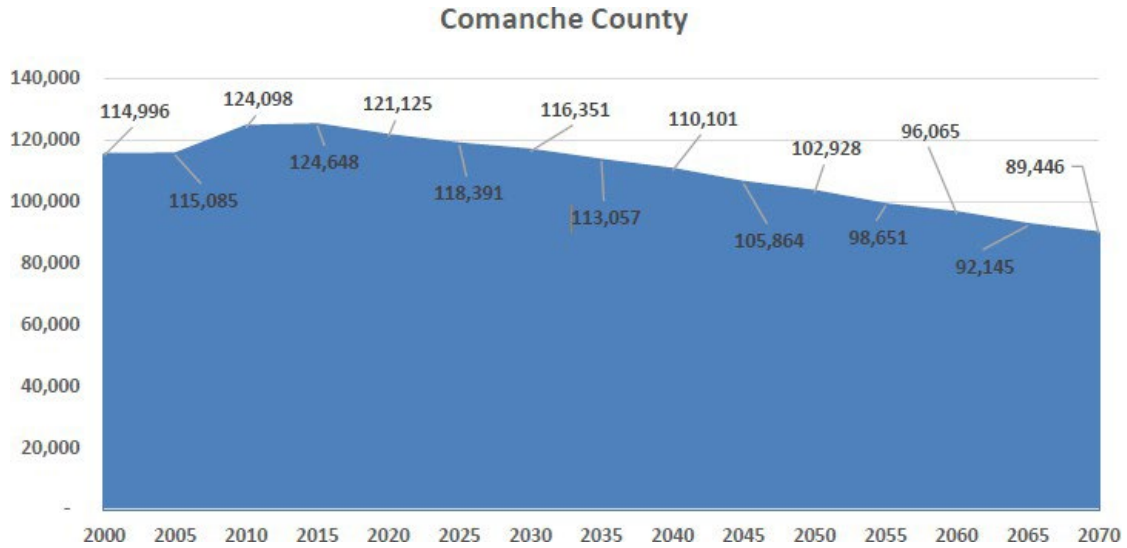
⁶ <https://extension.okstate.edu/announcements/community-and-economic-development/population-change-in-oklahoma-counties-and-municipalities.html>

| | |
|-------------------------|---|
| | and the population has grown from 3,649 in 2020 to an estimated 3,920 in 2023 for a 7.43% increase. There has been an increase in both commercial and residential construction, including residential subdivisions in adjacent unincorporated Comanche County. Overall, the increase in infrastructure, population, and capability has increased the level of vulnerability to the City of Elgin for wildfire, severe winter weather, and severe thunderstorms. |
| Town of Faxon | Faxon has a population of 113 residents and decreased in population from the 2010 census of 136. Faxon is not expected to grow or expand its' infrastructure and there has been no significant increase in population since 2020. The level of vulnerability has neither increased nor decreased. |
| Town of Fletcher | Fletcher has a population of 1, 251 and is expected to remain on track with an annual growth rate of 1.52%. Fletcher is quickly joining Elgin as a bedroom community of Lawton with increasing development occurring adjacent to its town limits since the last update. Improvements in infrastructure and population are set to outpace public safety capabilities, increasing the level of vulnerability to hazards such as wildfire and flooding. |
| City of Geronimo | Geronimo has a 2023 population of 1,180 and has an annual growth rate of .76%. The population recorded in the 2020 census was 1,153, showing an estimated 3.12% growth rate. Geronimo has not seen rapid growth as other communities in Comanche County but is beginning to see gradual development occur in the unincorporated areas surrounding it since the last update. This growth will increase vulnerability to wildfire for those residents who fall within the fire protection district. The vulnerability to severe weather is also increased as the number of structures increase. |
| Geronimo Public Schools | Geronimo Public Schools has an annual enrollment of 343 students, with enrollment expected to increase as population increases. There are currently two campuses which house K-12 students; one of which is the original building site. This site is vulnerable to severe weather due to age. Overall, the vulnerability of Geronimo Public Schools has neither increased nor decreased since the last update. |
| Town of Indiahoma | Indiahoma has an estimated 2023 population of 284. This is an increase of 2.9% since the 2020 census population of 276. Indiahoma has not experienced a significant increase in |

| | |
|-------------------------|--|
| | population or development since the last update and overall, the level of vulnerability has neither increased nor decreased. |
| Town of Medicine Park | Medicine Park has an estimated 2023 population of 494, which is an increase of 21.08% since the 2020 census. Medicine Park sees an annual growth rate of 4.88% due in large part to their increasing tourist economy. The U.S. Census Bureau has identified Medicine Park as one of the fastest growing communities in Oklahoma. ⁷ There has been a significant increase in commercial construction within the town as well as the development of residential construction since the last update. The vulnerability to Medicine Park from wildfire, dam failure, flooding, and severe weather have all increased due to the increase in population, development, and tourism. |
| Town of Sterling | Sterling has an estimated 2023 population of 680, which is an increase of 1.8% since the 2020 census. Sterling has an annual growth rate of .44% and is expected to continue to see that growth, especially in the adjacent unincorporated areas surrounding the town. Its proximity to the City of Elgin and Town of Fletcher has contributed to a steady increase of subdivision development which increases its' level of vulnerability especially to wildfires as the wildland-urban interface continues to grow since the last update. |
| Sterling Public Schools | Sterling Public Schools has an annual enrollment of 328 students. Enrollment is expected to increase as population growth continues. At this time, the overall vulnerability for Sterling Public Schools has neither increased nor decreased. |

⁷ <https://extension.okstate.edu/announcements/community-and-economic-development/population-change-in-oklahoma-counties-and-municipalities.html>

According to the Oklahoma Department of Commerce, the following demographic changes are forecasted to occur in the next several decades for Comanche County:



Comanche County is forecast to experience -0.52% population decline between 2020 and 2070. Comanche County has continued to experience swings in population since 1960.

Population Projections

| Comanche | | | | | |
|-------------|---------|-------------|---------|-------------|---------|
| 2000 | 114,996 | 2025 | 118,391 | 2050 | 102,928 |
| 2005 | 115,085 | 2030 | 116,351 | 2055 | 98,651 |
| 2010 | 124,098 | 2035 | 113,057 | 2060 | 96,065 |
| 2015 | 124,648 | 2040 | 110,101 | 2065 | 92,145 |
| 2020 | 121,125 | 2045 | 105,864 | 2070 | 89,446 |

Source: Oklahoma Department of Commerce

Chapter 2: Planning Process

2.1 Overview of the Planning Process

Citizens, community leaders, government staff personnel, and professionals provided important input into the development of the Plan and recommended goals and objectives, mitigation measures, and priorities for actions. Some of the participants have been or are active in disaster response and emergency planning. Meetings to discuss the updates to the Hazard Mitigation Plan started in June of 2022 as part of the Comanche County Local Emergency Planning Committee (LEPC) and occurred every other month until January of 2023. Additionally, meetings were held with each municipality, to include Administrative, Public Works, Public Safety, and Education. All jurisdictions within Comanche County were provided with an opportunity to provide input and participate in the planning process.

During these meetings, attendees were provided with information regarding the Hazard Mitigation Planning process, documentation and tools with which they could assess their internal and external risks to the identified Natural Hazards. Each participant was encouraged to develop Mitigation Projects which would directly address a risk posed to their community and decrease the impact of the hazard. The projects submitted were consolidated into a project list. See Appendix A for a comprehensive list.

During these meetings, attendees identified the means by which Natural Hazards and their priorities would be established. The utilization of the Kaiser Permanente Hazard Vulnerability Assessment (HVA) was determined to be the most effective format. Additionally, a survey to better capture public comment as to the hazard, the level of vulnerability, preparedness, and risk each may pose to Comanche County. This survey was available to LEPC members and the public over a three-month period through electronic means via a link on the Comanche County website.

Once the survey was completed, the results were analyzed and presented to the LEPC for review. From these results, CCLEM staff were able to establish a priority of hazards which are addressed in this Hazard Mitigation Plan.

Public Agencies, private organizations, and industry were included in the planning process, and participated as members of the LEPC. Representatives provided insight on the effects of Natural Hazards on their respective disciplines and any critical lifeline or service provided. Management team members collaborated with each to collect their data on the hazards and determine how their programs can best support the Comanche County Multi- Jurisdictional Multi-Hazard Mitigation planning program. The Emergency Operations Plan is administered under Comanche County-Lawton Emergency Management.

Each LEPC meeting follows the Open Records Act, meaning that all schedules, agendas, and minutes of each minute are published according to those rules. Public comment during the planning process was highly encouraged, and a public comment mechanism was incorporated into the Emergency Management section and the homepage of the Comanche County website. Comanche County Lawton Emergency Management also presented information on the identified hazards, the hazard mitigation planning process, and the role played by the public to groups such as the AMBUCs and the Executive Club, which is a group of community leaders and retired businessmen from the Lawton – Comanche County community. Documentation such as sign-in sheets, agendas, and other documentation generated through these meetings are located in Appendix B.

Participating Jurisdictions were contacted in a number of ways; initial communication was performed by email to establish face to face meetings. Several follow up conversations were held via telephone, and additional communication regarding specific departments with the City of Lawton and Comanche County were done through email.

Citizen participants – those who were not engaged in emergency management, disaster response or hazard mitigation – brought perspective from their personal lives, their respective communities, and from their knowledge of the impacts of some or all of the hazards. Some had experienced the results of one or more hazards or had seen and/or read about incidents elsewhere and were interested in working toward an Action Plan that would reduce community and personal vulnerability to the various hazards. Specific engagement with tribal partners, those in Public Health, Medical Facilities, and community-based groups such as the American Red Cross and Salvation Army were engaged early on to provide representation of underserved, at-risk, and vulnerable populations. Because logistically it would be impossible for Emergency management staff to directly interface with these populations, these stakeholders served as proxies to provide information and an opportunity to provide feedback on the planning process.

2.2 Participating Jurisdictions

| Name: | Title: | Jurisdiction: | Contribution to Planning Process | Primary POC Y/N |
|----------------|--------------------------------------|-----------------------|--|-----------------|
| Clint Langford | Director | Comanche Co-Lawton EM | Served as project Coordinator. Provided Critical information on Comanche County’s Emergency Management, Historic events, and input on mitigation strategies. | Y |
| Alana Pack | Deputy Director - Floodplain Manager | Comanche Co-Lawton EM | Provided Floodplain Hazard Information, mitigation strategies, and vulnerabilities. | N |

| | | | | |
|------------------|------------------------------|----------------------------|---|---|
| | | | | |
| Dewayne Burk | Deputy City Manager | City of Lawton | Provided critical information on the City of Lawton's capabilities | Y |
| Cynthia Williams | Public Works | City of Lawton | Provided historical information on City of Lawton's historic events, mitigation strategies, and infrastructure. | N |
| Jessica Carter | Emergency 911 Communications | City of Lawton | Provided input on City of Lawton and Comanche County's response and emergency communications capability from Emergency Dispatch viewpoint | Y |
| Jared Williams | Fire Chief | City of Lawton | Provided input on the City of Lawton's fire awareness and response capability and input on mitigation Measures from a fire/first Responder point of view. | Y |
| James Smith | Police Chief | City of Lawton | Provided input from a law enforcement prospective. | Y |
| John O'Brien | County Commissioner | Comanche County | Provided information and Perspectives on Comanche County Infrastructure and provided feedback on hazard's impacts and Mitigation strategies. | N |
| Josh Powers | County Commissioner | Comanche County | Provided information and Perspectives on Comanche County Infrastructure and provided feedback on hazard's impacts and Mitigation strategies. | Y |
| Doyle Tosh | Undersheriff | Comanche Co Sheriff's Dept | Provided input from a law enforcement prospective. | Y |
| Hayden Crow | Fire Chief | Town of Chattanooga | Provide information on rural and rural fire mitigation | N |
| Phil Humble | Mayor | Town of Chattanooga | Provided input on Town of Chattanooga's facilities, resources and historic events. | Y |
| Hayden Crow | Fire Chief | Town of Faxon | Provided Input on Town of Faxon's facilities and resources. | Y |
| Jodee Ulloa | Town Clerk | Town of Indianoma | Provided input on Town of Indianoma's facilities, resources and historic events. | Y |
| Chris Jones | Fire Chief | Town of Indianoma | Provide information on rural and rural fire mitigation | N |
| Leslie Mallow | Mayor | City of Geronimo | Provided input on City of Geronimo's facilities, resources and historic events. | Y |

| | | | | |
|----------------|--|-------------------------|---|---|
| Bill Pascoe | Superintendent | Geronimo Public Schools | Provided input from an education perspective on various hazard and mitigation strategies. | Y |
| Mike Baker | Fire Chief | City of Elgin | Provided input on City of Elgin's facilities, resources, expansion, and historic events. | Y |
| Craig Tracht | Public Works / Fire Chief | Town of Fletcher | Provide information on rural and rural fire mitigation | N |
| Charlene Avila | Town Clerk | Town of Fletcher | Provided input on Town of Fletcher's facilities, resources and historic events. | Y |
| Dale Winkler | Mayor | Town of Sterling | Provided input on Town of Sterling's facilities, resources and historic events. | Y |
| Jerry Smith | Assistant Fire Chief | Town of Sterling | Provide information on rural and rural fire mitigation | N |
| James Julian | Police Chief | Town of Sterling | Provided input from a law enforcement prospective. | N |
| Trent Parrish | Superintendent | Sterling Public Schools | Provided input from an education perspective on various hazard and mitigation strategies. | Y |
| David McCoy | Fire Chief | Town of Medicine Park | Provide information on rural and rural fire mitigation and Provided input on Town of Medicine Park's facilities, resources and historic events. | Y |
| Paul Couture | Floodplain Management / Code Enforcement | City of Cache | Provided input on City of Cache's facilities, resources and historic events. | Y |
| Lonnie Nunley | Maintenance | Cache Public Schools | Provided input from an education perspective on various hazard and mitigation strategies. | Y |
| Lynn Cordes | Executive Director of Communications | Lawton Public Schools | Provided input from an educational perspective on various hazard and mitigation strategies. | Y |

Participating Stakeholders

| NAME | TITLE | JURISDICTION | CONTRIBUTION TO PLANNING PROCESS | How Agency Was Invited |
|--|------------------------------|--|--|------------------------|
| Archie Campbell <i>Transportation</i> | Director of Security | Lawton-Ft. Sill Regional Airport | Provided input on hazards, mitigations, and disasters. | Email |
| Kim O'Brien <i>Non-Profit/NGO</i> | Disaster Response Specialist | Red Cross | Provided input on hazards, mitigations, and disasters. | Email |
| Clarence Fortney <i>Technical Education</i> | Superintendent | Great Plains Technology Center | Provided input on hazards, mitigations, and disasters. | Email |
| Brenda Myers <i>At-Risk Population</i> | Director | Comanche County Juvenile Regional Detention Center | Provided input on hazards, mitigations, and disasters. | Email/Telephone |
| Bill Hobbs <i>At-Risk Population</i> | Administrator | Comanche County Detention Center | Provided input on hazards, mitigations, and disasters. | Email |
| Jake Law <i>At-Risk Population / Non-Profit</i> | Commander | Salvation Army | Provided input on hazards, mitigations, and disasters. | Email |
| Robert Stewart <i>At-Risk Populations & Medical Facilities</i> | Director | RMRS Region 3 | Provided input on hazards, mitigations, and disasters. | Email |
| Nicholas Mosier <i>At-Risk Populations & Medical Facilities</i> | Risk Management Manager | Comanche County Memorial Hospital | Provided input on hazards, mitigations, and disasters. | Email |
| Scott Tanner <i>At-Risk Populations & Medical Facilities</i> | Emergency Dept. Director | Southwestern Medical Center | Provided input on hazards, mitigations, and disasters. | Email |
| Tim Hushbeck <i>Critical</i> | External Affairs Manager | PSO/AEP | Provided input on hazards, mitigations, and disasters. | Email |

| | | | | |
|--|--------------------------|-----------------------------------|--|-------|
| <i>Infrastructure and Utilities</i> | | | | |
| Taron Epps <i>Industry and Economic Development</i> | President | Chamber of Commerce | Provided input on hazards, mitigations, and disasters. | Email |
| Scott Burrows <i>Community Organization</i> | Coordinator | Amateur Radio Emergency Service | Provided input on hazards, mitigations, and disasters. | Email |
| Raanon Adams <i>Industry and Economic Development</i> | Fire Chief | Goodyear Rubber & Tire | Provided input on hazards, mitigations, and disasters. | Email |
| Barbara Russell <i>Industry and Economic Development</i> | Safety Manager | Republic Paper Board | Provided input on hazards, mitigations, and disasters. | Email |
| Marty New <i>State Regulatory Agency</i> | Area Manager | OSU Extension Office | Provided input on hazards, mitigations, and disasters. | Email |
| Adam Cavazos <i>Industry and Economic Development</i> | Chief Technology Officer | Hilliary Communications | Provided input on hazards, mitigations, and disasters. | Email |
| Christie Chambers <i>Non-Profit/NGO</i> | Director | OBI | Provided input on hazards, mitigations, and disasters. | Email |
| Bob Hanefield <i>Academia</i> | Director Public Safety | Cameron University | Provided input on hazards, mitigations, and disasters. | Email |
| Jack Outheir <i>Critical Infrastructure and Utilities</i> | Pecan Valley RWD | Pecan Valley Rural Water District | Provided input on hazards, mitigations, and disasters. | Email |

State and Federal Agencies Contacted

| Agency Represented | Contribution: |
|---|---|
| Oklahoma State Department of Health | Provided input on capabilities, functions, and planning components to assist in identifying priorities for Natural Hazard impacts. |
| Oklahoma Water Resources Board | Provided input on dam safety |
| Oklahoma Department of Environmental Quality | Provided information regarding environmental considerations and mitigation actions for natural hazards. |
| Oklahoma Department of Forestry | Provided information regarding wildfire hazards, technical guidance, and recommendations for mitigation of wildfire urban interface. |
| Oklahoma Department of Public Safety | Provided input regarding public safety concerns, planning needs, and impacts due to natural hazards. |
| Oklahoma Department of Emergency Management and Homeland Security | Provided guidance on Hazard Mitigation Planning, serves as the pipeline for Federal Hazard Mitigation Grants, Disaster Response and Public Assistance, and provided regional capacity and capability information. |
| National Weather Service | Provided input on weather, climate data, forecasts and warning for the protection of life and property. |
| U.S. Fish and Wildlife Service | Provided input on the capabilities, functions, and planning components for mitigation strategies to disaster impacting Federal Wildlife Refuges and Protected Lands. |
| Comanche Nation | Provided input on the different hazards, mitigations, and disasters from a tribal perspective, and information regarding at-risk and vulnerable populations |
| Ft. Sill U.S. Army Installation | Provided input on the different hazards, mitigations, and disasters and their impact on the mission of the Army in Comanche County. |

2.3 Public Involvement

The planning committee team undertook projects to inform the public of this effort and to solicit its input. All meetings were publicly posted, as required by ordinances and rules of the jurisdiction, to the county website. Residents of Comanche County were invited and encouraged to participate. Meetings were held at the Emergency Operations Center in the city of Lawton, all information was made available to the public via the county website. Additional meetings were held with each jurisdiction in Elgin, Medicine Park, Chattanooga, Geronimo, and Lawton. Some meetings were also held with specific departments within the City of Lawton, specifically Public Works, Police, Emergency Communications, and Lawton Public Schools. The HMP hosted its own webpage with a meeting schedule and a forum for public comments and feedback. Additionally, a Survey Monkey was developed to gather Public Input regarding hazard priorities within Comanche County. This survey was shared across all communities and feedback was received. Information provided by the public was incorporated throughout this plan. Public input was especially important when identifying

sound and much needed mitigation measures to include in the place. Public Input also helped to summarize past hazard events and impacts in each respective community and school district where National Climatic Data Center Storm Events information was not readily available. Planning and discussion of the Hazard Mitigation Plan was discussed primarily through the vehicle of the Local Emergency Planning Committee; of which multiple Media representatives, to include Print and Television are members. All meetings were publicly posted outside of the EOC, in the newspaper, and on the county website, as required by ordinances and rules of the jurisdiction. All methods of Public Communication were utilized to ensure that citizens who do not have access to internet based media or other digital media were provided an opportunity to comment and be informed as to the development and implementation of this Hazard Mitigation Plan.

2.4 Plans, Studies, Reports, and Technical Information Reviewed

The planning team reviewed relevant community studies, plans, reports, and technical documents in the inventory, evaluation, and plan phases of the Multi-Hazard Mitigation Plan development. Interviews with public officials were used to determine jurisdictional growth patterns and identify areas of future development.

| Plans, Studies, Reports, and Technical Information | Relevant Information incorporated into the Plan |
|---|--|
| National Climatological Data Center (NCDC) | Historical hazard data used for previous occurrence |
| Oklahoma Climatological Survey | Historical and Analytical data regarding climatological impact and future climate trends as related to hazards. |
| U.S. Census Bureau Population Data, 2020 | Identified vulnerable populations for hazards. |
| CDC Social Vulnerability Index (SVI) | Identified vulnerable demographics by zip code |
| Resiliency Analysis and Planning Tool (RAPT) | Identified hazards by location including earthquake, historical tornado tracks, and high hazard potential dam locations. |
| U.S. Drought Monitor (USDM) | Historical information relating to drought conditions and events |
| Emergency Operations Plans (EOP) | Identify Current resources and current capabilities |
| Comanche County Assessor Tax Roll | Identify current structure information and statistics |

| | |
|---|--|
| National Pipeline Mapping System | Identify current pipeline locations in conjunction to populated areas and previous occurrences |
| Capital Improvement Plan, City of Lawton | Identify existing projects and funding mechanisms within the City of Lawton |
| Capital Improvement Plan, Comanche County | Identify existing projects and funding mechanisms |

2.5 Continued Public Participation in the Plan

The Planning Committee is committed to involving the public in updating and maintaining the Multi-jurisdictional Multi-Hazard Mitigation Plan. Copies of the plan will be maintained at the Comanche County Courthouse and the Comanche County Website. The Local Emergency Planning Committee, public meeting, will offer public comment annually. This meeting will be advertised to the public using our Comanche County Mass Notification System. This meeting will update residents on the progress that has been made implementing the plan. Input from the public will be solicited as to how the mitigation process can be more effective.

2.6 Plan Monitoring, Evaluating, and Updating

The Comanche County – Lawton Emergency Management Office will be responsible for monitoring, evaluating, and updating all aspects and components of the Hazard Mitigation Plan in accordance with 44 CFR. The plan will be updated and resubmitted through the State Hazard Mitigation officer for review and approval, and to FEMA no later than six months prior to the end of the original performance period.

Monitor

Monitoring the plan, the action plan, and mitigation measures is the responsibility of the Comanche County Emergency Manager. The jurisdictional POC's will assist this effort by being responsible for the implementation of the Action Plan and the Mitigation Measures for their respective jurisdictions. Their progress will be documented to the Comanche County Emergency Manager in an annual progress report. These reports will be provided to the planning committee, and the progress and/or impediments to progress of the mitigation measures will be discussed.

Evaluate

The Comanche County Emergency Manager, in conjunction with the jurisdictional POC's, will review the Hazard Mitigation Plan annually to ensure it sufficiently fulfills mitigation objectives. The evaluation will assess:

- Adequacy of adopted goals and objectives in addressing current and future

- expected conditions.
- Whether the nature and magnitude of the risks have changed.
- To what extent did the outcomes of the Mitigation measures occur as expected.
- Whether agencies, departments and other partners participated as originally anticipated.

Update

The Comanche County Multi-Hazard Mitigation Plan will be updated according to the following schedule.

1. [The Planning Committee](#) - reconvene to discuss plan update two years before plan expiration. The Comanche County Emergency Manager will be responsible for scheduling all Planning Committee Meetings.
2. [Revise and Update](#)- the Comanche County Emergency Manager will incorporate revisions to the plan document identified during the monitoring and evaluation period.
3. [Submit for Review](#)- the revised plan will be submitted to OEM and FEMA for review and approval.

All participating jurisdictions will be asked to provide information regarding any changes to hazards, hazard occurrences, technical capabilities, changes in geographical footprint such as population, political boundaries, or services. These changes should be documented by each jurisdiction as they are occurring to ensure timely incorporation and accurate information. Each jurisdiction will be notified of the review process after the initial Planning Committee meeting in order to help facilitate flow of information and mitigate any delays or omissions. This process is expected to occur within the first several weeks of the initial review and update process.

Chapter 3: Hazard Identification and Risk Assessment

3.1 Introduction:

According to the Federal Emergency Management Agency, a hazard is defined as an event or physical condition that has the potential to cause fatalities, injuries, property damage, infrastructure damage, or agriculture loss, among other types of loss or harm. Hazards are generally defined as one of two categories based on their source: natural hazards and man-made hazards.

The previous Comanche County Hazard Mitigation Plan identified specific hazards such as lightning, high winds, tornadoes, and hail as separate risks. However, recognizing the need for a comprehensive, all-hazards approach and the evolving impacts of climatological change on our region's weather patterns, these individual hazards have been consolidated under the broader risk category of Severe Thunderstorms. This inclusive approach allows for a more holistic assessment of the risks posed by severe weather events and better articulates the climatological influence on the frequency and intensity of such hazards. By addressing Severe Thunderstorms as a unified risk, we can more effectively plan and implement mitigation strategies to protect our community from the diverse array of threats posed by severe weather conditions.

3.2 Disaster History:

History of State of Emergencies and Federally Declared Disasters 2007-2023

| Disaster Number | Incident | Incident Date |
|-----------------|---|-------------------|
| DR-4721 | Severe Storms, Tornadoes, Hail | June 15, 2023 |
| SoE | Wildfire Event | April 6, 2022 |
| SoE | Severe Winter Storm | February 2, 2022 |
| DR-4587 | Severe Winter Storm | February 7, 2021 |
| SoE | Severe Winter Storm | December 21, 2020 |
| DR-4575 | Ice Storm | October 26, 2020 |
| DR-4530 | Covid-19 Pandemic | April 5, 2020 |
| SoE | Severe Storms/Flooding | April 30, 2019 |
| SoE | Severe Winter Storm | December 6, 2018 |
| SoE | Severe Storms/Flooding | July 15, 2016 |
| DR-4222 | Severe Storms/Tornadoes/Straight Line Winds | July 15, 2016 |
| FM-2956 | Meers/Ferguson Fire | September 1, 2011 |
| FM-2932 | Medicine Park Wildfire | June 24, 2011 |
| FM-2890 | Goodyear Plant Fire | April 15, 2011 |
| DR-1883 | Severe Winter Storm | March 5, 2010 |
| DR-1876 | Severe Winter Storm | February 25, 2010 |

| | | |
|---------|--|------------------|
| DR-1712 | Severe Storms, Flooding, and Tornadoes | June 10, 2007 |
| DR-1723 | Severe Storms, Flooding, and Tornadoes | May 24, 2007 |
| DR-1707 | Severe Storms, Flooding, and Tornadoes | May 1, 2007 |
| DR-1677 | Severe Winter Storm | February 1, 2007 |

3.3 Hazard Probability Rating:

A Hazard Risk Analysis provides a quantitative process for assessing and evaluating hazards. It promotes a common base for performing the analysis by defining criteria and establishing a rating/scoring system.

| Probability Rating | Explanation |
|--------------------|---|
| High | Indicates a probability of more than 90%. Hazards categorized as high probability are those with a significant likelihood of occurrence, requiring urgent attention and proactive mitigation measures. |
| Medium | Denotes a probability range between 30% to 90%. Hazards falling within this range pose a moderate level of risk, necessitating preparedness measures and periodic monitoring to address potential impacts. |
| Low | Encompasses a probability range between 10% to 29%. Hazards classified as low probability have a lesser chance of occurrence but still warrant consideration in emergency planning and risk management efforts. |
| Very Low | Represents a probability of less than 10%. Hazards categorized as very low probability are unlikely to occur but should not be entirely disregarded, as they may still pose localized or sporadic risks. |

Probability can be determined by calculating the:

$$\frac{\text{Total number of events}}{\text{Total number of years}} = \text{Probability \% of event occurring each year}$$

A Hazard Vulnerability Assessment (HVA) was utilized to collect and analyze data provided directly from Comanche County Stakeholders and the Public. This method ascertained the specific hazard, level of preparedness to the hazard, the probability of the hazard occurring within the jurisdiction, and the risk posed by each hazard. This survey provided the cursory identification of hazard. This survey was provided via email to over 200 individuals and agencies, yielding 56 responses.

The following Natural Hazards were identified through this collection process:

COMANCHE COUNTY / LAWTON

HAZARD ASSESSMENT

| EVENT | SCORE | | | | VULNERABILITY | | |
|-------------------------------|-------------|---------------------|-----------------|-----------|---------------|--------------|----|
| | PROBABILITY | | RISK | | | PREPAREDNESS | |
| | HIGH | 3 | HEALTH/SAFETY | 4 | | POOR | 4 |
| | MEDIUM | 2 | HIGH DISRUPTION | 3 | | FAIR | 3 |
| LOW | 1 | MODERATE DISRUPTION | 2 | GOOD | 2 | | |
| NONE | 0 | LOW DISRUPTION | 1 | EXCELLENT | 1 | | |
| <i>EXAMPLE</i> | 2 | | 2 | | 2 | | 8 |
| Severe Weather (Tornado, etc) | 3.24 | | 3.56 | | 2.22 | | 26 |
| Winter Storms | 3.27 | | 3 | | 2.36 | | 23 |
| Wildfires | 3.33 | | 3.27 | | 2.15 | | 23 |
| Extreme Temperature (hot) | 3.53 | | 3.11 | | 2.05 | | 23 |
| Drought | 3.58 | | 2.65 | | 2.25 | | 21 |
| Flood | 2.76 | | 2.91 | | 2.33 | | 19 |
| Dam Failure | 1.44 | | 2.72 | | 2.63 | | 10 |
| Earthquake | 1.45 | | 2 | | 2.62 | | 8 |

The Planning Committee, in consultation with identified Stakeholders utilized a combination of methods to receive information identifying priority hazards. A Hazard Vulnerability Assessment (HVA) and Survey Monkey digital survey platform were used to pinpoint each hazard using historical data and reference points, the level of risk posed to all citizens of Comanche County, and resiliency to and ability to recover from these hazards. This culminated in a comprehensive list of Natural Hazards which created the foundation for the development of Mitigation Projects. Of these identified hazards, a clear priority list was developed based on the probability of these hazards to occur and their impacts.

National Risk Index

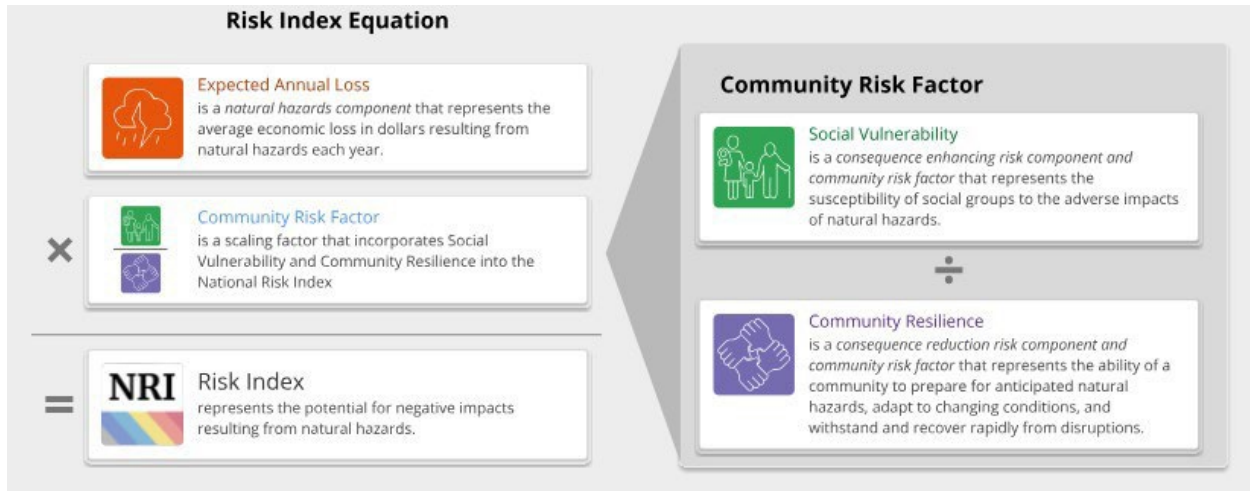
The National Risk Index is a dataset and online tool to help illustrate the United States communities most at risk for 18 Natural hazards. It was designed and built by FEMA in close collaboration with various stakeholders and partners in academia; local, state, and federal government and private industry.

In the National Risk Index, risk is designed as the potential for negative impacts as a result of a natural hazard. The risk equation behind the Risk Index includes three components: a natural hazards component (expected annual loss), a consequence enhancing component (social vulnerability), and a consequence reduction component (community resilience).

The dataset supporting the natural hazards component provides estimates measured in 2022 U.S. dollars. The datasets supporting the consequence enhancing and consequence reduction component have been standardized using a minimum-maximum normalization approach prior to being incorporated into the National Risk Index risk calculation.

Using these three components, composite Risk Index values and hazard type Risk Index values are calculated for each community (county and Census tract) included in the Index.

Risk Index values form an absolute basis for measuring Risk within the National Risk Index, and they are used to generate Risk Index percentiles and ratings across communities.⁸



⁸ <https://hazards.fema.gov/nri/determining-risk>
pg. 39

National Risk Index - Comanche County, Oklahoma

Summary

Risk Index is **Relatively Moderate**

Score **88.5**



Expected Annual Loss is **Relatively Moderate**

Score **87.2**



Social Vulnerability is **Very High**

Score **92.9**



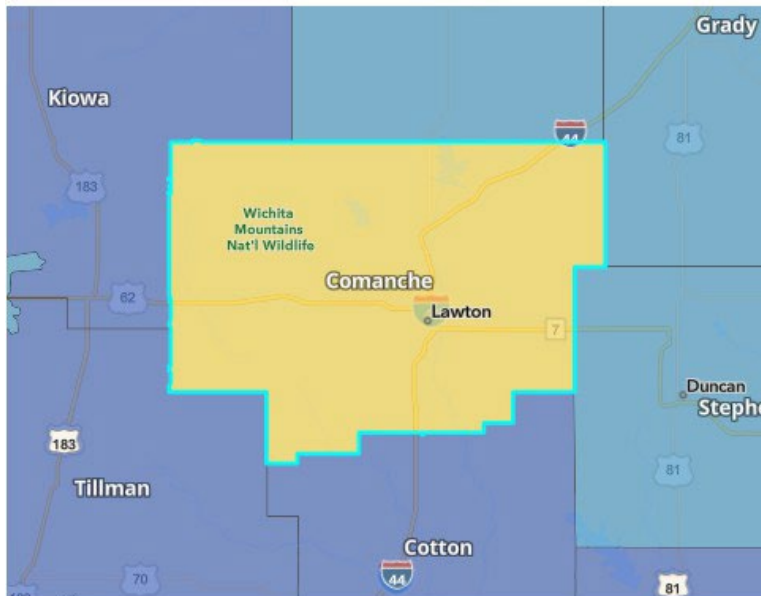
Community Resilience is **Relatively Low**

Score **39.4**



Risk Index

The Risk Index rating is **Relatively Moderate** for **Comanche County, OK** when compared to the rest of the U.S.



Score **88.48**

National Percentile

88.48

Percentile Within Oklahoma

96.10

0 100

88% of U.S. counties have a lower Risk Index

96% of counties in Oklahoma have a lower Risk Index

Risk Index Legend

- Very High
- Relatively High
- Relatively Moderate
- Relatively Low
- Very Low
- No Rating
- Not Applicable
- Insufficient Data

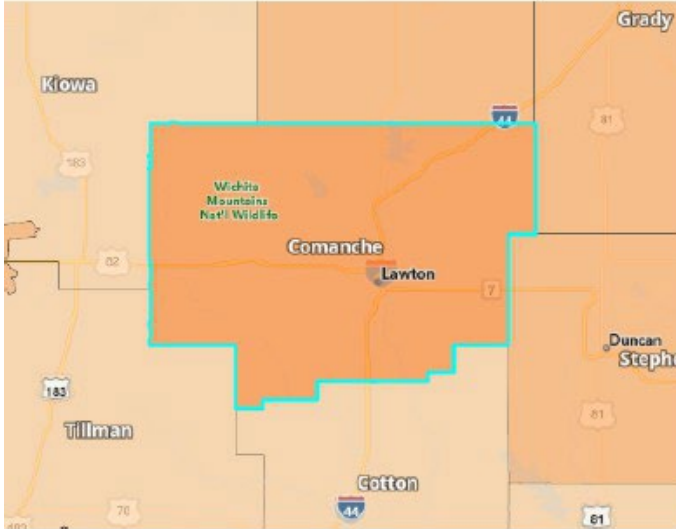
Hazard Type Risk Index

Hazard type Risk Index scores are calculated using data for only a single hazard type, and reflect a community's Expected Annual Loss value, community risk factors, and the adjustment factor used to calculate the risk value.

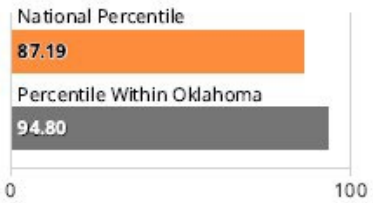
| Hazard Type | EAL Value | Social Vulnerability | Community Resilience | CRF | Risk Value | Score |
|--------------------------|-------------|----------------------|----------------------|------|--------------|-------|
| Hail | \$9,885,635 | Very High | Relatively Low | 1.25 | \$12,529,529 | 99.4 |
| Tornado | \$9,529,280 | Very High | Relatively Low | 1.25 | \$12,033,061 | 95 |
| Strong Wind | \$2,408,482 | Very High | Relatively Low | 1.25 | \$3,046,502 | 95.8 |
| Earthquake | \$1,967,466 | Very High | Relatively Low | 1.25 | \$2,550,480 | 88.5 |
| Wildfire | \$2,082,125 | Very High | Relatively Low | 1.25 | \$2,202,249 | 91.7 |
| Riverine Flooding | \$1,382,132 | Very High | Relatively Low | 1.25 | \$1,777,600 | 78.6 |
| Cold Wave | \$1,201,974 | Very High | Relatively Low | 1.25 | \$1,500,850 | 95.6 |
| Heat Wave | \$582,251 | Very High | Relatively Low | 1.25 | \$732,360 | 84.8 |
| Winter Weather | \$270,296 | Very High | Relatively Low | 1.25 | \$338,916 | 87.7 |
| Ice Storm | \$265,824 | Very High | Relatively Low | 1.25 | \$335,007 | 82.4 |
| Hurricane | \$83,930 | Very High | Relatively Low | 1.25 | \$105,294 | 42.3 |
| Drought | \$94,038 | Very High | Relatively Low | 1.25 | \$99,838 | 65.8 |
| Lightning | \$41,358 | Very High | Relatively Low | 1.25 | \$52,281 | 27.5 |

Expected Annual Loss

In **Comanche County, OK**, expected loss each year due to natural hazards is **Relatively Moderate** when compared to the rest of the U.S.



Score **87.19**



87% of U.S. counties have a lower Expected Annual Loss

95% of counties in Oklahoma have a lower Expected Annual Loss

Expected Annual Loss Legend

- Very High
- Relatively High
- Relatively Moderate
- Relatively Low
- Very Low
- No Expected Annual Losses
- Not Applicable
- Insufficient Data

Composite Expected Annual Loss **\$29,816,690.41**

Composite Expected Annual Loss Rate National Percentile **69.8**

Building EAL **\$18,700,885.89** Population EAL **0.92 fatalities**

Building EAL Rate **\$1 per \$951.72 of building value** Population EAL Rate **1 per 130.91K people**

Agriculture EAL **\$424,014.60** Population Equivalence EAL **\$10,691,789.93**

Agriculture EAL Rate **\$1 per \$219.11 of agriculture value**

Expected Annual Loss for Hazard Types

Expected Annual Loss scores for hazard types are calculated using data for only a single hazard type, and reflect a community's relative expected annual loss for only that hazard type. **14 of 18** hazard types contribute to the expected annual loss for **Comanche County, OK**.

| Hazard Type | Expected Annual Loss Rating | EAL Value | Score |
|--------------------------|-----------------------------|-------------|-------|
| Hail | Relatively High | \$9,885,635 | 99.3 |
| Tornado | Relatively High | \$9,529,280 | 94.3 |
| Strong Wind | Relatively High | \$2,408,482 | 94.7 |
| Wildfire | Relatively Moderate | \$2,082,125 | 92.2 |
| Earthquake | Relatively Low | \$1,967,466 | 85.9 |
| Riverine Flooding | Relatively Moderate | \$1,382,132 | 77.1 |
| Cold Wave | Relatively High | \$1,201,974 | 95.1 |
| Heat Wave | Relatively Moderate | \$582,252 | 84.5 |
| Winter Weather | Relatively High | \$270,296 | 87.1 |
| Ice Storm | Relatively Moderate | \$265,824 | 80.8 |
| Drought | Relatively Low | \$94,038 | 67.4 |
| Hurricane | Very Low | \$83,930 | 40.3 |
| Lightning | Relatively Low | \$41,358 | 26.4 |

Annualized Frequency Values

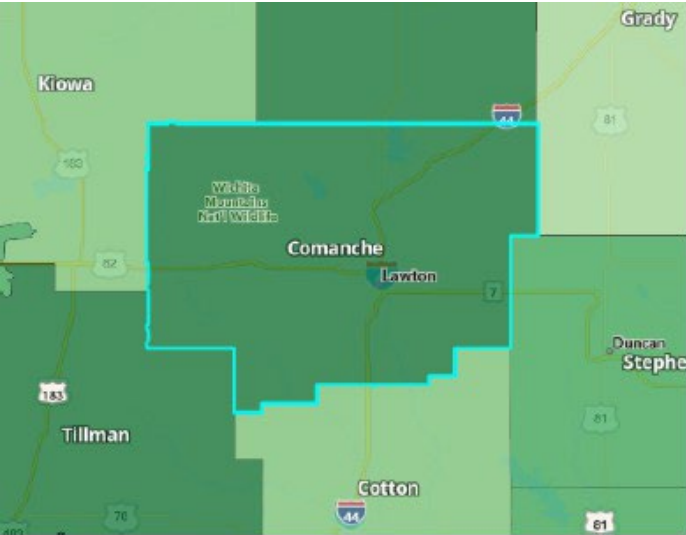
| Hazard Type | Annualized Frequency | Events on Record | Period of Record |
|--------------------------|------------------------|------------------|--|
| Avalanche | -- | -- | -- |
| Coastal Flooding | -- | -- | -- |
| Cold Wave | 0.2 events per year | 3 | 2005-2021 (16 years) |
| Drought | 61.5 events per year | 1,687 | 2000-2021 (22 years) |
| Earthquake | 0.082% chance per year | n/a | 2021 dataset |
| Hail | 12.3 events per year | 420 | 1986-2021 (34 years) |
| Heat Wave | 1 event per year | 16 | 2005-2021 (16 years) |
| Hurricane | 0 events per year | 0 | East 1851-2021 (171 years) / West 1949-2021 (73 years) |
| Ice Storm | 1.2 events per year | 82 | 1946-2014 (67 years) |
| Landslide | 0 events per year | 0 | 2010-2021 (12 years) |
| Lightning | 80 events per year | 1,760 | 1991-2012 (22 years) |
| Riverine Flooding | 1.8 events per year | 44 | 1996-2019 (24 years) |
| Strong Wind | 5.5 events per year | 188 | 1986-2021 (34 years) |
| Tornado | 1.1 events per year | 34 | 1950-2021 (72 years) |
| Tsunami | -- | -- | -- |
| Volcanic Activity | -- | -- | -- |
| Wildfire | 0.355% chance per year | n/a | 2021 dataset |
| Winter Weather | 2.1 events per year | 34 | 2005-2021 (16 years) |

Historic Loss Ratios

| Hazard Type | Overall Rating |
|-------------------|---------------------|
| Avalanche | -- |
| Coastal Flooding | -- |
| Cold Wave | Relatively Low |
| Drought | Relatively Low |
| Earthquake | Relatively Moderate |
| Hail | Relatively Moderate |
| Heat Wave | Very Low |
| Hurricane | Very Low |
| Ice Storm | Very Low |
| Landslide | Relatively Low |
| Lightning | Very Low |
| Riverine Flooding | Very Low |
| Strong Wind | Relatively Low |
| Tornado | Relatively Low |
| Tsunami | -- |
| Volcanic Activity | -- |
| Wildfire | Very Low |
| Winter Weather | Relatively Low |

Social Vulnerability

Social groups in **Comanche County, OK** have a **Very High** susceptibility to the adverse impacts of natural hazards when compared to the rest of the U.S.



Score **92.93**



93% of U.S. counties have a lower Social Vulnerability
1% of counties in Oklahoma have a lower Social Vulnerability

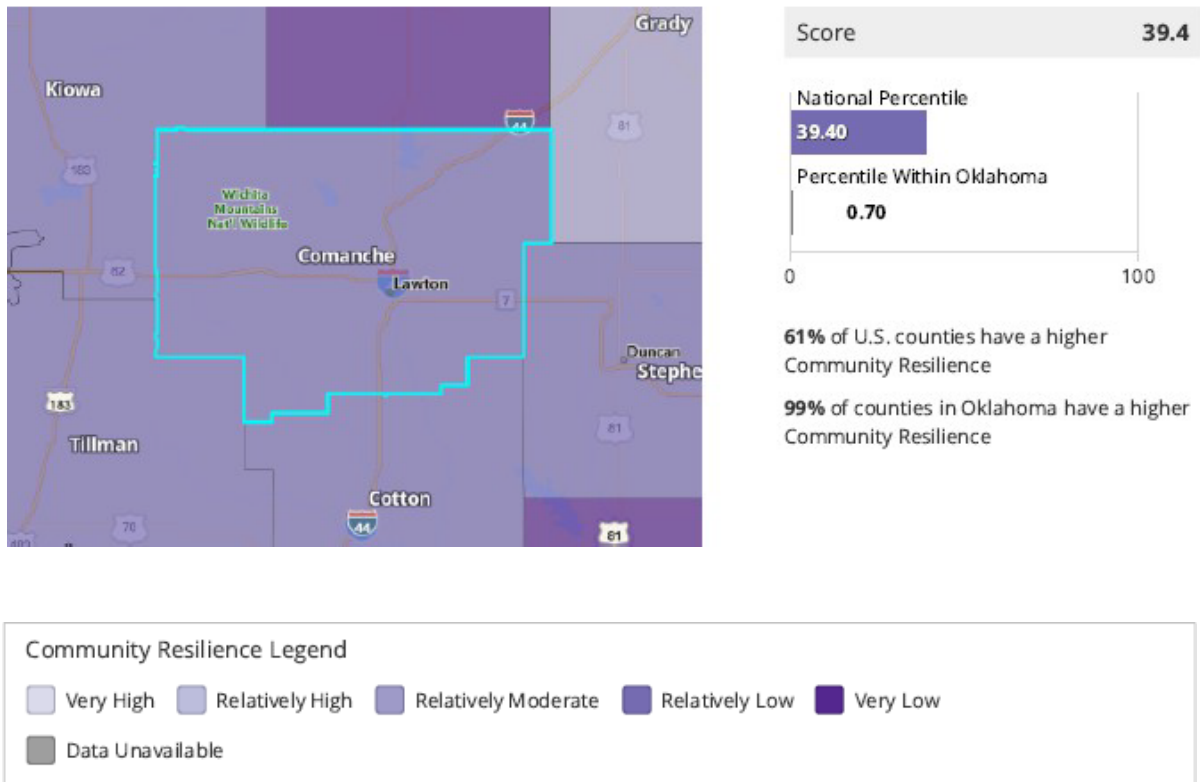
Social Vulnerability Legend

- Very High
- Relatively High
- Relatively Moderate
- Relatively Low
- Very Low
- Data Unavailable

Social vulnerability is the susceptibility of social groups to the adverse impacts of natural hazards, including disproportionate death, injury, loss, or disruption of livelihoods.

Community Resilience

Communities in **Comanche County, OK** have a **Relatively Low** ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions when compared to the rest of the U.S.



Community resilience is the ability of a community to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions.

9

⁹ <https://hazards.fema.gov/nri/report/viewer?dataLOD=Counties&dataIDs=C40031>

3.4 Identifying Hazards

Details of each natural hazard and its impact on the Comanche County Planning Area and participating jurisdictions are given in separate profiles for each hazard. Landslides, sinkholes (subsidence), and expansive soils were also addressed and while some were a potentially low frequency hazard, none were of immediate concern and therefore not included in the plan.

Details of each natural hazard and its impact on the jurisdictions are given in separate profiles for each hazard.

| Hazard | How Identified | Identification Rationale |
|--------------|--|--|
| Dam Failure | <ul style="list-style-type: none"> • Review past disaster declarations • OWRB database • Local input • Risk Assessment | <ul style="list-style-type: none"> • Dam Failure can have a catastrophic impact on communities located in the path of a dam failure. • Dam failure can also create significant economic hardship on communities who are impacted through loss of infrastructure, utilities, and residents. |
| Drought | <ul style="list-style-type: none"> • Review past disaster declarations • Drought databases (USDN) • Review NCDC database • Input from jurisdictions • Public input • Comanche Co Conservation District | <ul style="list-style-type: none"> • Economic Impact on agriculture • Frequency of drought occurrences based upon available data • Widespread effects of drought |
| Earthquake | <ul style="list-style-type: none"> • Review past events • U.S. Geological Society databases • Review NCDC database • Input from Jurisdictions • Public Input | <ul style="list-style-type: none"> • Damages to public and private sector • Define “Earthquake” in public mind. • The entire county is equally vulnerable to earthquakes. |
| Extreme Heat | <ul style="list-style-type: none"> • Review past disaster declarations. • Heat databases • Review NCDC database • Input from jurisdictions • Public input | <ul style="list-style-type: none"> • Prolonged temperatures over 100° Fahrenheit are common in summer months. • Heat affects people, animals, and crops. • Extreme heat affects all participating jurisdictions • Extreme heat can also impact critical utility infrastructure, leading to cascade effects such as rolling brownouts or blackouts. |

| | | |
|--|--|---|
| Flood | <ul style="list-style-type: none"> • Review of FIRMS • Input from county • Risk Assessments • Public input • Review of past disaster declarations • Identification of NFIP repetitive loss properties in the areas • Comanche Co. Conservation District | <ul style="list-style-type: none"> • The area contains many rivers and streams. • Flash Flooding is common. • There are designated floodplain areas in Cache, Elgin, Faxon, Indianola, Medicine Park, and Sterling. Flooding also affects the unincorporated areas of Comanche County. |
| Severe Winter Storms | <ul style="list-style-type: none"> • Review past disaster declarations. • Winter storm databases • Review NCDC database • Input from jurisdictions • Public input • Southwest Rural Electric Co-op • Cotton Electric Cooperative • Public Service of Oklahoma • Western Farmers G&T | <ul style="list-style-type: none"> • People can be stranded in isolated areas. • Damage to public and private sector caused by heavy snow and ice. • Can result in death. • Humans and property are not prepared for extended periods of cold in this area. • Damage to public and private sector caused by freezing lines. • Ice storms recently caused extensive damage to the area. • Many populations were without power for extended periods. • Damages to public and private sector property. • The entire county is affected by Severe Winter Storms • Nearly every year there is at least one inch of snow. On average, every eight years is a storm of ten or more inches (OK Climatological Society). |
| Severe Thunderstorms (Tornados, Hail, Straight Line Winds, etc.) | <ul style="list-style-type: none"> • Review past disaster declaration. • Tornado databases • National Weather Service data • Review NCDC database • Input from jurisdictions • Public input | <ul style="list-style-type: none"> • Common to area • Public concern • Past damages • Damages to public and private sector • Tornado affects the entire county. • Hail is a major economic hazard to this agricultural region. • Hail occurs each year. • Hail affects each participating jurisdiction. • Hail occurs, on average, 7 times each year exceeding 1 inch in diameter. |
| Wildfire | <ul style="list-style-type: none"> • Review past disaster declarations. • Fire databases | <ul style="list-style-type: none"> • Common to area |

| | | |
|--|--|---|
| | <ul style="list-style-type: none"> • Review NCDC database • Input from jurisdictions and fire chiefs • Public input | <ul style="list-style-type: none"> • Increased development in areas without fire suppression systems such as hydrants. • Can occur in conjunction with drought and/or lightning. • Damages to public and private sector • Wildfire affects the entire county in varying degrees |
|--|--|---|

Climatological Considerations and Impacts for all Hazards

Comanche County, situated in southwest Oklahoma, exhibits a semi-arid climate characterized by hot summers, limited precipitation, and occasional severe thunderstorms. Over recent decades, the region has experienced a discernible warming trend, with rising average temperatures and prolonged periods of extreme heat becoming more commonplace. These warming trends have profound implications for the frequency and intensity of natural hazards experienced in the area. Population trends, including urbanization and population growth in Comanche County's population centers such as Lawton and surrounding communities, amplify the vulnerability of residents to the impacts of extreme weather events. Additionally, changes in land use patterns, such as increased urban development and expansion into wildland-urban interface areas, can exacerbate the risks associated with natural hazards, including wildfires and flash floods.

Dam Failure: Rising temperatures and associated climatic changes may indirectly affect dam stability and failure risk in Comanche County. Increased variability in precipitation patterns, coupled with more frequent extreme weather events, can lead to fluctuations in reservoir levels and hydraulic stresses on dam infrastructure. Additionally, changes in land use and development upstream of dams, driven by warming trends, may alter sedimentation rates and reservoir capacity, further influencing dam stability and failure potential.

Drought: Rising temperatures exacerbate drought conditions and extreme heat events in Comanche County, intensifying the associated hazards and impacts. Prolonged periods of hot, dry weather increase evaporative demand, leading to soil moisture depletion and water scarcity. Extreme heat events become more frequent and prolonged, posing significant risks to public health, agriculture, and infrastructure. Additionally, the combination of heat and drought conditions enhances the likelihood of wildfire ignition and spread, amplifying the threat of destructive wildfires across the region.

Extreme Heat: Warming trends in Comanche County have amplified the frequency and intensity of extreme heat events, posing significant risks to public health, infrastructure, and the environment. Rising temperatures exacerbate the urban heat island effect in densely populated areas such as Lawton and surrounding communities, leading to elevated temperatures and increased heat-related health impacts, particularly among vulnerable populations. Additionally, the prolonged duration of extreme heat events can strain energy

resources, heighten the risk of heat-related illnesses, and disrupt critical infrastructure, including transportation and utilities. The escalating frequency and severity of extreme heat underscore the urgency of implementing heat resilience strategies, including public cooling centers, heat emergency preparedness plans, and urban greening initiatives, to protect community well-being and enhance resilience in Comanche County.

Floods: Although less common than droughts, severe rainfall events can lead to flash flooding in low-lying areas of Comanche County. Climatic factors, such as the intensity and duration of rainfall, as well as soil moisture levels, influence the likelihood and severity of flooding events. Urbanization and changes in land use can exacerbate flood risks by increasing runoff and reducing natural drainage pathways.

Severe Thunderstorms: The warming climate has been linked to an increase in atmospheric instability, creating favorable conditions for the development of severe thunderstorms. Elevated temperatures contribute to greater moisture retention in the atmosphere, fueling convective processes and intensifying thunderstorm activity. As a result, Comanche County may experience more frequent and intense severe thunderstorms, accompanied by hazards such as tornadoes, hail, high winds, and lightning.

Severe Winter Storms: While the primary focus is often on warming temperatures, the changing climate can also influence the characteristics of winter storms. Warming trends may lead to alterations in precipitation patterns, resulting in more variable winter weather conditions in Comanche County. Extreme temperature fluctuations can increase the likelihood of rapid freeze-thaw cycles, contributing to the occurrence of severe winter storms characterized by heavy snowfall, freezing rain, and ice accumulation.

Wildfires: Warming trends in Comanche County have contributed to an increased frequency and severity of wildfires in recent years. Rising temperatures and prolonged periods of drought exacerbate fuel dryness, creating favorable conditions for wildfire ignition and spread. The warming climate has led to more extensive periods of hot and dry weather, prolonging the wildfire season and increasing the window of opportunity for fire activity. In addition, the expansion of urban and rural development into wildland-urban interface areas further heightens the risk of wildfire occurrence, placing both residents and natural ecosystems at greater vulnerability to fire events. Proactive measures such as fuel reduction initiatives, wildfire risk assessments, and community outreach efforts are imperative for mitigating the escalating wildfire threat and enhancing resilience in Comanche County.

Earthquake: While not directly influenced by warming trends, seismic activity in Comanche County may be indirectly affected by changes in underground fluid pressures resulting from increased temperatures and altered precipitation patterns. As temperatures rise and precipitation patterns shift, changes in groundwater levels and soil moisture content can potentially impact the stability of fault lines and contribute to induced seismicity. Although seismic events in Comanche County are historically rare, the increasing prevalence of oil and gas extraction activities, including hydraulic fracturing, presents a growing concern for induced earthquakes. Proactive monitoring of seismic activity, coupled with comprehensive regulations on resource extraction practices and land use planning, is essential for mitigating

the risks associated with induced seismicity and ensuring the safety and resilience of communities in Comanche County.

In summary, the climatological conditions prevalent in Comanche County significantly influence the probability and characteristics of various natural hazards, including severe thunderstorms, severe winter storms, drought, and extreme heat. Understanding these climatological considerations is essential for effective hazard preparedness, mitigation, and resilience-building efforts in the region. Furthermore, ongoing monitoring of climate trends and their potential influence on the frequency and intensity of these hazards is crucial for adapting to changing environmental conditions and enhancing overall community resilience.

3.5 Profiled Hazards

3.5.1 Flood

Description

Flooding is the most common and widespread weather hazard in the United States. Most flood dangers and deaths are caused by flash floods. Flash floods usually result from intense storms dropping large amounts of rain within a brief period. The two key elements are rainfall intensity and duration, but topography, soil conditions and ground cover play important roles also. Flash floods occur with little or no warning and can reach peak flow within a few minutes. Water from flash floods moves with great force and velocity and can roll boulders, tear out trees, destroy buildings, and sweep away bridges. These walls of water can reach heights of 10 to 30 feet and generally carry large amounts of debris.

There are three common types of flooding in the Planning Area:

- **Riverine** flooding is usually a gradual process, with several hours to several days of warning time. This type of event usually remains in flood for a longer period than flash or urban flooding, and often causes more damage due to the length of time structures are inundated, the velocity and depth of water, and floating debris. Generally, a river rise of one foot above the SFHA is considered a flood of minor severity, with a major flood being a 500-year event.
- **Flash flooding** in Comanche County is associated with the large convective thunderstorms that frequent the region and can drop between 1 and 5 inches of rain in the space of an hour. When the soil is already saturated, rainfall from such storms can converge in creeks and streams suddenly, with little warning. Although potentially hazardous to life and destructive of property, flash flooding usually lasts only a matter of hours.
- **Urban flooding** occurs when heavy rainfall runs off of structures, parking lots and streets and converges in culverts and drainage ways that are often clogged with debris, causing streets to flood and storm sewers to back up.

Location

The entire planning area is affected by flooding. Several creeks have cut valleys that extend in a north-south direction through the center of Comanche County. Cache Creek and both its East and West Branches, along with Pecan Creek, and Beaver Creek and their respective tributaries are all connected to Lakes Lawtonka and Ellsworth located in the Northern part of the county and when warranted create downstream impacts when the floodgates are opened. The City of Lawton has three major drainage basins that are subject to flooding: East Cache Creek, Numu Creek, and Meadowbrook/Wolf Creek. Typical impacts from flooding in the City of Lawton include inundated homes and roadways, road closures, and water rescues. In May 2015 flooding was substantial in Lawton. Residential flooding is

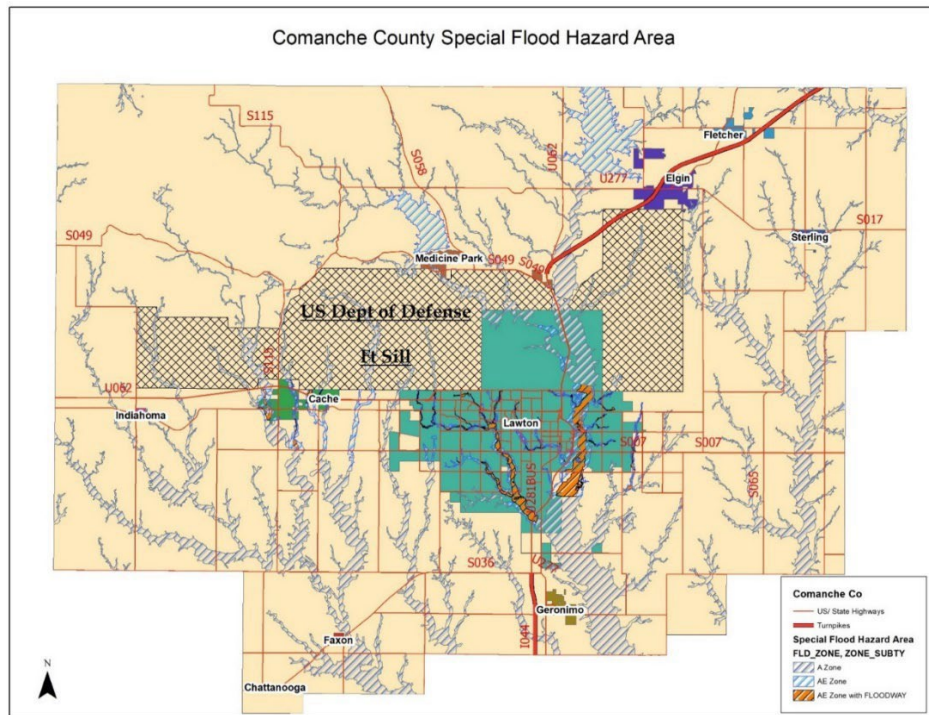
common due to Numu Creek. Homes in the area have historically been inundated with floodwater. Drainage channels experience substantial damage from flood events. The flood inundation to homes and businesses creates a financial burden to the owners and economy. The extent of flooding in the City of Lawton will be determined by the Zone A, 100-year flood hazard areas on the FIRM maps.

The Cities of Cache and Elgin, along with the Town of Medicine Park also experience flash flooding events similar to those of the City of Lawton. However, based upon the significant population differences, the impact to the City of Lawton is disproportionate in relation to the smaller jurisdictions and unincorporated Comanche County.

Climate Change Considerations

Significant precipitation events have caused considerable flood-related damage to the Comanche County Planning Area, including participating jurisdictions. Flash flooding and riverine flooding continue to be the most impactful, especially with alterations to natural floodways through development and the increase in non-draining areas such as parking lots, roadways, and housing developments. In addition, meteorological drivers of river flooding (increased rainfall intensity, decreased soil moisture) are projected to have competing influences. These changes in flood dynamics underscore the importance of proactive floodplain management strategies and infrastructure planning to mitigate the growing risks posed by flooding in the Planning Area.

Comanche County Special Flood Hazard Area Map



City of Lawton Special Flood Hazard Area



Town of Sterling Special Flood Hazard Area



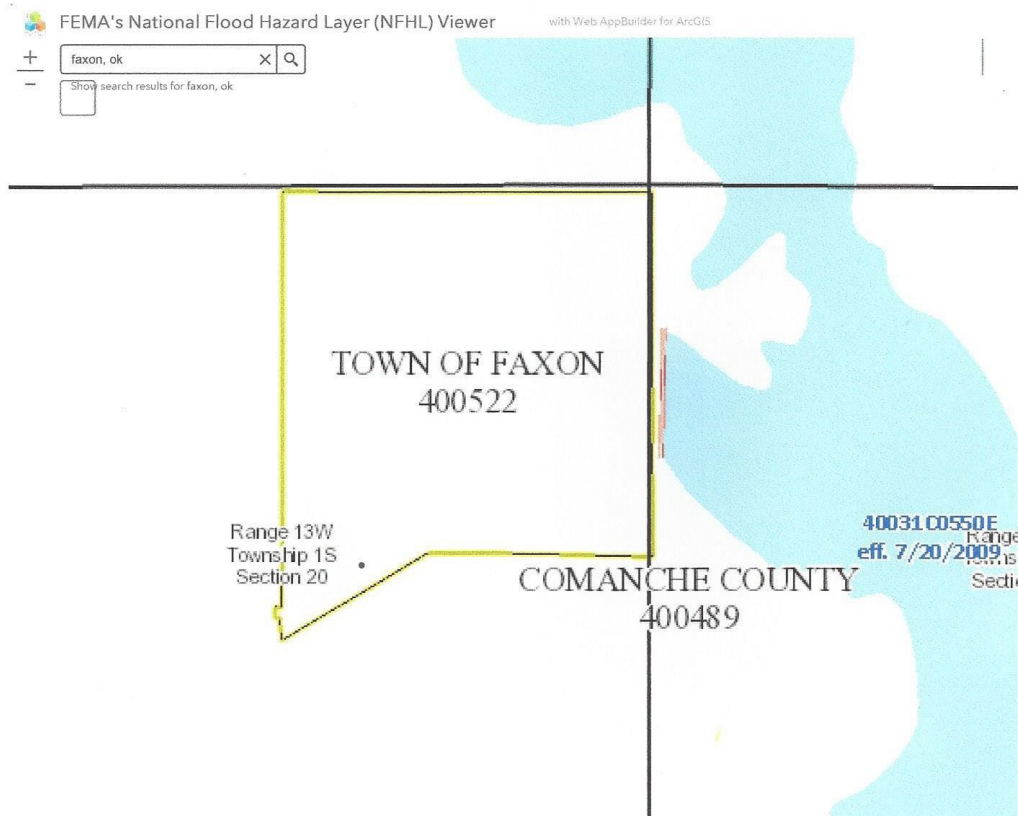
Town of Medicine Park Special Flood Hazard Area



Town of Indiahoma Special Flood Hazard Area



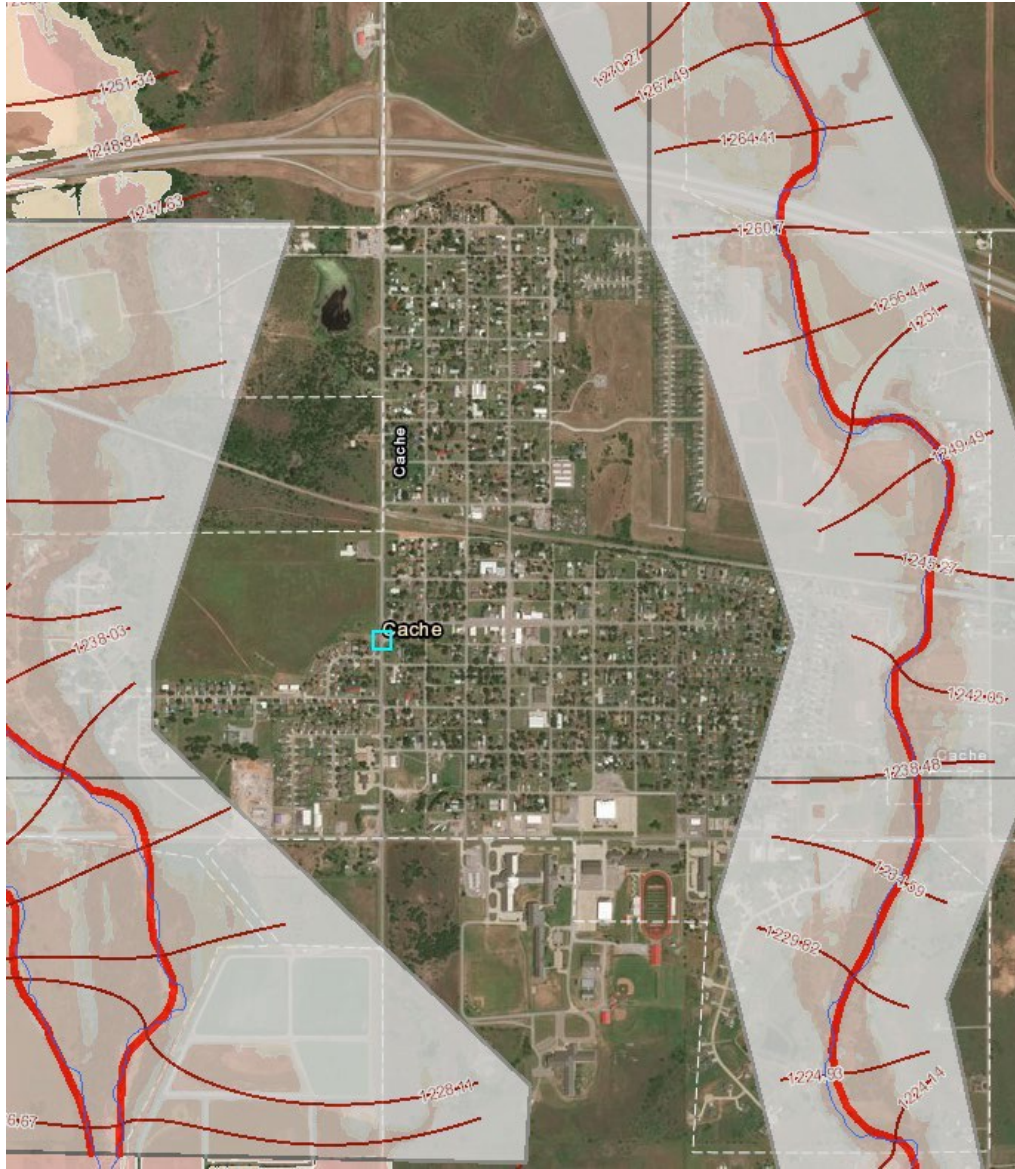
Town of Faxon Special Flood Hazard Area



City of Elgin Special Flood Hazard Area



City of Cache Special Flood Hazard Area



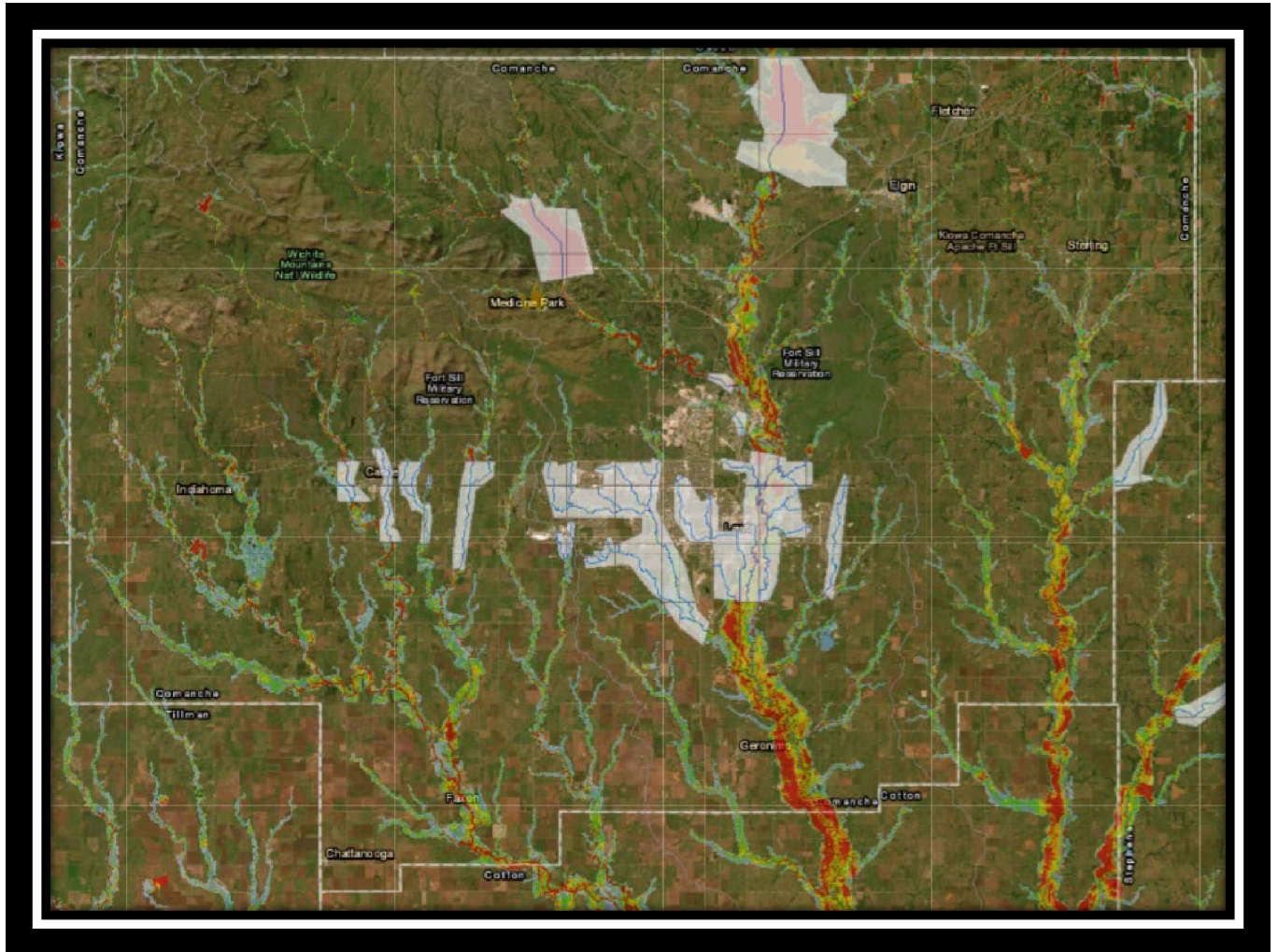
| Jurisdiction | In Floodplain (Y/N) | Location of Flood Hazard |
|-----------------------|----------------------------|---|
| Comanche County | Y | Comanche County and its unincorporated communities lie within the Beaver-Cache Watershed and the main flood hazards are located near Cache and Beaver Creeks. Cache Creek affects both the east and west portions of the county as Cache divides into two tributaries. Beaver Creek affects the east-southeast portion of the county. |
| City of Lawton | Y | Lawton is bracketed by both tributaries of Cache Creek on its east and west sides. Wolf Creek and Numu Creek also bisect Lawton in a north/south direction and during times of increased rainfall or flash flooding, roadways, structures, and infrastructure are greatly affected |
| Lawton Public Schools | Y | Lawton Public Schools buildings are not in a floodplain, but the bus routes in the south, west, and northeast are in a floodplain. This primarily affects city roads and highways. |
| City of Cache | Y | Cache's flood risk lies on the east and west sides, with Crater Creek on the east and Wolf Creek to the west. During times of heavy rainfall, travel, roadways, and structures are affected. |
| Cache Public Schools | Y | Cache Public School District buildings are not in a floodplain, but the bus routes in the south, west, and northeast are in a floodplain. This primarily affects county roads and highways. |
| Town of Chattanooga | N | Chattanooga has no portion which lies within the floodplain. They receive minimal impact from flash flooding which may impact roadways. The primary impact is access if flooding occurs along Highway 36 to the northeast which may create access issues. |
| City of Elgin | Y | Elgin's main flood hazard is in the southeast where portions of Beaver Creek cross through their political boundaries. North housing addition lies adjacent to Lake Ellsworth; however, no homes lie within a floodplain. |
| Town of Faxon | Y | Faxon's main flood hazard is to the east where West Cache creek north across Highway 36 and can affect travel. |

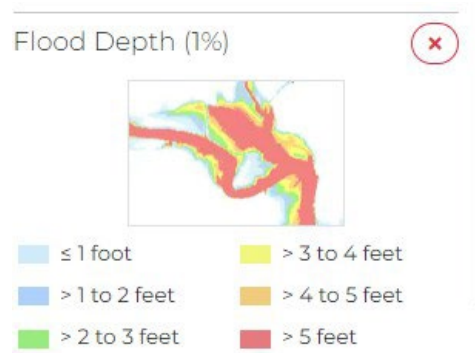
| | | |
|-------------------------|---|---|
| Town of Fletcher | N | Fletcher has no floodplain within city limits. They are minimally affected by flash flooding and water ponding during brief, torrential rainfall. |
| City of Geronimo | N | Geronimo's main flood hazard lies to the east where East Cache Creek flows north and south. This affects roadways, infrastructure, and operations. |
| Geronimo Public School | N | Geronimo Public School buildings are not in a floodplain, but the bus routes in the northeast are in a floodplain. This primarily affects county roads and highways. |
| Town of Indiahoma | Y | Indiahoma's main flood hazard is in the southwest and northeast. Sandy Creek abuts city limits on the southwest side, and Post Oak Creek on the northeast side. They experience minor flash flooding and ponding during periods of torrential rainfall. |
| Town of Medicine Park | Y | Medicine Creek flows through the center of Medicine Park, and the town lies directly below the Lake Lawtonka Dam and adjacent to the East of Elmer Thomas Lake. |
| Town of Sterling | Y | Sterling's main flood hazard is along Beaver Creek as it bisects the town east to west. |
| Sterling Public Schools | N | Sterling Public Schools buildings are not in a floodplain, but the bus routes in the west and east are in a floodplain. This primarily affects county roads and highways. |

Extent

Severity of flooding is determined by several factors including rainfall intensity, duration, and location. Flash floods are most dangerous since they can occur suddenly and begin before the rain stops. Even short periods of heavy rainfall can cause flooding throughout the city. The majority of severe flooding in the city is caused by intense rainfall resulting from localized thunderstorms. The effects are generally aggravated in areas where man-made and natural constructions in the floodplain impeded the passage of large flows. The City of Lawton considers a rainfall event of 2" per hour a minimum severity and a rainfall event with more than 2" per hour to be a major severity. Comanche County and the participating jurisdictions agree that they would consider a flood occurring with a two inch an hour rainfall to be a minor hazard, in that street flooding would occur but no serious damage would be incurred. A flood that occurs due to a six inch an hour rainfall would be a major hazard in that structures would be flooding, and water levels would be raised dramatically.

The Planning Area uses Flood Insurance Rate Maps (FIRM) to categorize Floods. FEMA flood zones are geographic areas that have been defined according to varying levels of flood risk. Zone A (A, AE, AH, AO), or the 100-year flood plain, is a Special Flood Hazard Area (SFHA) with a 1% chance of flooding in a given year. Zone B (X), or the 500-year flood plain, is a Special Flood Hazard Area with a 0.2% chance of flooding in a given year. As estimated by Base Level Engineering Analysis, The Planning Area can experience a flood depth of 1-5 feet during a 1% annual chance storm event. See the flood depth map below.





Comments: Depicts estimated water depths above land surface during a 1% annual chance storm event (a storm that has a 1/100 chance of occurring in any calendar year). [Glossary of terms...](#)

Previous Occurrences (2013 – 2023)

| Date | Description |
|-----------|--|
| 4/17/2013 | A strong warm front became stationary along the interstate 44 corridor during the early afternoon of the 17th. Through the day, areas south of the warm front and east of a well-defined dryline became very unstable. As a large upper trough shifted into the Southern Plains, scattered thunderstorms developed near the dryline/warm front triple point. As these storms moved eastward into the highly unstable warm sector, they became super cellular. These storms produced all facets of severe weather, including very large hail, damaging straight line winds, and a few brief tornadoes. Training of supercells also led to flash flooding over portions of southwest Oklahoma around the Wichita Mountains Wildlife Refuge. Storms eventually shifted eastward and weakened overnight as a cold front pushed through Oklahoma. |
| 7/26/2013 | A small complex of thunderstorms developed near the I-40 corridor in western Oklahoma during the late evening, resulting in a severe wind and hail report near Clinton. Later, a more extensive complex of storms moved southward out of Kansas into the western half of Oklahoma during the early morning hours of the 26th, leading to excessive rainfall and widespread flash flooding. |
| 5/7/2015 | Storms developed east of a dryline in the Texas panhandle during the morning hours of May 7th before making their way eastward through southern Oklahoma and merging into a storm complex. |
| 5/8/2015 | Another round of storms developed across the Texas panhandle and developed into a line as it moved eastward across southern Oklahoma. Rainfall rates of two inches per hour observed. |

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| 5/20/2015 | Severe storms developed near a stalled boundary across Oklahoma and the panhandles and moved eastward through the afternoon and evening of the 19th, causing widespread heavy rainfall and additional flooding. |
| 5/23/2015 | Storms developed in the panhandles on the 23rd under the influence of an upper-level trough. These storms merged into a line and moved eastward over Oklahoma producing widespread flooding. |
| 5/28/2015 | Another round of severe weather moved through Oklahoma on the 28th. Hail up to golf ball size and winds to 70 mph were reported with yet another round of flash flooding rainfall. |
| 7/7/2015 | A line of storms (some of them strong) formed along a cold front as it swept down into the southern plains through the evening of the 6th. A few areas received prolonged heavy rain, resulting in flash flooding in parts of northwest Oklahoma. As the front continued southward through Oklahoma, more showers and storms erupted on the 7th, producing more flash flooding. The front then stalled across southeast Oklahoma, where showers and storms (along with flooding) continued into the 8th. |
| 5/8/2016 | With the help of an upper low, storms fired along the dryline in western Oklahoma on the 8th, with some of them becoming severe and producing flash flooding. |
| 5/26/2016 | Storms formed along the dryline in the panhandles and western Oklahoma during the afternoon and evening hours of the 26th before moving eastward through Oklahoma and western north Texas. |
| 6/12/2016 | An area of storms formed overnight early on the 12th, producing flash flooding and a few severe wind gusts. A 94-year-old man was on his way to church when his truck was swept off the road and into a flooding creek. His body was recovered, still in his truck, Monday afternoon. Several vehicles were stranded in high water near Sheridan and B streets. Water was over one foot deep at the intersection of 27th street and G Ave. 11th Street near Numu was closed due to high water. Interstate 44 was closed by high water near Rogers Lane. One-foot-deep water flowed over Mound road and Cache road. SE 60th and Bishop was impassable due to high water. A car was stranded in rushing water one mile east of I-44 on Gore Ave. Several high-water rescues were ongoing. |
| 6/13/2016 | A line of storms moved southeast out of Kansas through Oklahoma on the morning of the 13th, producing flash flooding and a few severe wind gusts. |
| 9/24/2016 | As a large upper trough moved through and combined with some tropical moisture, abundant rainfall produced flooding across the area on the 24th. |
| 3/28-29/2017 | An area of storms formed across Oklahoma and western north Texas in the vicinity of several fronts/boundaries overnight on the 28th into early 29th. Besides severe weather and a tornado, slow moving storms and extensive shower coverage also led to flash flooding. |

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| 6/2/2017 | An area of thunderstorms formed in the early morning in central Texas, then expanded into southwest Oklahoma early on the 2nd. With high rain rates, these storms produced flash flooding. |
| 6/30/2017 | Another line of storms formed along a cold front as it pushed into southern Oklahoma and western north Texas late on the 30th. |
| 8/6/2017 | After widespread rain and thunderstorms moved through during the predawn hours and weakened during the day, instability increased during the afternoon and intense thunderstorms developed along a stationary front across southern Oklahoma on the 6th. These storms moved slowly in a very moist environment causing heavy rainfall amounts and localized flooding and flash flooding. One severe wind gust was measured in Carter County, but no damage was reported. |
| 9/27/2017 | Moderate to heavy showers persisted for long enough during the morning of the 27th across portions of southwest Oklahoma to cause some localized flooding. One report of flooding was received between Lawton and Cache. The intersection of NW Cache Rd and NW Airport Rd was reported to be flooded and impassible. |
| 9/21/2018 | Abundant moisture from the gulf and a remnant tropical system converged with a front coming in from northwest early on the morning of the 21st resulting in widespread heavy rain and numerous reports of flash flooding across central and south-central Oklahoma and western north Texas through the day. |
| 12/26/2018 | A strong storm system with unseasonable moisture brought heavy rainfall and high winds to the area. |
| 4/30/2019 | A stationary front and an upper wave produced numerous thunderstorms with a variety of severe weather on the 30th. |
| 5/18/2019 | The beginning of a very active period, the 18th started with a complex of thunderstorms that grew upscale producing wind and tornadoes in the morning and then finished with isolated supercells producing large hail across northern Oklahoma. |
| 5/28/2019 | Storms developed ahead of a dryline and produced large hail and damaging wind gusts on the 28th. Flash flooding causing about one foot of water in some city streets. |
| 5/15/2020 | An outflow boundary and a dryline both led to numerous thunderstorms developing during the afternoon and evening of the 15th, with hail, wind, and a brief tornado reported. |
| 6/19/2020 | A broken line of thunderstorms led to a few severe wind gusts and isolated flooding across portions of southern Oklahoma on the 19th. |
| 6/21/2020 | Scattered thunderstorms developed during the early morning hours of the 21st leading to numerous severe reports, along with isolated reports of flooding. |
| 4/28/2021 | Storms continued into the 28th as a slow-moving trough approached. Early morning convection produced numerous flood reports. Later in the day, renewed storm development led to an isolated supercell which tracked across southern portions of the OKC metro area with 2-3 diameter hail and damaging winds. Extensive damage was |

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|-------------------|---|
| | reported with this storm, with the most significant damage concentrated in Norman. In Cleveland County, the hail and wind caused over 2 million dollars in damage just to county-owned buildings. While exact numbers for private homes, businesses and vehicles are not available, damage estimates are easily into the hundreds of millions of dollars. |
| 6/27/2021 | A very moist airmass and slow-moving storms led to a multi-day heavy rainfall event for much of the area. 6 to 8+ inches fell in a swath from southwest OK northeast along the I-44 corridor. Several storms also produced isolated severe weather with hail and strong winds reported. |
| 9/28/2021 | A dryline lead to numerous thunderstorm formation across portions of western and northern Texas and southwest Oklahoma. A few severe and hail and wind reports, along with reports of flooding, were received in and near Lawton, OK during the early evening on the 28th. |
| 7/10/2022 | A line of thunderstorms originating across eastern Kansas built southwestward into northern and central Oklahoma during the evening of the 10th, leading to numerous severe wind, hail and flood reports. |
| 8/29/2022 | With the trough lingering over the area, thunderstorms developed once again during the afternoon with wind and hail reported. Heavy rainfall also led to flooding in some areas. |
| 12/13/2022 | Storms moved through Oklahoma late in the evening of December 12th and into the early morning hours of the 13th, producing isolated severe weather including a few tornadoes. |
| 6/15/2023 | The approach of an anomalously strong (for mid-June) upper-level disturbance lead to a widespread severe weather outbreak across portions of the forecast area, especially along and west of the I-35 corridor, during the afternoon into late evening of the 15th. This included the development of numerous supercell thunderstorms across the area. Despite relatively high cloud bases, strong low-level instability and sufficient low-level wind shear aided tornadic outcomes, with eleven tornadoes confirmed across western into southern Oklahoma. Numerous reports of large to very large hail, including reports of 4-inch hail in Lawton, and wind damage were received across area. |

Probability

The probability of a flood event occurring is rated as “High.”

Vulnerability and Impact

Flooding is a destructive force in the Planning Area, where it occurs as riverine, urban, or flash. Flood water can inundate homes, businesses, and roads. Both the forces of the floodwaters and simple inundation can cause severe damage to buildings and wash away roads. While inundated, roads are dangerous and often impassible, causing additional hardships to citizens and school districts. Development within flood-prone zones, such as the 100-year floodplain, coupled with inadequate drainage runoff infrastructure, heightens the potential for property damage and endangers residents' well-being. Insufficient

drainage systems exacerbate the risks associated with flooding, posing threats to public safety and property integrity.

| Jurisdiction | Vulnerability | Impact |
|-----------------------|--|---|
| Comanche County | Comanche County and its unincorporated communities lie within the Beaver-Cache Watershed and the main flood hazards are located near Cache and Beaver Creeks. Cache Creek affects both the east and west portions of the county as Cache divides into two tributaries. Beaver Creek affects the east-southeast portion of the county. | Comanche County has a large transient and commuter population which travels along State Highway (SH) 7, SH-62, and Interstate-44. This type of flooding impedes commuting traffic, causes delays, and creates potentially dangerous areas for either pedestrians or traffic. This also can have a negative economic impact for businesses and industry located in Comanche County such as ranching and farming. |
| City of Lawton | Lawton is bracketed by both tributaries of Cache Creek on its east and west sides. Wolf Creek and Numu Creek also bisect Lawton in a north/south direction. The location of these creeks can essentially “cut” the city in half, preventing travel from the east to the west side. Significant low-lying areas and poor drainage can also create dangerous conditions for travel, leading to high water and swift water rescue operations by public safety agencies. | This can cause a disruption of transportation by hindering commutes, school bus routes, and emergency vehicles. This also increases the number of ‘repetitive loss’ structures located within City Limits. |
| Lawton Public Schools | Lawton Public Schools buildings are not in a floodplain, but the bus routes in the south, west, and northeast are in a floodplain. This primarily affects city roads and highways. | This can cause a disruption of transportation by hindering commutes, school bus routes, and emergency vehicles. |
| City of Cache | Cache’s flood risk lies on the east and west sides, with Crater Creek on the east and Wolf Creek to the west. This can effectively cut Cache off from critical services not provided within the city. | This can cause a disruption of transportation by hindering commutes, school bus routes, and emergency vehicles. This also leaves Cache vulnerable to lack of emergency medical care |

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| | | as the nearest Trauma Center is located in Lawton. |
| Cache Public Schools | Crater Creek and Wolf Creek can create a barrier between Cache and its neighboring communities by affecting travel. | This can cause a disruption of transportation by hindering commutes and school bus access. |
| Town of Chattanooga | Chattanooga has no portion which lies within the floodplain. West Cache Creek lies to the East of Chattanooga and would create some travel disruption; however, this would not impact westward travel. | This can cause a disruption of transportation by hindering commutes, school bus routes, and emergency vehicles. |
| City of Elgin | Elgin's main flood hazard is in the southeast where portions of Beaver Creek cross through their political boundaries. North housing addition lies adjacent to Lake Ellsworth; however, no homes lie within a floodplain. | Travel along I-44 would be significantly impeded by dangerous conditions due to flooding. This would also create public safety concern due to inability to receive support from external resources. |
| Town of Faxon | Faxon's main flood hazard is to the east where West Cache creek north across Highway 36. Travel to the west would still be available. | This can cause a disruption of transportation by hindering commutes, school bus routes, and emergency vehicles. |
| Town of Fletcher | Fletcher has no floodplain within city limits, nor are there any significant creeks or waterways near any major roadways to create impediments. Fletcher is most vulnerable through the impact to surrounding towns and cities, through access routes becoming impassable. | Fletcher is minimally affected by flash flooding and water ponding during brief, torrential rainfall. This can impact transportation routes, even if only temporarily. Significant flooding of neighboring towns could cause disruption to citizens and town infrastructure. |
| City of Geronimo | East Cache Creek is located east of Geronimo. This creates transportation and service issues and creates impassable roads. | This can cause a disruption of transportation by hindering commutes, school bus routes, and emergency vehicles. |
| Geronimo Public School | East Cache Creek is located east of Geronimo. This creates transportation and service issues and creates impassable roads. | This can cause a disruption of transportation by hindering commutes, school bus routes, and emergency vehicles. |
| Town of Indianahoma | Sandy Creek abuts city limits on the southwest side, and Post Oak Creek on the northeast side. | This can cause a disruption of transportation by hindering commutes, school bus routes, and emergency vehicles. |

| | | |
|-------------------------|--|--|
| Town of Medicine Park | Medicine Creek flows through the center of Medicine Park, and the town lies directly below the Lake Lawtonka Dam and adjacent to the East of Elmer Thomas Lake. The downtown portion of Medicine Park is bisected directly by Medicine Creek and contains multiple businesses, recreation, and residential structures. | The proximity to these waterways could have a significant impact on economy, transportation, critical infrastructure, and public safety. |
| Town of Sterling | Beaver Creek bisects the town in a north/south direction, and a lack of drainage within the town creates ponding and short-term urban flooding. | This can cause a disruption of transportation by hindering commutes, school bus routes, and emergency vehicles. |
| Sterling Public Schools | Beaver Creek bisects the town in a north/south direction, and a lack of drainage within the town creates ponding and short-term urban flooding. | This can cause a disruption of transportation by hindering commutes, school bus routes, and emergency vehicles. |

3.5.2 Wildfire

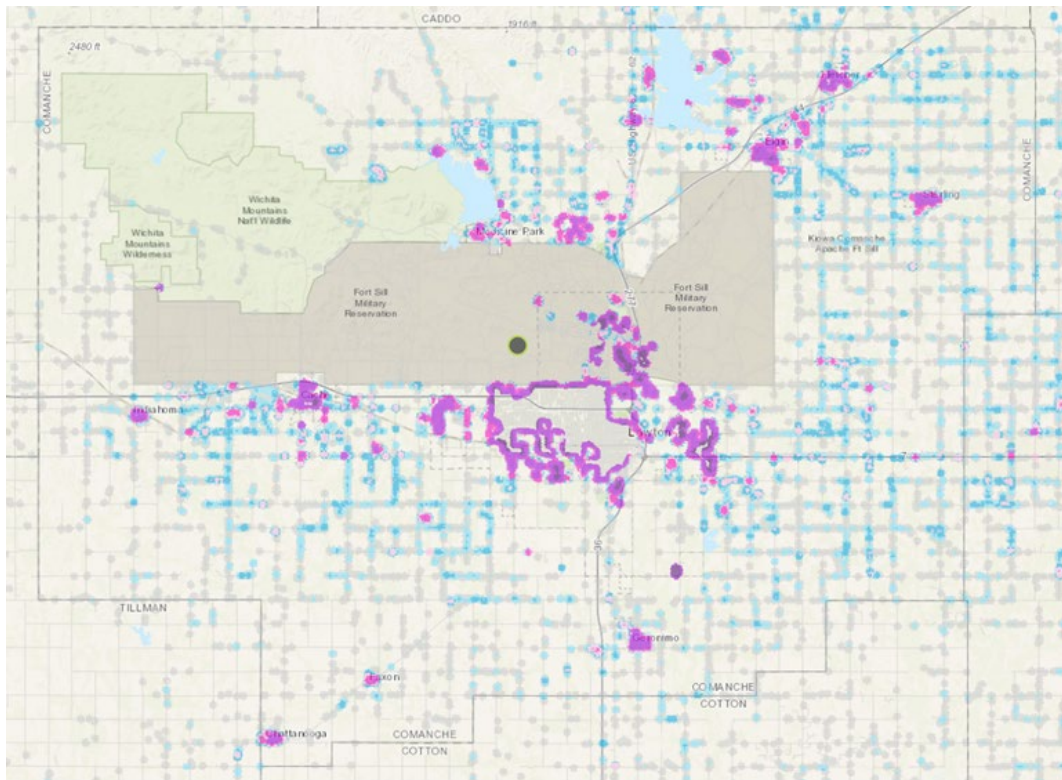
Description

Wildfire is an uncontrolled fire in a rural or wilderness area. Dry vegetation, low levels of precipitation, and high winds create the condition for wildfire to begin unnoticed. However, they can quickly spread to an uncontrollable level if unnoticed for very long. The winds cause the fire to spread quickly, igniting brush, trees, and structures. Wildfire can move on three different levels. A surface fire is the most common type and burns along the surface of grasslands or areas with open vegetation, usually moving quickly through an area. A ground fire is a dense, very hot fire that has a thick fuel source and significantly damages the soil health where it occurs. A crown fire spreads rapidly by wind and moves by jumping along the top of the trees.

Location

The entire Planning Area is affected by Wildfire

Comanche County Wildland-Urban Interface Map



[SGSF WRAP - Public Viewer \(southernwildfirerisk.com\)](https://southernwildfirerisk.com)

Extent

The Planning Area uses the Keetch-Bryan Drought Index with Fire Danger Rating Data Incorporated to categorize Wildfire Extent. The Planning Area can experience any rating value on these charts.¹⁰

| The Keetch-Byram Drought Index with Fire Danger Rating Data Incorporated | |
|--|--|
| 0 – 200 | Soil and fuel moisture are high. Most fuels will not readily ignite or burn. However, with sufficient sunlight and wind, cured grasses and some light surface fuels will burn in spots and patches. |
| 200 - 400 | Fires more readily burn and will carry across an area with no gaps. Heavier fuels will still not readily ignite and burn. Also, expect smoldering and the resulting smoke to carry into and possibly through the night. |
| 400 - 600 | Fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems. |
| 600 - 800 | Fires will burn to mineral soil. Stumps will burn to the end of underground roots and spotting will be a major problem. Fires will burn thorough the night and heavier fuels will actively burn and contribute to fire intensity |

| Fire Danger Rating System | | |
|--|---|---|
| Rating | Basic Description | Detailed Description |
| CLASS 1: Low Danger (L) COLOR CODE: Green | fires not easily started | Fuels do not ignite readily from small firebrands. Fires in open or cured grassland may burn freely a few hours after rain, but wood fires spread slowly by creeping or smoldering and burn in irregular fingers. There is little danger of spotting. |
| CLASS 2: Moderate Danger (M) COLOR CODE: Blue | fires start easily and spread at a moderate rate | Fires can start from most accidental causes. Fires in open cured grassland will burn briskly and spread rapidly on windy days. Woods fires spread slowly to moderately fast. The average fire is of moderate intensity, although heavy concentrations of fuel – especially draped fuel -- may burn hot. Short-distance spotting may occur but is not persistent. Fires are not likely to become serious and control is relatively easy. |
| CLASS 3: High Danger (H) COLOR CODE: Yellow | fires start easily and spread at a rapid rate | All fine dead fuels ignite readily, and fires start easily from most causes. Unattended brush and campfires are likely to escape. Fires spread rapidly and short-distance spotting is common. High intensity burning may develop on slopes or in concentrations of fine fuel. Fires may become serious and their control difficult, unless they are hit hard and fast while small. |
| CLASS 4: Very High Danger (VH) COLOR CODE: Orange | fires start very easily and spread at a very fast rate | Fires start easily from all causes and immediately after ignition, spread rapidly and increase quickly in intensity. Spot fires are a constant danger. Fires burning in light fuels may quickly develop high-intensity characteristics - such as long-distance spotting - and fire whirlwinds when they burn into heavier fuels. Direct attack at the head of such fires is rarely possible after they have been burning more than a few minutes. |
| CLASS 5: Extreme (E) COLOR CODE: Red | fire situation is explosive and can result in extensive property damage | Fires under extreme conditions start quickly, spread furiously, and burn intensely. All fires are potentially serious. Development into high intensity burning will usually be faster and occur from smaller fires than in the Very High Danger class (4). Direct attack is rarely possible and may be dangerous, except immediately after ignition. Fires that develop headway in heavy slash or in conifer stands may be unmanageable while the extreme burning condition lasts. Under these conditions, the only effective and safe control action is on the flanks, until the weather changes or the fuel supply lessens. |

¹⁰ Source: <http://www.wfas.net/content/view/34/51/>

Climatological Influence on Wildfire Hazards

The region's semi-arid climate, characterized by hot summers, limited precipitation, and periodic droughts, is projected to intensify due to climate change, resulting in drier and warmer conditions conducive to wildfire ignition and spread. The diverse ecological composition, encompassing grasslands, shrublands, and forested areas, coupled with the proliferation of invasive species like eastern red cedar, increases fuel loads and wildfire potential. Frequent wind events during spring months, coupled with low humidity levels, exacerbate fire conditions, facilitating rapid spread across wildland-urban interfaces. Projections suggest heightened wildfire frequency and severity, necessitating proactive mitigation strategies such as fuel reduction measures, land management practices, and community engagement to enhance resilience and mitigate the ecological and societal impacts of future wildfires in Comanche County. The increasing frequency and severity of wildfires underscores the urgency of implementing comprehensive wildfire prevention and management strategies to safeguard lives, property, and ecosystems in the Planning Area.

Previous Occurrences 2011-2023

| | |
|----------------------|---|
| 4/15-19/2011 | Goodyear Fire (FM2890): 04/15/2011 - 04/19/2011. 15 structures damaged &/or destroyed hundreds of acres burned. |
| 7/2011 | Medicine Park Fire (FM2932): burned 1,500 acres, 13 homes destroyed &/or damaged, 1,500 residents evacuated. |
| 9/1-9/10/2011 | Ferguson Fire (FM-2956): Burned 40,000 acres, 34 homes destroyed &/or sustained major damage. |
| 12/10-13/2021 | A strong storm system with a tight pressure gradient led to high winds across much of western Oklahoma and western north Texas. Several fires were reported during the afternoon of the 10th, with numerous structures burned. Named the Coombs fire, this fire burned roughly 1464 acres and destroyed at least 19 structures, including 5 homes and 14 barns. Nine vehicles were also reported destroyed. |
| 12/28-29/2021 | Sterling Fire: burned 900 acres, 30 residents evacuated, one injury. |
| 1/14/2022 | Comanche County January Wildfire Outbreak: 250 acres burned; 400 residents evacuated. |
| 3/20/2022 | Lasso Loop Fire: 190 acres burned, 4 structures destroyed &/or damaged, 250 residents evacuated, one injury. |
| 3/20/2022 | King Road Fire: 190 acres burned, one fatality. |
| 7/28-8/3/2022 | 115-Meers Fire: 7542 acres burned; 85 residents evacuated. |

Probability of Future Events

The probability of wildfire is High.

Vulnerability and Impact

Wildfire risk continues to be influenced by changes in population, climate, and the ever-changing wildland urban interface, especially as trending warmer surface temperatures and drought-like conditions continue to be more frequent. Wildfires are most threatening during times of drought accompanied by extreme heat and high winds, but wildfires can occur any time of the year. Wildfire can cause loss of life, homes and business, and result in devastating economic impacts to individual homeowners, ranchers and farmers, and communities.

Development of residential or commercial infrastructure within wildfire-prone regions, such as those identified in the Wildland-Urban Interface (WUI) index, without adequate defensible space, proper building materials, water storage, or evacuation plans can significantly heighten risks to life and property.

| Jurisdiction | Vulnerability | Impact |
|-----------------|---|---|
| Comanche County | <p>Comanche County is populated with a combination of both farmers and ranchers and rural urbanized housing developments. A lack of a planning and zoning process for rural development creates continued stress on Volunteer fire departments as there is no public safety infrastructure being required with multi-home developments.</p> <p>Comanche County is wide mix of grass/shrub, tall grass prairie, and Red Cedar/Timber mix. This diversity in fuel types can lead to any number of quick igniting fires which can quickly grow out of control.</p> | <p>Comanche County has shown vulnerability to widespread, sweeping wildfire events which can damage or destroy structures, vehicles, and cause injury or death. These can negatively affect both the economy and population of these areas, as well as disrupt the farming and ranching operations.</p> <p>Climate impacts exacerbate wildfire risks with increasing frequency of drought-like conditions, and higher surface temperatures.</p> |
| City of Lawton | <p>Lawton has significant wildland urban interface areas on all four sides of its boundaries. Continued house development adjacent to open fields with grass/shrub vegetation and timber mix, along with the ratio of house to acre along these interface areas creates significant risk to wildfire under the perfect weather conditions.</p> | <p>Lawton maintains the only ISO 1 rated, full time municipal fire department in Comanche County; however, they are dependent upon mutual aid from contiguous volunteer departments and Ft. Sill Fire Department to assist with large scale wildland firefighting.</p> |

| | | |
|-----------------------|--|---|
| Lawton Public Schools | Lawton Public Schools by default have the same risk as City of Lawton as their buildings lie within the political boundaries. | Most of the buildings are well inside city limits and do not lie within the periphery and would be less impacted by wildfire. Secondary impacts would be loss of utilities and economic loss. |
| City of Cache | The City of Cache is surrounded by open fields and undeveloped acreage with trees and vegetation which makes them more vulnerable to Wildfire. A wildfire in or around Cache could require mandatory evacuations and cause damage to property and the City's infrastructure. | This could result in a significant loss to the Towns ability to operate at normal levels. It would also impact businesses that supply goods and services. There would significantly impact the residents of the town, leading to loss of property and potential loss of life or injury. |
| Cache Public Schools | Cache Public Schools are surrounded by dried grass fields to the south and trees and overgrown vegetation to the east. The school only has 1 main access road in and out. | If a wildfire were to happen and cut off transportation route, it could make evacuation very difficult. |
| Town of Chattanooga | The Town of Chattanooga has a volunteer fire department. Volunteer Firefighters have varying response times due to having primary occupations. They do not have a full-time staff to immediately respond during a wildfire. | Not having a full-time fire department staff means that response times are severely impacted during times of wildfire events. This can result in residents being unable to obtain emergency services in a timely manner. Also places extra strain on the responding fire departments needing to respond to fires outside their main jurisdictions |
| City of Elgin | Elgin has significant wildland urban interface along all sides of its political boundaries with open fields to the east and north, and the abutment of the Ft. Sill East Artillery Range directly to the west/southwest. Elgin is also served by a part-time/volunteer hybrid Fire Department. | Oftentimes range fires will initiate on Ft. Sill and spread north-northeast into heavily populated areas of both urbanized development and rural development. Not having a full-time fire department staff means that response times are severely impacted during times of wildfire events. This can result in residents being unable to obtain |

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| | | emergency services in a timely manner. |
| Town of Faxon | The Town of Faxon is surrounded by open fields and undeveloped acreage with trees and vegetation which makes them more vulnerable to Wildfire. Faxon relies on Chattanooga Volunteer Fire Department for fire protection. | Not having a full-time fire department staff means that response times are severely impacted during times of wildfire events. This can result in residents being unable to obtain emergency services in a timely manner. Also places extra strain on the responding fire departments needing to respond to fires outside their main jurisdictions. |
| Town of Fletcher | Fletcher has wildland urban interface along all sides of its political boundaries with open fields to the north and the east. Fletcher is also served by a volunteer fire department. | Oftentimes range fires will initiate on Ft. Sill and spread north-northeast into heavily populated areas of both urbanized development and rural development. Not having a full-time fire department staff means that response times are severely impacted during times of wildfire events. This can result in residents being unable to obtain emergency services in a timely manner. |
| City of Geronimo | Geronimo has above-ground utility lines. These lines are vulnerable to the effects of wildfire. Poles are easily destroyed by fire causing lines to fall, disrupting power and/or connectivity. | Utility disruption will impact homes and businesses with loss of power and/or connectivity. Temporary loss of business and therefore financial loss. |
| Geronimo Public School | The Geronimo Public School complex is surrounded by fields on all sides and is at risk of impact by a fast-moving wildfire. There is one roadway which provides access to the complex. | If a wildfire were to happen and cut off transportation route, it could make evacuation very difficult. |
| Town of Indiahoma | The Town of Indiahoma is surrounded by open fields and undeveloped acreage with trees and vegetation which makes them more vulnerable to Wildfire. They are also served by a volunteer fire department which can slow or delay adequate response. | Not having a full-time fire department staff means that response times are severely impacted during times of wildfire events. This can result in residents being unable to obtain |

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| | | emergency services in a timely manner. |
| Town of Medicine Park | Medicine Park lies just to the north of a range of Ft. Sill Artillery Ranges and has significant wildland urban interface development. Medicine Park previously experienced a significant wildfire in 2011, which resulted in an FMAG declaration. | Medicine Park is served by a volunteer department, and has seen an increase in housing development, especially in the rocky, mountainous areas to the southeast. These areas create extremely hazardous areas for both firefighting and resident evacuation as roads are narrow and not conducive to the effective movement of a large number of people and vehicles. |
| Town of Sterling | The Town of Sterling is surrounded by open fields and undeveloped acreage with trees and vegetation which makes them more vulnerable to Wildfire. They are also served by a volunteer fire department which can slow or delay adequate response. | Not having a full-time fire department staff means that response times are severely impacted during times of wildfire events. This can result in residents being unable to obtain emergency services in a timely manner. |
| Sterling Public Schools | The Sterling Public School complex is surrounded by housing developments and large fields to the south, east, and west. | If a wildfire were to happen and cut off transportation route, it could make evacuation very difficult. |

3.5.3 Severe Winter Storm

Description

Severe Winter Storms can be incredibly difficult to predict since they usually involve any combination of precipitation, including snow, sleet, and freezing rain. A severe winter storm can range from freezing rain or sleet to moderate snow over a few hours, or it might develop into blizzard conditions and extremely cold temperatures that last several days. The effects of the winter storm can also widely vary depending on the ground temperatures and atmospheric conditions. Wind-driven, or blowing, snow reduces visibility and causes significant drifting.

Blowing snow can develop into a blizzard, which occurs when falling and blowing snow combine with winds of 35 mph or greater, reducing visibility to near zero.

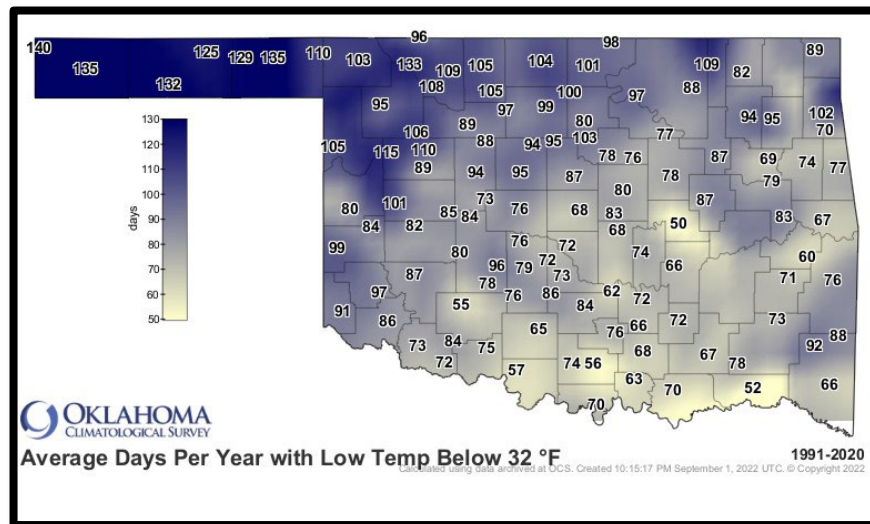
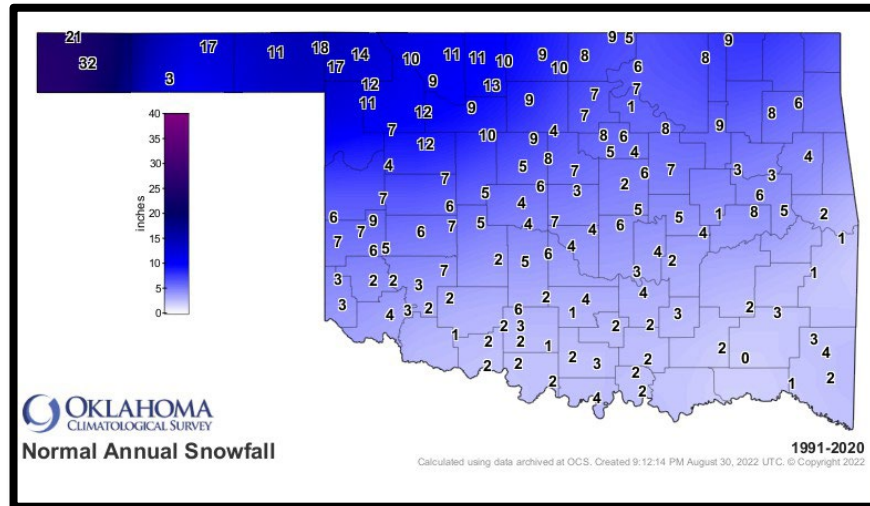
Sleet is frozen precipitation that melts as it falls through a warm layer of the atmosphere and then refreezes into ice pellets before reaching the ground. Sleet usually bounces when hitting the surface and can accumulate like snow and become a hazard to motorists. Freezing rain falls as liquid and is frozen by a layer of freezing air near the surface. When the precipitation makes contact with the surface; it forms into a coating or glaze of ice and even small accumulations can cause a significant hazard. Freezing rain can accumulate on tree branches and utility wires; if high winds develop, that can cause the wires to “gallop” and potentially cause breakage of the wires, connectors, and poles. This results in widespread power failure. Other winter hazards include wind chill and extreme cold. Wind chill describes the relative discomfort and danger to people from the combination of cold temperatures and wind.

Location

Oklahoma experiences the periodic collision of warm, moist gulf air and arctic air from the Canadian Shield. Because of this climatic positioning, Comanche County experiences winter weather ranging from occasional sub-zero temperatures, snow and freezing rain to mild, spring- like days. The entire Planning Area is affected by Severe Winter Storms.

Extent

The Planning Area uses the Sperry-Piltz Ice Accumulation Index for ice damage. The Planning Area uses the National Weather Service’s Winter Storm Severity Index (WSSI) for cumulative impacts involving a combination of winter factors and precipitation. The Planning Area can experience any of the hazards defined in the following figures:



The severity of snowfall can vary widely, ranging from light flurries to heavy snowstorms with significant accumulation. Snow severity is determined by factors such as snowfall rate, total accumulation, and associated impacts on transportation, infrastructure, and public safety. The Planning Area can experience depth of snowfall ranging from less than 1 inch in depth to 7 inches in depth. The higher amounts of snow are typically found in the Meers area of Comanche County, located north of the Wichita Mountains Wildlife Refuge in higher elevation.

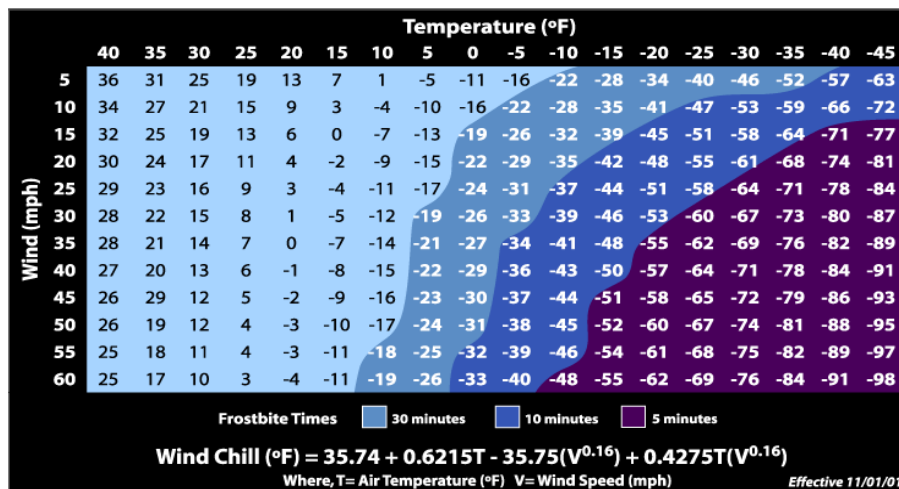
| Potential Winter Storm Impacts | |
|--------------------------------|---|
| | Winter Weather Area Expect Winter Weather. • Winter driving conditions. Drive carefully. |
| | Minor Impacts Expect a few inconveniences to daily life. • Winter driving conditions. Use caution while driving. |
| | Moderate Impacts Expect disruptions to daily life. • Hazardous driving conditions. Use extra caution while driving. • Closures and disruptions to infrastructure may occur. |
| | Major Impacts Expect considerable disruptions to daily life. • Dangerous or impossible driving conditions. Avoid travel if possible. • Widespread closures and disruptions to infrastructure may occur. |
| | Extreme Impacts Expect substantial disruptions to daily life. • Extremely dangerous or impossible driving conditions. Travel is not advised. • Extensive and widespread closures and disruptions to infrastructure may occur. • Life-saving actions may be needed. |

| WSSI Descriptor | General Description of Expected Storm Severity Impacts |
|-----------------|--|
| None | No snow or ice forecast. No potential for ground blizzard conditions |
| Limited | Small accumulations of snow or ice forecast. Minimal impacts, if any expected. In general, society goes about their normal routine. |
| Minor | Roughly equated to NWS Advisory Level criteria. Minor disruptions, primarily to those who were not prepared. None to minimal recovery time needed |
| Moderate | Roughly equated to a NWS Warning Level criteria. Definite Impacts to those with little preparation. Perhaps a day or two of recovery time for snow and/or ice accumulation events. |
| Major | Significant impacts, even with preparation. Typically several days recovery time for snow and/or ice accumulation events. |
| Extreme | Historic. Widespread severe impacts. Many days to at least a week of recovery needed for snow and/or ice accumulation events. |

Wind chill is also a dangerous component of winter weather events. Wind chill is the combination of wind and temperature that serves as an estimate of how cold it feels to exposed human skin. Wind chill values of below -19° Fahrenheit are considered extremely dangerous to the population of Comanche County, although hypothermia can still occur at higher temperatures and cause deaths. The Planning Area typically experiences windchill factors in the 30 minute/frostbite range.



Wind Chill Chart



The Sperry-Piltz Ice Accumulation Index or SPIA Index is ice accumulation and ice damage prediction index which uses an algorithm of researched parameters that, when combined with the National Weather Service forecast data, predicts the projected footprint, total ice accumulation, and resulting potential damage from approaching ice storms.

The Sperry-Piltz Ice Accumulation Index, or “SPIA Index” – Copyright, February, 2009

| ICE DAMAGE INDEX | DAMAGE AND IMPACT DESCRIPTIONS |
|------------------|--|
| 0 | Minimal risk of damage to exposed utility systems; no alerts or advisories needed for crews, few outages. |
| 1 | Some isolated or localized utility interruptions are possible, typically lasting only a few hours. Roads and bridges may become slick and hazardous. |
| 2 | Scattered utility interruptions expected, typically lasting 12 to 24 hours. Roads and travel conditions may be extremely hazardous due to ice accumulation. |
| 3 | Numerous utility interruptions with some damage to main feeder lines and equipment expected. Tree limb damage is excessive. Outages lasting 1 – 5 days. |
| 4 | Prolonged & widespread utility interruptions with extensive damage to main distribution feeder lines & some high voltage transmission lines/structures. Outages lasting 5 – 10 days. |
| 5 | Catastrophic damage to entire exposed utility systems, including both distribution and transmission networks. Outages could last several weeks in some areas. Shelters needed. |

(Categories of damage are based upon combinations of precipitation totals, temperatures and wind speeds/directions.)

Climatological Influence on Winter Storm Hazard

Comanche County faces evolving challenges from winter storm events influenced by climatological factors, ecological characteristics, and prevailing weather patterns. With a semi-arid climate prone to variability, the region experiences occasional winter storms, projected to intensify due to climate change. These storms impact the area's diverse ecosystems, with vegetation types affecting snow accumulation and runoff patterns. Weather patterns, including interactions between polar air masses and Gulf of Mexico moisture, contribute to the variability of winter precipitation types. Projected shifts in climate may lead to more unpredictable and severe winter weather, necessitating proactive measures such as improved forecasting, infrastructure resilience planning, and community outreach to mitigate impacts and enhance resilience in Comanche County. The increasing severity and unpredictability of winter storms underscore the importance of implementing robust preparedness and response measures to protect public safety and critical infrastructure in Comanche County.

Previous Occurrences (2010-2023)

| | |
|-----------------------------|---|
| <p>1/28-29/2010</p> | <p>A major winter storm impacted much of Oklahoma beginning on the morning of January 28th and continued through much of the day. While the storm produced a variety of wintry precipitation, its most significant impacts came with an extended period of heavy freezing rain across southern into parts of central Oklahoma. Significant icing on trees and power lines resulted in widespread damage to trees and power lines.</p> <p>The shallow cold air mass north of the front placed a broad swath of southwest Oklahoma and central Oklahoma under-the-gun for a major icing event. During the afternoon, the precipitation increased in intensity, particularly over southwest Oklahoma, which then moved into parts of central Oklahoma.</p> <p>Overnight, and into the morning of the 29th, a surface low pressure developed over southeast Texas and began to move northeast towards western Louisiana. Behind this low, more widespread precipitation began to redevelop over west Texas. The area of precipitation pivoted through much of Oklahoma during the daytime hours in the form of snow. In total, the large storm system resulted in over 900 slip-and-fall accidents. Almost 90 accidents were reported, with over 200 non-life-threatening injuries with the accidents. Almost 180,000 homes and businesses were without power at the peak of the storm, several of which (mainly in SW Oklahoma) were without power for almost a week. The monetary value for the damage may not be known for a while, but estimates are well into the millions of dollars.</p> |
| <p>12/20-21-2013</p> | <p>On Friday, December 20th, a shallow but strong cold front surged through southern Oklahoma, bringing a prolonged sub-freezing airmass to all of Oklahoma. From the evening of the 20th through the afternoon of the 21st, a persistent light to moderate freezing rain event occurred, with substantial ice accumulations over a large part of central and southern Oklahoma. Across portions of northern and western Oklahoma, snow accumulations occurred as the cold airmass deepened and an upper trough lifted northeast through central Oklahoma late on the 21st into the 22nd. The ice storm resulted in thousands of power outages across the Oklahoma City metro and surrounding areas.</p> |
| <p>2/2/2014</p> | <p>A powerful cold front swept through Oklahoma early on the first, allowing a deep cold airmass to fill into the region. An approaching upper-level wave brought sufficient lift to generate bands of light to moderate snow over much of southern Oklahoma. Snow gradually ended late on the 2nd, but not before impressive storm total snow accumulations occurred. Storm total snowfall ranged from around 5 inches in Lawton to 6.5 inches at Chattanooga.</p> |
| <p>12/27/2014</p> | <p>A strong cold front moved through Oklahoma and north Texas early on the 27th. Several post frontal snow bands developed across southwestern and central Oklahoma. Snow accumulations of 1 to 6 inches were reported with these snow bands. Rain quickly</p> |

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| | <p>changed over to snow. The snow became moderate to heavy at times. By the time snow had ended in the late morning, up to 6 inches of snow had fallen in Lawton, and 4 to 5 inches had fallen in Elgin and surrounding communities.</p> |
| 2/27-28/2015 | <p>A deep Arctic airmass had settled into the Southern Plains. Several upper-level disturbances moved across the region, bringing moderate to heavy snow to parts of the area. Snow came in two waves, with the heaviest snow being confined to both northwestern Oklahoma and south central and southeastern Oklahoma. Snow began falling during the late morning of the 27th and persisted through the morning of the 28th. By the time snow had ended, Cache picked up 5 inches and Lawton saw 2 to 3 inches.</p> |
| 11/27-29/2015 | <p>An upper low moving in combined with abundant moisture from the gulf to produce a four-day rain event from the 26th through the 29th. When strong front came down Thursday night (11/26), temperatures began to drop below freezing across northern, western, and central Oklahoma and parts of western north Texas. These areas experienced a shift from rain to freezing rain. Freezing rain continued into early Sunday morning as temperatures continued to hover in the 20s to lower 30s.</p> |
| 12/27-28/2015 | <p>As an upper low came down on the 26th, numerous showers and storms began to form. A cold front moved through the area that night, gradually bringing the area below freezing. The 27th saw precipitation transition to sleet and freezing rain. Combined with high winds, this caused extensive damage to trees and power lines. By the 28th, all of the precipitation had turned to snow.</p> |
| 1/3/2019 | <p>A closed upper low and an arctic airmass combined to produce heavy snowfall across portions of Oklahoma. Maximum of 5 inches reported in Indianhomoma. Multiple reports of 4 to 5 inches across the county.</p> |
| 10/26-28/2020 | <p>A historic early season ice storm occurred over a period of several day period on the morning of the 26th and continuing into the evening of the 28th. Freezing rain and sleet were reported across much of central and western Oklahoma, with some snow reported as well across far northwest Oklahoma. Extreme freezing rain accumulations of at least 1.5 inches were reported in west-central Oklahoma over the 3-day period, with greater than 0.5-inch totals reported over a large area from Ponca City to Oklahoma City to Lawton to Clinton. Hundreds of thousands of people were without power by the 28th and extensive tree and powerline damage was reported across much of the area.</p> |
| 01/01/2021 | <p>A complex winter storm impacted much of Oklahoma to begin the year. It began as rain which then transitioned to several hours of freezing rain for portions of southern and central Oklahoma as temperatures near the surface cooled. Up to a quarter inch of ice accreted on the 31st before transitioning to heavy snow during the early morning hours of Jan 1st. Heavy snow fell during the early morning hours with a general 2 to 4 inches falling across the county. A maximum of 4 inches was measured in Elgin.</p> |

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| 2/14/2021 | An impressively cold air mass was in place as an upper trough crossed the region, bringing heavy snow to much of the area. Widespread range of 4-6 totals were reported, with isolated amounts approaching 10. Reports from across the county ranged from 4 to 7 inches of snow, with a maximum of 7 inches reported 4 west-southwest of Lawton. |
| 2/14-16/2021 | Extreme and record breaking cold peaked across Oklahoma and Texas during the 14th-16th, with wind chills of -20 to as low as -30 degrees reported in much of the area. Air temperatures in the -10 to -20 range were also common on the 16th, with OKC reporting its second coldest low temperature ever recorded. Below zero wind-chills were recorded for an extended period, with the coldest readings recorded on the morning of the 15th, when wind chills of -20 to -35 degrees were measured. |
| 2/16-17/2021 | The record cold air mass remained entrenched over the area as yet another trough approached from the west. Snowfall covered most of Oklahoma, but the heaviest snow fell across southern OK and western north Texas where 6 to as much as 8 inches were reported. Reports from across the county generally ranged from 4 to 6 inches, with a maximum of 5.9 inches reported in Chattanooga. |
| 12/22-23/2022 | Arctic cold combined with 40-60mph winds to produce extremely cold wind chills across much of northern and western Oklahoma, where wind chills of -20 to -30 degrees Fahrenheit were observed. |
| 1/24/2023 | A cutoff low brought snow to much of the area on the 24th. Warm ground temperatures and air temperatures hovering just above freezing limited the ability of snowfall to accumulate. However, portions of western and south-central Oklahoma still observed areas of greater than 4 inches of snow accumulation. Snowfall totals ranged from 2 to 4 inches in the county, with the highest total of 4 inches measured in Chattanooga, OK. |

Probability

The probability of Severe Winter Weather Events in the Planning Area is High

Vulnerability and Impacts

| Jurisdiction | Vulnerability | Impact |
|-----------------------|---|---|
| Comanche County | Comanche County maintains over 350 miles of county roadways across the county that are not maintained by the Oklahoma Dept. of Transportation. Salting, sanding, and plowing equipment is inadequate to mitigate impacts from icy road conditions to provide safe travel for emergency response personnel and essential personnel who may travel during these events. | In accessibility can have life-threatening consequences, especially in combination with widespread power outages or other infrastructure failures. At-risk or elderly individuals may be at a greater risk of hypothermia, death, or complications due to other circumstances and the inability to reach those individuals in a timely matter due to impassable roads would create both litigious and economic risk to the county. |
| City of Lawton | Lawton's critical facilities are a mix of new construction and older buildings with dated plumbing systems and poor insulation. During winter storm events, these buildings are vulnerable to freezing and rupturing water pipes. Electrical infrastructure is also predominately above ground and can be directly impacted by sleet, ice, and snow. Vulnerable populations are particularly impacted through loss of utilities, lack of transportation, and impact to critical facilities such as pharmacies, hospitals, or utility infrastructure. | A ruptured water pipe will leave a critical facility or home without water for an extended period of time. This compounds an already vulnerable situation during a Winter Storm event. Repairing these pipes is costly, and having an abundance of these types of repairs might overwhelm the capabilities of local trade companies. Damage to Power lines and infrastructure systems will cause disruption of service. This can prevent lifesaving services to residents that depend on electricity to give them support for their health. |
| Lawton Public Schools | Lawton Public Schools are a mix of new construction and older buildings with dated plumbing systems and poor insulation. these buildings are vulnerable to freezing and rupturing water pipes. Transportation is not as high of a vulnerability due to a robust virtual education capability and proactive policies enacting virtual policies. | This can cause a disruption to the school that depends on this service for students and faculty. Fixing broken water lines is very costly to repair. |

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| City of Cache | Cache’s critical facilities are a mix of new construction and older buildings with dated plumbing systems and poor insulation. During winter storm events, these buildings are vulnerable to freezing and rupturing water pipes. Electrical infrastructure is also predominately above ground and can be directly impacted by sleet, ice, and snow. | A ruptured water pipe will leave a critical facility or home without water for an extended period of time. This compounds an already vulnerable situation during a Winter Storm event. Repairing these pipes is costly, and having an abundance of these types of repairs might overwhelm the capabilities of local trade companies. Damage to Power lines and infrastructure systems will cause disruption of service. This can prevent lifesaving services to residents that depend on electricity to give them support for their health. |
| Cache Public Schools | Cache Public Schools has buses that drive routes on the rural county roads in Comanche County. A Winter Storm which results in early dismissal could place students in danger due to icy road conditions. | Transportation routes can directly affect school operations, and result in school closures. |
| Town of Chattanooga | Chattanooga’s critical facilities are older buildings with dated plumbing systems and poor insulation. During winter storm events, these buildings are vulnerable to freezing and rupturing water pipes. Electrical infrastructure is also predominately above ground and can be directly impacted by sleet, ice, and snow. | A ruptured water pipe will leave a critical facility or home without water for an extended period of time. This compounds an already vulnerable situation during a Winter Storm event. Repairing these pipes is costly, and having an abundance of these types of repairs might overwhelm the capabilities of local trade companies. Damage to Power lines and infrastructure systems will cause disruption of service. This can prevent lifesaving services to residents that depend on electricity to give them support for their health. |
| City of Elgin | Elgin’s critical facilities are a mix of new construction and older buildings with dated plumbing systems and poor insulation. During winter storm events, | A ruptured water pipe will leave a critical facility or home without water for an extended period of time. This compounds an already |

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| | <p>these buildings are vulnerable to freezing and rupturing water pipes. Electrical infrastructure is also predominately above ground and can be directly impacted by sleet, ice, and snow.</p> | <p>vulnerable situation during a Winter Storm event. Repairing these pipes is costly, and having an abundance of these types of repairs might overwhelm the capabilities of local trade companies. Damage to Power lines and infrastructure systems will cause disruption of service. This can prevent lifesaving services to residents that depend on electricity to give them support for their health.</p> |
| Town of Faxon | <p>Faxon is a small community, with most residents living on rural roads. These roads can go days before the District Barn Employees can clear them. Residents are isolated if they can't get out of their driveways or roads.</p> | <p>Uncleared roads make it impossible for residents and responders to have access to critical services.</p> |
| Town of Fletcher | <p>Fletcher's critical facilities are older buildings with dated plumbing systems and poor insulation. During winter storm events, these buildings are vulnerable to freezing and rupturing water pipes. Electrical infrastructure is also predominately above ground and can be directly impacted by sleet, ice, and snow.</p> | <p>A ruptured water pipe will leave a critical facility or home without water for an extended period of time. This compounds an already vulnerable situation during a Winter Storm event. Repairing these pipes is costly, and having an abundance of these types of repairs might overwhelm the capabilities of local trade companies. Damage to Power lines and infrastructure systems will cause disruption of service. This can prevent lifesaving services to residents that depend on electricity to give them support for their health.</p> |
| City of Geronimo | <p>Geronimo's critical facilities are older buildings with dated plumbing systems and poor insulation. During winter storm events, these buildings are vulnerable to freezing and rupturing water pipes. Electrical infrastructure is also predominately above ground and</p> | <p>A ruptured water pipe will leave a critical facility or home without water for an extended period of time. This compounds an already vulnerable situation during a Winter Storm event. Repairing these pipes is costly, and having an abundance of these types of</p> |

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| | can be directly impacted by sleet, ice, and snow. | repairs might overwhelm the capabilities of local trade companies. Damage to Power lines and infrastructure systems will cause disruption of service. This can prevent lifesaving services to residents that depend on electricity to give them support for their health. |
| Geronimo Public School | Geronimo Public School bus routes include a significant portion of unincorporated Comanche County; road disruptions due to ice and snow accumulation could lead to dangerous travel conditions if storms occur during the school day. | This can cause a disruption to the school that depends on this service for students and faculty. |
| Town of Indiahoma | Indiahoma's critical facilities are older buildings with dated plumbing systems and poor insulation. During winter storm events, these buildings are vulnerable to freezing and rupturing water pipes. Electrical infrastructure is also predominately above ground and can be directly impacted by sleet, ice, and snow. | A ruptured water pipe will leave a critical facility or home without water for an extended period of time. This compounds an already vulnerable situation during a Winter Storm event. Repairing these pipes is costly, and having an abundance of these types of repairs might overwhelm the capabilities of local trade companies. Damage to Power lines and infrastructure systems will cause disruption of service. This can prevent lifesaving services to residents that depend on electricity to give them support for their health. |
| Town of Medicine Park | Medicine Park's critical facilities are older buildings with dated plumbing systems and poor insulation. During winter storm events, these buildings are vulnerable to freezing and rupturing water pipes. Electrical infrastructure is also predominately above ground and can be directly impacted by sleet, ice, and snow. | A ruptured water pipe will leave a critical facility or home without water for an extended period of time. This compounds an already vulnerable situation during a Winter Storm event. Repairing these pipes is costly, and having an abundance of these types of repairs might overwhelm the capabilities of local trade companies. Damage to Power |

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| | | lines and infrastructure systems will cause disruption of service. This can prevent lifesaving services to residents that depend on electricity to give them support for their health. |
| Town of Sterling | Sterling’s critical facilities are older buildings with dated plumbing systems and poor insulation. During winter storm events, these buildings are vulnerable to freezing and rupturing water pipes. Electrical infrastructure is also predominately above ground and can be directly impacted by sleet, ice, and snow. | A ruptured water pipe will leave a critical facility or home without water for an extended period of time. This compounds an already vulnerable situation during a Winter Storm event. Repairing these pipes is costly, and having an abundance of these types of repairs might overwhelm the capabilities of local trade companies. Damage to Power lines and infrastructure systems will cause disruption of service. This can prevent lifesaving services to residents that depend on electricity to give them support for their health. |
| Sterling Public Schools | Sterling Public School bus routes include a significant portion of unincorporated Comanche County; road disruptions due to ice and snow accumulation could lead to dangerous travel conditions if storms occur during the school day. | This can cause a disruption to the school that depends on this service for students and faculty. |

Impact

Severe winter storms, including heavy snowfall, ice accumulation, and freezing temperatures, can disrupt transportation, damage infrastructure, and pose risks to public safety. Citizens in unincorporated areas of Comanche County are particularly vulnerable to increased risk of utility failure during severe winter weather events.

3.5.4 Drought

Description

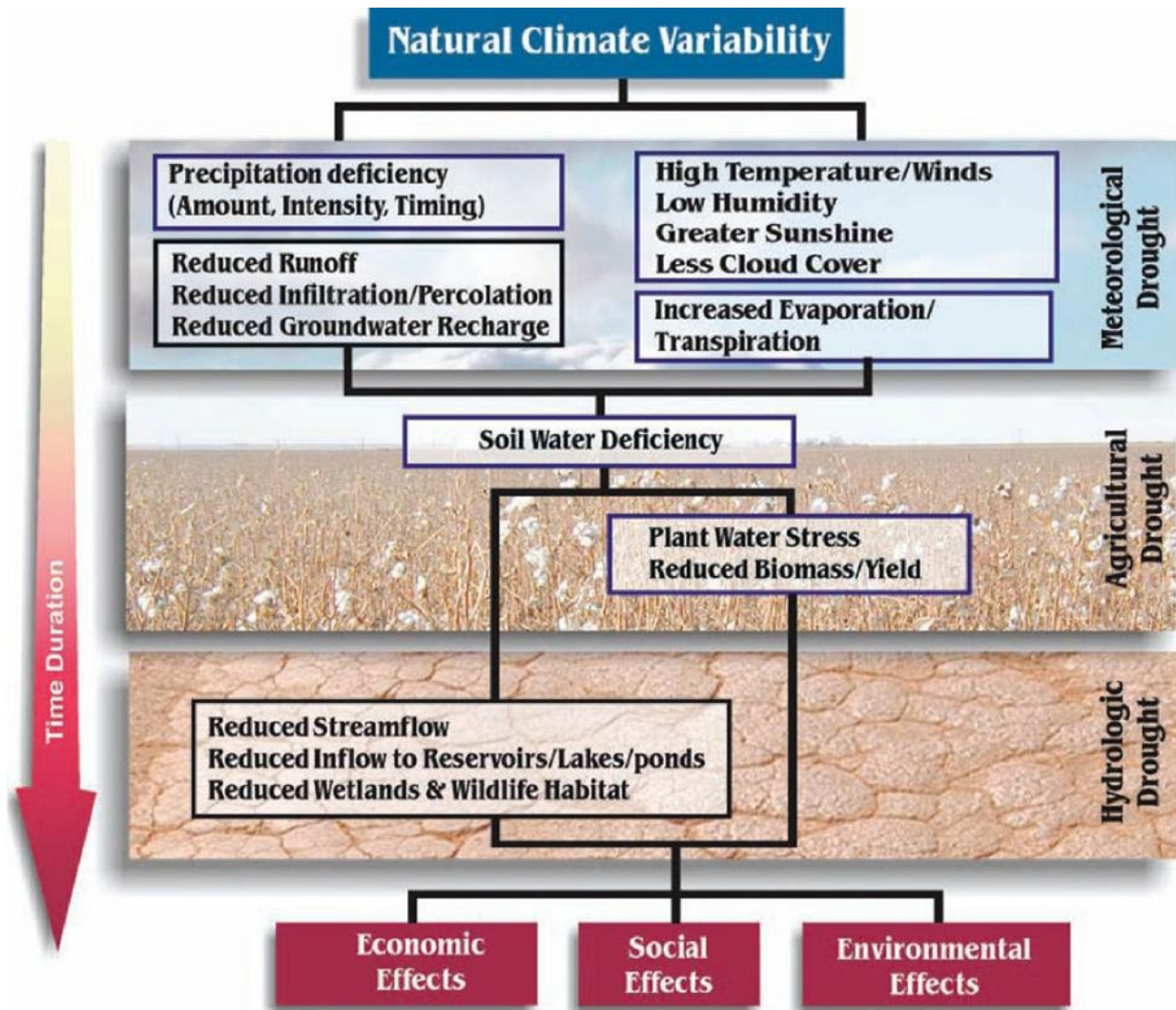
Drought is a normal, recurrent feature of climate, although many erroneously consider it a rare and random event. It occurs in virtually all climatic zones, but its characteristics vary significantly from one region to another. Oklahoma's State Emergency Management Office defines drought as "a persistent and abnormal moisture deficiency having adverse impacts on vegetation, animals or people." Drought is caused by a deficiency of precipitation, which can be aggravated by high temperatures, high winds, and low relative humidity. Duration and severity are usually measured by deviation from norms of annual precipitation and stream flows.

Drought is an insidious hazard of nature, characterized as a "creeping phenomenon." It is often difficult to recognize the occurrence of drought before being in the middle of one. Drought analysis is more subjective than that for floods because droughts do not occur suddenly. They evolve over time as certain conditions are met and spread over a large geographical area.

Drought severity depends on its duration, intensity, geographic extent, and the regional water supply demands made by human activities and vegetation. This multi-dimensional nature makes it difficult to define a drought and to perform comprehensive risk assessments. This leads to the lack of accurate, reliable, and timely estimates of drought severity and effects, and ultimately slows the development of drought contingency plans.

According to the National Drought Mitigation Center at the University of Nebraska-Lincoln, there are four kinds of drought, which occur at different stages.

- Meteorological – a measure of departure of precipitation from normal.
- Agricultural – refers to a situation when the amount of moisture in the soil no longer meets the needs of a particular crop.
- Hydrological – occurs when surface and subsurface water are below normal.
- Socioeconomics – the situation that occurs when physical water shortage begins to affect people.



Location

Drought affects the entire Planning Area. Drought is a widespread phenomenon that occurs over broad regions encompassing not only multiple communities, but frequently multiple states. Over the last few years, western Oklahoma has been hit harder by water shortages than eastern Oklahoma, but no location in the state is immune.











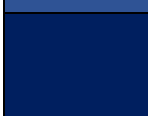
Extent

The Planning Area uses the Palmer Drought Severity Index (PDSI). The PDSI uses readily available temperature and precipitation data to estimate relative dryness. It incorporates temperature, precipitation, evaporation, runoff, and soil moisture when designating the degree of drought. Hydrologic indices (such as groundwater levels, reservoir volumes, or water levels) may be used to determine surface water supplies.

The PDSI uses a range from +4 (extremely wet) to -4 (extremely dry), as shown in the table below. Weekly Palmer Index values are calculated for the Climate Divisions during every growing season and are posted online by the National Drought Mitigation Center.

The Planning Area can experience any value on the PDSI.

Palmer Drought Severity Index

| | | |
|---|---------------|-----------------------|
|  | < -4.0 | Extreme Drought |
|  | -3.99 to -3.0 | Severe Drought |
|  | -2.99 to -2.0 | Moderate Drought |
|  | -1.99 to -1.0 | Mild Drought |
|  | -0.99 to -0.5 | Incipient Drought |
|  | -0.49 to 0.49 | Near Normal |
|  | 0.5 to 0.99 | Incipient Moist Spell |
|  | 1.0 to 1.99 | Moist Spell |
|  | 2.0 to 2.99 | Unusual Moist Spell |
|  | 3.0 to 3.99 | Very Moist Spell |
|  | > 4.0 | Extreme Moist Spell |

Comanche County and the participating entities have agreed that based on the Palmer Index they would consider a value of -1.00 to be minor in severity where only the growth of vegetation would be affected. However, a value of -3.00 and above would cause loss in agriculture crops, loss of livestock, increased wildfire danger, water supplies would fall to levels requiring rationing, area streams would run dry, and lake levels would fall; all of which would be considered major in severity by participating jurisdictions.

The Planning Area also uses the Keetch-Byram Drought Index (KBDI) to measure Drought. The KBDI is a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. This system was originally developed for the southeastern United States and is based on recent rainfall patterns. The KBDI is the most widely used drought index system by fire managers in the South. It is also one of the only drought index systems specifically developed to equate the effects of drought with potential fire activities. The result of this system is a drought index number ranging from 0 to 800 that accurately describes the amount of moisture that is missing. A rating of zero defines the point where there is no moisture deficiency and 800 is the maximum drought possible. The Planning Area can experience all categories on the Keetch-Byram Drought Index.

The Keetch-Byram Drought Index (KBDI)¹¹

| Rating | Description |
|-----------|--|
| 0 - 200 | Soil and fuel moisture are high. Most fuels will not readily ignite or burn. However, with sufficient sunlight and wind, cured grasses and some light surface fuels will burn in spots and patches. |
| 200 – 400 | Fires more readily burn and will carry across an area with no gaps. Heavier fuels will still not readily ignite and burn. Also, expect smoldering and the resulting smoke to carry into and possibly through the night. |
| 400 – 600 | Fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems. |
| 600 – 800 | Fires will burn to mineral soil. Stumps will burn to the end of underground roots and spotting will be a major problem. Fires will burn through the night and heavier fuels will actively burn and contribute to fire intensity. |

Climatological Influence on Drought Hazard

With a semi-arid climate characterized by hot summers and limited precipitation, the Planning Area is susceptible to prolonged drought conditions exacerbated by climate change. Climate projections indicate an increased probability of drought occurrence due to rising temperatures and altered precipitation patterns. These drought events impact the region's diverse ecosystems, leading to reduced soil moisture, diminished water resources, and increased wildfire risk. Interactions between climatic influences and ecological vulnerabilities, such as changes in vegetation cover and land use practices, further exacerbate the impacts of drought on local communities and ecosystems. The escalating

¹¹ Oklahoma Hazard Mitigation Plan

frequency and severity of drought events underscore the urgent need for comprehensive drought preparedness and water conservation measures to mitigate the socioeconomic and environmental consequences of drought in Comanche County.

Previous Occurrences (2011 – 2023)

| | |
|-----------|---|
| 2/22/2011 | Several months of below normal precipitation continued to wreak havoc on Oklahoma's agriculture. Summer and fall crops, hay forages, and alfalfa were hit hard by the lack of any significant precipitation. Farm pond water levels continued to decrease, or dry up altogether, which added insult to injury for area livestock. The extent of the damage was still undetermined monetary, but it was beginning to look like a total loss for many Oklahoma farmers. |
| 3/1/2011 | The ongoing severe drought, D2, increased to D3, or extreme from southwest Oklahoma into central Oklahoma by later in the month. Much of Oklahoma continued with another month of below normal precipitation. In some cases, only a few hundredths were recorded for the entire 31 days. Since Thanksgiving, much of central and western Oklahoma has seen its driest precipitation totals since the 1920s and 30s. Much of the wheat crop planted in the fall had all but been declared a total loss. In fact, the conditions have gotten worse with the emergence of the wheat crop. The lack of precipitation has made for low water levels on stock ponds for livestock, and the water level in irrigation reservoirs used for crops is falling. The exact monetary number for the crop loss cannot be determined, although it would probably be in the millions. |
| 4/1/2011 | Comanche county maintained D3 drought status through the month. |
| 5/1/2011 | D3/D4 drought status at the beginning of the month improved slightly to D2/D3 status by 8/24. |
| 6/1/2011 | D3 status at the beginning of the month worsened to D4 by June 21. |
| 7/1/2011 | D4 drought status continued through the month. |
| 8/1/2011 | The exceptional drought maintained its cruel grip over much of Oklahoma during the month of August. Although some beneficial rainfall occurred early in the month, it was not near enough to erase the climbing precipitation deficits that began during the late summer and early autumn of 2010. Since October 2010, the statewide average rainfall is over 12 inches below normal, with the most severity over western Oklahoma. The agricultural industry has obviously taken a huge hit from their crops to their cattle. The shortage of hay this year has caused farmers to sell the majority of their cattle, with some of them selling off their entire herd. The long-range forecast is for La Nina to establish itself once again by later this year, with below normal precipitation and above normal temperatures. |
| 9/1/2011 | Exceptional drought, rated D4, continued throughout the month. |
| 10/1/2011 | D4 drought continued through the month. |

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| 11/1/2011 | D4 (exceptional) drought improved to D3 (extreme) by November 8. |
| 12/1/2011 | D3 (extreme) drought continued through the month. |
| 1/1/2012 | D3 (extreme) drought status continued through the month. |
| 2/1/2012 | D3 (extreme) drought status continued through the month. |
| 3/1/2012 | D3 (extreme) drought improved to D1 (moderate) by the 20th. |
| 7/1/2012 | Moderate drought conditions were present at the beginning of the month, but D3 (extreme) drought developed by the end of the month with persistent dry conditions. |
| 8/1/2012 | D3 (extreme) drought conditions were present at the beginning of the month, but D4 (exceptional) drought developed by the end of the month with persistent dry conditions. |
| 9/1/2012 | D4 (exceptional) drought conditions were present at the beginning of the month but had improved slightly to D3 (extreme) drought by the end of the month. |
| 10/1/2012 | D3 (extreme) drought continued through the month in Comanche County with persistent dry conditions. |
| 11/1/2012 | D3 (extreme) drought continued through the month in Comanche County with persistent dry conditions. |
| 12/1/2012 | D3 (extreme) drought continued through the month in Comanche County with persistent dry conditions. |
| 1/1/2013 | D3 (extreme) drought continued through the month in Comanche County with persistent dry conditions. |
| 2/1/2013 | D3 (extreme) drought continued through the month in Comanche County with persistent dry conditions. |
| 3/1/2013 | D3 (extreme) drought continued through the month with persistent dry conditions. |
| 4/1/2013 | D3 (extreme) drought was present at the beginning of the month but had improved slightly to D2 (severe) by the end of the month. |
| 5/1/2013 | D2 (severe) drought continued through the month with persistent dry conditions. |
| 6/1/2013 | D2 (severe) drought continued through the month with persistent dry conditions. |
| 7/1/2013 | D2 (severe) drought was present at the beginning of the month but had improved slightly to D1 (moderate) by the end of the month. |
| 8/1/2013 | D1 (moderate) drought continued through the month with persistent dry conditions. |
| 9/1/2013 | D1 (moderate) drought continued through the month with persistent dry conditions. |
| 10/1/2013 | D1 (moderate) drought continued with persistent dry conditions. |
| 11/1/2013 | Severe (D2) drought conditions persisted across southern portions of the county through the month. |
| 12/1/2013 | Drought conditions ranged from D1(moderate) to D2(severe) from northeast to southwest across the county. |
| 1/1/2014 | D3 drought conditions expanded into the southwestern portions of the county, resulting in drought conditions ranging from D1(moderate) to D3(severe) from northeast to southwest across the county. |

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| 2/1/2014 | Drought conditions ranged from D1(moderate) to D3(extreme) from northeast to southwest across the county. |
| 3/1/2014 | Severe (D2) to extreme (D3) drought persisted across the county through the month. |
| 4/1/2014 | Severe (D2) to extreme (D3) drought persisted through the month. |
| 5/1/2014 | Drought conditions worsened throughout the month. While D2 (severe) to D3(extreme) drought was present at the beginning of the month, D3 to D4 (exceptional) drought became more prevalent by month's end. |
| 6/1/2014 | Drought conditions improved slightly. D3 (extreme) and D4 (exceptional) conditions retreated southwest, leaving D3 (extreme) and D2 (severe) conditions in their place. |
| 7/1/2014 | Despite, several rainfall events, D2 (severe) to D4 (exceptional) drought persisted across the county. |
| 8/1/2014 | With few rainfall events throughout the month, D2 (severe) to D4 (exceptional) drought persisted through the month. |
| 9/1/2014 | With little rainfall, D3 (extreme) to D4 (exceptional) drought persisted across the county. |
| 10/1/2014 | With little rainfall, D4 (exceptional) drought persisted and D3 (extreme) drought worsened across the county. |
| 11/1/2014 | D3 (extreme) to D4 (exceptional) drought retreated, leaving D2 (severe) to D3 (extreme) drought in the county. |
| 12/1/2014 | With little rainfall through the month, D3 (extreme) to D4 (exceptional) drought persisted. |
| 1/1/2015 | With dry and mild conditions through the month, D3 (extreme) to D4 (exceptional) drought persisted. |
| 2/1/2015 | With persistent dry weather, D2 (severe) to D4 (exceptional) drought persisted. |
| 3/1/2015 | With persistent dry weather, a D3 (extreme) to D4 (exceptional) drought continues across the western two thirds of the county, to a D2 (severe) drought across the eastern one third of the county. |
| 4/1/2015 | With persistent dry weather, a D4 (exceptional) to D3 (extreme) drought continued across the county. |
| 5/1/2015 | With record rains throughout the month of May, drought was completely eradicated in the county. |
| 9/1/2015 | With record rains occurring through the month of May, drought was completely eradicated.+D50:D83 |
| 10/1/2015 | After a long period of little rain, flash drought (D0-D2) began to creep back into southeast Oklahoma. This event continues into October. |
| 12/1/2017 | Severe drought expanded across southern Oklahoma during the first half of the month. Toward the end of the month, several heavy rain events came through bringing drought levels back down to moderate. This event is a continuation from September. |

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| 1/1/2018 | With a lack of rainfall, severe drought began to develop across western Oklahoma and persisted across south central Oklahoma. |
| 2/1/2018 | With a lack of rainfall, severe drought spread over the western two thirds of Oklahoma and extreme drought encroached upon much of western Oklahoma. |
| 3/1/2018 | Extreme and severe drought spread further through Oklahoma through the first half of the month. Toward the last week of February, rainfall brought some relief to the central third of Oklahoma, confining the severe and extreme drought areas to western Oklahoma. |
| 4/1/2018 | Drought intensified over western Oklahoma and western north Texas. |
| 5/1/2018 | Drought intensified to widespread exceptional over western Oklahoma and western north Texas. |
| 6/1/2018 | Drought conditions improved somewhat in western Oklahoma and western north Texas, though substantial areas of extreme and exceptional drought still remained. |
| 7/1/2018 | With abundant rainfall, drought conditions improved across western and northern Oklahoma. Exceptional drought was eliminated, and extreme drought substantially reduced. By the end of the month, most of western Oklahoma remained in moderate to severe drought. |
| 8/1/2018 | Severe to extreme drought persisted across southwest Oklahoma and severe drought expanded across south central Oklahoma while parts of northern Oklahoma saw some improvement in drought conditions. |
| 9/1/2018 | Severe to extreme drought persisted across southwest Oklahoma and parts of north central Oklahoma, while south central Oklahoma saw a little bit of improvement. |
| 8/1/2019 | Extreme drought was eliminated, and severe drought was greatly reduced through the month of September. By the end of the month, severe drought was confined to southwest Oklahoma. |
| 9/1/2019 | Severe drought expanded across southwest into central Oklahoma and intensified into the extreme category in some areas of southwest Oklahoma later in the month. |
| 9/15/2021 | Severe to extreme drought across southwest Oklahoma was reduced greatly over the course of the month as widespread rainfall came to the area. |
| 12/16/2021 | Drought rapidly expanded across the area during the month of September, with moderate drought increasing from 7% coverage at the beginning of the month to 70% by month's end. |
| 1/1/2022 | Drought was extensive across much of western Oklahoma and western north Texas during the beginning of the month, with continued dry conditions causing the eastward expansion of drought across much of central Oklahoma by month's end. |
| 2/1/2022 | Drought continued to worsen through the month of January as meaningful precipitation continued to evade the Oklahoma and north Texas area. Nearly the entire county warning area was in at least severe drought by month's end, with 65% of the area in extreme drought. |

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| 3/1/2022 | Severe to exceptional drought persisted across all of central and western Oklahoma during the month of February with the lack of much significant precipitation. |
| 4/1/2022 | Drought worsened over the first half of the month before a few precipitation episodes lessened the drought for northern and central portions of Oklahoma. Severe to extreme drought persisted for southwestern OK which saw little measurable precipitation during the month of March. |
| 5/1/2022 | Continued dry conditions led to persistence and even expansion of severe to extreme drought during the month of April, especially across western Oklahoma and western north Texas. |
| 6/1/2022 | Severe drought persisted across much of western and central Oklahoma through the first half of the month, although much needed rains began to alleviate drought conditions over the course of the month. |
| 7/1/2022 | Drought continued to improve over the course of the month as the area saw beneficial rainfall to end the month of May and into the month of June. |
| 7/16/2022 | Hot and dry conditions allowed for drought to rapidly expand during the month of July, encompassing most of the western two thirds of Oklahoma by the end of the month. |
| 8/1/2022 | Hot and dry conditions allowed for drought to rapidly expand during the month of July, encompassing most of the western two thirds of Oklahoma by the end of the month. |
| 9/1/2022 | Drought persisted and remained largely unchanged through the month of August as hot temperatures and only sporadic rainfall were observed. |
| 10/1/2022 | Below normal rainfall led to drought persisting or worsening across much of the area during the month of September. |
| 11/1/2022 | A lack of significant rainfall during the month of October led to persistent drought across the area, with most of the region experiencing severe to extreme drought conditions with pockets of exceptional drought. |
| 11/16/2022 | Widespread and severe drought persisted through much of the month. Heavy rainfall occurred across portions of southeast Oklahoma early in the month that helped alleviate drought across this area by the late month. |
| 12/1/2022 | Widespread and severe drought persisted through much of the month. Heavy rainfall occurred across portions of southeast Oklahoma early in the month that helped alleviate drought across this area by the late month. |
| 1/1/2023 | Widespread, severe drought continued to persist through the month. Episodes of rainfall across much of the area helped improve conditions some, most notably across eastern Oklahoma. However, large expanses of extreme and exceptional drought remained by the end of the month. |
| 2/1/2023 | Despite intermittent periods of precipitation throughout the month, widespread severe to exceptional drought conditions persisted across much of western, northern, central, and southern Oklahoma. |

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| 4/1/2023 | Despite periods of light precipitation throughout the early and middle portions of the month, severe to exceptional drought conditions lingered across similar areas of western, northern, central, and southern Oklahoma. |
|----------|--|

Probability of Future Events

The probability of Drought affecting the Planning Area is High.

Vulnerability and Impacts

The Planning Area falls within the Beaver-Cache Watershed, in which 64% of the demand is met through surface water in the form of three large creeks which flow into the Red River: Beaver Creek, Cache Creek, and Deep Red Creek. Large reservoirs have been built on Cache Creek tributaries (Lawtonka and Ellsworth) and Beaver Creek (Waurika) to supply public water systems and irrigators.

Climatological changes, including periods of prolonged drought, pose significant challenges to Comanche County. Drought conditions can lead to water scarcity, agricultural losses, and increased wildfire risks. Implementing drought-resistant water management strategies and promoting water conservation measures are essential to mitigate the impacts of drought on our community.

| Jurisdiction | Vulnerability | Impact |
|-----------------|--|--|
| Comanche County | <p>Drought impacts all areas within rural Comanche County. The dependency upon surface water entails a constant cycle of drought and flood as these streams and creeks reduce flow during periods of less rainfall.</p> <p>Continued residential development in unincorporated Comanche County has added an additional strain on constrained water resources as the need for fire suppression increases.</p> | <p>When drought is high in the summertime this impacts the farmers and ranchers with agricultural crops and livestock resulting in reduced income, and not having enough water from a dry private well. It can also increase the risk of wildfire.</p> |
| City of Lawton | <p>Lawton receives water from Lakes Lawtonka and Ellsworth, and also provides water to several Rural Water Districts. Drought would impede their ability to both provide water within the community, but also to the other water districts to which it sells water.</p> | <p>The most direct impact of drought is a decrease in the public water supply. This could result in mandated water conservation steps to include a ban on washing cars or watering</p> |

| | | |
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| | | lawns. It can also increase the risk of wildfire. |
| Lawton Public Schools | Lawton Public School receives water from the City of Lawton. With water shortage in the summer months the school would have to follow the enforced water rationing guidelines. Lawton Public Schools also has some natural turf fields. During water rationing, the school is unable to water the fields properly. | If a turf field is not maintained properly, it can have a long-term effect on the soil causing it to crack and become uneven. Uneven surfaces could lead to an injury of a student or faculty member. A damaged field could also make the field unusable, and cause disruptions to school activities. |
| City of Cache | Cache draws water through the Cache Creek Alluvial aquifer. Over the previous years, the western half of Comanche County (including Cache) has faced significant, long term drought conditions. In turn, the city has imposed rationing both on city residents and surrounding communities who rely on their services for water. | The long-term impact is financial and economic impact to the community due to lost income and loss of population. It can also increase the risk of wildfire. |
| Cache Public Schools | Cache Public School receives water from the City of Cache. With water shortage in the summer months the school would have to follow the enforced water rationing guidelines. Cache Public Schools also has some natural turf fields. During water rationing, the school is unable to water the fields properly. | If a turf field is not maintained properly, it can have a long-term effect on the soil causing it to crack and become uneven. Uneven surfaces could lead to an injury of a student or faculty member. A damaged field could also make the field unusable, and cause disruptions to school activities. |
| Town of Chattanooga | Chattanooga draws water through the Cache Creek Alluvial aquifer. Drought depletes the water sources used to sustain crops and livestock. Agriculture is usually the first sector to be affected by the onset of Drought because it relies on precipitation and soil moisture availability during various crop growth stages. | Drought during the summer months, when crop growth is at its peak and the air temperatures are at the hottest, could result in agricultural and livestock losses. This results in loss of revenue for ranchers and farmers. In addition, this impacts consumer and other businesses the ranchers and farmers supply, and the supporting businesses that |

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| | | provide supplies to ranchers and farmers. It can also increase the risk of wildfire. |
| City of Elgin | Elgin draws water through the Cache Creek Alluvial aquifer and provides water to the community and surrounding areas. During times of drought, water rationing would be enforced which could impact revenue streams. | The long-term impact is financial and economic impact to the community due to lost income and loss of population, as well as loss of revenue for the City. It can also increase the risk of wildfire. |
| Town of Faxon | Faxon receives water from Tillman County Rural Water District #1 which receives water from the Tillman Terrace Aquifer. Times of extended drought can impact both water quality and quantity, which can have detrimental impacts on farming and agriculture. | The long-term impact is financial and economic impact to the community due to lost income and loss of population, as well as loss of revenue for the City. It can also increase the risk of wildfire. |
| Town of Fletcher | Fletcher receives water from the Cache Creek Alluvial and in turn provides water to its' town and surrounding residents through a Well system. During times of drought, water rationing would be enforced which could impact revenue streams. | The long-term impact is financial and economic impact to the community due to lost income and loss of population, as well as loss of revenue for the City. It can also increase the risk of wildfire. |
| City of Geronimo | Geronimo receives water from the City of Lawton. Geronimo would experience downstream impacts from drought affecting the City of Lawton to include water rationing, quality, and usage. | The long-term impact is economic impact to the community due to lost income and loss of population. It can also increase the risk of wildfire. |
| Geronimo Public School | Geronimo Public Schools receives water from the City of Lawton and would have enforced water rationing guidelines which could impact natural turf field maintenance. | If a turf field is not maintained properly, it can have a long-term effect on the soil causing it to crack and become uneven. Uneven surfaces could lead to an injury of a student or faculty member. A damaged field could also make the field unusable, and cause disruptions to school activities. |

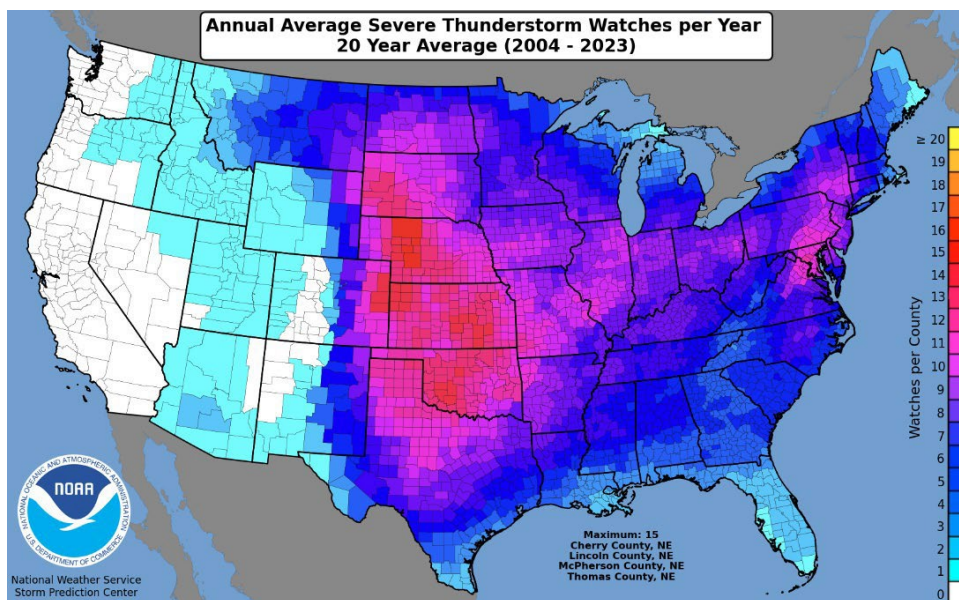
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| Town of Indiahoma | The Town of Indiahoma receives water from Comanche County Rural Water District #4, and in turn provides those to the town and surrounding residents. During times of drought, water rationing would be enforced which could impact revenue streams. | The long-term impact is economic impact to the community due to lost income and loss of population. It can also increase the risk of wildfire. |
| Town of Medicine Park | Medicine Park purchases water from the City of Lawton and in turn provides it to the town and surrounding communities. Medicine Park would experience downstream impacts from drought affecting the City of Lawton to include water rationing, quality, and usage. | The long-term impact is economic impact to the community due to lost income and loss of population. It can also increase the risk of wildfire. |
| Town of Sterling | Sterling receives water from the Beaver Creek Alluvial and a series of wells which it uses to provide water to the town and surrounding residents. | The long-term impact is economic impact to the community due to lost income and loss of population. It can also increase the risk of wildfire. |
| Sterling Public Schools | Sterling Public School receives water from the Town of Sterling. With water shortage in the summer months the school would have to follow the enforced water rationing guidelines. Sterling Public Schools also has some natural turf fields. During water rationing, the school is unable to water the fields properly. | If a turf field is not maintained properly, it can have a long-term effect on the soil causing it to crack and become uneven. Uneven surfaces could lead to an injury of a student or faculty member. A damaged field could also make the field unusable, and cause disruptions to school activities. |

3.5.5 Severe Thunderstorms

Severe Thunderstorms includes tornadoes, lightning storms, straight line winds/high winds, and hail. Each sub-hazard is profiled individually with overall vulnerabilities and impacts for each participating jurisdiction summarized. On average, the Comanche County Planning Area can experience 12-13 Severe Thunderstorm watches annually.

Severe Thunderstorm Watches are issued when conditions are favorable for the formation of severe thunderstorms in and near an area. The National Weather Service defines a Severe Thunderstorm Watch as:

1. Winds of 58 mph or higher and/or
2. Hail 1 inch in diameter or larger



Sub-Hazard Descriptions:

| Tornadoes | |
|------------------|--|
| Description | A tornado is a rapidly rotating vortex or funnel of air extending to the ground from a cumulonimbus cloud. When the lower tip of a vortex touches earth, the tornado becomes a force of destruction. The path width of a tornado is generally less than a half-mile, but the path length can vary from a few hundred yards to dozens of miles. A tornado moves at speeds from 30 to 125 mph but can generate winds exceeding 300 mph. Oklahoma is located in “Tornado Alley,” the most tornado-prone area of the nation. Tornadoes can occur any time of the day, on any day of the year, at any location. |
| Location | Due to the extremely variable nature of weather in Southwest Oklahoma, tornadoes can and have occurred any time of year if the |

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| | wind shear, lift, atmospheric instability, and moisture is present. The entire Planning Area is affected by Tornadoes. |
| Extent | The Planning Area uses the Enhanced Fujita Scale to categorize Tornado. Almost 70% of all tornadoes are measured EF0 and EF1 on the Enhanced Fujita Scale, causing light to moderate damage, with wind speeds between 40 and 112 miles per hour. EF4 and EF5 tornadoes are considerably less frequent, but cause the most devastating impacts, including loss of life and property. 66% of all tornado deaths were caused by EF4 and EF5 storms, which represent only 1% of all tornadoes. The Enhanced Fujita Scale was adopted in early 2007. The Planning Area can experience any EF value on this scale. |
| Impact | People, Structures and utilities are vulnerable to tornado events. Persons who are unable to take refuge in an engineered shelter are most vulnerable to tornado events. People who are outside or in vehicles are especially vulnerable. Persons may also be impacted by tornadoes by damage to or complete loss of their homes, as well as loss of vehicles and/or personal property. Adding to the impact is the potential loss of wages or employment due to extended injury, time away from work while dealing with damaged/destroyed homes, loss of transportation, and/or the loss of employment due to destruction of their employer's property. |

Enhanced F Scale for Tornado Damage

| FUJITA SCALE (Used Prior to 2007) | | | ENHANCED FUJITA SCALE | |
|--------------------------------------|------------------------|---------------------|-----------------------|---------------------|
| F Number | Fastest 1/4-mile (mph) | 3 Second Gust (mph) | EF Number | 3 Second Gust (mph) |
| 0 | 40-72 | 45-78 | 0 | 65-85 |
| 1 | 73-112 | 79-117 | 1 | 86-110 |
| 2 | 113-157 | 118-161 | 2 | 111-135 |
| 3 | 158-207 | 162-209 | 3 | 136-165 |
| 4 | 208-260 | 210-261 | 4 | 166-200 |
| 5 | 261-318 | 262-317 | 5 | Over 200 |

<http://www.spc.noaa.gov/faq/tornado/ef-scale.html>

***** IMPORTANT NOTE ABOUT ENHANCED F-SCALE WINDS:** *The Enhanced F-scale still is a set of wind estimates (not measurements) based on damage.* Its uses three-second gusts estimated at the point of damage based on a judgment of 8 levels of damage.

Important: The 3 second gust is not the same wind as in standard surface observations. Standard measurements are taken by weather stations in open exposures, using a directly measured, "one-minute mile" speed.¹²

¹² NOAA.gov
pg. 105

Previous Occurrences

There were 12 reports of tornadoes between 2013 and 2023.

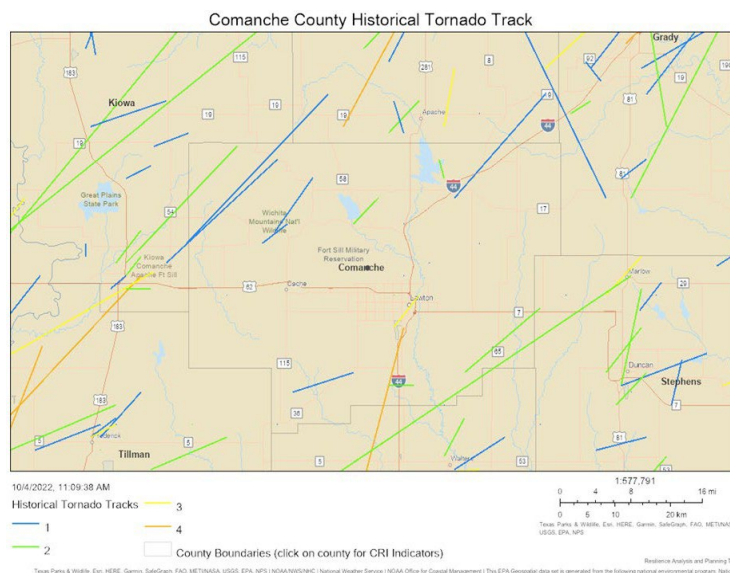
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|---------------------------|--|
| <p>4/17/2013 EF-0</p> | <p>A strong warm front became stationary along the interstate 44 corridor during the early afternoon of the 17th. Through the day, areas south of the warm front and east of a well-defined dryline became very unstable. As a large upper trough shifted into the Southern Plains, scattered thunderstorms developed near the dryline/warm front triple point. As these storms moved eastward into the highly unstable warm sector, they became super cellular. These storms produced all facets of severe weather, including very large hail, damaging straight line winds, and a few brief tornadoes. Training of supercells also led to flash flooding over portions of southwest Oklahoma around the Wichita Mountains Wildlife Refuge. Storms eventually shifted eastward and weakened overnight as a cold front pushed through Oklahoma. The tornado was reported on the west side of Lawton. Minor damage was done to the Goodyear Tire Plant at southwest Lee and Goodyear Boulevards.</p> |
| <p>5/7/2014 EF-0</p> | <p>A large upper-level trough became established over the western U.S. bringing strong southwest flow across the Southern Plains. At the surface, a north to south oriented dryline became well established across western Oklahoma. This dryline served as a focus for several rounds of supercell thunderstorms. Sporadic severe wind and hail occurred, along with a couple of brief tornadoes. Employees of the Wichita Mountain National Wildlife Refuge observed this tornado in the north part of the refuge. A ground survey by the refuge deputy manager indicated that the tornado developed southwest of Moko Mountain and initially moved northeast toward the 2,288-foot peak. The tornado then turned north-northwest moving down the north slope of Moko Mountain. Numerous trees were snapped and uprooted along the path.</p> |
| <p>5/27/2014 EF-0</p> | <p>A cutoff upper level low meandered into central Oklahoma during the afternoon hours. This feature brought moderate wind shear into the region, along with substantial directional shear. This combined with appreciable instability and abundant moisture led to the formation of numerous thunderstorms across southern and central Oklahoma. Two brief tornadoes were observed near the center of the upper low across southwestern Oklahoma. Several other funnel clouds were also reported. A brief tornado developed near Faxon. Very minor damage occurred to patio furniture and small outbuildings. Damage information provided by KSWO.</p> |
| <p>5/16/2015 EF-1</p> | <p>With an upper low traversing the region, a cold front stationed over the panhandles, and a developing dryline, storms developed out in the panhandles early on the 16th and made their way eastward across Oklahoma through the day. Toward evening, when the severe weather occurred, the front surged eastward with a line of storms forming along it. A large tornado was observed southwest of Meers in the Wichita Mountains National Wildlife Refuge. The tornado moved northeast</p> |

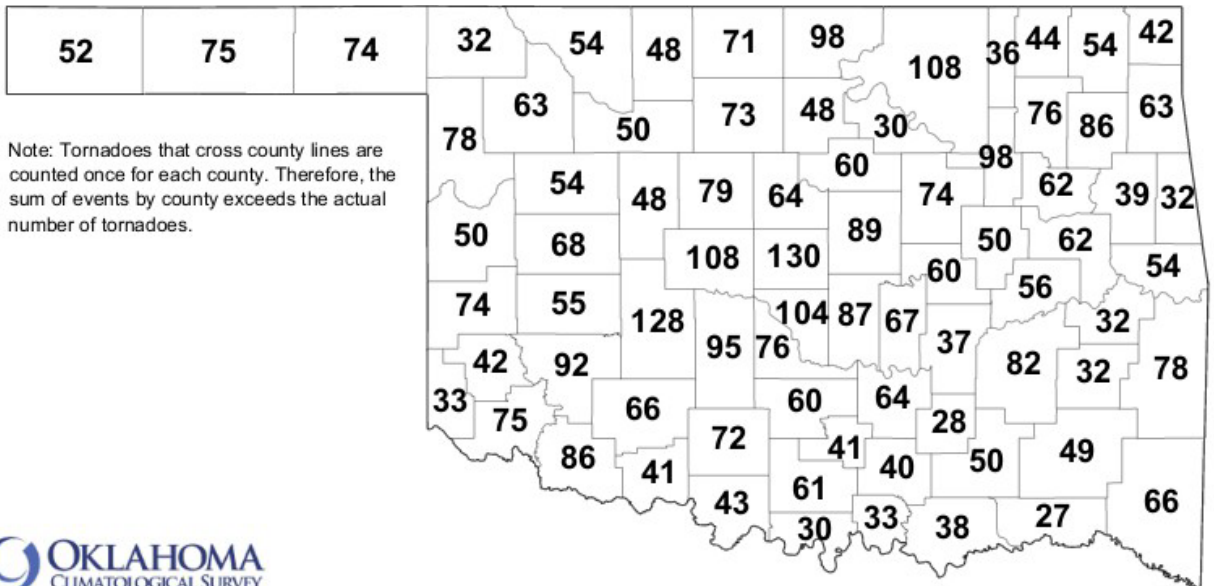
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| | passing just west of Meers and dissipating approximately 1.5 miles north of Meers. |
| 5/16/2015 EF-0 | With an upper low traversing the region, a cold front stationed over the panhandles, and a developing dryline, storms developed out in the panhandles early on the 16th and made their way eastward across Oklahoma through the day. Toward evening, when the severe weather occurred, the front surged eastward with a line of storms forming along it. Storm spotters and storm chasers observed a tornado develop southwest of Geronimo and move east-northeast. No structure damage was reported, and the path is estimated. |
| 4/29/2016 EF-1 | Initial storms on the morning of the 29th formed along a stationary boundary. As an upper-level low moved in, more storms formed in the panhandles and moved into Oklahoma toward late morning through the afternoon. Toward evening, some of the last storms formed into a line before exiting the area to the east. A tornado developed just northwest of Elgin. It initially moved north, then turned east-northeast dissipating just before reaching Fletcher. Mobile homes were damaged along the path as well as trees, power lines, and outbuildings. |
| 10/21/2017 EF-U | Storms formed along a cold front during the afternoon of the 21st, eventually forming a line. Through the evening storms swept eastward through Oklahoma and western north Texas. Significant hail, severe winds, and a few short-lived tornadoes as well as some minor flooding were reported with these storms. Media coverage showed a brief tornado approximately 2 miles east of Indianola. This tornado was not rated and has an EF-U rating. No damage was reported. |
| 5/18/2019 EF-2 | The beginning of a very active period, the 18th started with a complex of thunderstorms that grew upscale producing wind and tornadoes in the morning and then finished with isolated supercells producing large hail across northern Oklahoma. A QLCS tornado destroyed two homes about three miles east of Geronimo. One home had most exterior walls collapsed while another house just across the street to the north had its roof removed and many of the exterior walls collapsed. A few power poles were snapped, and a tree was uprooted. |
| 4/21/2020 EF-U | Storms initiated along a warm front amid strong instability and enough shear for multiple storms producing very large hail up to the size of baseballs and a few brief tornadoes on the evening of the 21st. A tornado developed in far eastern Comanche County east of Sterling, just west of the Grady County line. The tornado produced no known damage in Comanche County before moving quickly into Grady County. |
| 10/12/2021 EF-0 | A warm front lifted north during the afternoon and evening of the 12th, with a couple of supercells developing along it across southwest OK. Large hail, strong winds, and numerous tornadoes were reported with these storms as they moved northeastward. Later, a line of severe storms moved into far western OK along a cold front, with strong winds and hail reported with these storms. This tornado moved into Comanche County from Kiowa County approximately three miles north of U.S. Highway 62 and moved northeast and then due north. At least one home suffered some shingle damage, a mobile home received roof damage, and a barn |

| | |
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| | door was blown in. Tree damage was also observed along the path. None of the damage in Comanche County was observed to be greater than EF-0, although the tornado was likely stronger as there were few damage indicators encountered along the path. |
| 10/12/2021 EF-U | A warm front lifted north during the afternoon and evening of the 12th, with a couple of supercells developing along it across southwest OK. Large hail, strong winds, and numerous tornadoes were reported with these storms as they moved northeastward. Later, a line of severe storms moved into far western OK along a cold front, with strong winds and hail reported with these storms. Radar indicated strong rotation with a tornado debris signature in an inaccessible area of the Wichita Mountains. The path and path dimensions are estimated. |
| 6/15/2023 EF-0 | The approach of an anomalously strong (for mid-June) upper-level disturbance lead to a widespread severe weather outbreak across portions of the forecast area, especially along and west of the I-35 corridor, during the afternoon into late evening of the 15th. This included the development of numerous supercell thunderstorms across the area. Despite relatively high cloud bases, strong low-level instability and sufficient low-level wind shear aided tornadic outcomes, with eleven tornadoes confirmed across western into southern Oklahoma. Numerous reports of large to very large hail, including reports of 4-inch hail in Lawton, and wind damage were received across area. This tornado developed near State Highway 36 and Deyo Mission Road, and produced tree and shingle damage as it moved southeast. It dissipated just north of the Cotton County line. |

Probability

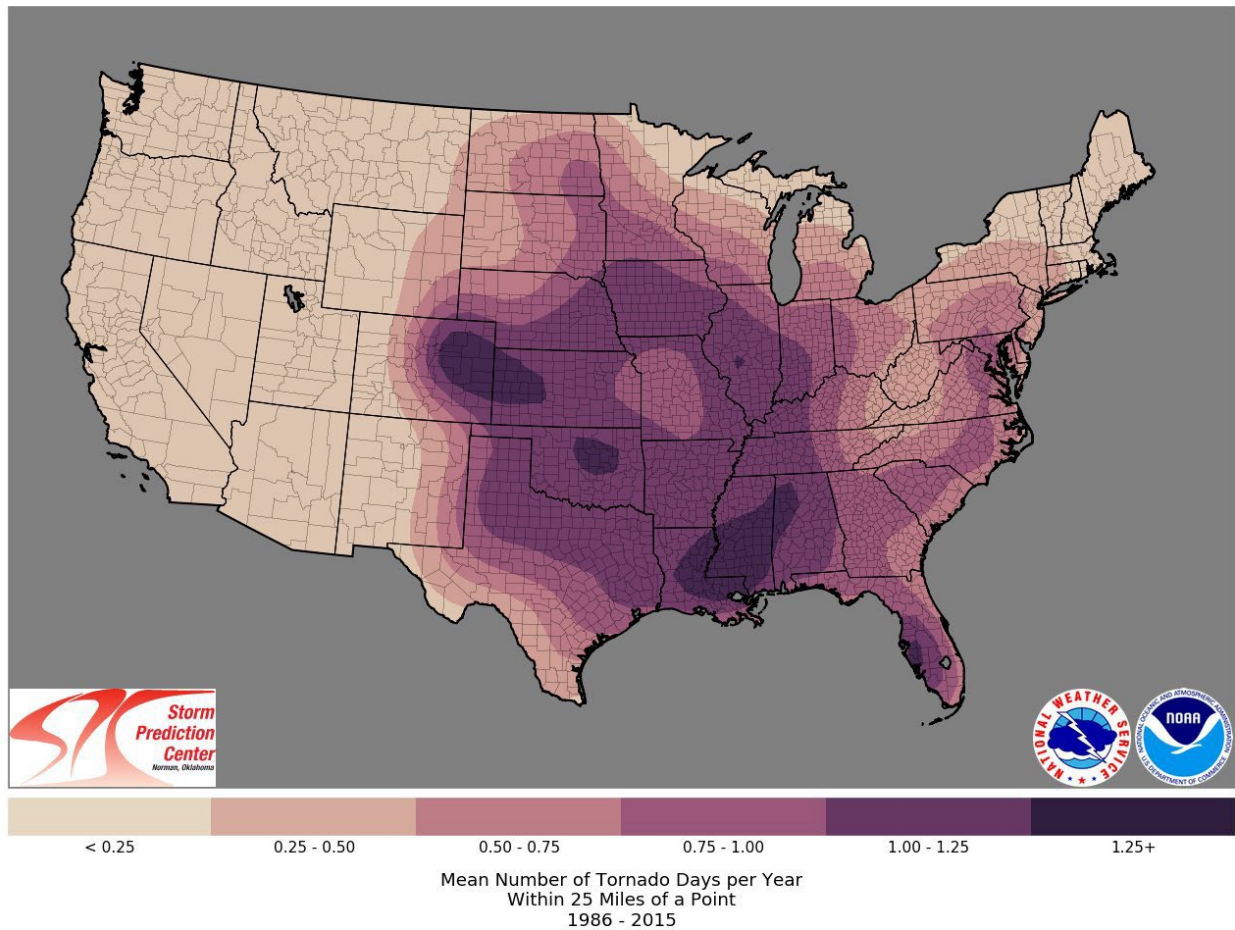
Based on historical data, the probability of future Tornado events in the Planning Area is High.





Number of Tornadoes by County

1950 - 2023
 Tailed using data archived at OCS. Created 2:35:48 PM January 10, 2024 CST. © Copyright 2024



| Lightning | |
|--------------------|--|
| Description | Lightning is generated by the buildup of charged ions in a thundercloud. When the buildup interacts with prime conductive objects or surfaces on the ground, the result is a discharge of a lightning bolt. Thunder is the sound of the shock wave produced by the rapid heating and cooling of the air near the lightning bolt. The air in the channel of a lightning strike can reach temperatures higher than 50,000° Fahrenheit. |
| Location | Lightning can strike 10 miles out from the rain column, and lightning deaths often occur under a clear sky ahead of the storm. This is largely because people wait until the last minute to seek shelter – not fully comprehending the behavior and true danger of lightning. Lightning affects the entire Planning Area. |
| Extent | Lightning can be measured in a variety of ways: lightning flash frequency, flash intensity, and lightning impacts. One method the Planning Area uses is VAISALA’s free lightning explorer map, pictured in the hazard information section. Additional methods include the NWS Lightning Activity Level (LAL). |
| Impact | The Planning Area is subject to frequent thunderstorms and convective weather patterns, and is therefore regularly exposed to lightning, particularly in the spring, summer and autumn months. Anyone outside during a thunderstorm is exposed to and at risk from lightning. All structures and buildings in Comanche County are equally at risk of lightning-caused fires and damages. A bolt of lightning can explode walls of brick and concrete and cause fires to ignite within county facilities and those of its participating jurisdictions. Trees are particularly vulnerable, acting as natural conductors. Buildings are vulnerable to “side flashes” if a lightning strike jumps from a tree to a county facility, damaging both. |

Extent

The Comanche County Planning Area utilizes the National Weather Service Lightning Activity Level to assess and communicate the level of lightning activity in a particular area, aiding in the issuance of timely warnings and advisories to protect public safety during thunderstorms. The Comanche County Planning Area can experience all the levels identified in the LAL Chart.

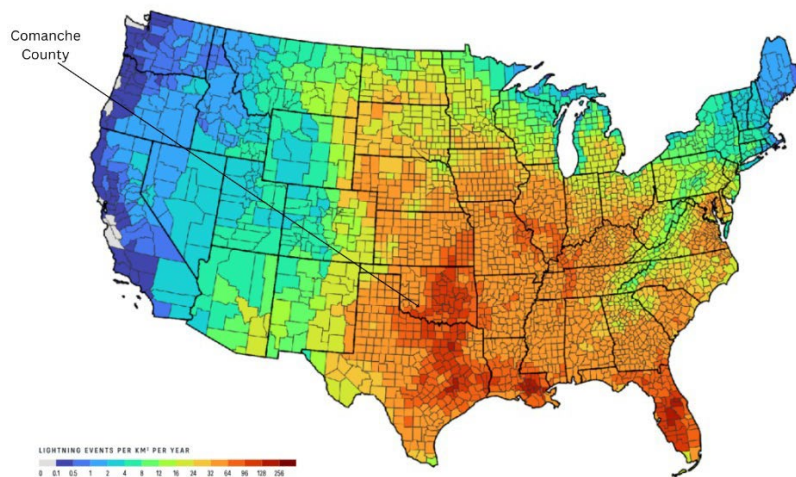
| Lightning Activity Level (LAL) | |
|--|---|
| Is a scale which describes lightning activity. Values are labeled 1-6: | |
| LAL 1 | No thunderstorms |
| LAL 2 | Isolated thunderstorms. Light rain will occasionally reach the ground. Lightning is very infrequent, 1 to 5 cloud to ground strikes in a five minute period. |
| LAL 3 | Widely scattered thunderstorms. Light to moderate rain will reach the ground. Lightning is infrequent, 6 to 10 cloud to ground strikes in a 5 minute period. |
| LAL 4 | Scattered thunderstorms. Moderate rain is commonly produced. Lightning is frequent, 11 to 15 cloud to ground strikes in a 5 minute period. |
| LAL 5 | Numerous thunderstorms. Rainfall is moderate to heavy. Lightning is frequent and intense, greater than 15 cloud to ground strikes in a 5 minute period. |
| LAL 6 | Dry lightning (same as LAL 3 but without rain). This type of lightning has the potential for extreme fire activity and is normally highlighted in fire weather forecasts with a Red Flag Warning. |

Lightning density is the number of lightning events per square kilometer. Lightning density is calculated by dividing the number of lightning by the area.

Previous Occurrences

There were four documented instances of damaging Lightning Strikes in addition to anecdotal information regarding localized lightning strike impacts between 2000 and 2023 reported in Comanche County. These include grassfires, power outages, and hay bale fires which were a result of lightning strikes which occurred concurrently with Strong Thunderstorms. On average, the Comanche County Planning Area experiences 64-96 lightning occurrences per square kilometer, with Oklahoma as a whole experiencing over 14 million lightning occurrences in a calendar year. From 2016-2021, the Comanche County Planning Area saw anywhere from 64 to 96 lightning events per square kilometer. In 2022, the Comanche County Planning Area saw anywhere from 32 to 64 lightning events per square kilometer.

Total lightning density per county 2016–2021

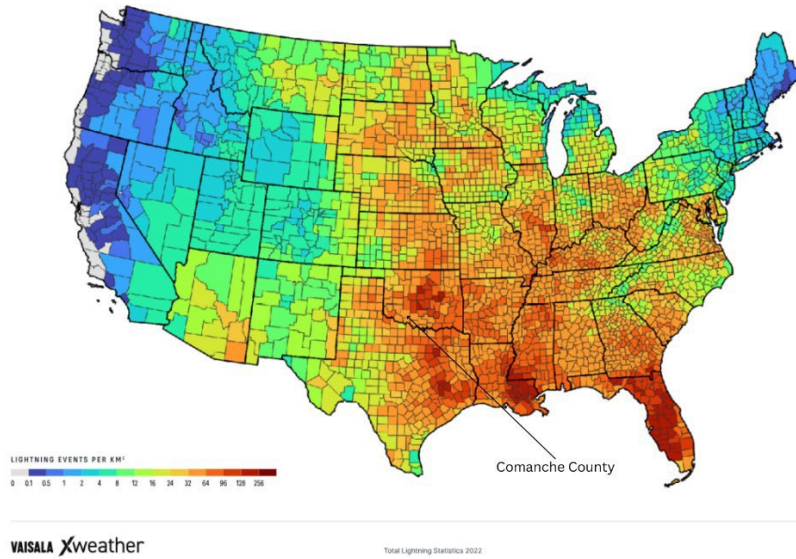


VAISALA  weather

Total Lightning Statistics 2022

© Vaisala 2023

Total lightning density per county 2022



| | |
|------------|--|
| 10/22/2000 | Significant flash flooding and 6 tornadoes, mostly small, weak and short-lived, developed on the 22nd, across a 35-mile-wide band from near Frederick in southwest Oklahoma northeastward to near Chandler in central Oklahoma. Rainfall amounts in this band averaged 4 to 8 inches. Anadarko in Caddo County received 10 inches, which classifies as a 250-year rain event. Record-like flooding developed in some areas, particularly across southern Caddo and Grady Counties, from near Apache and Anadarko to near Chickasha. Lightning struck an insulator on West Gore Blvd. and 67th Street causing a power outage to about 1100 homes. |
| 1/16/2001 | Lightning struck the ground near a group of 34 soldiers training at the East Range, sending 5 of them to the hospital for treatment. |
| 9/20/2023 | A late summer/fall storm system moved through the area bringing some high winds, rainfall, and lightning. A Lightning Strike on the PSO substation resulted in a widespread power outage which impacted over 20,000 residents in Comanche County and City of Lawton. The power outage lasted just over 24 hours. |
| 10/4/2023 | Severe Thunderstorms moved across the County producing significant heavy rainfall and lightning. Three separate lightning strikes were reported to have started small grassfires near Meers Porter Hill Road and US 62, SW Flower Mound and SW Bishop Road, and SE New Hope and Logue Chapel Road. All were quickly extinguished by heavy rainfall. |

The number of previous occurrences is difficult to quantify other than what has been directly reported and exists within articulable databases. However, based upon knowledge and experience, the Planning Area is able to correlate the occurrence of lightning strikes

with the occurrence of Strong Thunderstorms. It was identified indirectly that most of the impactful lightning strikes occurred during thunderstorms by using the Oklahoma Lightning Mapping Array, NOAA National Center for Environmental Information Severe Weather Data Inventory, and the NOAA Storm Events Database.

Probability


The probability of Lightning Events in the Planning Area is High.

High Winds

| | |
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| Description | High Wind events are associated with severe thunderstorms and can accompany tornadoes and downbursts. Winds can be called straight-line with speeds reaching 58 MPH or more. Downdraft winds are small columns of air that sink quickly to the ground. Microbursts (less than 4 kilometers wide) and macrobursts (more than 4 kilometers wide) can also occur with or without precipitation. |
| Location | The entire Planning Area is affected by High Winds. |
| Extent | The Beaufort Scale below is used to measure and categorize wind speeds. The Planning Area Can experience any category of wind speed on the chart below. |


Beaufort Wind Chart – Estimating Wind Speeds

| Beaufort Wind Chart – Estimating Winds Speeds | | | | |
|---|-------|---------|-----------------|--|
| Beaufort Number | MPH | | Terminology | Description |
| | Range | Average | | |
| 0 | 0 | 0 | Calm | Calm. Smoke rises vertically. |
| 1 | 1-3 | 2 | Light air | Wind motion visible in smoke. |
| 2 | 4-7 | 6 | Light breeze | Wind felt on exposed skin. Leaves rustle. |
| 3 | 8-12 | 11 | Gentle breeze | Leaves and smaller twigs in constant motion. |
| 4 | 13-18 | 15 | Moderate breeze | Dust and loose paper is raised. Small branches begin to move. |
| 5 | 19-24 | 22 | Fresh breeze | Smaller trees sway. |
| 6 | 25-31 | 27 | Strong breeze | Large branches in motion. Whistling heard in overhead wires. Umbrella use becomes difficult. |
| 7 | 32-38 | 35 | Near gale | Whole trees in motion. Some difficulty when walking into the wind. |
| 8 | 39-46 | 42 | Gale | Twigs broken from trees. Cars veer on road. |
| 9 | 47-54 | 50 | Severe gale | Light structure damage. |
| 10 | 55-63 | 60 | Storm | Trees uprooted. Considerable structural damage. |
| 11 | 64-73 | 70 | Violent storm | Widespread structural damage. |
| 12 | 74-95 | 90 | Hurricane | Considerable and widespread damage to structures. |

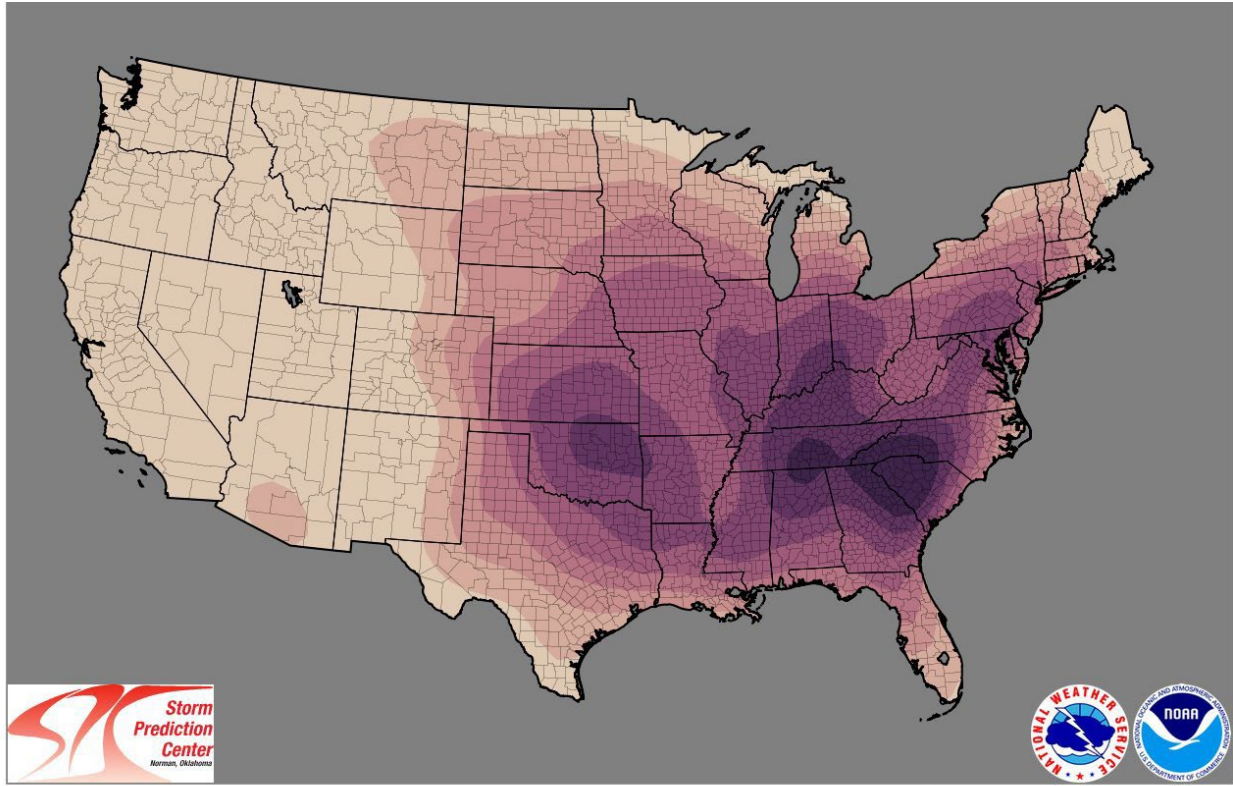


NOAA
NATIONAL OCEANOGRAPHIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

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Twitter: @nwsiwx
Facebook: NWSNorthernIndiana

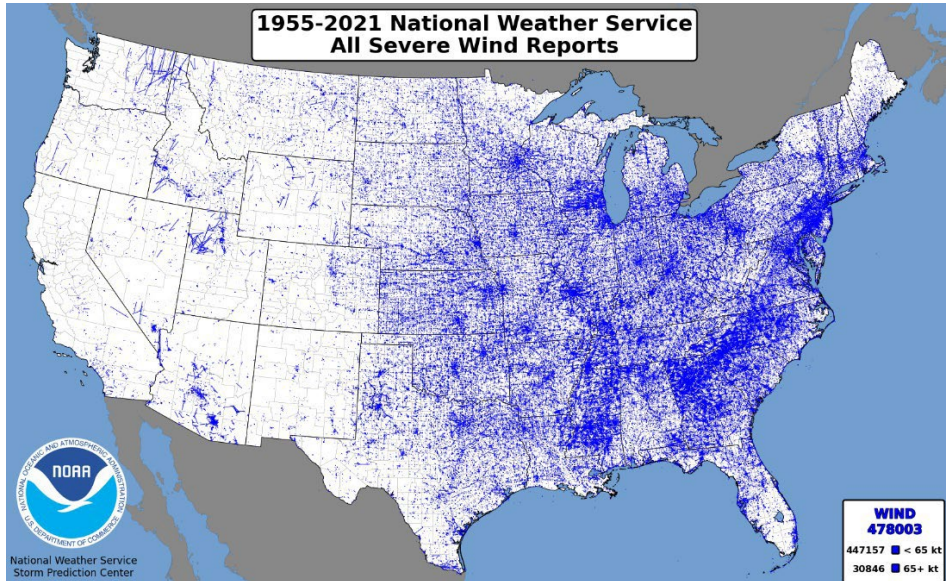


NATIONAL WEATHER SERVICE



< 1 1 - 2 2 - 3 3 - 4 4 - 5 5 - 6 6 - 7 7+

Mean Number of >50-knot & <64-knot Wind Days per Year
 Within 25 Miles of a Point
 1986 - 2015



Previous Occurrences (2013-2023)

There were 117 events of High Winds/Straight-line Winds reported in Comanche County between 2013 and 2023. These events range in magnitude from 50 knots to 90 knots (57 mph to 103 mph).

| | |
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| 5/18/2013 52 kts. | A classic late Spring severe weather setup unfolded over the southern Plains. Rich low-level moisture and very warm temperatures contributed to high instability, while an incoming shortwave trough yielded deep-layer shear sufficient for supercells during the afternoon. Owing to the large spread between surface temperatures and dew points over most of Oklahoma, tornadoes did not occur, but significant hail was common with the storms early in their life cycles over far western Oklahoma. Later in the evening, storm outflows consolidated in some cases to produce more linear convection, transitioning the reports toward severe wind gusts farther east. |
| 6/8/2013 54 kts. | An extensive squall line initially stretched from southern Nebraska to the Texas Panhandle during the late afternoon and moved southward over the course of the evening and early morning hours. The portion which affected western Oklahoma was most intense, particularly as a bowing segment appeared in southwest Oklahoma. Several reports of severe wind gusts were received. Lawton ASOS recorded gusts to 62 mph at 11:04pm LST and 11:12pm LST. |
| 8/15/2013 61 kts. | A potent upper-level low pressure system combined with an unseasonably moist and unstable airmass across Oklahoma to promote severe thunderstorms. Storms initially developed over western Oklahoma and migrated southward overnight, with sporadic damaging wind and large hail reports from the Kansas Oklahoma border southward to the Red River. Persistent heavy rainfall also led to flash flooding in some areas. Several 6-to-8-inch diameter tree limbs down. Four power poles snapped at base. Four- and five-inch diameter tree limbs down at Sterling High School. |
| 8/15/2013 71 kts. | A potent upper-level low pressure system combined with an unseasonably moist and unstable airmass across Oklahoma to promote severe thunderstorms. Storms initially developed over western Oklahoma and migrated southward overnight, with sporadic damaging wind and large hail reports from the Kansas Oklahoma border southward to the Red River. Persistent heavy rainfall also led to flash flooding in some areas. Commercial building roof collapsed. Several carpports blown away with 3 utility poles snapped. |
| 6/6/2014 51 kts. | A stalled front extended from the Texas Panhandle into northern Oklahoma. As easterly upslope winds strengthened during the evening hours of the 6th, scattered storms developed over the Panhandles and moved southeastward. A complex of storms intensified, aided by a strong low-level jet, as it moved across western Oklahoma late on the 6th into the morning hours of the 7th. Numerous occurrences of severe wind and hail accompanied this complex as it moved across Oklahoma. |
| 10/12/2014 52 kts. | A potent fall storm system moved out of the Rockies and across the Southern Plains during the late afternoon and evening hours of the 12th. A strong surface low and Pacific front served as the focus for widespread thunderstorm development. Abundant moisture and strong wind shear were highly supportive of severe thunderstorms. Storms developed initially over western Oklahoma and moved eastward through the evening. Initial storms produce wind gusts of 70 to 85 mph. Storms eventually merged into a couple of north south lines, but the intensity of the storms diminished after sunset. |
| 3/31/2015 56 kts. | An abundantly moist and unstable atmosphere was in place during the late afternoon and evening hours of the 31st. As a weak upper storm system moved |

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| | through the region, the weak capping inversion was lifted, allowing for scattered to numerous severe thunderstorms. Limbs blown off trees. |
| 5/6/2015 56 kts. | A potent Spring storm system took shape across the Southern and Central Plains. Strong surface cyclogenesis took shape during the day, allowing ample moisture to return northward with strong southerly flow. At the same time, a strong upper-level shortwave trough allowed strong mid-level westerlies to overspread much of the Plains region. With large instability and wind shear, the stage was set for widespread severe storm development. Storms initiated within the open warm sector ahead of the dryline. The first storm developed near Lawton and moved northeast along I-44 into parts of central Oklahoma, resulting in several tornadoes and large hail. Additional supercells spawned tornadoes across northern Oklahoma, and the slow-moving nature of storms lead to several occurrences of flash flooding. Storms continued well into the night. Several trees snapped. |
| 5/16/2015 85 kts. | With an upper low traversing the region, a cold front stationed over the panhandles, and a developing dryline, storms developed out in the panhandles early on the 16th and made their way eastward across Oklahoma through the day. Toward evening, when the severe weather occurred, the front surged eastward with a line of storms forming along it. A swath of wind damage occurred associated with the rear-flank downdraft of the storm that produced the tornado near Meers. A barn was destroyed about 2 miles east of Meers, and damage to homes and trees was observed along Shroyer Road to the northeast. |
| 5/16/2015 61 kts. | With an upper low traversing the region, a cold front stationed over the panhandles, and a developing dryline, storms developed out in the panhandles early on the 16th and made their way eastward across Oklahoma through the day. Toward evening, when the severe weather occurred, the front surged eastward with a line of storms forming along it. Trees downed, though not very large. |
| 11/17/2015 63 kts. | A line of storms formed along an eastward moving front overnight on the 16th and continued into the morning of the 17th. Several of these storms produced severe winds, and a few produced tornadoes. |
| 4/10/2016 78 kts. | Storms formed out ahead of a cold front and dryline on the afternoon of the 10th. Overnight a low-level jet formed, and storms began to congeal into a line headed eastward. This system left behind a few outflow boundaries which helped scattered storms to form on the 11th before the front finally surged out of the area. Winds caused fence and tree damage and blew out a garage door. Storm chaser reported power lines were down in Geronimo and sheet metal debris on the side of the road. Large trees and fencing were blown down and a travel trailer was blown over. |
| 4/26/2016 65 kts. | The 26th began with a few isolated storms forming out ahead of the dryline and becoming severe. Later in the afternoon, the dryline surged east and storms fired along the boundary. These storms quickly became severe and gradually merged into a line as they moved eastward through the evening. Measured at a Citizen Weather Observer Program (CWOP) station. |
| 5/8/2016 56 kts. | With the help of an upper low, storms fired along the dryline in western Oklahoma on the 8th, with some of them becoming severe and producing flash flooding. Winds estimated based on 2/3-inch branches being snapped. A high-tension utility pole was knocked over/snapped. |
| 5/12/2016 61 kts. | Severe storms formed overnight on the 11th into the 12th behind a front as an upper-level trough moved through the area. Power lines and power poles were downed. Roof damage was also reported at the elementary school. One mobile home was partially destroyed, and another was pushed off its foundation. |
| 2/19/2017 60 kts. | A line of storms formed out ahead of a cold front across Oklahoma on the evening of the 19th and moved eastward. Measured at the army air station. |

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| 5/16/2017 59 kts. | Storms formed along the dryline in the Texas panhandle on the afternoon of the 16th before moving eastward. As a cold front caught up to the storms, convection increased, and storms began to form into a line. This line continued eastward across the state overnight into the 17th. |
| 7/3/2017 58 kts. | An area of storms formed during the evening of the 3rd in the vicinity of a warm front across northern Oklahoma, before traversing the state southeastward. |
| 8/16/2017 52 kts. | A line of storms formed along a cold front on the afternoon of the 16th and moved southeast through Oklahoma and western north Texas overnight into the 17th. Power pole downed. Several shingles were blown off roof along with several 1-to-2-inch tree limbs down. |
| 9/17/2017 56 Kts. | An area of storms developed near a stationary front in the southern Texas panhandle on the afternoon of the 17th, then moved east into southwest Oklahoma through the evening. |
| 10/21/2017 52 Kts. | Storms formed along a cold front during the afternoon of the 21st, eventually forming a line. Through the evening storms swept eastward through Oklahoma and western north Texas. Significant hail, severe winds, and a few short-lived tornadoes as well as some minor flooding were reported with these storms. Power poles partially blown down. Time estimated by radar. |
| 6/22/2018 56 Kts. | An area of storms that formed off the caprock came into western Oklahoma early on the 22nd, eventually spreading over much of Oklahoma (though only one severe gust was produced). A second area came out of Kansas, affecting mainly northwest Oklahoma and producing a few severe gusts that morning. Several camping trailers were damaged by thunderstorm wind gusts. Downed power lines also reported in the same area. |
| 7/30/2018 54 Kts. | Late on the 29th into the early hours of the 30th, an MCS came down out of Kansas and traversed most of Oklahoma and western north Texas northwest to southeast with some impressive long-lived wind gusts. Citizen's weather observation station F2394. |
| 8/17/2018 56 Kts. | Storms formed in the vicinity of a stalled front on the afternoon of the 17th across north Texas into southern Oklahoma. Large tree limbs down in Chattanooga. Time estimated based on radar. |
| 12/26/2018 54 Kts. | A strong storm system with unseasonable moisture brought heavy rainfall and high winds to the area. Power outages reported on the west side of Lawton, OK. Measured at Southeast 60TH and Woodlawn in southeast Lawton, OK. |
| 12/26/2018 62 Kts. | A strong storm system with unseasonable moisture brought heavy rainfall and high winds to the area. |
| 6/15/2019 61 Kts. | A dryline and a cold front combined to produce numerous severe thunderstorms on the 15th. Large trees damaged or uprooted, light structural damage. |
| 6/18/2019 56 Kts. | Isolated thunderstorms produced scattered hail across northern Oklahoma while a line of thunderstorms produced extensive severe wind across southern Oklahoma on the 18th into the early morning on the 19th. Later on, the 19th, large hail was reported with isolated thunderstorms across northern Oklahoma. Several large tree branches downed along I-44 and wedged into fencing alongside of the road. Time estimated from radar. |
| 6/19/2019 61 Kts. | Isolated thunderstorms produced scattered hail across northern Oklahoma while a line of thunderstorms produced extensive severe wind across southern Oklahoma on the 18th into the early morning on the 19th. Later on the 19th, large hail was reported with isolated thunderstorms across northern Oklahoma. From station FW2394 Lawton. |

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| 5/8/2020 55 Kts. | A very intense supercell produced a long swath of very large hail reports across portions of western north Texas on the evening of the 7th. Later, line of thunderstorms swept across much of Oklahoma producing wind and hail. |
| 8/30/2020 52 Kts. | A line of storms moved across southwest Oklahoma and western north Texas during the early morning of the 30th, producing severe wind and severe hail reports. Ten-inch diameter tree branch down. |
| 6/26/2021 54 Kts. | A very moist airmass and slow-moving storms led to a multi-day heavy rainfall event for much of the area. 6 to 8+ inches fell in a swath from southwest OK northeast along the I-44 corridor. Several storms also produced isolated severe weather with hail and strong winds reported. Measured with handheld anemometer. Also, various small limbs and shingles scattered throughout the neighborhood. |
| 7/10/2021 61 Kts. | A line of thunderstorms originating across eastern Kansas built southwestward into northern and central Oklahoma during the evening of the 10th, leading to numerous severe wind, hail and flood reports. Damage to roof of a post office. Estimated 65 to 70 mph wind gust. Power lines also went down. |
| 10/10/2021 71 Kts. | An unseasonably warm and moist airmass was in place across the region ahead of a powerful upper wave moving out of the 4 corners region. This led to the development of numerous severe thunderstorms across Oklahoma and Texas during the afternoon and evening of the 10th. Several tornadoes were reported, along with hail larger than baseballs that impacted Norman, OK for the second time in six months, leading to millions of dollars in damages once again to homes, cars, and businesses. An outbuilding was destroyed near SH-115 and North Drive to the northwest of Meers. |
| 2/26/2023 74 Kts. | A powerful storm system, with highly anomalous magnitudes of wind shear and moisture for late February, impacted the forecast area on the evening of the 26th. A broken line of severe thunderstorms developed across the eastern Texas Panhandle/far western Oklahoma and quickly swept through much of the forecast area. Widespread wind damage, including gusts near 90 mph, along with a record number of tornadoes (13) for February occurred. Several reports of large hail were also received. Behind the line of thunderstorms, a tight pressure gradient and strong westerly low-level jet allowed widespread 50-60 mph wind gusts to continue through the late evening hours. |
| 5/6/2023 72 Kts. | A low-amplitude shortwave trough, embedded within broad southwesterly flow aloft, moved across the Southern Plains. Strong instability and sufficient wind shear lead to numerous severe thunderstorms across southwest Oklahoma. Large hail and damaging wind occurred. Strong non-thunderstorm winds were also observed across southwest into south-central Oklahoma due to the development of a wake low behind thunderstorms. A television storm chaser measured an 81-mph wind gust south of Lawton. Report location is estimated. |
| 6/15/2023 61 Kts. | The approach of an anomalously strong (for mid-June) upper-level disturbance lead to a widespread severe weather outbreak across portions of the forecast area, especially along and west of the I-35 corridor, during the afternoon into late evening of the 15th. This included the development of numerous supercell thunderstorms across the area. Despite relatively high cloud bases, strong low-level instability and sufficient low-level wind shear aided tornadic outcomes, with eleven tornadoes confirmed across western into southern Oklahoma. Numerous reports of large to very large hail, including reports of 4-inch hail in Lawton, and wind damage were received across area. Scattered tree and power line damage reported throughout the city of Lawton. Some of the more significant reports are listed separately. |
| 6/15/2023 65 Kts. | The approach of an anomalously strong (for mid-June) upper-level disturbance lead to a widespread severe weather outbreak across portions of the forecast area, especially along and west of the I-35 corridor, during the afternoon into late evening |

| | |
|----------------------|---|
| | of the 15th. This included the development of numerous supercell thunderstorms across the area. Despite relatively high cloud bases, strong low-level instability and sufficient low-level wind shear aided tornadic outcomes, with eleven tornadoes confirmed across western into southern Oklahoma. Numerous reports of large to very large hail, including reports of 4-inch hail in Lawton, and wind damage were received across area. Outermost layer of roof decking of a two-story apartment was blown off due to thunderstorm wind. Time is radar estimated. |
| 6/15/2023 90 Kts. | The approach of an anomalously strong (for mid-June) upper-level disturbance lead to a widespread severe weather outbreak across portions of the forecast area, especially along and west of the I-35 corridor, during the afternoon into late evening of the 15th. This included the development of numerous supercell thunderstorms across the area. Despite relatively high cloud bases, strong low-level instability and sufficient low-level wind shear aided tornadic outcomes, with eleven tornadoes confirmed across western into southern Oklahoma. Numerous reports of large to very large hail, including reports of 4-inch hail in Lawton, and wind damage were received across area. A spotter measured a wind gust of 103 mph just southeast of the intersection of Sheridan Road and Lee Blvd. Numerous power poles and trees were damaged near this intersection. |
| 7/13/2023 61 Kts. | Despite an upper ridge extending from the Desert Southwest into the Southern Plains, scattered diurnal storms developed during the evening of the 13th. While weak magnitudes of organizing wind shear existed across the area, storm organization occurred along the composite outflow from initial storms across western-north Texas into southwestern Oklahoma. Damaging downburst wind events and a few reports of large hail were received with the strongest storms. Relayed image showing 6 power poles snapped or blown down just west of the Southeast Lee Boulevard and Southeast 45th Street intersection. Time is radar estimated. Report of two power poles blown down in Chattanooga. Time is radar estimated. |

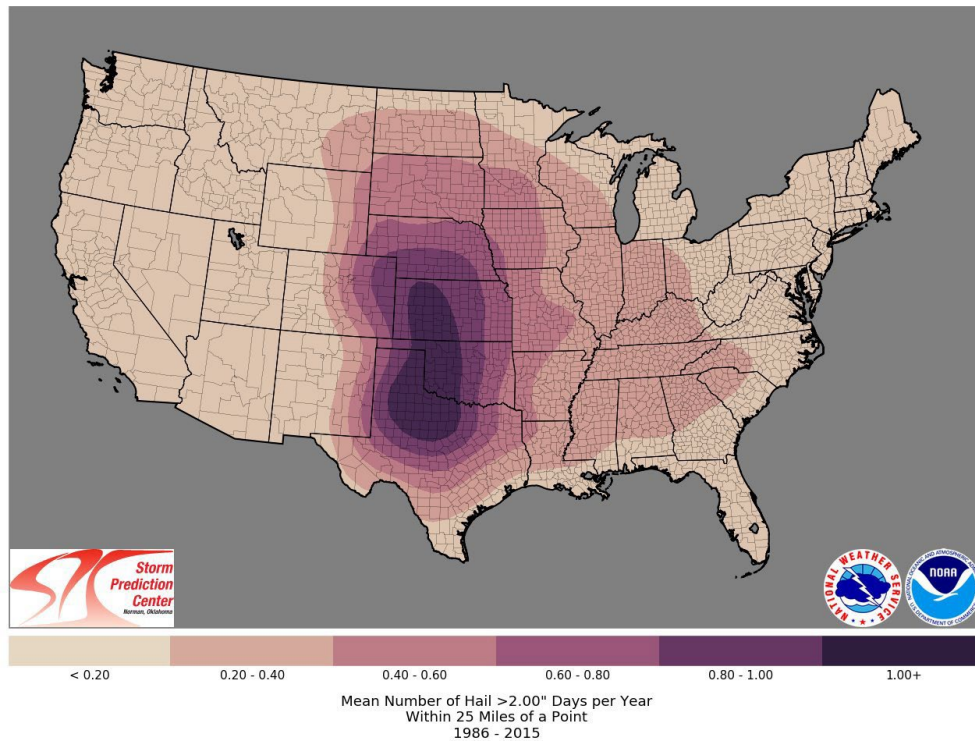
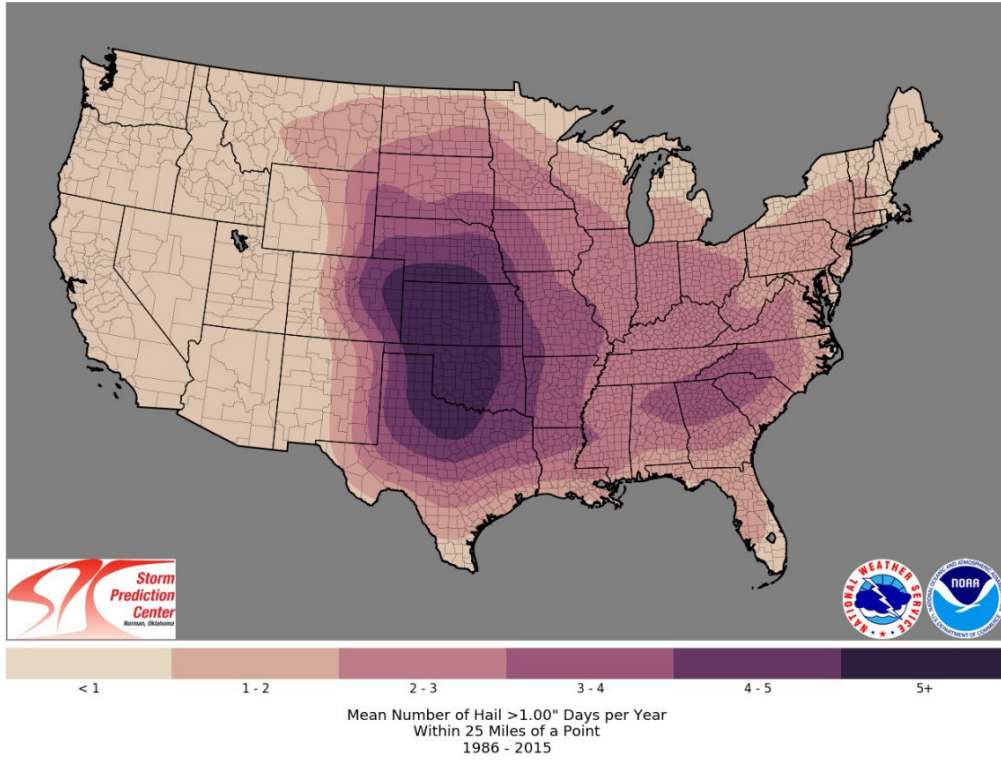
Probability

The probability of High Winds associated with Severe Thunderstorms in the Planning Area is High.

| Hail | |
|---------------------|--|
| Description: | Hail is a frozen form of precipitation that occurs when precipitation has been swept back into the clouds by an updraft. Hailstones larger than the size of a quarter can result in thunderstorms with powerful updrafts. Hail is most likely to accompany supercell storms with a sustained rotating updraft. |
| Location: | Oklahoma experiences an average of 602 hailstorms each year with hailstones measuring at least one inch in diameter. As indicated in Oklahoma, including the Planning Area, averaged 12 hail days with damaging hail per year, over a 20-year period. All populations, structures, and agricultural areas in the Planning Area are at risk. |
| Extent: | Hailstones are typically measured by their diameter. The damages expected from a hail event is a function of the diameter of the hailstones and wind speed, or velocity. Hailstorms are usually considered “destructive” when hail reaches 1.75 inches in diameter and is accompanied by high winds. When hailstones reach such dimensions, they can be extremely dangerous to property, agriculture and people caught outside, without shelter. The Planning Area uses the Hail Description Scale below to categorize hail and can experience the full range of hail sizes on that scale. |

Hail Diameter/Description Scale

| Hail Diameter (Inches) | Description | Hail Diameter (Inches) | Description |
|------------------------|--------------------------|------------------------|-------------|
| 1/4" | Pea | 1 3/4" | Golf Ball |
| 1/2" | Small Marble | 2" | Hen's Egg |
| 3/4" | Penny or Large Marble | 2 1/2" | Tennis Ball |
| 7/8" | Nickel | 2 3/4" | Baseball |
| 1" | Quarter | 3" | Teacup Size |
| 1 1/4" | Half Dollar | 4" | Grapefruit |
| 1 1/2" | Walnut or Ping Pong Ball | 4 1/2" | Softball |



Previous Occurrences

There were 245 hail events reported between January 2012 and December 2023. In June 2023, a significant hail storm occurred in Comanche County with a documented cost of well over \$2 million dollars and resulted in the county receiving both an Individual Assistance and Public Assistance Federal Disaster Declaration (DR-4721-OK). Hail in excess of 4” in diameter was reported widely across the City of Lawton.

| Hail Storm Events, 2012-2023 | | |
|--|-------------------------------|-------------------------|
| `From the NOAA National Centers for Environmental Information https://www.ncdc.noaa.gov/stormevents/choosedates.jsp?statefips=40,OKLAHOMA | | |
| Year | # Of Hail Storm Events | Hail Size (Inch) |
| 2012 | 14 | 0.75-2.75 |
| 2013 | 62 | 1.00-2.75 |
| 2014 | 5 | 1.00-2.25 |
| 2015 | 16 | 1.00-2.75 |
| 2016 | 16 | 1.00-4.00 |
| 2017 | 6 | 0.75-3.00 |
| 2018 | 4 | 0.75-1.00 |
| 2019 | 20 | 0.75-1.75 |
| 2020 | 36 | 0.75-3.00 |
| 2021 | 6 | 0.88-2.75 |
| 2022 | 8 | 1.00-1.50 |
| 2023 | 45 | 0.75-4.00 |

Probability

The probability of hail in the Planning Area is High.

Climatological Influence on Severe Thunderstorm Hazard

Severe thunderstorms, including tornadoes, hail, high winds, and lightning, pose significant risks to Comanche County, Oklahoma, influenced by a blend of climatological, population, and ecological factors specific to the region. Comanche County's location in southwest Oklahoma exposes it to climatic conditions conducive to severe weather, with atmospheric instability and moisture providing the ingredients for intense thunderstorm development. The county's population centers, including Lawton and surrounding communities, increase the potential for human exposure to severe weather impacts, underscoring the need for robust warning systems and emergency preparedness initiatives. Moreover, the county's diverse ecological makeup, encompassing grasslands, shrublands, and urban areas, can influence storm behavior and impact patterns. The increasing frequency and intensity of severe thunderstorms highlight the importance of community resilience efforts and effective disaster response strategies to protect lives and property in Comanche County.

Total Hazard Vulnerability and Impact

The Planning Area experiences hail due to the strong storm systems which develop and pass through the region. Severe Thunderstorms bring any number of cascading impacts in addition to the identified sub-hazards. Tornadoes and High Winds are capable of causing destruction to homes, businesses, and utility infrastructure, which can result in direct or secondary injury, death, and economic impact. Lightning can have direct impacts to outdoor events such as school sporting events, concerts, rodeos, as well as outdoor commercial activities such as farming, ranching, and welding. Secondary impacts include the ignition and rapid spread of grassfires and structure fires, direct strikes to utility infrastructure such as power poles and substations. Hail can have significant economic impact as it can damage vehicles and crops, break windows, shred roof coverings, and injure livestock.

| Jurisdiction | Vulnerability | Impact |
|-----------------|--|--|
| Comanche County | Interstate 44 bisects Comanche County north – south and has considerable daily commuter traffic. Ft. Sill Army Installation also brings a significant number of residents who are not familiar with the weather patterns and hazards associated with severe thunderstorms. | At any given time, there are a large number of motorists who are exposed to all hazards of severe thunderstorms, and oftentimes will seek shelter under overpasses, creating hazardous travel conditions, which can lead to traffic collisions which puts Emergency Service personnel at risk. |
| City of Lawton | The City of Lawton does not have covered parking for city owned vehicles or employee-owned vehicles. | Lack of available shelter options both externally and internally can disrupt city functions in addition |

| | | |
|-----------------------|---|--|
| | <p>There are no public tornado shelters within the City Limits, which places a large number of the population at risk if storms occur during daylight hours. Approximately 19% of the population are socially vulnerable due to living below the poverty level.</p> | <p>to placing Emergency Service personnel at risk of injury. Damage to City vehicles can cause disruption of services to the City as well as create hardship for employees who may incur both financial loss and physical loss of a vehicle. Damage to roofs, siding, and vehicles in an already economically depressed population can cause a delay or lack of repairs.</p> |
| Lawton Public Schools | <p>Lawton Public Schools are vulnerable to hail due to the lack of hail resistant film on the facility windows. A lack of lightning detectors or shelters in outdoor fields can create hazards to attendees and staff.</p> | <p>A broken window can injure a faculty member or student during a hail event. Lightning can injure or cause death, and without adequate shelter, this exposes a large number of people to all risks associated with severe thunderstorms.</p> |
| City of Cache | <p>The City of Cache does not have covered parking for city owned vehicles or employee-owned vehicles.</p> | <p>Damage to City vehicles can cause disruption of services to the City as well as create hardship for employees who may incur both financial loss and physical loss of a vehicle.</p> |
| Cache Public Schools | <p>Cache Public Schools are vulnerable to hail due to the lack of hail resistant film on the facility windows. A lack of lightning detectors or shelters at outdoor fields can create hazards to attendees and staff.</p> | <p>A broken window can injure a faculty member or student during a hail event. Lightning can injure or cause death, and without adequate shelter, this exposes a large number of people to all risks associated with severe thunderstorms.</p> |
| Town of Chattanooga | <p>The Town of Chattanooga has older structures within the community. These older structures have weak roofs and siding, and no covered area for vehicles.</p> | <p>Damages to roofs, siding, and vehicles in an already economically depressed population can cause a significant delay in repairs or can result in a lack of adequate repairs.</p> |

| | | |
|------------------------|---|---|
| City of Elgin | The City of Elgin does not have covered parking for city owned vehicles or employee-owned vehicles. | Damage to City vehicles can cause disruption of services to the City as well as create hardship for employees who may incur both financial loss and physical loss of a vehicle. |
| Town of Faxon | The Town of Faxon is primarily a farming community. A hail event could damage crops and cause injury to livestock. Farmers and ranchers are economically vulnerable to hail events that cause damage to their fields and injury to their livestock. | A loss of farm and ranch revenue negatively affects Comanche County's economy. In the farming and ranching economy, it also affects secondary businesses that supply goods and services to agricultural businesses |
| Town of Fletcher | The Town of Fletcher does not have covered parking for city owned vehicles or employee-owned vehicles. | Damage to City vehicles can cause disruption of services to the City as well as create hardship for employees who may incur both financial loss and physical loss of a vehicle. |
| City of Geronimo | The City of Geronimo does not have covered parking for city owned vehicles or employee-owned vehicles. | Damage to City vehicles can cause disruption of services to the City as well as create hardship for employees who may incur both financial loss and physical loss of a vehicle. |
| Geronimo Public School | Geronimo Public Schools does not have covered parking for the school buses or transportation vehicles. This exposes the buses to damage due to a hail event. | This could result in a significant loss to the schools' capabilities, and their ability to operate at normal levels. |
| Town of Indianoma | The Town of Indianoma does not have covered parking for city owned vehicles or employee-owned vehicles. | Damage to City vehicles can cause disruption of services to the City as well as create hardship for employees who may incur both financial loss and physical loss of a vehicle. |
| Town of Medicine Park | Medicine Park has a very high tourist seasonal population and no public shelters available to those caught outside. | Large hail stones can cause serious injury as well as disrupt outside events and create mass chaos and panic, which can lead to economic injury and loss of public trust. The occurrence of tornadoes can also increase the |

| | | |
|-------------------------|--|---|
| | | number of injured which could cascade to local hospitals. |
| Town of Sterling | The Town of Sterling does not have covered parking for city owned vehicles or employee-owned vehicles. | Damage to City vehicles can cause disruption of services to the City as well as create hardship for employees who may incur both financial loss and physical loss of a vehicle. |
| Sterling Public Schools | Sterling Public Schools does not have covered parking for the school buses or transportation vehicles. This exposes the buses to damage due to a hail event. | This could result in a significant loss to the schools' capabilities, and their ability to operate at normal levels. |

3.5.6 Extreme Heat

Description

Temperatures that hover 10 degrees or more above the average high temperature for the region are defined as extreme heat. Humid or muggy conditions, which add to the discomfort of high temperatures, occur when a "dome" of high atmospheric pressure traps hazy, damp air near the ground. Excessively dry and hot conditions can provoke dust storms and low visibility. Droughts occur when a long period passes without substantial rainfall. A heat wave combined with a drought is a very dangerous situation. A heat wave occurs when such conditions persist over long periods. A lack of nighttime cooling can exacerbate the conditions when community infrastructure fails to release ambient heat increases gained during the day.

According to the National Weather Service, heat is the number one weather-related killer in the United States. Despite the history of adverse effects, there is consensus that most of these deaths are preventable. Extreme heat can cause heart illnesses to develop among even the healthiest and most active individuals. Students and staff participating in outdoor summer school activities are particularly at risk. Heat also affects workforce capabilities. Outdoor maintenance workers should be monitored for heat exhaustion and heat stroke.

Extreme summer temperatures can also cause water shortages, increase fire hazards, and prompt excessive demands for energy.

Location

The entire Planning Area is affected by Extreme Heat

Extent

The Planning Area uses the Heat Index Scale below to classify Extreme Heat. The heat index illustrates how the human body experiences the combined effects of high temperature and humidity. It more accurately reflects what the body experiences than simply measuring the air temperature. The Heat Index Scale displays varying degrees of caution depending on the relative humidity combined with the temperature. The shaded zones on the chart indicate varying symptoms or disorders that could occur depending on the magnitude or intensity of the event. "Caution" is the first level of intensity where fatigue due to heat exposure is possible. "Extreme Caution" indicates that sunstroke, muscle cramps or heat exhaustion are possible, whereas a "Danger" level means that these symptoms are likely. "Extreme Danger" indicates that heat stroke or sunstroke are highly likely. The Planning Area can experience any heat index values within the Caution to the Extreme Danger categories.

NOAA's National Weather Service

Heat Index

Temperature (°F)

| | 80 | 82 | 84 | 86 | 88 | 90 | 92 | 94 | 96 | 98 | 100 | 102 | 104 | 106 | 108 | 110 |
|-----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 40 | 80 | 81 | 83 | 85 | 88 | 91 | 94 | 97 | 101 | 105 | 109 | 114 | 119 | 124 | 130 | 136 |
| 45 | 80 | 82 | 84 | 87 | 89 | 93 | 96 | 100 | 104 | 109 | 114 | 119 | 124 | 130 | 137 | |
| 50 | 81 | 83 | 85 | 88 | 91 | 95 | 99 | 103 | 108 | 113 | 118 | 124 | 131 | 137 | | |
| 55 | 81 | 84 | 86 | 89 | 93 | 97 | 101 | 106 | 112 | 117 | 124 | 130 | 137 | | | |
| 60 | 82 | 84 | 88 | 91 | 95 | 100 | 105 | 110 | 116 | 123 | 129 | 137 | | | | |
| 65 | 82 | 85 | 89 | 93 | 98 | 103 | 108 | 114 | 121 | 128 | 136 | | | | | |
| 70 | 83 | 86 | 90 | 95 | 100 | 105 | 112 | 119 | 126 | 134 | | | | | | |
| 75 | 84 | 88 | 92 | 97 | 103 | 109 | 116 | 124 | 132 | | | | | | | |
| 80 | 84 | 89 | 94 | 100 | 106 | 113 | 121 | 129 | | | | | | | | |
| 85 | 85 | 90 | 96 | 102 | 110 | 117 | 126 | 135 | | | | | | | | |
| 90 | 86 | 91 | 98 | 105 | 113 | 122 | 131 | | | | | | | | | |
| 95 | 86 | 93 | 100 | 108 | 117 | 127 | | | | | | | | | | |
| 100 | 87 | 95 | 103 | 112 | 121 | 132 | | | | | | | | | | |

Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity

Caution
 Extreme Caution
 Danger
 Extreme Danger

Previous Occurrences

In Oklahoma, July is generally the hottest month of the year, closely followed by August. The NWS compiled a 106-year record of monthly and annual average temperatures in Oklahoma, and the Dust Bowl years of 1921, 1931, and 1936 show the highest average temperatures across a 12-month span for the past 100 years. 2012 recorded the most days with temperatures above 100°, which included multiple instances of 7-day streaks of 100° temperatures. 2023 was the second hottest year, with five separate Extreme Heat warnings issued by the National Weather Service, due to high temperatures combined with high relative humidity.

Climatological Influence on Extreme Heat Hazard

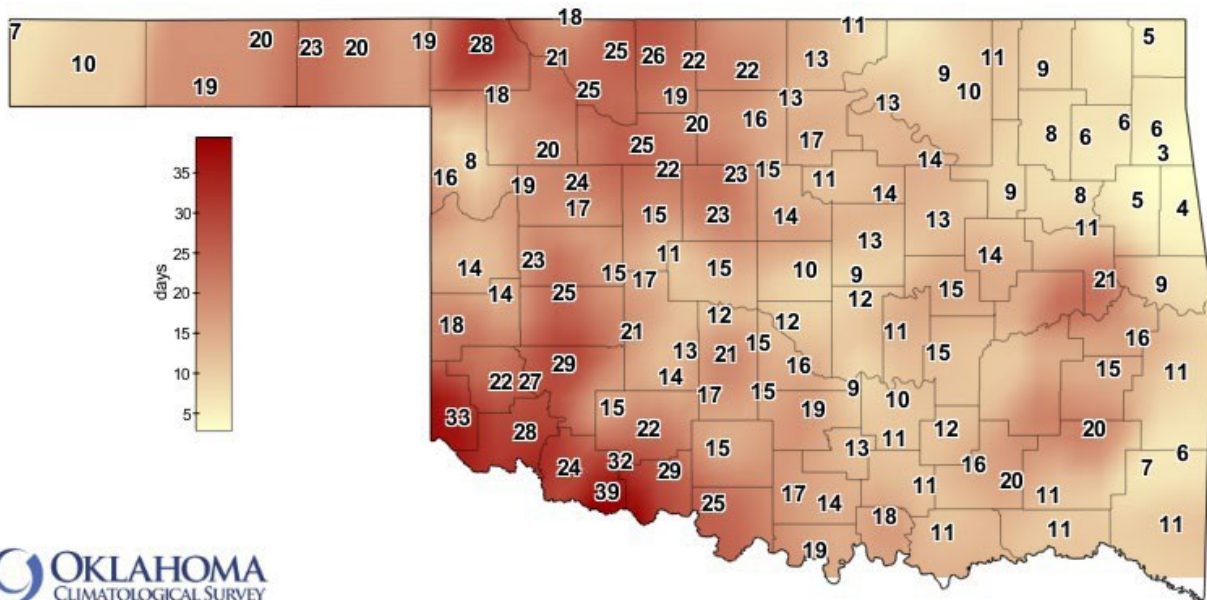
Extreme heat events in Comanche County, Oklahoma, are influenced by a combination of climatological, population, and ecological factors, shaping their probability of occurrence and impact. Comanche County's location in southwest Oklahoma exposes it to a semi-arid climate characterized by hot summers and limited precipitation, increasing the likelihood of extreme heat events. The county's population centers, including Lawton and surrounding areas, contribute to the urban heat island effect, amplifying temperatures and exacerbating heat-related risks, particularly among vulnerable populations. Ecologically, factors such as land cover and vegetation density can influence local temperatures and heat stress levels.

The escalating frequency and intensity of extreme heat events underscore the urgent need for community-wide heat resilience strategies and targeted interventions to protect vulnerable populations and mitigate the adverse health impacts of extreme heat in Comanche County.

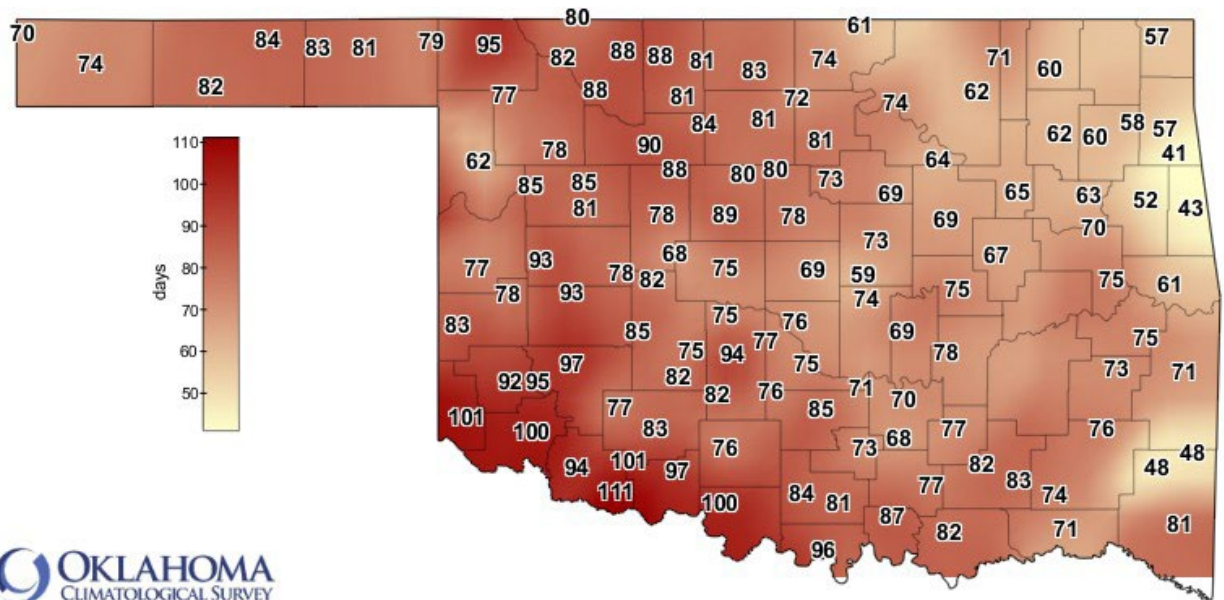
Number of Days with Temperatures over 100° F, 2012-2023 for Comanche County.

| Year | Days with Temperatures over 100°F |
|------|-----------------------------------|
| 2012 | 40 |
| 2013 | 10 |
| 2014 | 15 |
| 2015 | 9 |
| 2016 | 12 |
| 2017 | 3 |
| 2018 | 12 |
| 2019 | 18 |
| 2020 | 6 |
| 2021 | 1 |
| 2022 | 34 |
| 2023 | 38 |

https://www.mesonet.org/index.php/past_data/station_monthly_summaries



Average Days Per Year with High Temp Above 100 °F 1991-2020
Calculated using data archived at OCS. Created 8:00:19 PM September 9, 2022 UTC. © Copyright 2022



Average Days Per Year with High Temp Above 90 °F

1991-2020

Calculated using data archived at CCS. Created 8:00:19 PM September 9, 2022 UTC. © Copyright 2022

Probability of Future Events

The probability of Extreme Heat occurrences in the Planning Area is high.

Vulnerability and Impact

Population

Heat kills by pushing the human body beyond its limits. Heat has consistently caused the highest number of fatalities, over all other hazards. Extreme heat can take its toll on all the populations of Comanche County, as even the most physically fit individuals can succumb to the effects of heat. However, certain segments of the population are at higher risk. Young children, elderly people, and those who are sick, or overweight are more likely to become victims to extreme heat. Other conditions that can limit the ability to regulate temperature include fever, dehydration, heart disease, mental illness, poor circulation, sunburn, prescription drug use, and alcohol use.

According to the 2010 United States Census in Comanche County, persons aged 65 years of age and older make up 13.6% of the total population. Children under the age of 5 years account for 6.7% of the Comanche County population. 19.2% of the Comanche County population is living in poverty.

Also, even if cooling centers are set up, these populations may not be notified of their locations or have transportation to access them. This is especially concerning when heat waves continue for days and weeks, and when low-income populations consist of young children and elderly adults. Cooling assistance programs are made available to low-income populations enabling them to afford air conditioning during times of extreme heat; however, according to county representatives the programs never last long.

In Comanche County, cooling shelters are made available to the public during periods of extreme heat. These facilities are not available during the evening times; few people typically take advantage of the facilities. The County does not have a heat-action plan. Public education and outreach should continue to inform Comanche County populations of high heat impacts and resources available to them. The County should also consider drafting a heat emergency plan in preparation of future extreme heat events.

Secondary Hazards

Extreme high temperatures can impact utility infrastructure, including water treatment systems, wastewater treatment, and electricity. The majority of municipalities purchase their water from the City of Lawton in the form of purchased surface water. Lakes Ellsworth, Lawtonka, and Waurika are the three primary surface water sources which provide potable water to Comanche County. All three waterbodies have been significantly impacted by extended periods of drought, which oftentimes accompanies instances of extreme heat. The City of Lawton operates two wastewater treatment facilities and the majority of residences in unincorporated Comanche County utilize individual septic systems. During periods of extreme heat, providers of electrical service could experience any combination of the following challenges in meeting the needs of the jurisdictions: Failure of vital delivery components due to high heat, outages or brownouts due to peak loads, or insufficient field and/or office staff to effectively handle the workload. High temperatures and heavy loading can also cause transmission lines to sag into trees and flashover to ground, potentially resulting in widespread power outages.

Transportation Systems (Highways, Railway, Airports) – Although no significant vulnerabilities to Comanche County’s transportation systems during an extreme heat event have been identified, sustained high temperatures can result in damage to asphalt highways and railway tracks.

Emergency Services - Fire, Police and Medical services would all be similarly exposed to the effects of an extreme heat event. Fire and Medical services typically receive a higher volume of heat-related calls, taxing the response capabilities of both services. Fire and Police services would both be exposed to secondary effects of extreme heat by having to perform inherently stressful outdoor work under heavy clothing in high temperatures. While extreme heat is not an immediate threat to delivery of Police and Fire services, the demand for additional personnel could potentially increase the cost for these resources.

Jurisdiction-Specific Vulnerabilities to Extreme Heat

| Jurisdiction | Vulnerability | Impact |
|-----------------------|---|--|
| Comanche County | Approximately 13% of Comanche County’s population is aged 65 and older and 16.5% of the total population under the age of 65 are living with a disability. Families living in poverty may not be able to afford the costs of air conditioning, in terms of the equipment costs and/or repairs, and also in the terms of the electrical costs. | Power outages or lack of accessibility to air conditioning can create dangerous situations for elderly residents who are more at risk for heat-related illness, injury, or death. Populations living in poverty, and those on a fixed income, often struggle with an increase in high utility costs during an Extreme Heat event. |
| City of Lawton | Approximately 19% of the population lives below the poverty level. This includes roughly 350 known individuals who are considered ‘unhoused’. Families living in poverty may not be able to afford the costs of air conditioning, in terms of the equipment costs and/or repairs, and also in terms of the electrical costs. | Due to the nature of the unhoused population, knowledge of cooling centers located within the town often times is limited which leads to these individuals having a higher risk of heat-related injuries. Older residents and those in poverty are more vulnerable to heat-related illness and injury. Populations living in poverty, and those on a fixed income, often struggle with an increase in high utility costs during an Extreme Heat event. |
| Lawton Public Schools | Lawton Public Schools are generally not in session during the summer months; however, they do have summer programs in which students and staff are at school facilities. Lawton Public School does not have backup cooling units. | Extreme heat without adequate cooling devices would create health risks to students and faculty. If there was an interruption to utility service during an extreme heat event, School events could be reduced or cancelled. |

| | | |
|----------------------|---|--|
| City of Cache | Families living in poverty may not be able to afford the costs of air conditioning, in terms of the equipment costs and/or repairs, and also in the terms of the electrical costs. | Older residents and those in poverty are more vulnerable to heat-related illness and injury. Populations living in poverty, and those on a fixed income, often struggle with an increase in high utility costs during an Extreme Heat event. |
| Cache Public Schools | Cache Public Schools are generally not in session during the summer months; however, they do have summer programs in which students and staff are at school facilities. Cache Public School does not have backup cooling units. | Extreme heat without adequate cooling devices would create health risks to students and faculty. If there was an interruption to utility service during an extreme heat event, School events could be reduced or cancelled. |
| Town of Chattanooga | Families living in poverty may not be able to afford the costs of air conditioning, in terms of the equipment costs and/or repairs, and also in the terms of the electrical costs. | Older residents and those in poverty are more vulnerable to heat-related illness and injury. Populations living in poverty, and those on a fixed income, often struggle with an increase in high utility costs during an Extreme Heat event. |
| City of Elgin | Families living in poverty may not be able to afford the costs of air conditioning, in terms of the equipment costs and/or repairs, and also in the terms of the electrical costs. | Older residents and those in poverty are more vulnerable to heat-related illness and injury. Populations living in poverty, and those on a fixed income, often struggle with an increase in high utility costs during an Extreme Heat event. |
| Town of Faxon | Families living in poverty may not be able to afford the costs of air conditioning, in terms of the equipment costs and/or repairs, and also in the terms of the electrical costs. | Older residents and those in poverty are more vulnerable to heat-related illness and injury. Populations living in poverty, and those on a fixed income, often struggle with an |

| | | |
|------------------------|---|--|
| | | increase in high utility costs during an Extreme Heat event. |
| Town of Fletcher | Families living in poverty may not be able to afford the costs of air conditioning, in terms of the equipment costs and/or repairs, and also in the terms of the electrical costs. | Older residents and those in poverty are more vulnerable to heat-related illness and injury. Populations living in poverty, and those on a fixed income, often struggle with an increase in high utility costs during an Extreme Heat event. |
| City of Geronimo | Families living in poverty may not be able to afford the costs of air conditioning, in terms of the equipment costs and/or repairs, and also in the terms of the electrical costs. | Older residents and those in poverty are more vulnerable to heat-related illness and injury. Populations living in poverty, and those on a fixed income, often struggle with an increase in high utility costs during an Extreme Heat event. |
| Geronimo Public School | Geronimo Public Schools are generally not in session during the summer months; however, they do have summer programs in which students and staff are at school facilities. Geronimo Public School does not have backup cooling units. | Extreme heat without adequate cooling devices would create health risks to students and faculty. If there was an interruption to utility service during an extreme heat event, School events could be reduced or cancelled. |
| Town of Indianahoma | Families living in poverty may not be able to afford the costs of air conditioning, in terms of the equipment costs and/or repairs, and also in the terms of the electrical costs. | Older residents and those in poverty are more vulnerable to heat-related illness and injury. Populations living in poverty, and those on a fixed income, often struggle with an increase in high utility costs during an Extreme Heat event. |
| Town of Medicine Park | Families living in poverty may not be able to afford the costs of air conditioning, in terms of the equipment costs and/or repairs, and | Older residents and those in poverty are more vulnerable to heat-related illness and injury. Populations living in |

| | | |
|-------------------------|---|--|
| | also in the terms of the electrical costs. | poverty, and those on a fixed income, often struggle with an increase in high utility costs during an Extreme Heat event. |
| Town of Sterling | Families living in poverty may not be able to afford the costs of air conditioning, in terms of the equipment costs and/or repairs, and also in the terms of the electrical costs. | Older residents and those in poverty are more vulnerable to heat-related illness and injury. Populations living in poverty, and those on a fixed income, often struggle with an increase in high utility costs during an Extreme Heat event. |
| Sterling Public Schools | Sterling Public Schools are generally not in session during the summer months; however, they do have summer programs in which students and staff are at school facilities. Sterling Public School does not have backup cooling units. | Extreme heat without adequate cooling devices would create health risks to students and faculty. If there was an interruption to utility service during an extreme heat event, School events could be reduced or cancelled. |

3.5.7 High Hazard Potential Dam Failure

Description

A dam is an artificial barrier usually constructed across a stream channel to impound water. Timber, rock, concrete, earth, steel, or a combination of these materials may be used to build the dam. A dam failure is an uncontrolled release of water from a reservoir through a dam as a result of structural failures or deficiencies in the dam. In Comanche County, most dams are constructed of earth or concrete. Dams must have spillway systems to safely convey normal stream and flood flows over, around, or through the dam. Spillways are commonly constructed of non-erosive materials such as concrete. Dams should also have a drain or other water-withdrawal facility for control of the pool or lake level and to lower or drain the lake for normal maintenance and emergency purposes. A dam that impounds water in the upstream area is referred to as a reservoir. The amount of water impounded is measured in acre-feet. An acre-foot is the volume of water that covers an acre of land to a depth of one foot. As a function of upstream topography, even a very small dam may impound or detain acre-feet of water. Two factors influence the potential severity of a full or partial dam failure: the amount of water impounded, and the density, type, and value of development and infrastructure located downstream.

Dams assigned the **Low Hazard Potential** classification are those dams where failure or mis-operation results in no probable loss of human life and low economic and/or environmental losses. **Significant Hazard Potential** classification are dams that are often located in predominantly rural or agricultural areas but could be located in areas with population and significant infrastructure, and where failure or miss-operation results in no probable loss of human life but can cause serious economic loss, environmental damage, disruption of lifeline facilities, or impact other concerns. **High Hazard-Potential** classifications are those dams where failure or mis-operation will probably cause loss of human life.

All owners of high hazard-potential dams are required by FEMA and OWRB to develop an Emergency Action Plan (EAP), in the event of a dam breach or failure. As part of the EAP, each owner must include tables of the impacted structures. A table of these impact areas are not available for Public Dissemination but are available per request and for official use only. The maps identify a Probable Max Flood (PMF) event of these dams and the probable impacts of the dam failure.

| Hazard-Potential Classification | Risk Involved with Dam Failure | Inspection Frequency |
|---------------------------------|---|---|
| High | probable loss of human life | annually, by a registered professional engineer |
| Significant | no probable loss of human life but can cause economic loss or disruption of lifeline facilities | every three years by a registered professional engineer |
| Low | no probable loss of human life and low economic loss | every five years |

13

Reference: National Engineering Manual (Part 503, subpart D - Dam Safety). The Oklahoma Water Resources Board coordinates the Oklahoma Dam Safety Program to ensure the safety of the six dams in Comanche County, especially those that could impact downstream life and property. The program requires inspections every five and three years for low and significant hazard structures, respectively. It requires annual inspection of the County's high-hazard potential dams. Because many of these dams are old structures and require periodic repair, the Oklahoma Water Resources Board requires submittal and subsequent approval of plans and specifications prior to dam modifications. The Natural Resource Conservation Service offers technical assistance in the construction of small farm ponds and related structures.

The Comanche County HMP Planning Area High Hazard Dams¹⁴

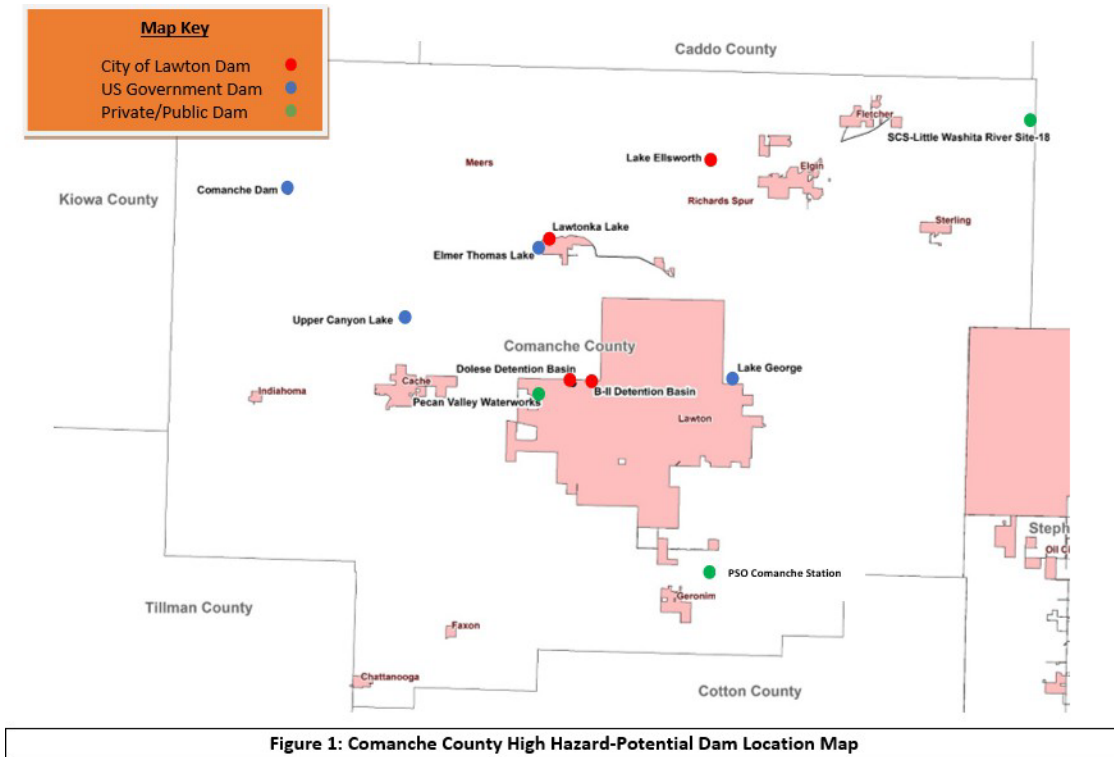
| Comanche County High hazard potential dams | Jursidictions Impacted |
|--|---|
| B-II Detention Basin Dam (OK00060) 34°38'19.1"N 98°27'51.6"W | <ul style="list-style-type: none"> Location: Lawton Municipal Boundary Owner/Operator: City of Lawton Normal Capacity: 0 acre-feet, dry detention pond Max. Capacity: 213 acre-feet <i>This is a flood detention dam which totally drains between rain events.</i> |
| Dolese Detention Basin (OK00065) 34°38'06.6"N 98°28'49.8"W | <ul style="list-style-type: none"> Location: Lawton Municipal Boundary Owner/Operator: City of Lawton |

¹³ <https://www.owrb.ok.gov/damsafety/index.php>

¹⁴ DOI-FWS - Department of Interior – Fish and Wildlife Service

| | | |
|--|--|---|
| | <ul style="list-style-type: none"> • Normal Capacity: 0 acre-feet, dry detention pond • Max. Capacity: 300 acre-feet • <i>This is a flood detention dam which totally drains between rain events.</i> | |
| <p>Lake Ellsworth (OK00452) 34°47'39.91"N 98°21'52.87"W</p> | <ul style="list-style-type: none"> • Location: Lawton Municipal Boundary • Owner/Operator: City of Lawton • Normal Capacity: 59,470 acre-feet • Max. Capacity: 189,200 acre-feet | <ul style="list-style-type: none"> • City of Lawton • City of Elgin • City of Geronimo • Town of Fletcher • Fort Sill Military Installation Cantonment • Unincorporated Comanche County |
| <p>Lake Lawtonka (OK00450) 34°44'09.91"N 98°30'12.15"W</p> | <ul style="list-style-type: none"> • Location: Lawton Municipal Boundary • Owner/Operator: City of Lawton • Normal Capacity: 54,689 acre-feet • Max. Capacity: 88,665 acre-feet | <ul style="list-style-type: none"> • City of Lawton • Town of Medicine Park • City of Cache • Fort Sill Military Installation Cantonment • Unincorporated Comanche County |
| <p>Upper Canyon Lake (OK20507) 34°40'42.71"N 98°38'02.26"W</p> | <ul style="list-style-type: none"> • Location: Ft. Sill • Owner/Operator: Dept. of Defense • Normal Capacity: 49 acre-feet • Max. Capacity: 50 acre-feet | <ul style="list-style-type: none"> • City of Cache • Town of Chattanooga • Unincorporated Comanche County |
| <p>Elmer Thomas Lake (OK00466) 34°43'47.13"N 98°30'33.16"W</p> | <ul style="list-style-type: none"> • Location: Wichita Mountain Wildlife Refuge • Owner/Operator: US Fish & Wildlife Service • Normal Capacity: 12,000 acre-feet • Max. Capacity: 14,000 acre-feet | <ul style="list-style-type: none"> • City of Lawton • Town of Medicine Park • Unincorporated Comanche County |
| <p>Little Washita Site 18 (OK20771)</p> | <ul style="list-style-type: none"> • Location: Comanche County | <ul style="list-style-type: none"> • Unincorporated Comanche County |

| | | |
|--|--|--|
| <p>34°45'49.80"N 98°43'46.58"W</p> | <ul style="list-style-type: none"> • Owner/Operator: Comanche Co Conservation District • Normal Capacity: 162 acre-feet • Max. Capacity: 1,535 acre-feet | |
| <p>Comanche Lake Dam (OK30003) 34°49'28.53"N 98°05'33.68"W</p> | <ul style="list-style-type: none"> • Location: Wichita Mountain Wildlife Refuge • Owner/Operator: US Fish & Wildlife Service • Normal Capacity: 100 acre-feet • Max. Capacity: 670 acre-feet | <ul style="list-style-type: none"> • City of Cache • Town of Medicine Park • Unincorporated Comanche County |
| <p>Lake George (OK20503) 34°38'30.0"N 98°20'30.0"W</p> | <ul style="list-style-type: none"> • Location: Ft. Sill • Owner/Operator: Dept. of Defense • Normal Capacity: 723 acre-feet • Max. Capacity: 1,340 acre-feet | <ul style="list-style-type: none"> • City of Lawton |
| <p>Pecan Valley Waterworks (OK30591) 34°37'29.3"N 98°32'05.9"W</p> | <ul style="list-style-type: none"> • Location: Comanche County • Owner/Operator: Private individual or business • Normal Capacity: 164 acre-feet • Max. Capacity: 302 acre-feet | <ul style="list-style-type: none"> • City of Lawton • City of Cache • Unincorporated Comanche County |
| <p>PSO Comanche Station (OK12837) 34°32'33.7"N 98°20'03.8"W</p> | <ul style="list-style-type: none"> • Location: Comanche County • Owner/Operator: Private Individual or business • Normal Capacity: 2,200-acre feet • Max Capacity: | <ul style="list-style-type: none"> • City of Geronimo • Unincorporated Comanche County |



Extent

A High Hazard potential dam failure would be a breach large enough to exceed the creek, or river, channel downstream and overflow causing damage to homes, businesses, infrastructure, critical facilities, or put people at risk. This includes controlled releases where the rate of release exceeds the channel capacity. The cities of Lawton, Cache, Medicine Park, and portions of unincorporated Comanche County are susceptible to catastrophic flooding due to High Hazard potential dam failure. In some cases, jurisdiction over these dams pose additional problems, as they originate outside of the potential inundation area therefore mitigation actions are not under the direct control of the jurisdiction which would be directly impacted. Mitigation efforts include existing warning systems and continual monitoring by responsible jurisdiction.

The Comanche County – Lawton Emergency Management Office maintains copies of Emergency Action Plans for each identified High Hazard Potential Dams which provides detailed inundation maps, to include flow rates and measurements for each potentially impacted jurisdiction.

Vulnerability

As long as High Hazard Potential dams exist so does the chance for failure. One jurisdiction, Medicine Park, is within the direct impact of catastrophic failure of Lake Lawtonka and/or Lake Elmer Thomas. There would be an estimated 209 homes, 48 businesses, Interstate 44, highway 49, highway 58, and highway 277 that could be damaged or potentially affected.

Lake Ellsworth dam failure, while not affecting Medicine Park proper, would still affect nearby infrastructure, agricultural land, and 18 homes.¹⁵

The City of Cache lies at the confluence of Crater Creek, West Cache Creek, and Rock Creek and within the watershed of two high hazard potential dams: Upper Canyon Lake on Fort Sill and Comanche Lake Dam in the Wichita Mountains Wildlife Refuge. All the drainage area upstream of the City of Cache is under the jurisdiction of the Oklahoma Department of Transportation, U.S. Department of Defense, or U. S. Department of the Interior. These organizations have not granted planning authority to the City of Cache, nor the Comanche County Commissioners.

The City of Lawton, having the largest percentage of the total population of Comanche County, is directly affected by eight of the eleven identified High hazard potential dams. If a spontaneous rupture were to occur at any of the following dams, there is a high probability of loss of life, significant economic impact, and major disruption to the City of Lawton and Comanche County. A breach large enough to exceed the capacity of the river or creek channel and overflow causing damage to homes, businesses, critical facilities, state buildings and putting people at risk is considered a major severity. This includes situations where the dam flow control manager releases more water than can be contained in the banks of the downstream river or creek channel. The tables below from each high hazard-potential dam EAP includes relevant information for the expected travel times and depth of inundation from each high hazard-potential dam.

Lake George & Elmer Thomas Lake fall under Federal responsibility for risk mitigation. The Comanche County Hazard Mitigation Planning Committee is unable to execute any mitigation projects for these High Hazard Potential dams except for downstream mitigation as may be required. Downstream mitigation is covered in conjunction with other City of Lawton mitigation projects.

Those communities with high hazard-potential dams located within their jurisdiction have the highest vulnerability from a dam breach. Those areas located in the breach zone of a dam failure would be immediately impacted by the force of water that has been released. Residential and commercial structures, transportation routes, infrastructure systems such as water, sewer, electrical and pipelines have the potential to be severely to irrevocably damaged. Critical facilities and services would be impacted, including firefighting, medical care, and the loss of source water to water districts. These water districts, located away from the immediate impact area, would result in loss of service to residential and commercial customers. Many of these customers do not have a secondary source of potable water. Ellsworth Lake and Lake Lawtonka provide source water for The City of Lawton, The Town of Medicine Park, The City of Geronimo, Fort Sill, and 3 rural water districts (Rural Water Districts 1, 3, and 5), with a total of 36,047 meters.

¹⁵ <http://pubs.usgs.gov/sir/2012/5026/SIR12-5026.pdf>
pg. 142

Comanche County Water Meter Information

| | |
|---------------------------------------|--------|
| City of Lawton | 28,678 |
| Comanche County Rural Water Districts | 2,936 |
| Medicine Park | 339 |
| Geronimo | 530 |

Persons at Risk (PAR)

| | |
|------------------|-------|
| B-II Detention | 1,837 |
| Dolese Detention | 2,222 |
| Lake Lawtonka | 6,805 |
| Lake Ellsworth | 5,267 |

Structures at Risk

| Dam | Number of Buildings |
|----------------------|--|
| B-II Detention | <ul style="list-style-type: none"> • 635 Homes • 1 Elementary School • Multiple Businesses |
| Dolese Detention | <ul style="list-style-type: none"> • 525 Homes • 1 Elementary School • Multiple Businesses |
| Lake Lawtonka | <ul style="list-style-type: none"> • 734 Homes • 184 Businesses |
| Lake Ellsworth | <ul style="list-style-type: none"> • 576 Structures |
| Comanche Lake Dam | <ul style="list-style-type: none"> • 345 Homes • 144 Businesses • 1 Elementary School • 1 Middle School • 1 High School |
| PSO Comanche Station | <ul style="list-style-type: none"> • 1 Home |
| Canyon Lake Dam | <ul style="list-style-type: none"> • 235 Homes • 77 Businesses |

Transportation & Utilities at Risk

| Dam | Number of Infrastructure |
|---------------|--|
| Lake Lawtonka | <ul style="list-style-type: none"> • 210 Roadways |

| | |
|-------------------|--|
| | <ul style="list-style-type: none"> • 2 Railways (Stillwater Central and Union Pacific) • 2 Water Treatment Stations • 1 Wastewater Treatment Plant • 750 Electrical Powerlines & Poles |
| Lake Ellsworth | <ul style="list-style-type: none"> • 198 Roadways • 2 Railways (Stillwater Central and Union Pacific) • 2 Water Treatment Stations • 1 Wastewater Treatment Plant • 536 Electric Powerlines & Poles |
| Comanche Lake Dam | <ul style="list-style-type: none"> • 84 Roadways |

Secondary Hazards

Economic impacts can be direct or indirect. Direct impacts appear immediately following a dam failure event and typically include the need to repair and rebuild structures and infrastructure and reopen businesses. Indirect economic impacts that might be identified during the consequence assessment are unemployment leading to population shifts, difficulty in attracting new businesses to the area, the need for governmental assistance, and lower property tax revenues. Indirect impacts may also include the closure of an industry outside the inundation area that depends on the output of a factory within the inundation area that would be destroyed by the dam failure scenario under consideration. Dam failure has the potential to cause significant and long-term social effects, resulting in changes to the quality of life in the affected community. Social impacts may include a loss in the public's confidence in public officials, difficulty delivering necessary social or medical services to the community, or the loss of connections among community members that provide support and enrichment. A dam failure can also have negative environmental impacts, such as the pollution of surface or groundwater, air, and soil; the release of hazardous materials; or the destruction of environmentally sensitive areas. Long term vulnerabilities to the community, reservoir, such recreation, environment, and cost to rebuild or develop a new source of potable water etc.

Mitigation Strategies and Actions for High Hazard Potential Dams

Dam Risk Reduction Measures

Risk Rating: Dams in Comanche County that pose an unacceptable risk to the public are those that are classified as high hazard-potential, are in other than satisfactory condition, and do not meet current state dam safety requirements. The OWRB maintains a list of dams that are considered to pose an unacceptable risk to the public.

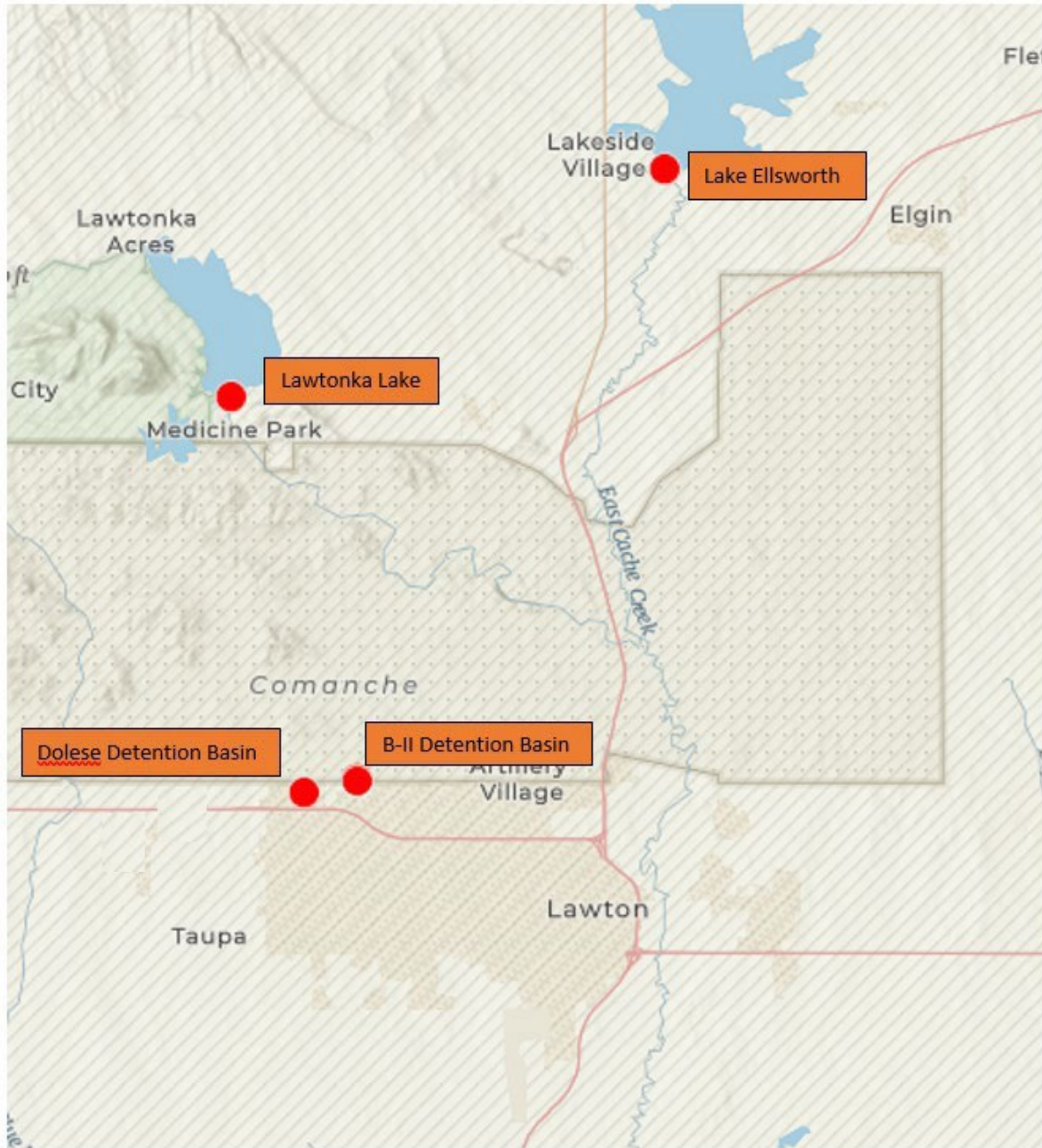
All dams are required to be brought into compliance with state dam safety requirements, and increased mitigation actions must be taken to reduce vulnerabilities from dam failure until compliance has been achieved. Mitigation actions must be tailored to individual dams depending on the identified potential failure mode that is being mitigated. With guidance from the Oklahoma Dam Safety Program (ODSP) and dam owners' technical representatives, the owners of these dams are responsible for identifying and implementing temporary risk reduction measures.

These required temporary mitigation actions may include, but are not limited to, tasks such as lowering the water level in the reservoir, increased inspection frequency especially during and/or after heavy rainfall events, installation of remote monitoring devices, installation of flood control devices, or installation of signage at critical roads and bridges.

Condition Ratings: The Lawtonka Dam was rated by the City of Lawton Consultant Engineer firm as being in fair condition due to the need for some repair of surface spalling on concrete embankment and downstream erosion. Lake Ellsworth Dam was rated by the City of Lawton Consultant Engineer firm as being in poor condition due to the failure of the spillway and stilling basin.

Based on this analysis, the Comanche County Hazard Mitigation Planning Committee determined this rating posed an **unacceptable risk** to the community as a whole.

City of Lawton Municipal Boundary High Hazard-Potential Dam Location Map



Lake Ellsworth Dam Breach Water Depth and Time

| . | Resident/business | 75% PMF stage (ft) | 75% PMF Stage (hr:mm) | Sunny Day stage (ft) | Sunny Day Stage (hr:mm) |
|-----|-------------------|--------------------|-----------------------|----------------------|-------------------------|
| 1 | highway 277 | 1,201.90 | 2:55 | 1,192.48 | 3:45 |
| B-2 | Glover Road | 1,188.29 | 3:10 | 1,181.08 | 4:10 |
| B-3 | Interstate 44 | 1,161.74 | 3:35 | 1,153.57 | 5:30 |
| B-4 | Lake Road | 1,150.29 | 4:10 | 1,144.21 | 6:05 |
| 5 | Qinette Road | 1,137.71 | 5:00 | 1,130.26 | 7:55 |
| 6 | Hoyle Road | 1,128.67 | 5:30 | 1,121.26 | 9:05 |
| 7 | Rogers Road | 1,092.75 | 6:20 | 1,099.52 | 10:35 |
| 8 | Gore Road | 1,082.19 | 6:50 | 1,088.19 | 11:35 |
| 9 | Lee Blvd | 1,072.17 | 7:10 | 1,079.11 | 12:05 |
| | Bishop Road | 1,065.05 | 7:35 | 1,066.99 | 12:50 |
| | Coombs Road | 1,047.95 | 8:00 | 1,059.70 | 13:35 |
| | Tinney Road | 1,047.95 | 9:20 | 1,042.24 | 16:00 |
| | County Road 1750 | 1,027.87 | 10:45 | 1,021.70 | 18:55 |
| | County Road 1770 | 1,016.12 | 11:40 | 1,008.84 | 20:50 |
| | County Road 2620 | 991.44 | 14:15 | 984.25 | 25:25 |
| | Higway 53 | 981.23 | 15:10 | 973.15 | 28:30 |

Table -1.2: Ellsworth Flood Inundation Magnitude (Feet)

The range of inundation can vary depending on elevation of the area in question. The following chart lists the depths in feet at various locations downstream from the dam.

| Housing Addition | COUNT | AREA | MIN_ (ft) | MAX_ (ft) | RANGE (ft) | MEAN (ft) | STD |
|--------------------------|--------|---------|-----------|------------------|------------|------------------|----------|
| HERITAGE ESTATES PT 2 | 29973 | 119892 | 0.000976 | 11.398699 | 11.3977 | 2.833309 | 2.615819 |
| HERITAGE ESTATES PT 1 | 1584 | 6336 | 0.215941 | 3.234989 | 3.01904 | 0.804871 | 0.760821 |
| HERITAGE ESTATES PT 3 | 87197 | 348788 | 0.000122 | 9.08765 | 9.087519 | 2.339799 | 1.53374 |
| TURTLE CREEK VILLAGE ADD | 21293 | 85172 | 4.78198 | 18.089099 | 13.3071 | 8.86268 | 2.23585 |
| TURTLE CREEK NORTH 2 | 54927 | 219708 | 5.21997 | 19.551 | 14.3311 | 8.52515 | 1.633599 |
| | 4448 | 17792 | 7.74902 | 23.9071 | 16.1581 | 14.121299 | 4.52574 |
| GARDEN VILLAGE 1 | 264910 | 1059640 | 9.45874 | 29.065599 | 19.6068 | 15.508899 | 4.27083 |
| CREEKWOOD VILLAGE | 204708 | 818832 | 10.593899 | 30.445999 | 19.852199 | 15.905099 | 3.44983 |
| TURTLE CREEK ADD 1 | 219268 | 877072 | 0.020385 | 28.028799 | 28.008399 | 11.9097 | 4.330969 |
| TURTLE CREEK TOWNHOUSE | 29198 | 116792 | 0.001098 | 10.301799 | 10.3007 | 4.527239 | 2.090019 |
| TURTLE CREEK NORTH 1 | 16608 | 66432 | 1.78479 | 7.436279 | 5.65149 | 4.944359 | 0.961355 |
| PIONEER PARK ADD 3 | 3412 | 13648 | 0.000122 | 4.671259 | 4.67114 | 0.558655 | 0.527487 |
| PIONEER PARK ADD 2 | 35262 | 141048 | 0.000244 | 8.72961 | 8.72937 | 1.54539 | 1.424489 |
| PIONEER PARK ADD 1 | 10106 | 40424 | 0.001098 | 4.84766 | 4.84656 | 1.186599 | 0.890783 |
| LEGION ADD | 156064 | 624256 | 0.213135 | 15.9307 | 15.717499 | 10.0591 | 2.18771 |
| NORTH LEGION ADD | 7006 | 28024 | 2.056639 | 7.8916 | 5.834959 | 4.614689 | 0.915727 |
| TURTLE CREEK ADD 2 | 345836 | 1383340 | 7.09143 | 27.860599 | 20.769199 | 12.697899 | 4.606009 |
| GARDEN VILLAGE 2 | 185704 | 742816 | 8.400629 | 26.744499 | 18.3439 | 12.671299 | 1.58324 |
| CAPITAL HILL SUB | 1985 | 7940 | 0.007202 | 8.84167 | 8.834469 | 8.226929 | 0.565936 |
| STANDARD TESTING | 5501 | 22004 | 0.560913 | 3.635859 | 3.074949 | 1.234249 | 0.698584 |
| TURNPIKE INDUSTRIAL PARK | 523767 | 2095070 | 0.000488 | 13.537099 | 13.5366 | 5.70692 | 2.97848 |
| EASTGATE 3 | 47959 | 191836 | 2.056519 | 8.73682 | 6.6803 | 3.702209 | 0.826511 |
| EASTGATE 1 | 77932 | 311728 | 0.007202 | 7.071169 | 7.06396 | 2.19842 | 1.368589 |
| EASTGATE 2 | 94324 | 377296 | 1.422729 | 8.912229 | 7.4895 | 4.851399 | 0.923563 |
| AIRPORT ADD | 176243 | 704972 | 0.000244 | 19.020599 | 19.020399 | 3.805579 | 3.899139 |
| BWRW DEVELOPMENT | 49213 | 196852 | 1.59106 | 8.603389 | 7.01233 | 5.61663 | 1.039899 |
| NORTH ADD | 22482 | 89928 | 0.000854 | 5.12292 | 5.122069 | 2.806679 | 1.309069 |
| SKYLINE EAST ADD 1 | 11648 | 46592 | 0.000244 | 4.174799 | 4.17456 | 2.05777 | 1.054239 |
| SKYLINE EAST COMMERCIAL | 1004 | 4016 | 0.002563 | 2.038939 | 2.03638 | 0.867645 | 0.513068 |
| REPLAT OF SUMMERWOOD | 217579 | 870316 | 8.652589 | 22.7338 | 14.081199 | 13.029199 | 1.640349 |
| REPLAT PT BLK 1 SUMMER- | 13898 | 55592 | 8.664919 | 13.688799 | 5.02393 | 11.4258 | 0.854622 |

Table-2.1: Lawtonka Dam Breach Water Depth & Time

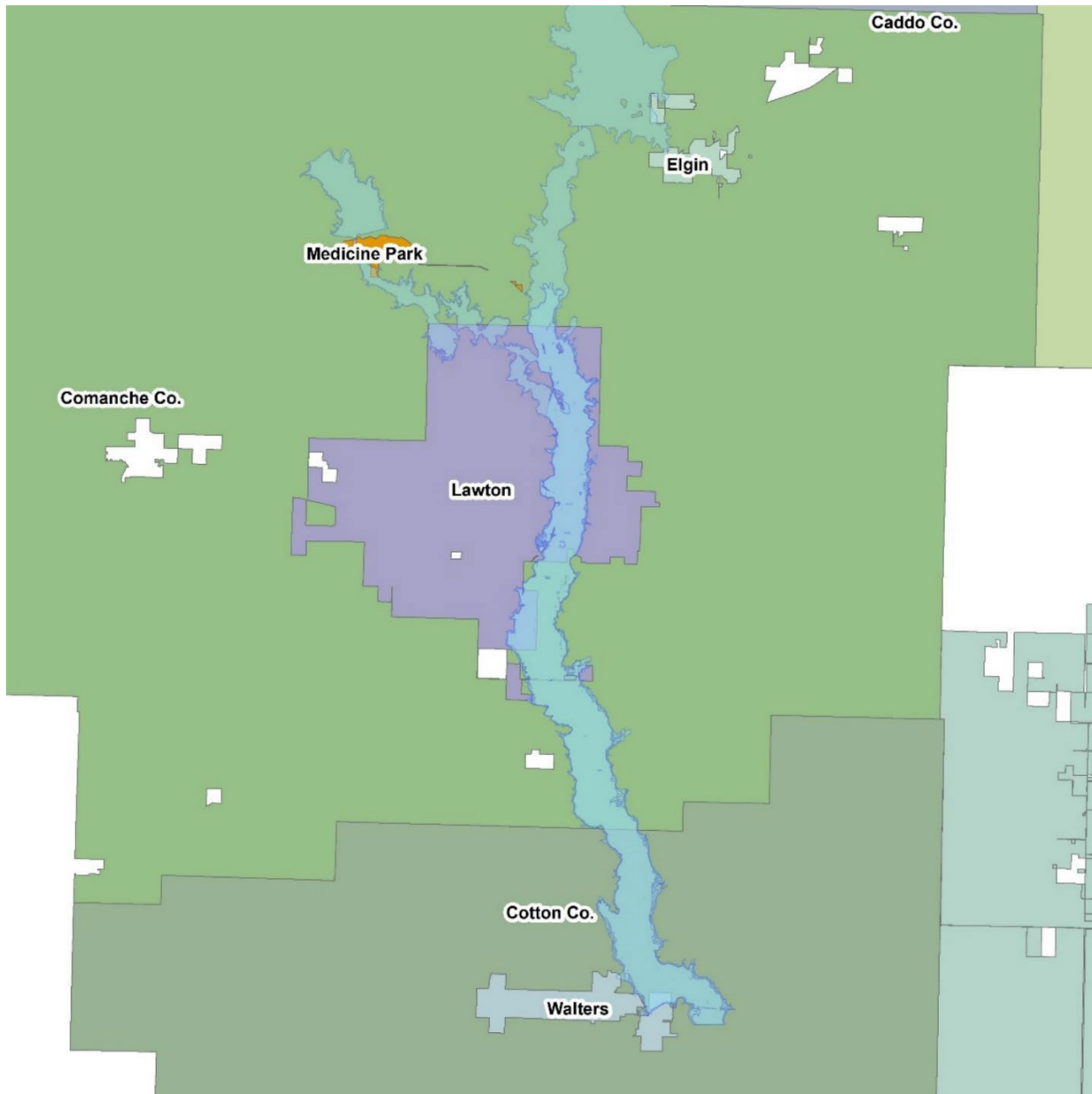
| | Resident/business | Address | 75% PMF Stage (ft) | 75% PMF Stage Time from breach (hr:mm) | Sunny day Stage (ft) | Sunny Day Stage time from breach (hr:mm) |
|-----|------------------------|---------------|--------------------|--|----------------------|--|
| 1 | Medicine Foot Bridge | 10300 132nd | 1,303.48 | 2:21 | 1,297.96 | 2:24 |
| B-2 | Medicine Wooden Bridge | 3214 Chestnut | 1,295.82 | 2:25 | 1,291.18 | 2:28 |
| B-3 | HWY 49 | 2288 Farm | 1,289.30 | 2:36 | 1,284.66 | 2:38 |
| B-4 | white wolf | 1455 Sugar | 1,152.90 | 6:47 | 1,147.57 | 8:16 |
| 5 | Medicine Quinette | 4812 Chestnu | 1,131.28 | 7:25 | 1,129.16 | 7:58 |
| 6 | I 44 | 5500 Apple | 1,126.18 | 8:09 | 1,124.46 | 8:48 |
| 7 | Rogers Road | 4814 Chestnut | 1,122.61 | 8:16 | 1,123.85 | 8:58 |
| 8 | Rail Road Bridge | 4902 Chestnut | 1,102.28 | 8:44 | 1,120.42 | 9:42 |
| 9 | Hoyle Rd | 4910 Chestnut | 1,090.19 | 9:46 | 1,099.45 | 1:02 |
| | Gore Blvd | | 1,080.33 | 10:31 | 1,087.96 | 12:28 |
| | Lee Blvd | | 1,069.06 | 10:49 | 1,079.08 | 12:38 |
| | Bishop Road | | 1,061.83 | 11:22 | 1,066.75 | 13:27 |
| | Coombs Road | | 1,044.29 | 11:57 | 1,059.37 | 14:11 |
| | Tinney Road | | 1,044.29 | 13:56 | 1,041.74 | 16:34 |
| | County Road 1750 | | 1,023.80 | 16:13 | 1,029.95 | 19:39 |
| | County. Road 1770 | | 1,011.23 | 17:41 | 1,007.81 | 21:39 |
| | County Road 2620 | | 986.02 | 21:17 | 983.16 | 25:53 |
| | Hyw 53 | | 975.41 | 23:21 | 971.74 | 29:32 |

Table -2.2: Lawtonka Flood Inundation Magnitude (Feet)

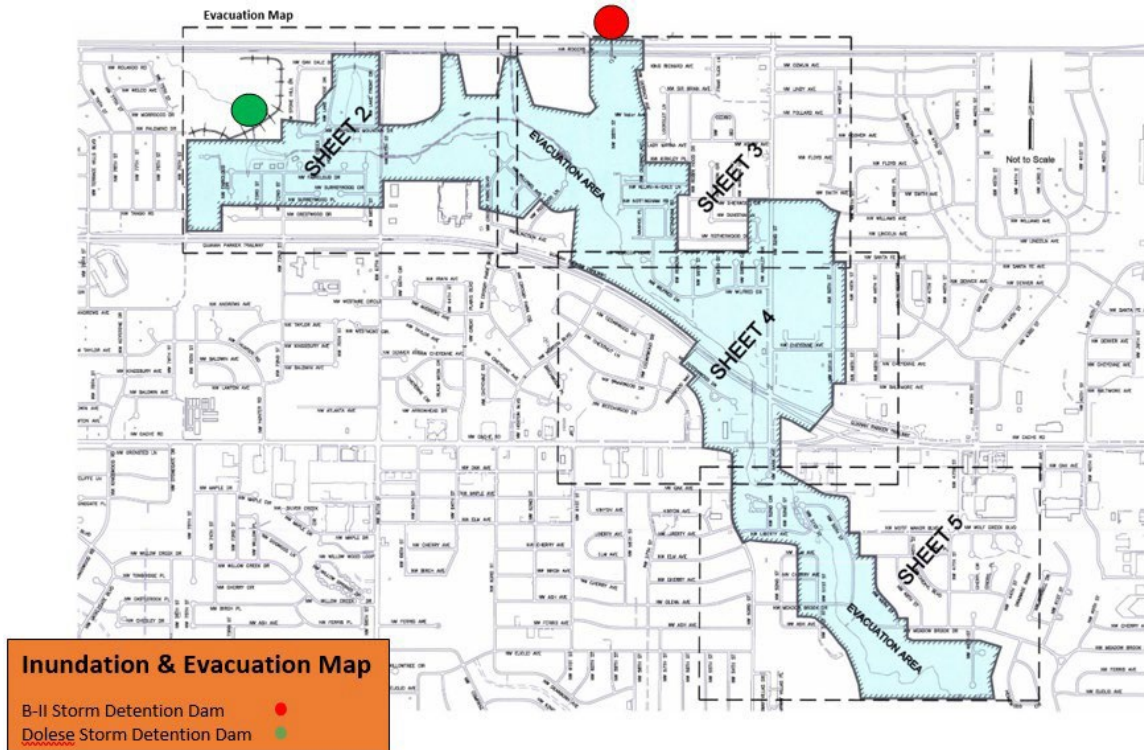
The range of inundation can vary depending on elevation of the area in question. The following chart lists the depths in feet at various locations downstream from the dam.

| Subdivision | ZONE_CODE | COUNT_ | AREA | Min rise (ft) | Max rise (ft) | RANGE | Mean rise (ft) |
|--------------------------|-----------|--------|---------|---------------|---------------|-----------|----------------|
| HERITAGE ESTATES PT 2 | 11 | 8589 | 34356 | 0.005371 | 7.620483 | 7.615112 | 2.641986 |
| HERITAGE ESTATES PT 3 | 18 | 17867 | 71468 | 0.000122 | 5.301879 | 5.301757 | 0.855741 |
| TURTLE CREEK VILLAGE ADD | 19 | 21293 | 85172 | 0.874877 | 14.178466 | 13.303588 | 4.953599 |
| TURTLE CREEK NORTH 2 | 20 | 54927 | 219708 | 1.315551 | 15.646606 | 14.331054 | 4.620821 |
| | 21 | 4928 | 19712 | 0.908935 | 19.998657 | 19.089721 | 9.308029 |
| GARDEN VILLAGE 1 | 23 | 264910 | 1059640 | 5.583618 | 25.161621 | 19.578002 | 11.673795 |
| CREEKWOOD VILLAGE | 24 | 204708 | 818832 | 6.756591 | 26.645874 | 19.889282 | 12.027007 |
| TURTLE CREEK ADD 1 | 25 | 216761 | 867044 | 0.000122 | 24.248046 | 24.247924 | 8.19679 |
| TURTLE CREEK TOWNHOUSE | 26 | 19870 | 79480 | 0.001098 | 6.436035 | 6.434936 | 1.822746 |
| TURTLE CREEK NORTH 1 | 27 | 13495 | 53980 | 0.244384 | 3.533203 | 3.288818 | 1.364315 |
| PIONEER PARK ADD 3 | 28 | 8 | 32 | 0.042846 | 0.740478 | 0.697631 | 0.34082 |
| PIONEER PARK ADD 2 | 29 | 2516 | 10064 | 0.002319 | 4.798095 | 4.795776 | 1.504199 |
| PIONEER PARK ADD 1 | 30 | 28 | 112 | 0.87207 | 0.915771 | 0.043701 | 0.886993 |
| LEGION ADD | 35 | 155010 | 620040 | 0.000366 | 12.672363 | 12.671997 | 6.820372 |
| NORTH LEGION ADD | 36 | 6467 | 25868 | 0.502441 | 4.51123 | 4.008789 | 1.365613 |
| TURTLE CREEK ADD 2 | 38 | 345836 | 1383344 | 3.305664 | 24.081665 | 20.776 | 8.92299 |
| GARDEN VILLAGE 2 | 39 | 185704 | 742816 | 4.602539 | 22.970947 | 18.368408 | 8.888678 |
| CAPITAL HILL SUB | 44 | 1960 | 7840 | 4.298461 | 5.604614 | 1.306152 | 5.026647 |
| STANDARD TESTING | 51 | 571 | 2284 | 0.194946 | 1.244506 | 1.04956 | 0.357586 |
| TURNPIKE INDUSTRIAL PARK | 52 | 594911 | 2379644 | 0.000122 | 12.285522 | 12.2854 | 4.959017 |
| EASTGATE 3 | 56 | 26999 | 107996 | 0.000122 | 5.443359 | 5.443237 | 0.880998 |
| EASTGATE 1 | 57 | 14774 | 59096 | 0.000122 | 3.780517 | 3.780395 | 0.872066 |
| EASTGATE 2 | 58 | 92272 | 369088 | 0.000976 | 5.620361 | 5.619384 | 1.603586 |
| AIRPORT ADD | 63 | 66893 | 267572 | 0.000366 | 15.712768 | 15.712402 | 3.80527 |
| BWRW DEVELOPMENT | 64 | 48696 | 194784 | 0.589233 | 6.22229 | 5.633056 | 3.110321 |
| NORTH ADD | 68 | 8236 | 32944 | 0.681274 | 1.834716 | 1.153442 | 0.919684 |
| SKYLINE EAST ADD 1 | 72 | 3843 | 15372 | 0.016601 | 1.397338 | 1.380737 | 0.573199 |
| REPLAT OF SUMMERWOOD | 74 | 217579 | 870316 | 5.73413 | 19.78833 | 14.054199 | 10.234774 |
| REPLAT PT BLK 1 SUMMER- | 75 | 13898 | 55592 | 6.061035 | 11.093505 | 5.03247 | 8.797117 |
| SUMMERWOOD SQUARE PT 1 | 76 | 27675 | 110700 | 7.213989 | 13.031127 | 5.817138 | 10.017175 |
| SKYLINE EAST ADD 2 | 77 | 11424 | 45696 | 0.006591 | 7.139282 | 7.13269 | 2.032696 |
| SKYLINE EAST ADD 3 | 79 | 3769 | 15076 | 0.001098 | 2.265747 | 2.264648 | 0.639343 |
| SUMMERWOOD SQUARE PT 3 | 80 | 5407 | 21628 | 7.284912 | 10.355468 | 3.070556 | 8.926741 |
| VERNON ADD | 87 | 142459 | 569836 | 0.000854 | 15.060668 | 15.059814 | 7.566923 |
| COUNCIL HEIGHTS | 89 | 3712 | 14848 | 0.280395 | 4.330932 | 4.050537 | 1.470207 |

Jurisdictions Affected by Potential Breach of Lawtonka Dam and Ellsworth Dam

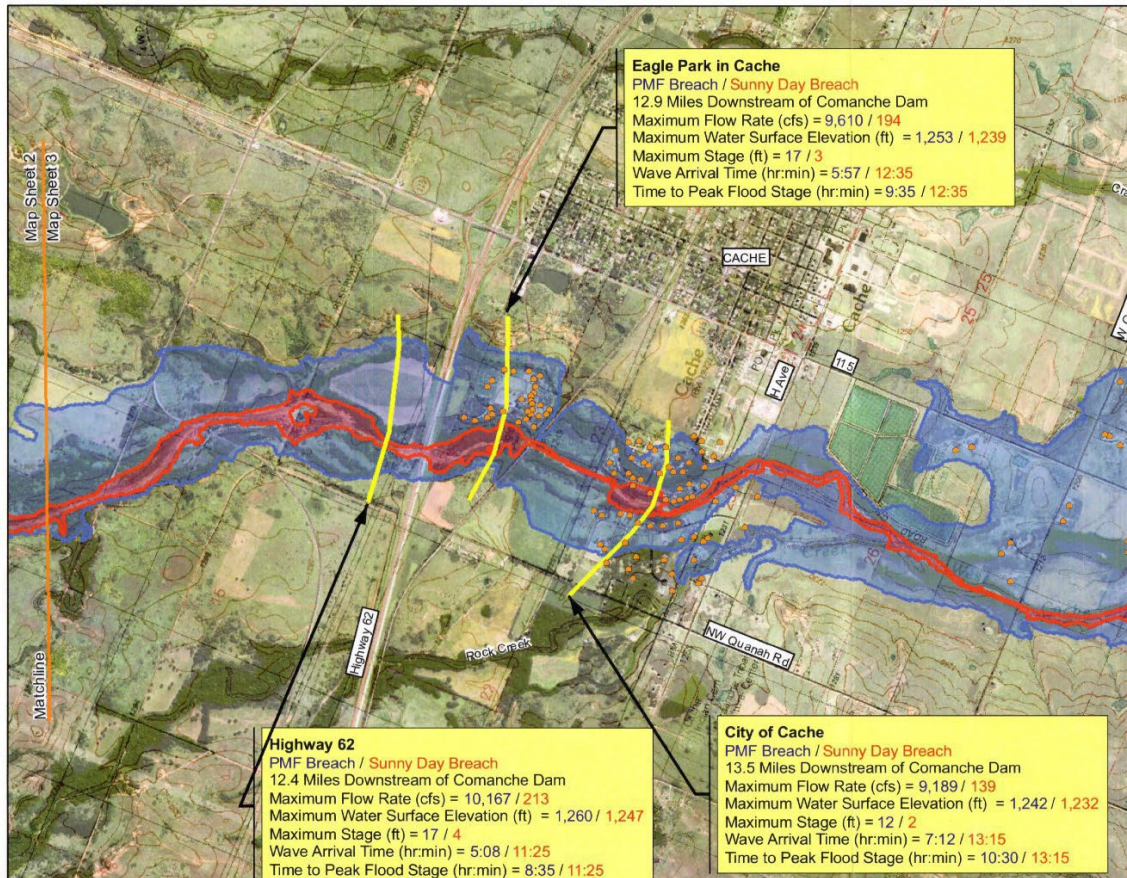


City of Lawton Area Affected by Potential Breach of B-II Dam and Dolese Dam

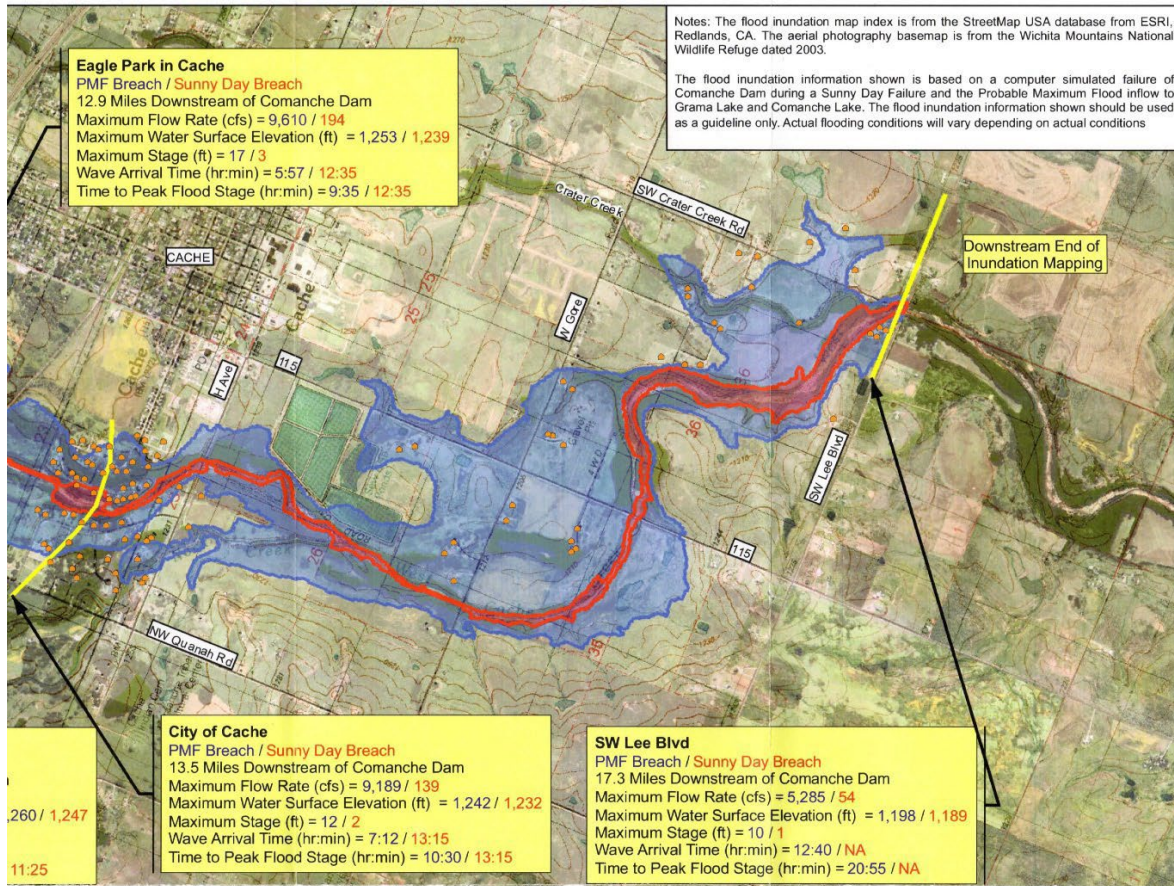


The Comanche Lake Dam breach analysis indicates a flood depth increase of 1.5 foot at Highway 62 bridge. This also depicts High Hazard Potential dam failure during a probable maximum flood. Flood heights are negligible past the city limits of Cache in unincorporated Comanche County.

Dam Breach Analysis maps for City of Cache, Town of Medicine Park, and Unincorporated Comanche County

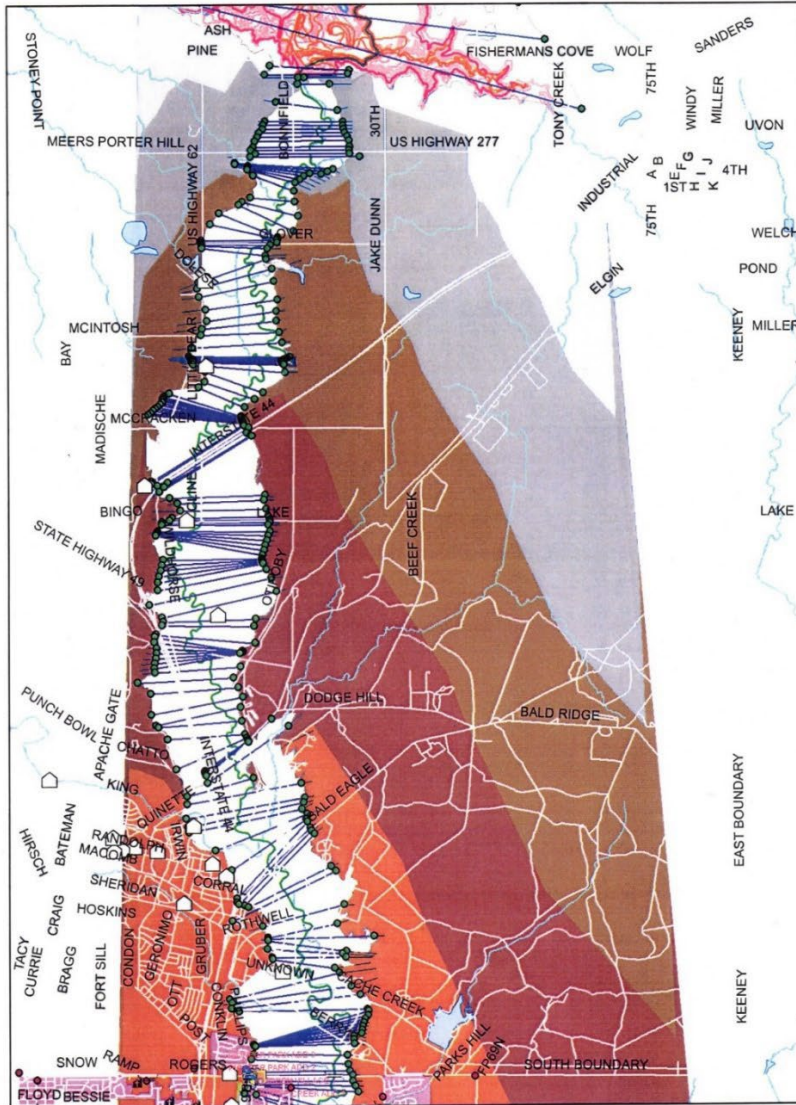


Comanche Lake Dam Breach Analysis – Unincorporated Comanche County Flood Depths under Probable Maximum Flood Conditions below Southwest Lee Boulevard



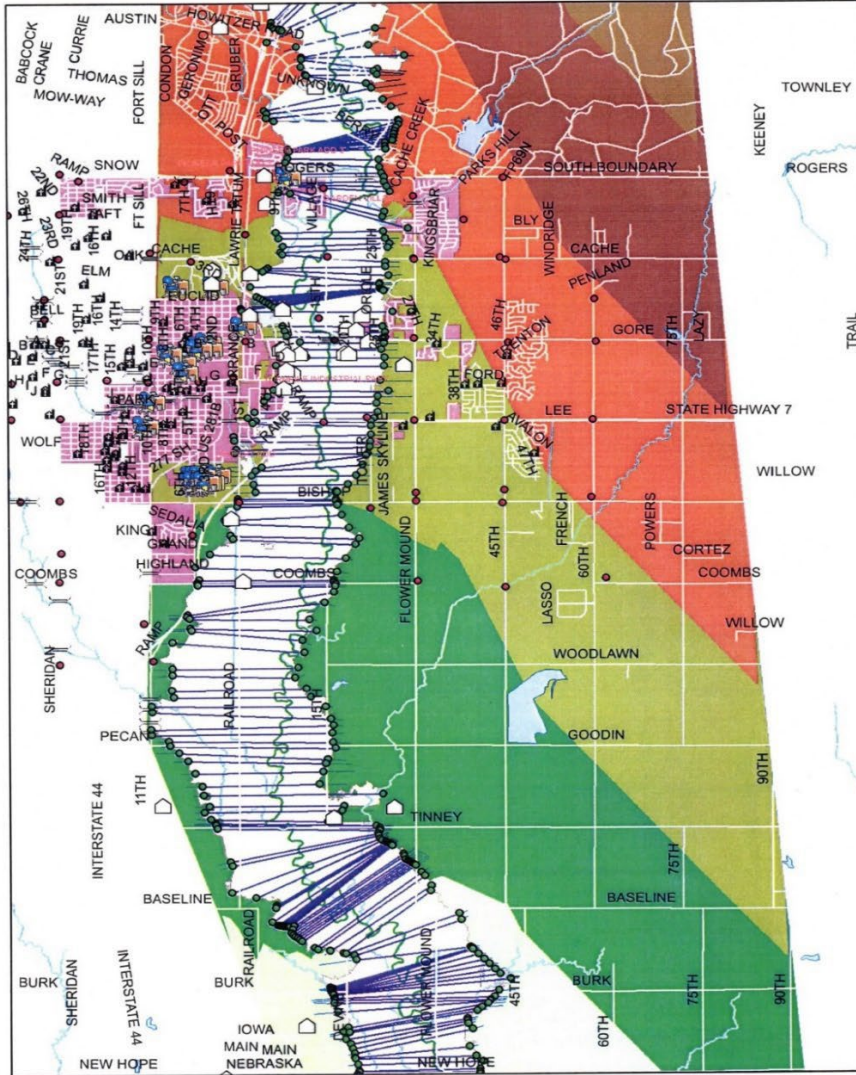
Lake Ellsworth Dam Breach Analysis – Under Probable Maximum Flood Conditions

Ellsworth PMF Breach



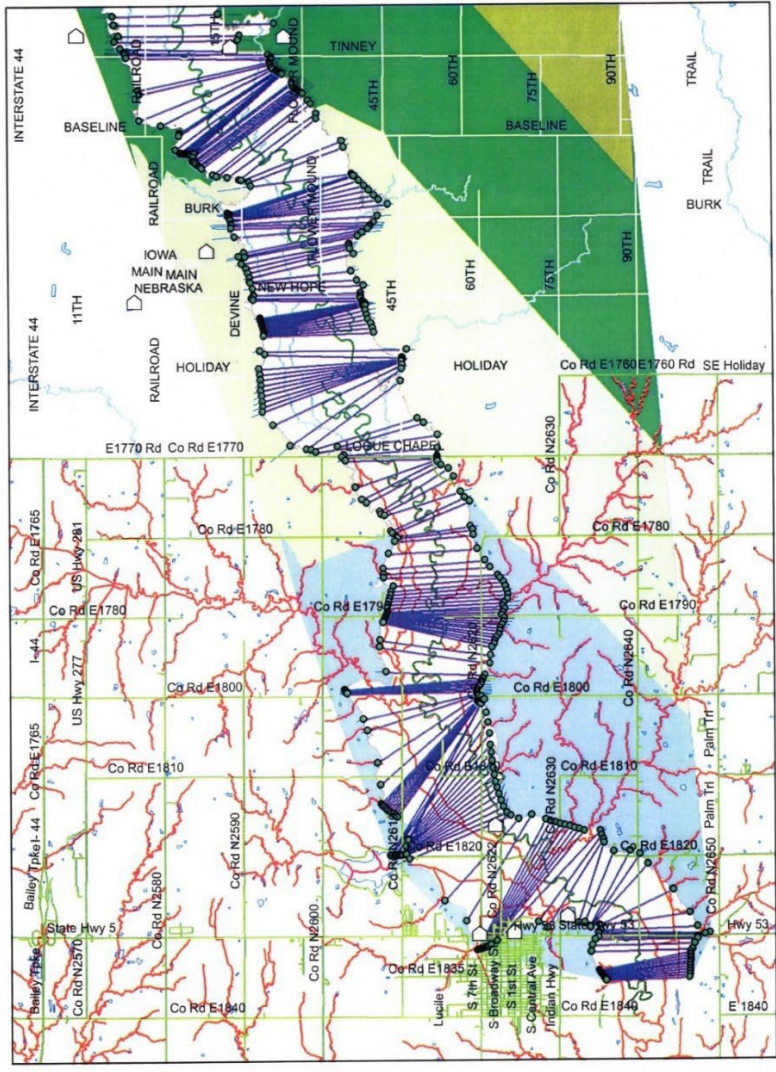
Lake Ellsworth Dam Breach Analysis – Under Probable Maximum Flood Conditions

Ellsworth PMF Breach



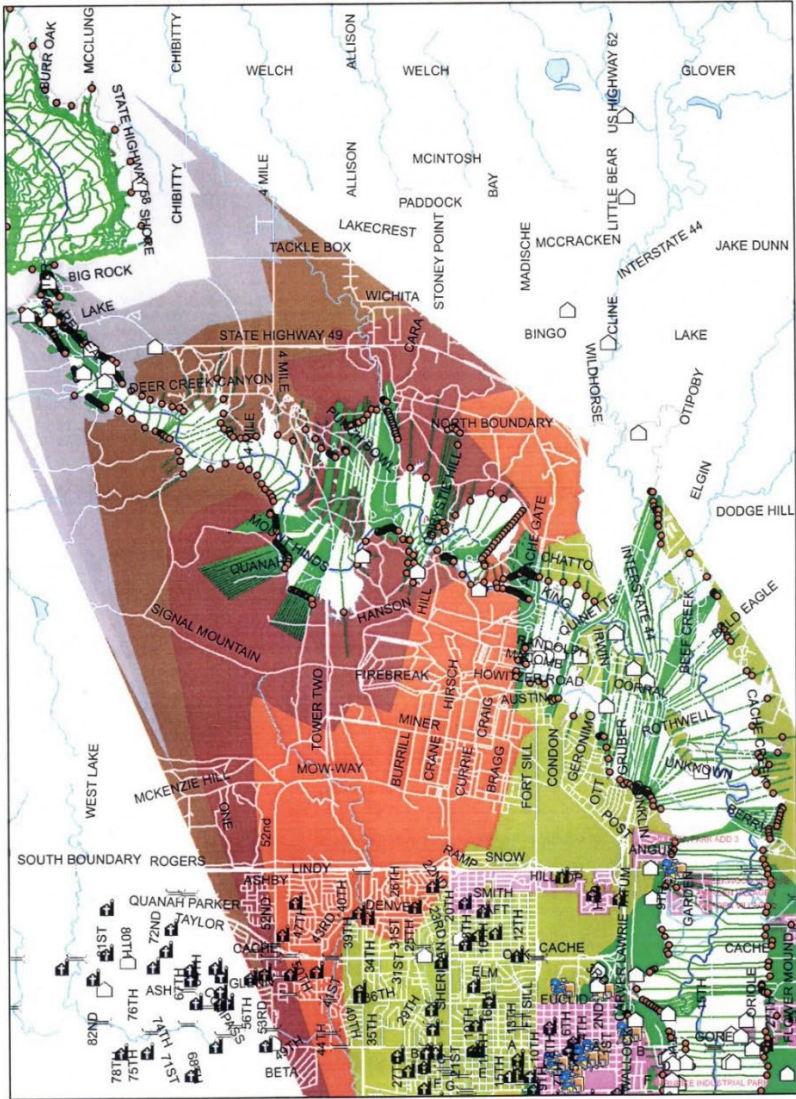
Lake Ellsworth Dam Breach Analysis – Under Probable Maximum Flood Conditions

Ellsworth PMF Breach



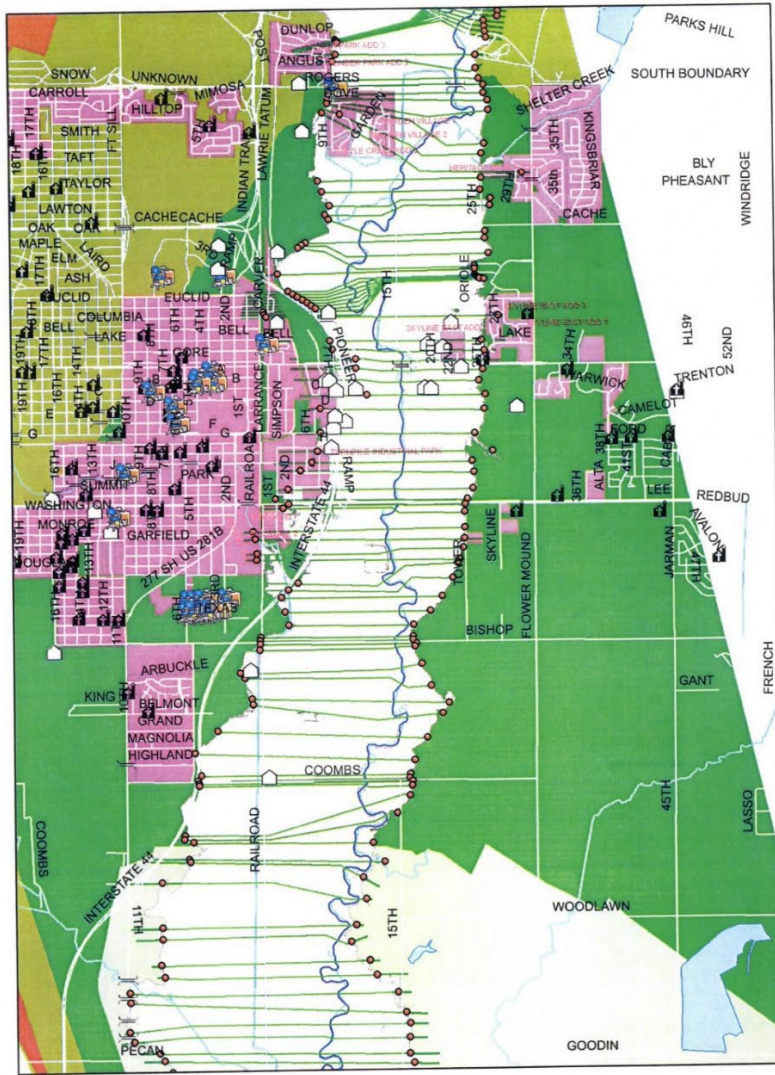
Lake Lawtonka Dam Breach Analysis – Under Probable Maximum Flood Conditions

Lake Lawtonka PMF Breach



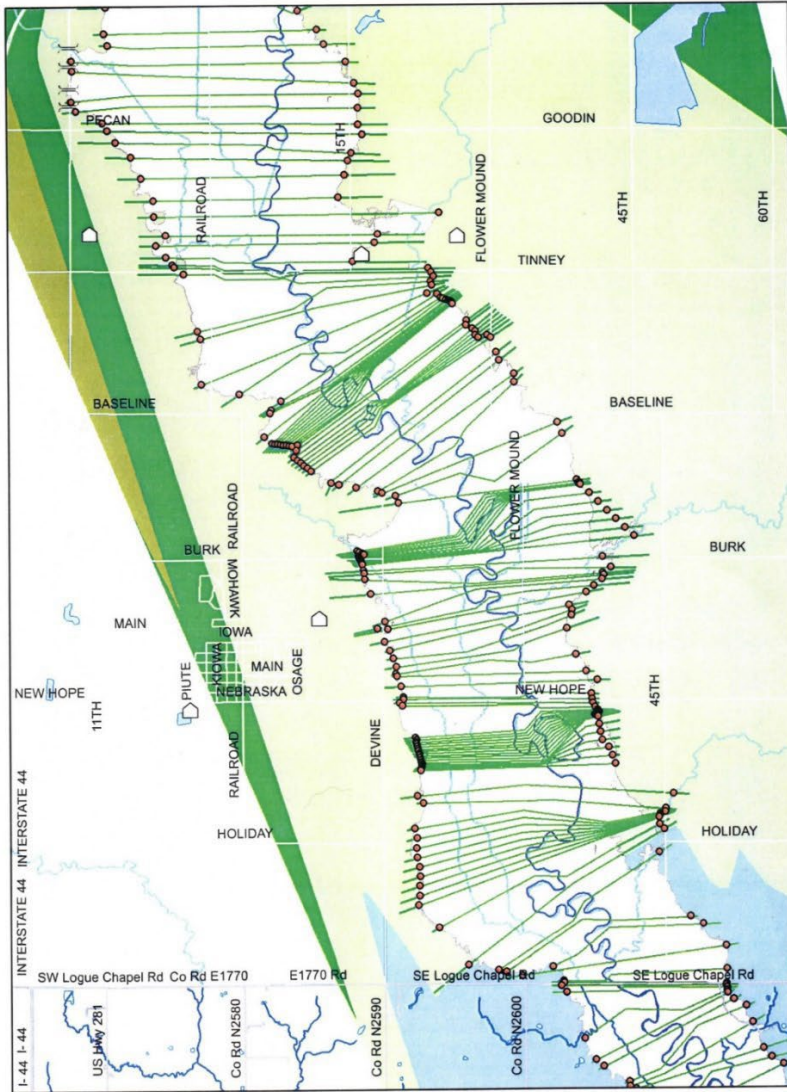
Lake Lawtonka Dam Breach Analysis – Under Probable Maximum Flood Conditions

Lake Lawtonka PMF Breach



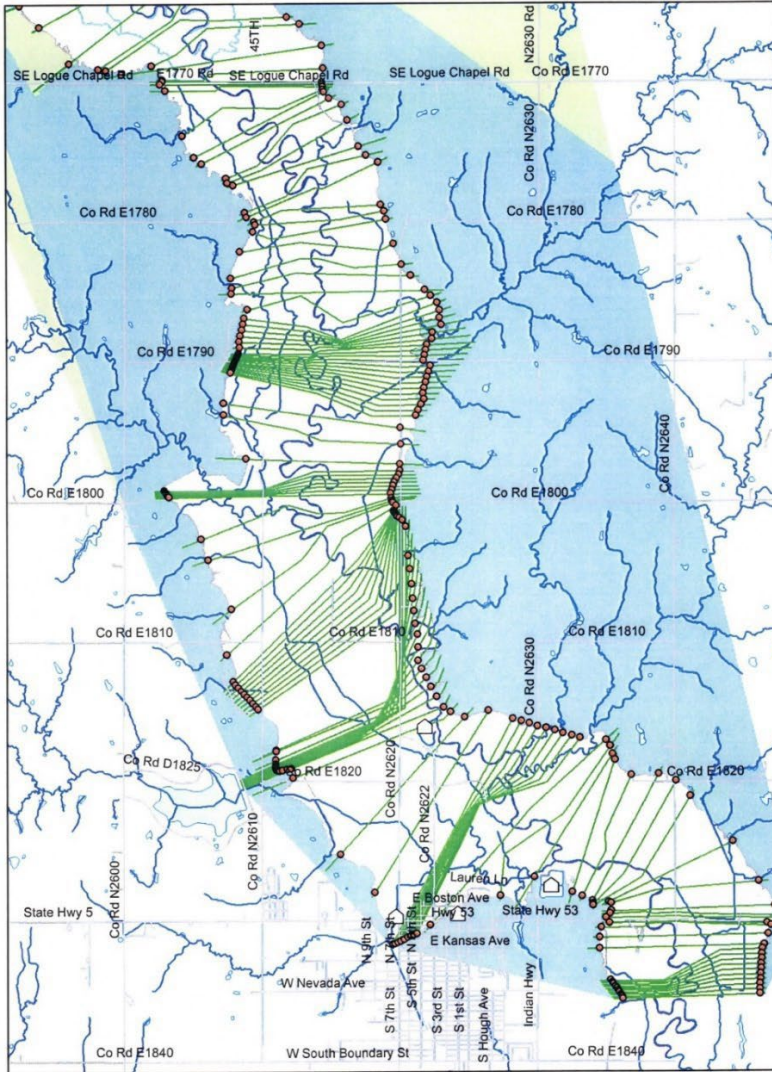
Lake Lawtonka Dam Breach Analysis – Under Probable Maximum Flood Conditions

Lake Lawtonka PMF Breach



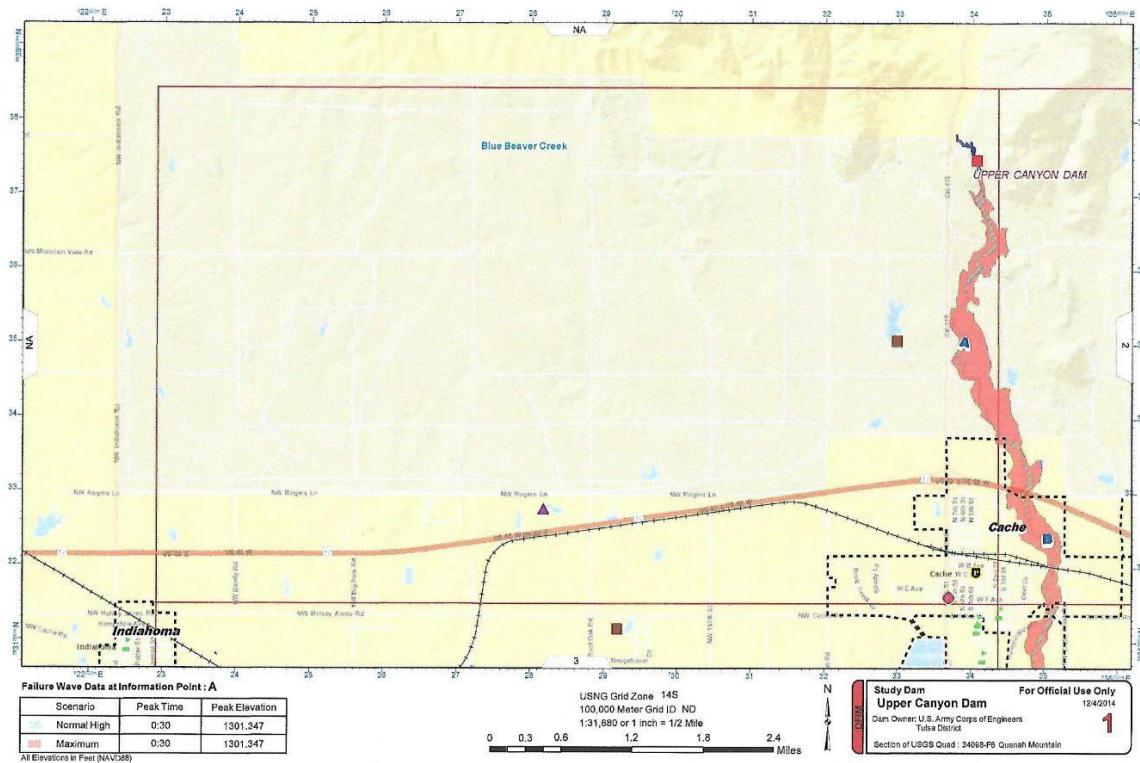
Lake Lawtonka Dam Breach Analysis – Under Probable Maximum Flood Conditions

Lake Lawtonka PMF Breach



The Emergency Action Plan for Upper Canyon indicates a flood depth increase of 3 feet at the Highway 62 bridge in the city of Cache in the event of High Hazard Potential dam failure under probable maximum flood (PMF) conditions. Cross sections indicated the flow would be negligible below the city limits of Cache in unincorporated Comanche County.

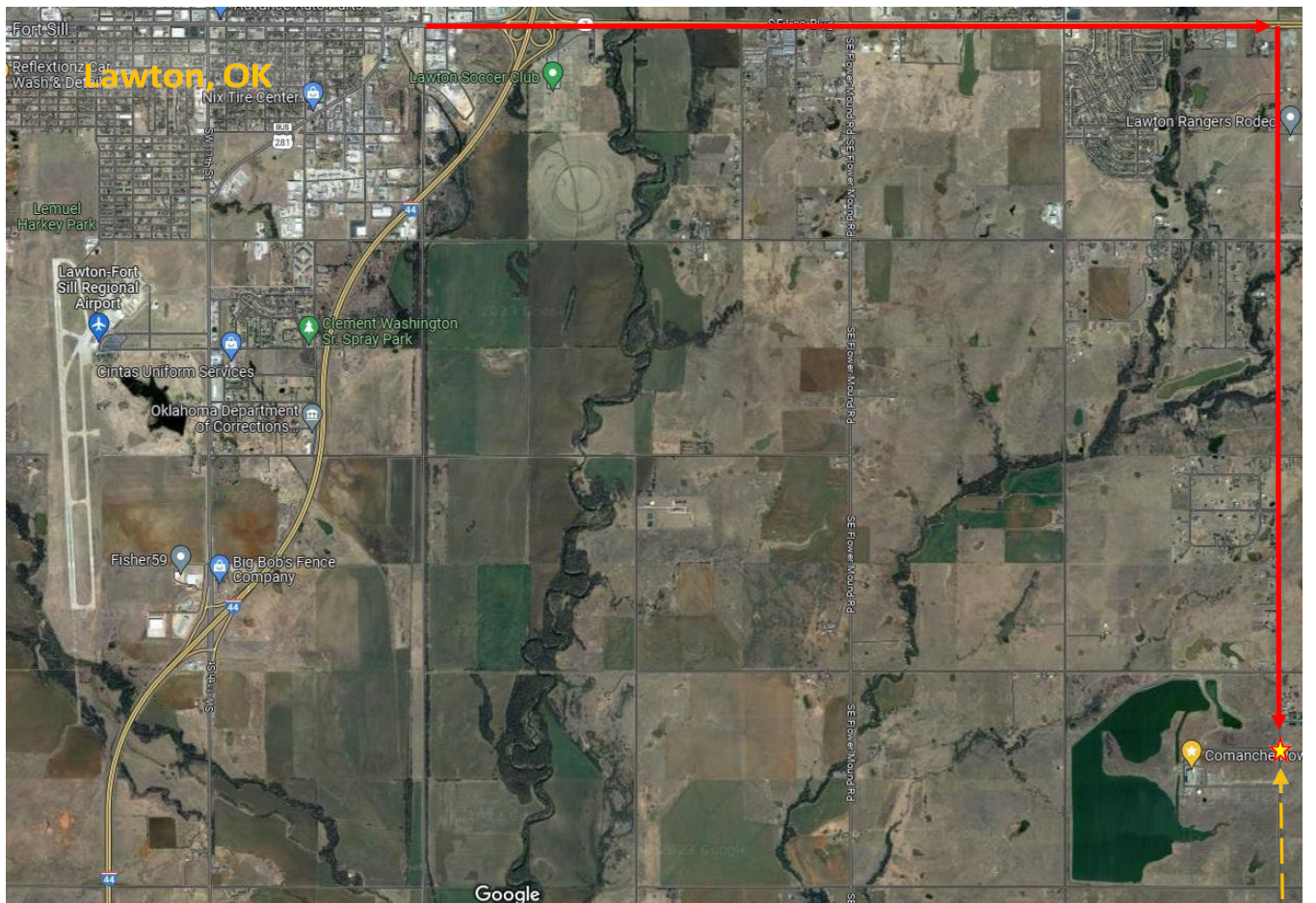
Upper Canyon Lake Dam Breach Analysis – Under Probable Maximum Flood Conditions



PSO Comanche Station Dam

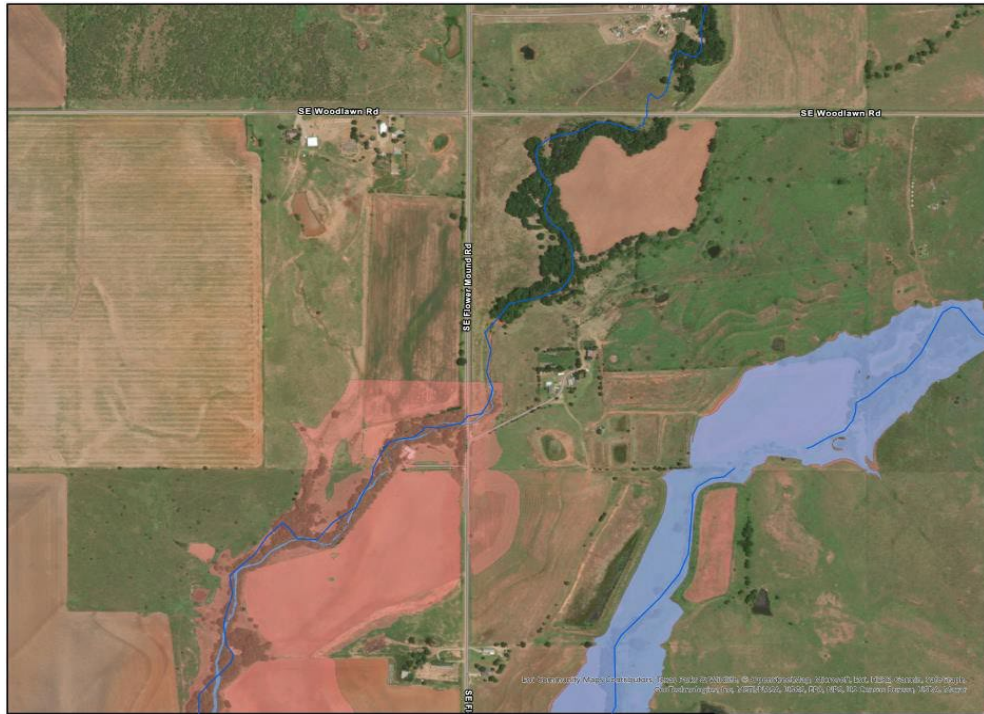
PSO Comanche Station Dam is a cooling lake reservoir for Comanche Power Station (Facility), supplied by natural rainfall and runoff, as well as from treated effluent pumped from the City of Lawton POTW. The Facility discharges from the Comanche Reservoir to an unnamed tributary of Nine Mile Creek. The dam for Comanche Reservoir is the only significant water retention facility at the site. Impoundments Fo1 and Fo2 are small low head ponds for wastewater at the NE corner of the Comanche Reservoir. There are also two small sanitary lagoons south of the plant. PSO Comanche Station Dam consists of a 9,100 feet long compacted earthen filled embankment with a maximum height of 24.5 feet. The spillway system consists of a broad crested trapezoidal weir located in the right abutment at elevation 1105.2 feet and a 3 feet x 1 feet sluice gate at elevation 1104.2 feet. The spillway has a bottom width of 20 feet and a side slope of 2H to 1V. The spillway transition into a concrete lined trapezoidal channel conveys the flow to a stream located downstream of the dam.

Lawton and Vicinity Maps





PSO Comanche Station Dam Inundation Maps



PSO COMANCHE STATION DAM FAILURE MAPPING

PANEL LOCATOR

Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri

LEGEND

- 25% PMF Breach Inundation
- Sunny Day Breach Inundation
- NHD Flowline
- Dam Centerline
- Non-Residential Impacted Structures
- Potential Impact Locations

Refer to Breach Model Report tables for detailed results at pertinent locations/road crossings.

The methods used to develop inundation zones and flood wave arrival times area approximate and should only be used as guidance for establishing evacuation zones. Actual areas inundated will depend on actual failure and pre-failure hydrologic conditions and may differ significantly from information shown on maps.



PSO COMANCHE STATION DAM FAILURE MAPPING

PANEL LOCATOR

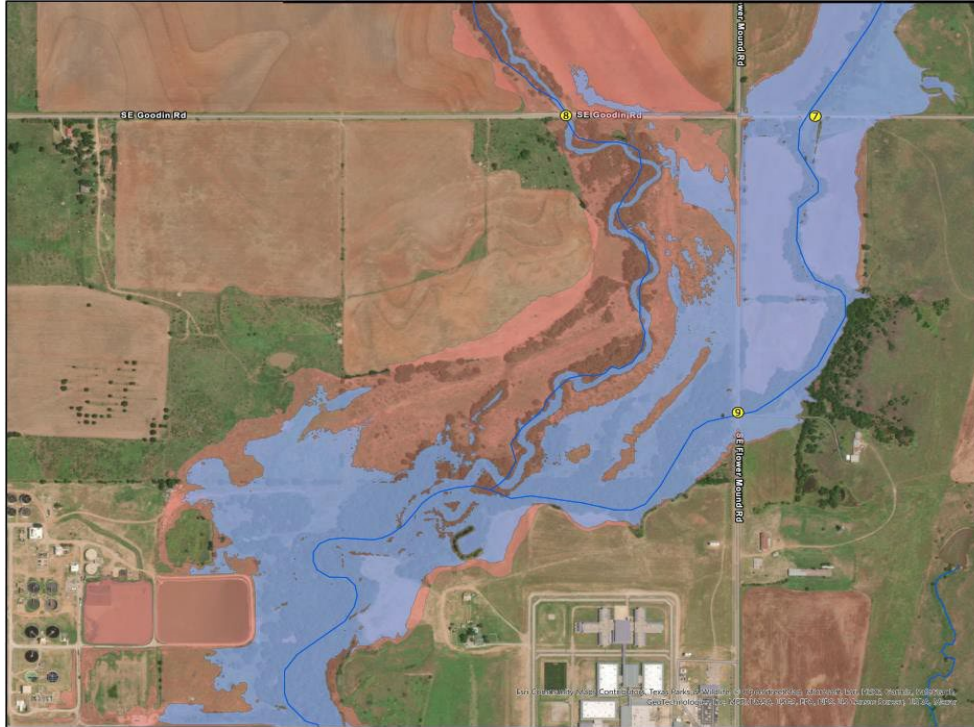
Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri

LEGEND

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- Sunny Day Breach Inundation
- NHD Flowline
- Dam Centerline
- Non-Residential Impacted Structures
- Potential Impact Locations

Refer to Breach Model Report tables for detailed results at pertinent locations/road crossings.

The methods used to develop inundation zones and flood wave arrival times area approximate and should only be used as guidance for establishing evacuation zones. Actual areas inundated will depend on actual failure and pre-failure hydrologic conditions and may differ significantly from information shown on maps.



PSO COMANCHE STATION DAM FAILURE MAPPING

PANEL LOCATOR

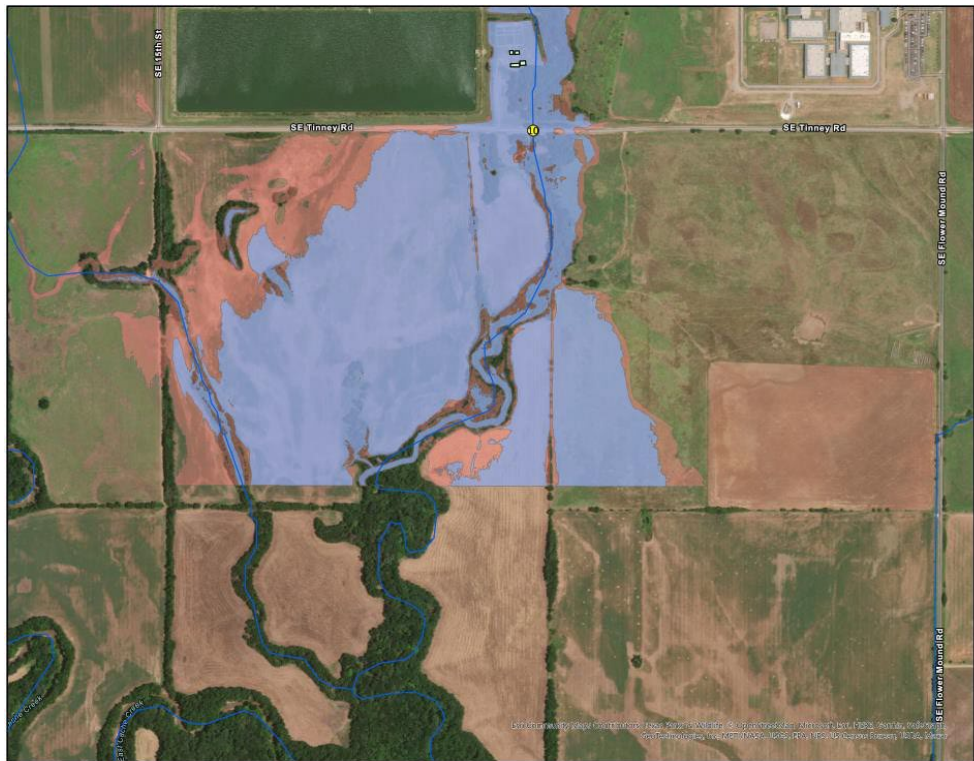
Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri

LEGEND

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- Sunny Day Breach Inundation
- NHD Flowline
- Dam Centerline
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PSO COMANCHE STATION DAM FAILURE MAPPING

PANEL LOCATOR

Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri

LEGEND

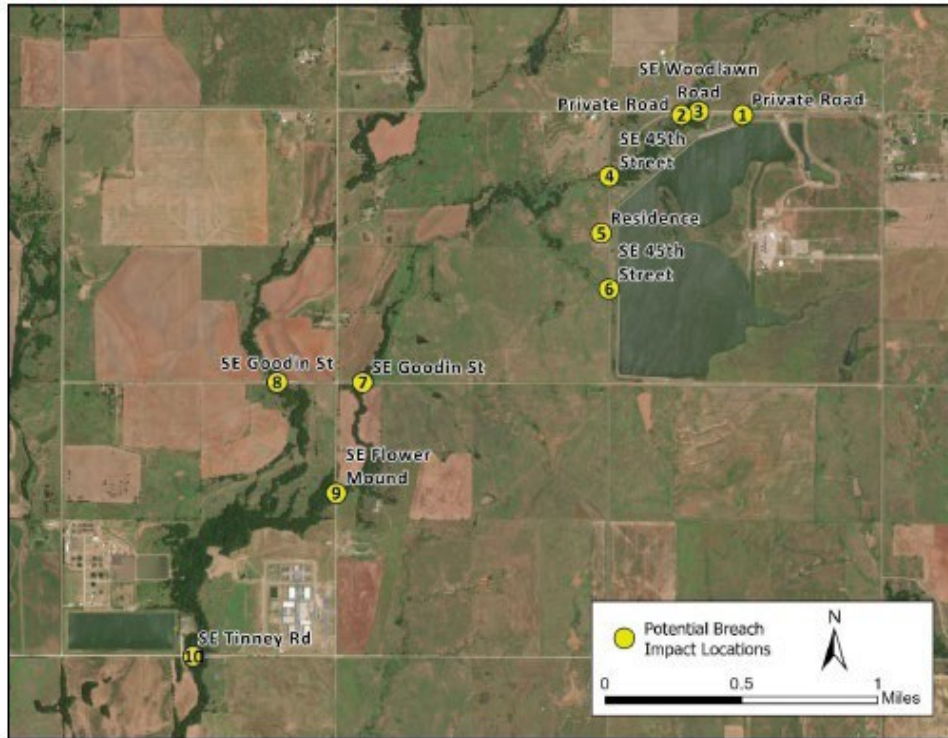
- 25% PMF Breach Inundation
- Sunny Day Breach Inundation
- NHD Flowline
- Dam Centerline
- Non-Residential Impacted Structures
- Potential Impact Locations

Refer to Breach Model Report tables for detailed results at pertinent locations/road crossings.

The methods used to develop inundation zones and flood wave arrival times are approximate and should only be used as guidance for establishing evacuation zones. Actual areas inundated will depend on actual failure and pre-failure hydrologic conditions and may differ significantly from information shown on maps.

PSO Comanche Station Dam

Hydrologic Assessment & Dam Breach Analysis



PSO Comanche Station Dam

Hydrologic Assessment & Dam Breach Analysis

Table 10 – Results of PMF Breach for PSO Comanche Station Dam

| Location Number | Lowest Elevation of Impact (feet) | PMF Without Breach | | PMF With Breach | | Stage Increase Due to Breach (feet) | Time from Start of Breach Event (h:mm) | |
|-----------------|-----------------------------------|-----------------------|------------------------|-----------------------|------------------------|-------------------------------------|--|-----------------|
| | | Peak Elevation (feet) | Depth of Impact (feet) | Peak Elevation (feet) | Depth of Impact (feet) | | Time to Peak** | Time to Impact* |
| 1 | 1089.81 | 1091.29 | 1.48 | 1091.29 | 1.48 | 0 | -3:05 | -11:45 |
| 2 | 1083.95 | 1085.94 | 1.99 | 1086.19 | 2.24 | 0.25 | 2:55 | -5:20 |
| 3 | 1086.58 | 1087.8 | 1.22 | 1087.8 | 1.22 | 0 | -2:35 | -8:20 |
| 4 | 1079.28 | 1080.13 | 0.85 | 1080.65 | 1.37 | 0.52 | 2:55 | -4:20 |
| 5 | 1090.04 | 1090.04 | 0 | 1091.64 | 1.6 | 1.6 | 0:00 | 0:00 |
| 6 | 1082.37 | 1080.2 | NI | 1085.33 | 2.96 | 5.13 | 1:55 | 0:05 |
| 7 | 1055.42 | 1056.66 | 1.24 | 1057.34 | 1.92 | 0.68 | 2:55 | -4:15 |
| 8 | 1056.59 | 1056.37 | NI | 1056.37 | NI | 0 | NI | NI |
| 9 | 1048.51 | 1050.53 | 2.02 | 1051.26 | 2.75 | 0.73 | 2:15 | -1:35 |
| 10 | 1038.54 | 1039.02 | 0.48 | 1039.59 | 1.05 | 0.57 | 2:40 | -3:40 |

* Location not influenced by this dam breach scenario, the structure is located within the 100 yr floodplain, thus, it is impacted by the initial conditions expected to occur prior to a PMF.

** Negative times indicate that the impact or peak time occur before the dam breach.

NI Not Impacted

NOTE: All times were rounded to the nearest five minutes.

Reservoir Elevation-area-volume and Spillway Capacity Data

PSO Comanche Station Dam

| Elevation (ft) | Reservoir Surface (acres) | Reservoir Storage (acre-feet) | Spillway Discharge (t3/s) |
|--------------------------|---------------------------|-------------------------------|---------------------------|
| 1094 | 0.39 | - | - |
| 1100 | 134 | 310 | - |
| Principle Spillway Crest | | | |
| 1105.2 | 210 | 1260 | - |
| 1106 | 232 | 1489 | 37.2 |
| 1107 | 249 | 1727 | 125.6 |
| 1107.25 | 264 | 1849 | 152.6 |

Overall Summary of Vulnerability and Impacts

There is no record of High Hazard Potential dam failure in the history of Comanche County. Eleven dams in Comanche County are designated as High Hazard potential with impact to population. While the probability of a high hazard potential dam failure is low, if it were to occur, the impact would be catastrophic.

This designation simply reflects a dam's potential for doing damage downstream if it were to fail and does not mean that a dam needs repair. The areas impacted are delineated using dam breach analysis. However, due to the low population downstream of the dams, the U.S. Geological Survey has conducted minimal analysis.¹⁶

The vulnerability of a High Hazard potential dam failure in the Comanche County HMP Planning Area would be to the roads, bridges, and utilities that are downstream of the dam and potential loss of life. Damage to or loss of these roads, bridges, and utilities would impact the citizens and county through the loss of communication infrastructure, mail, school buses, access for emergency vehicles, and utilities such as electrical power. There would be the added expense of taking alternate routes and the cost of repairing the roads and bridges. There was not an inventory of tribal or trust lands potentially affected by dam failure since these lands are not in the jurisdiction of the county. However, the county is responsible for the roads and bridges in the area and the safety of its citizens.

Climatological Influence on High Hazard Potential Dam Hazard

In Comanche County, Oklahoma, climatological changes, such as increasing frequency and intensity of precipitation events or prolonged droughts, pose significant risks to dam safety. Intense rainfall can lead to rapid inflow into reservoirs, potentially overwhelming dam infrastructure. Conversely, drought conditions can lower water levels, exposing dam foundations to erosion and compromising their structural integrity. The county's population patterns, including urbanization and population growth downstream of dams, amplify the consequences of failure by increasing the potential for loss of life and property damage. Additionally, changes in land use development upstream of dams, particularly in areas prone to urban expansion or agricultural activities, can alter runoff patterns and increase sedimentation rates, impacting reservoir capacity and structural stability.

¹⁶ *Ibid.*

3.6.8 Earthquake

Description

An earthquake is a sudden, rapid shaking of the ground caused by the fracture and movement of rock beneath the Earth's surface. Most severe earthquakes take place where the huge tectonic plates that form the Earth's surface collide and slide slowly over, under, and past each other. They can also occur along any of the multitude of fault and fracture lines within the plates themselves.

As the Earth's crust moves and bends, stresses are built up, sometimes for hundreds of years, before suddenly breaking or slipping. This abrupt release of accumulated tension can be devastating to human communities on the surface. The destructiveness of an earthquake depends upon a number of factors, including the magnitude of the tremor, direction of the fault, distance from the epicenter, regional geology, local soils, and the design characteristics of buildings and infrastructure, such as roads, bridges, and pipelines.

The faults most likely to affect Oklahoma are:

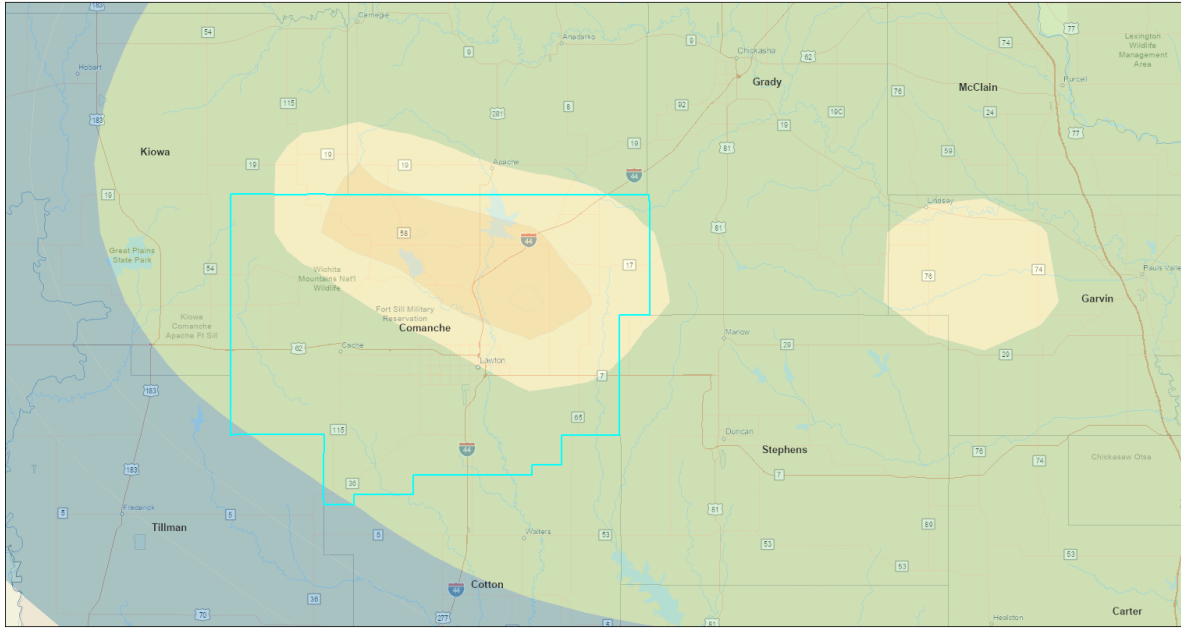
- 1) The New Madrid Fault was located in the center of Missouri and included several large earthquakes in the early 1800s that were widely felt in the region, including in Oklahoma.
- 2) The Meers Fault is located in southwestern Oklahoma, running northwest to southeast through Kiowa and Comanche counties north of Lawton.
- 3) The Nemaha Fault which runs north from Oklahoma City through Topeka, KS.
- 4) The Wilzetta Fault which runs from Pottawatomie County north through Lincoln into Creek counties.

The majority of Oklahoma earthquakes have historically been concentrated in the area of the Meers Fault in Garvin, Grady, and McClain counties, where the Cherokee Platform, Anadarko Basin and Arbuckle Uplift converge. In May of 1985, the Oklahoma Geological Survey installed a seismograph in the Meers Store in Comanche County to monitor the Meers Fault; it has since been decommissioned and replaced. The Meers Fault is the only fault identified in the State of Oklahoma with a history of surface rupturing to have occurred in the last 3,000 years. It forms the frontal fault zone between the Wichita Uplift to the south and the Anadarko Basin to the north and is part of the Pennsylvanian Frontal Fault System.

Location

Comanche County, the communities of Lawton, Elgin, Cache, Fletcher, Sterling, Indianola, Geronimo, and Medicine Park, Faxon, Chattanooga, and the participating public-school systems of Lawton, Sterling, Cache, and Geronimo are affected by earthquakes.

Comanche County Seismic Map



10/4/2022, 11:24:00 AM

Seismic Hazard

0 – 6 (where the lower the value, the lower the hazard)

6 – 12

12 – 20

20 – 30

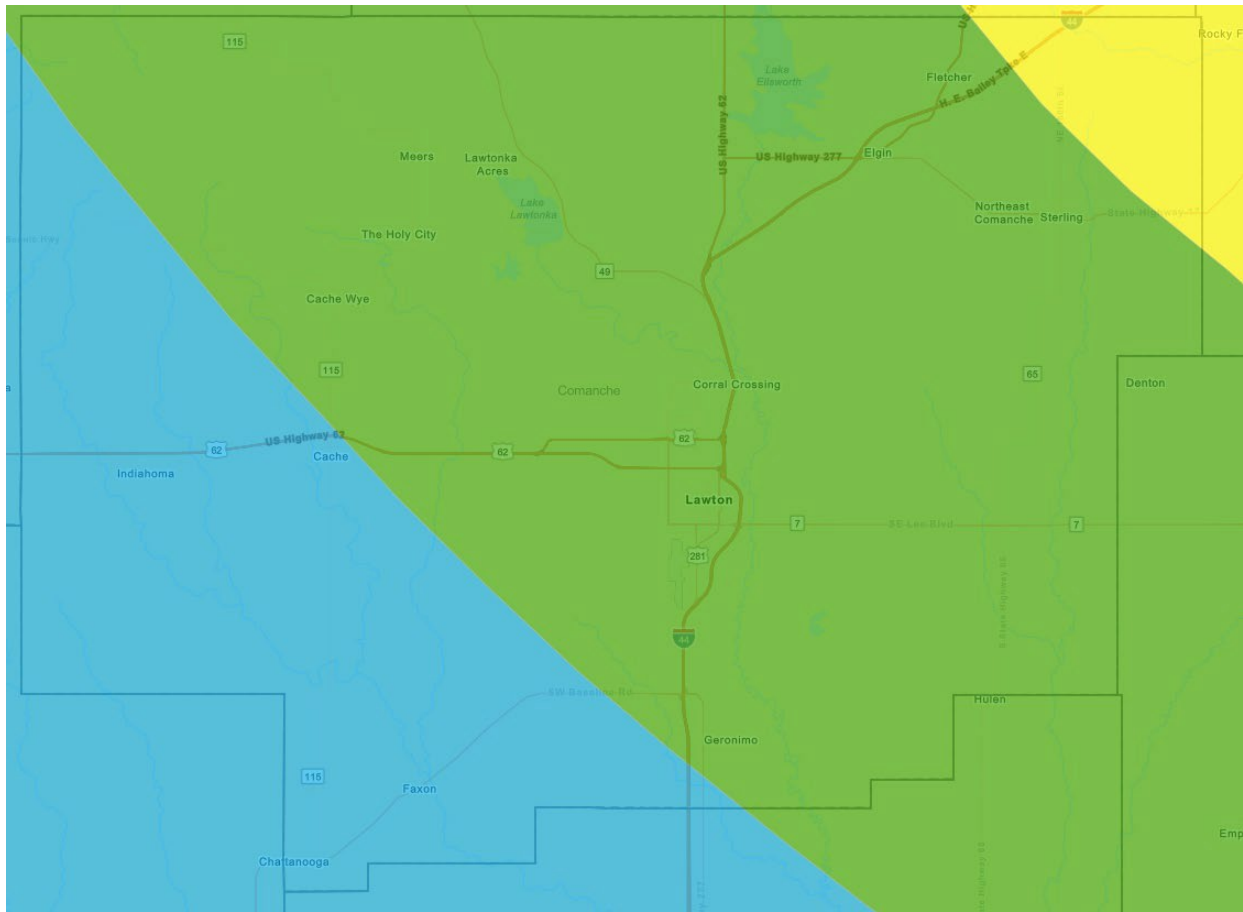
30 – 50

County Boundaries (click on county for CRI Indicators)



Texas Parks & Wildlife, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

Texas Parks & Wildlife, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS | NOAA/NWS/IHC | National Weather Service | NOAA Office for Coastal Management | This EPA Geospatial data set is generated from the following national environmental program: National Pollutant Discharge Resilience Analysis and Planning Tool



<https://fema.maps.arcgis.com/apps/webappviewer/index.html?id=90c0c996a5e242a79345cdbc5f758fc6>

Extent

The Planning Area uses the Modified Mercalli Scale with Richter Magnitude Approximations to measure Earthquakes. The following scale depicts two standard measurements to classify an earthquake's extent: magnitude and intensity. These measures are sometimes referred to as the Richter Scale (magnitude) and the Modified Mercalli (intensity). Given the unpredictability of earthquake events, the Planning Area can experience any magnitude on the scale but expects to experience earthquakes that range from I to IV.

The Modified Mercalli Scale with Richter Magnitude Approximations

| Richter Magnitude (Approx.) | Mercalli | Description | Earthquake Effects |
|-----------------------------|----------|---------------|--|
| 1-2 | I | Instrumental | Not felt except by a very few under especially favorable conditions. |
| 2-3 | II | Feeble | Felt only by a few persons at rest, especially on upper floors of buildings. |
| 3-4 | III | Slight | Felt quite noticeably by people indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations are similar to the passing of a truck. Duration estimated. |
| 4 | IV | Moderate | Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably. |
| 4-5 | V | Rather Strong | Felt by nearly everyone; many awakened. Some dishes and windows were broken. Unstable objects overturned. Pendulum clocks may stop. |
| 5-6 | VI | Strong | Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight. |

| | | | |
|-----|------|-----------------|---|
| 6 | VII | Very Strong | Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken. |
| 6-7 | VIII | Destructive | Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage is great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. |
| 7 | IX | Ruinous | Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage is great in substantial buildings, with partial collapse. Buildings shifted off foundations. |
| 7-8 | X | Disastrous | Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent. |
| 8 | XI | Very Disastrous | Few, if any (masonry) structures remain standing. Bridges destroyed. Rails bent greatly. |
| 8+ | XII | Catastrophic | Damage total. Lines of sight and level are distorted. Objects thrown into the air. |

Source: <http://earthquake.usgs.gov/learn/topics/mercalli.php>

Previous Occurrences (2013 – 2023)

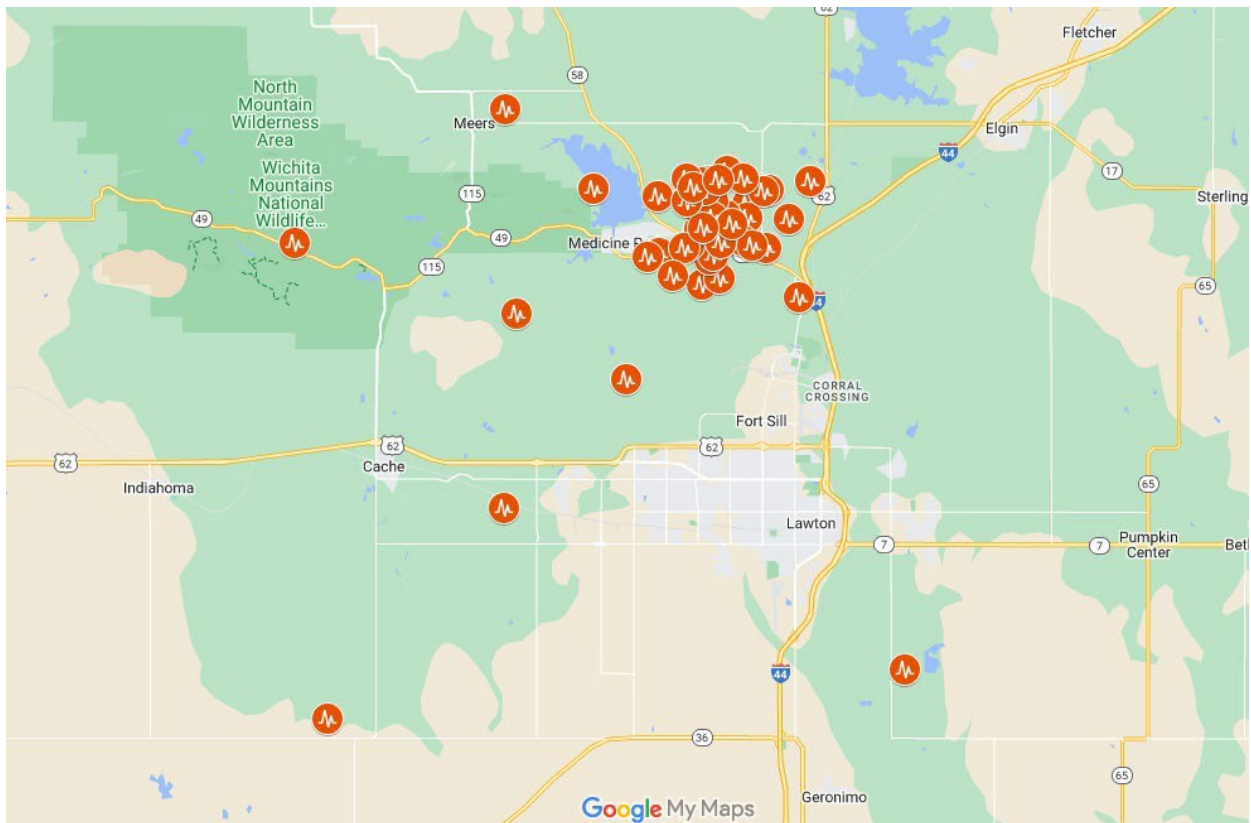
There are 50 previously reported instances of earthquakes as recorded by the U.S. Geological Survey.

| Year | # Of Earthquake Events | Range of Magnitude of Earthquake Events |
|------|------------------------|--|
| 2013 | 1 | Undetected - 2.5 |
| 2014 | 1 | Undetected – 1.6 |
| 2015 | 0 | |
| 2016 | 0 | |
| 2017 | 0 | |
| 2018 | 0 | |
| 2019 | 2 | Undetected – 1.4 Undetected – 1.8 |
| 2020 | 13 | Undetected – 1.9 Undetected – 2.6 Undetected – 1.4 Undetected – 1.1 Undetected – 1.8 Undetected – 1.7 Undetected – 1.5 Undetected – 1.5 Undetected – 1.5 Undetected – 1.5 Undetected – 1.6 Undetected – 1.7 Undetected – 1.6 |
| 2021 | 11 | Undetected – 1.4 Undetected – 1.5 Undetected – 1.5 Undetected – 2.2 Undetected – 1.1 Undetected – 1.5 Undetected – 1.6 Undetected – 1.6 Undetected – 1.3 Undetected – 1.6 Undetected – 1.2 |
| 2022 | 8 | Undetected – 1.6 Undetected – 1.6 Undetected – 1.4 Undetected – 1.3 Undetected – 1.1 Undetected – 2.8 Undetected – 1.5 Undetected – 1.2 |
| 2023 | 14 | Undetected – 2.1 Undetected – 1.5 Undetected – 1.5 Undetected – 1.5 |

| | | |
|--|--|------------------|
| | | Undetected - 1.2 |
| | | Undetected - 1.3 |
| | | Undetected - 1.3 |
| | | Undetected - 1.3 |
| | | Undetected - 1.2 |
| | | Undetected - 1.4 |
| | | Undetected - 1.8 |
| | | Undetected - 1.4 |
| | | Undetected - 1.4 |
| | | Undetected - 1.4 |

Source: Source: <https://www.ou.edu/ogs/research/earthquakes/catalogs>

Comanche County Earthquakes 2013-2023



Probability of Future Events

The probability of a destructive earthquake event is low, however, the probability of earthquakes, especially those quantifying as “undetectable”, is high.

Climatological Influence on Earthquake Hazard

As Comanche County, Oklahoma, experiences long-term climatological changes, there is growing concern regarding their potential impact on seismic activity in the region. While Oklahoma is not traditionally associated with high seismicity, the proliferation of oil and gas extraction activities, including hydraulic fracturing, has led to an increase in induced earthquakes in recent years. Changes in underground fluid pressures resulting from these activities can trigger seismic events, altering the type, location, and intensity of earthquakes experienced in the region. Additionally, long-term climatological changes, such as alterations in groundwater levels or changes in pore pressure within fault zones, may further influence seismic activity patterns.

Vulnerability and Impact

A major earthquake centered in or near the Comanche County Planning Area could have a wide-reaching impact. People, structures, property, transportation, utilities, and the economy are all vulnerable to the effects of earthquakes.

| Jurisdiction | Vulnerability | Impact |
|-----------------|---|--|
| Comanche County | Comanche County contains a significant portion of Interstate 44 as well as other major state transportation arteries such as State Highway 7 and State Highway 62. Roadways and bridges are not able to withstand the impact of an earthquake. | Impacted transportation routes could critically impact emergency services from responding to injured, damaged infrastructure, or other secondary hazards. The number of commuting traffic would also lead to hundreds or possibly thousands of people stranded, injured, or killed. |
| City of Lawton | Lawton contains the largest percentage of the population; thus, an impactful earthquake would create significant loss of life and critical community lifelines. The Residents lack education on the importance of planning for an earthquake event, and how an event might damage transportation routes. They have not been educated on the importance of having a preparedness kit of food and supplies to sustain them for 72 | Lack of Preparedness for an earthquake event puts families at risk if transportation routes and critical services are disrupted. Structural collapse of a critical building could render emergency services unable to respond due to loss of equipment or personnel injury, leading to cascading effects of loss of |

| | | |
|-----------------------|---|--|
| | hours to a week. Additionally, many city-owned buildings are not rated to withstand a significant earthquake which could lead to loss of critical emergency services. | structures, citizens, and economic stability. |
| Lawton Public Schools | Lawton Public School does not have straps or buckles to secure tall shelving and equipment during an Earthquake Event. | This can cause the equipment or shelving to topple. Unstable equipment can cause injury to a student or faculty member during an Earthquake. |
| City of Cache | The Residents lack education on the importance of planning for an earthquake event, and how an event might damage transportation routes. They have not been educated on the importance of having a preparedness kit of food and supplies to sustain them for 72 hours to a week | Lack of Preparedness for an earthquake event puts families at risk if transportation routes and critical services are disrupted. |
| Cache Public Schools | Cache Public School does not have straps or buckles to secure tall shelving and equipment during an Earthquake Event. | This can cause the equipment or shelving to topple. Unstable equipment can cause injury to a student or faculty member during an Earthquake. |
| Town of Chattanooga | The Residents lack education on the importance of planning for an earthquake event, and how an event might damage transportation routes. They have not been educated on the importance of having a preparedness kit of food and supplies to sustain them for 72 hours to a week | Lack of Preparedness for an earthquake event puts families at risk if transportation routes and critical services are disrupted. |
| City of Elgin | The Residents lack education on the importance of planning for an earthquake event, and how an event might damage transportation routes. They have not been educated on the importance of having a preparedness kit of food and supplies to sustain them for 72 hours to a week | Lack of Preparedness for an earthquake event puts families at risk if transportation routes and critical services are disrupted. |
| Town of Faxon | The Residents lack education on the importance of planning for an | Lack of Preparedness for an earthquake event puts families at |

| | | |
|------------------------|--|---|
| | <p>earthquake event, and how an event might damage transportation routes. They have not been educated on the importance of having a preparedness kit of food and supplies to sustain them for 72 hours to a week</p> | <p>risk if transportation routes and critical services are disrupted.</p> |
| Town of Fletcher | <p>The Residents lack education on the importance of planning for an earthquake event, and how an event might damage transportation routes. They have not been educated on the importance of having a preparedness kit of food and supplies to sustain them for 72 hours to a week</p> | <p>Lack of Preparedness for an earthquake event puts families at risk if transportation routes and critical services are disrupted.</p> |
| City of Geronimo | <p>The Residents lack education on the importance of planning for an earthquake event, and how an event might damage transportation routes. They have not been educated on the importance of having a preparedness kit of food and supplies to sustain them for 72 hours to a week</p> | <p>Lack of Preparedness for an earthquake event puts families at risk if transportation routes and critical services are disrupted.</p> |
| Geronimo Public School | <p>Geronimo Public School does not have straps or buckles to secure tall shelving and equipment during an Earthquake Event.</p> | <p>This can cause the equipment or shelving to topple. Unstable equipment can cause injury to a student or faculty member during an Earthquake.</p> |
| Town of Indiahoma | <p>The Residents lack education on the importance of planning for an earthquake event, and how an event might damage transportation routes. They have not been educated on the importance of having a preparedness kit of food and supplies to sustain them for 72 hours to a week</p> | <p>Lack of Preparedness for an earthquake event puts families at risk if transportation routes and critical services are disrupted.</p> |
| Town of Medicine Park | <p>The Residents lack education on the importance of planning for an earthquake event, and how an event might damage transportation routes. They have not been educated on the importance of having a preparedness</p> | <p>Lack of Preparedness for an earthquake event puts families at risk if transportation routes and critical services are disrupted.</p> |

| | | |
|-------------------------|---|--|
| | kit of food and supplies to sustain them for 72 hours to a week | |
| Town of Sterling | The Residents lack education on the importance of planning for an earthquake event, and how an event might damage transportation routes. They have not been educated on the importance of having a preparedness kit of food and supplies to sustain them for 72 hours to a week | Lack of Preparedness for an earthquake event puts families at risk if transportation routes and critical services are disrupted. |
| Sterling Public Schools | Sterling Public School does not have straps or buckles to secure tall shelving and equipment during an Earthquake Event. | This can cause the equipment or shelving to topple. Unstable equipment can cause injury to a student or faculty member during an Earthquake. |

Impacts

While less frequent, earthquakes pose a significant risk to Comanche County. Development without consideration for seismic resilience, including proper building codes and structural reinforcement, can lead to devastating consequences in the event of an earthquake. It is crucial to prioritize earthquake-resistant infrastructure and preparedness measures to mitigate the impacts of seismic events on our community.

Chapter 4: Mitigation Strategy

4.1 Jurisdictional Capability Assessments

The following is a profile of each jurisdiction and indicates a general capability of each jurisdiction’s ability to plan, develop policies, and implement hazard mitigation strategies.

Each jurisdiction does have the legal authority granted by the State of Oklahoma to develop policy, plan, and implement hazard mitigation actions. Each completed action will be incorporated into the entity’s ordinance code book, their Capital Improvement Plan (CIP), comprehensive plan, and EOP, as necessary. Cities and towns must depend on utility fees, private donations, sales and use taxes, or grants to finance hazard mitigation projects. All school districts have bonding capability through ad-valorem taxation. This only applies to special projects with a super majority (60%) approval vote.

Building Codes, Permitting, and Inspections

This table provides an overview of the existing Ordinances or Resolutions which regulate and enforce the adherence to the minimum State Building Code.

| Jurisdiction | Building Permits | ISO | Site Plan Review |
|-------------------------------------|------------------|-------------------------------|------------------|
| Comanche County | No | N/A | No |
| Lawton | Yes | 01 | Yes |
| Cache | Yes | 04 | Yes |
| Chattanooga | Yes | 04 | Yes |
| Elgin | Yes | 04 | Yes |
| Faxon | No | 04 combined w/ Chattanooga | No |
| Fletcher | Yes | 06 | Yes |
| Geronimo | Yes | 03 | Yes |
| Indiahoma | Yes | 04 | Yes |
| Medicine Park | Yes | 04 | Yes |
| Sterling | Yes | 06 | Yes |
| Bethel Road* | No | 09 | No |
| Cox’s Store* | No | 8b | No |
| Edgewater Park* | No | 04 | No |
| Flowermound* | No | 09 | No |
| Hulen* | No | 09 | No |
| Meers* | No | 05 | No |
| Paradise Valley* | No | 09 | No |
| Pecan Creek* | No | 06 | No |
| Porter Hill* | No | 09 | No |
| Valley View* | No | 03 | No |
| Wichita Mtn Estates* | No | 04 | No |
| *Denotes a Fire Protection District | | | |

Jurisdiction Specific Capabilities

| Jurisdiction | Capabilities | How Jurisdiction can build upon their Capabilities |
|-------------------------------|---|---|
| <p>Comanche County</p> | <p>Building Codes: Comanche County has no building codes.</p> <p>Building Permits/Building Inspections: Comanche County adopted in 2009 a Floodplain Ordinance. Floodplain Permits are required in Comanche County for all development.</p> <p>Capital Improvements: Yes</p> <p>Planned Capital Projects for Hazard Mitigation: Yes</p> <p>Planned Property Protection Projects: No</p> <p>Comprehensive Plan: Yes</p> <p>Planning and/or Zoning Board: Comanche County has no Zoning Codes.</p> <p>Zoning Code: Comanche County has no Zoning Codes.</p> <p>Floodplain Management: Comanche County participates in NFIP.</p> <p>Floodplain Manager: Yes</p> <p>National Flood Insurance Program: Comanche County participates in FEMA’s National Flood Insurance Program (NFIP). Unincorporated Comanche County now has 19 repetitive loss structures. One structure is a home-business combination. All others are residential.</p> <p>Emergency Services and Management</p> <p>Ambulance Service: Kirks EMS and Comanche County Memorial Ambulance provides ambulance services for Comanche County.</p> <p>Emergency Manager: Yes</p> <p>Emergency Operations Plan: Comanche County has its own Emergency Operations Plan in place.</p> | <p>Comanche County can increase preparedness capacity through the implementation of Firewise, building of a Community Wildfire Protection Plan, and mapping wildland-urban interface areas. Additionally, the development of zoning and planning board and regulations.</p> |

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| | <p>Comanche County Fire Protection: Comanche County is protected by Volunteer Fire Departments assembled in 20 districts.</p> <p>Fire Wise Program: Comanche County does not participate in the Fire Wise Program.</p> <p>Hospitals: Comanche County has three (3) Hospitals. Comanche County Memorial Hospital, Southwestern Medical Center, and USPHS Lawton Indian Hospital all located in Lawton.</p> <p>Law Enforcement: Comanche County Sheriff's Office</p> <p>Storm Ready Program: Yes</p> <p>Warning Systems: Comanche County does not have outdoor warning sirens in unincorporated areas. Each municipality maintains their own warning system. Comanche County maintains ReGroup, a mass notification system with IPAWS and CAP integration to residents.</p> | |
| <p>Lawton</p> | <p>Land Use Management</p> <p>Building Codes: The City of Lawton's municipal codes adopted the international building codes for the city's building codes.</p> <p>Building Permits/Building Inspections: Yes, Lawton Has a Code Enforcement Officer. Lawton has Floodplain Ordinances.</p> <p>Capital Improvements: Yes</p> <p>Planned Capital Projects for Hazard Mitigation: Yes</p> <p>Planned Property Protection Projects: Yes</p> <p>Comprehensive Plan: Yes</p> <p>Planning and/or Zoning Board: Lawton has planning and zoning in place.</p> | <p>Lawton can increase capability by engaging in citywide drills and exercises to increase readiness and preparedness to natural and human-made disasters.</p> |

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| | <p>Zoning Code: Zoning Code is updated annually, and so are Subdivision Regulations.</p> <p>Floodplain Management: Yes</p> <p>Floodplain Manager: Yes</p> <p>National Flood Insurance Program. Lawton does participate in FEMA’s National Flood Insurance Program (NFIP). There are 42 Repetitive Loss and 3 Severe Repetitive Loss Properties, all of which are residential.</p> <p>Emergency Services and Management</p> <p>Ambulance Service: Kirks EMS and Comanche County Memorial Ambulance provide ambulance services for Lawton.</p> <p>Emergency Manager: Yes</p> <p>Emergency Operations Plan: Yes</p> <p>Fire Protection: Lawton Fire Department Central Station is located at 623 SW D Ave, Lawton, OK. The Department consists of 8 standalone stations located across the city. They currently maintain an ISO Rating of 1.</p> <p>Fire Wise Program: City of Lawton does not participate in the Fire Wise Program.</p> <p>Hospitals: Lawton has three (3) Hospitals. Comanche County Memorial Hospital located at 3401 West Gore Blvd, Southwestern Medical Center located at 5602 SW Lee Blvd, and USPHS Lawton Indian Hospital located at 1515 NE Lawrie Tatum Rd, all located in Lawton.</p> <p>Law Enforcement: Lawton Police Department is located at 100 South Railroad St, Lawton Ok.</p> <p>Storm Ready Program: Yes</p> | |
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| | <p>Warning Systems: City of Lawton maintains an outdoor warning system as well as mass notification system for residents.</p> | |
| <p>Cache</p> | <p>Land Use Management</p> <p>Building Codes: Yes Building Permits/Building Inspections: Yes Capital Improvements: Yes Planned Capital Projects for Hazard Mitigation: No Planned Property Protection Projects: No Comprehensive Plan: Yes Planning and/or Zoning Board: Yes Zoning Code: Zoning Code is updated annually, and so are Subdivision Regulations. Cache also has a Floodplain Ordinance.</p> <p>Floodplain Management: Yes Floodplain Manager: Yes</p> <p>National Flood Insurance Program. Cache does participate in FEMA’s National Flood Insurance Program (NFIP). There are 5 Repetitive Loss structures, all of which are residential.</p> <p>Emergency Services and Management</p> <p>Ambulance Service: Kirks EMS and Comanche County Memorial Ambulance provide ambulance services for Cache.</p> <p>Emergency Manager: Yes Emergency Operations Plan: Yes</p> <p>Fire Protection: Cache Volunteer Fire Department provides Fire and EMR Services to City of Cache and surrounding residents.</p> <p>Fire Wise Program: City of Cache does not participate in the Fire Wise Program.</p> | <p>Cache can increase capability by engaging in citywide drills and exercises to increase readiness and preparedness to natural and human-made disasters.</p> |

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| | <p>Hospitals: Cache does not have any hospitals within its' city limits. It relies on the three (3) Hospitals located in Lawton.</p> <p>Law Enforcement: Cache Police Department and Comanche County Sheriff's Office</p> <p>Storm Ready Program: Yes</p> <p>Warning Systems: City of Cache maintains an outdoor warning system.</p> | |
| <p>Chattanooga</p> | <p>Land Use Management</p> <p>Building Codes: Yes</p> <p>Building Permits/Building Inspections: Yes</p> <p>Capital Improvements: Yes</p> <p>Planned Capital Projects for Hazard Mitigation: No</p> <p>Planned Property Protection Projects: No</p> <p>Comprehensive Plan: No</p> <p>Planning and/or Zoning Board: No</p> <p>Zoning Code: Zoning Code is updated annually.</p> <p>Floodplain Management: No</p> <p>Floodplain Manager: No</p> <p>National Flood Insurance Program. Chattanooga does not participate in FEMA's National Flood Insurance Program (NFIP). There is no designated Floodplain Zone A within town limits. There are no repetitive loss structures.</p> <p>Emergency Services and Management</p> <p>Ambulance Service: Kirks EMS and Comanche County Memorial Ambulance provide ambulance services for Chattanooga</p> <p>Emergency Manager: Yes</p> <p>Emergency Operations Plan: Yes</p> <p>Fire Protection: Chattanooga Volunteer Fire Department provides Fire and EMR</p> | <p>Chattanooga can increase capability by engaging in citywide drills and exercises to increase readiness and preparedness to natural and human-made disasters.</p> |

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| | <p>Services to Town of Chattanooga and surrounding residents.</p> <p>Fire Wise Program: The Town of Chattanooga does not participate in the Fire Wise Program.</p> <p>Hospitals: Chattanooga does not have any hospitals within its' town limits. It relies on the three (3) Hospitals located in Lawton.</p> <p>Law Enforcement: Chattanooga Police Department and Comanche County Sheriff's Office</p> <p>Storm Ready Program: Yes</p> <p>Warning Systems: Chattanooga Volunteer Fire Department maintains an outdoor warning system.</p> | |
| <p>Elgin</p> | <p>Land Use Management</p> <p>Building Codes: Yes</p> <p>Building Permits/Building Inspections: Yes</p> <p>Capital Improvements: Yes</p> <p>Planned Capital Projects for Hazard Mitigation: No</p> <p>Planned Property Protection Projects: Yes</p> <p>Comprehensive Plan: No</p> <p>Planning and/or Zoning Board: Yes</p> <p>Zoning Code: Zoning Code is updated annually. Elgin also has a Floodplain Ordinance.</p> <p>Floodplain Management: Yes</p> <p>Floodplain Manager: Yes</p> <p>National Flood Insurance Program. Elgin participates in FEMA's National Flood Insurance Program (NFIP). There are no repetitive loss structures.</p> <p>Emergency Services and Management</p> | <p>Elgin can increase capability by engaging in citywide drills and exercises to increase readiness and preparedness to natural and human-made disasters.</p> |

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| | <p>Ambulance Service: Kirks EMS and Comanche County Memorial Ambulance provide ambulance services for Elgin</p> <p>Emergency Manager: No</p> <p>Emergency Operations Plan: No</p> <p>Fire Protection: Elgin Volunteer Fire Department provides Fire and EMR Services to the City of Elgin and surrounding residents.</p> <p>Fire Wise Program: The City of Elgin does not participate in the Fire Wise Program.</p> <p>Hospitals: Elgin does not have any hospitals within its' town limits. It relies on the three (3) Hospitals located in Lawton.</p> <p>Law Enforcement: Elgin Police Department and Comanche County Sheriff's Office</p> <p>Storm Ready Program: Yes</p> <p>Warning Systems: City of Elgin maintains an outdoor warning system.</p> | |
| <p>Faxon</p> | <p>Land Use Management</p> <p>Building Codes: No</p> <p>Building Permits/Building Inspections: No</p> <p>Capital Improvements: No</p> <p>Planned Capital Projects for Hazard Mitigation: No</p> <p>Planned Property Protection Projects: No</p> <p>Comprehensive Plan: No</p> <p>Planning and/or Zoning Board: No</p> <p>Zoning Code: The Town of Faxon is unable to locate their current Floodplain regulation or ordinance.</p> <p>Floodplain Management: Yes</p> <p>Floodplain Manager: No</p> <p>National Flood Insurance Program. Faxon does participate in FEMA's National Flood Insurance Program (NFIP). There are no repetitive loss structures.</p> | <p>Faxon can increase capability by engaging in citywide drills and exercises to increase readiness and preparedness to natural and human-made disasters.</p> <p>Faxon can also increase their capability by identifying and appointing a dedicated Floodplain Administrator and by developing and implementing a local Floodplain Ordinance.</p> |

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| | <p>Emergency Services and Management</p> <p>Ambulance Service: Kirks EMS and Comanche County Memorial Ambulance provide ambulance services for Faxon.</p> <p>Emergency Manager: No</p> <p>Emergency Operations Plan: No</p> <p>Fire Protection: Chattanooga Volunteer Fire Department provides Fire and EMR Services to Town of Faxon and surrounding residents.</p> <p>Fire Wise Program: The Town of Faxon does not participate in the Fire Wise Program.</p> <p>Hospitals: Faxon does not have any hospitals within its' town limits. It relies on the three (3) Hospitals located in Lawton.</p> <p>Law Enforcement: Chattanooga Police Department and Comanche County Sheriff's Office</p> <p>Storm Ready Program: Yes</p> <p>Warning Systems: Chattanooga Volunteer Fire Department maintains an outdoor warning system.</p> | |
| <p>Fletcher</p> | <p>Land Use Management</p> <p>Building Codes: Yes</p> <p>Building Permits/Building Inspections: Yes</p> <p>Capital Improvements: Yes</p> <p>Planned Capital Projects for Hazard Mitigation: No</p> <p>Planned Property Protection Projects: No</p> <p>Comprehensive Plan: No</p> <p>Planning and/or Zoning Board: Yes</p> <p>Zoning Code: Zoning Code is updated annually.</p> <p>Floodplain Management: No</p> <p>Floodplain Manager: No</p> | <p>Fletcher can increase capability by engaging in citywide drills and exercises to increase readiness and preparedness to natural and human-made disasters.</p> |

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| | <p>National Flood Insurance Program. Fletcher does not participate in FEMA’s National Flood Insurance Program (NFIP). There are no repetitive loss structures.</p> <p>Emergency Services and Management</p> <p>Ambulance Service: Kirks EMS and Comanche County Memorial Ambulance provide ambulance services for Fletcher</p> <p>Emergency Manager: Yes</p> <p>Emergency Operations Plan: Yes</p> <p>Fire Protection: Fletcher Volunteer Fire Department provides Fire and EMR Services to Town of Fletcher and surrounding residents.</p> <p>Fire Wise Program: The Town of Fletcher does not participate in the Fire Wise Program.</p> <p>Hospitals: Fletcher does not have any hospitals within its’ town limits. It relies on the three (3) Hospitals located in Lawton.</p> <p>Law Enforcement: Fletcher Police Department and Comanche County Sheriff’s Office</p> <p>Storm Ready Program: Yes</p> <p>Warning Systems: Fletcher Volunteer Fire Department maintains an outdoor warning system.</p> | |
| <p>Geronimo</p> | <p>Land Use Management</p> <p>Building Codes: Yes</p> <p>Building Permits/Building Inspections: Yes</p> <p>Capital Improvements: Yes</p> <p>Planned Capital Projects for Hazard Mitigation: No</p> <p>Planned Property Protection Projects: Yes</p> <p>Comprehensive Plan: Yes</p> <p>Planning and/or Zoning Board: Yes</p> <p>Zoning Code: Zoning Code is updated</p> | <p>Geronimo can increase capability by engaging in citywide drills and exercises to increase readiness and preparedness to natural and human-made disasters.</p> |

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| | <p>annually.</p> <p>Floodplain Management: No</p> <p>Floodplain Manager: No</p> <p>National Flood Insurance Program. Geronimo does not participate in FEMA’s National Flood Insurance Program (NFIP). There are no repetitive loss structures.</p> <p>Emergency Services and Management</p> <p>Ambulance Service: Kirks EMS and Comanche County Memorial Ambulance provide ambulance services for Geronimo</p> <p>Emergency Manager: No</p> <p>Emergency Operations Plan: No</p> <p>Fire Protection: Geronimo Volunteer Fire Department provides Fire and EMR Services to the City of Geronimo and surrounding residents.</p> <p>Fire Wise Program: The City of Geronimo does not participate in the Fire Wise Program.</p> <p>Hospitals: Geronimo does not have any hospitals within its’ town limits. It relies on the three (3) Hospitals located in Lawton.</p> <p>Law Enforcement: Geronimo Police Department and Comanche County Sheriff’s Office</p> <p>Storm Ready Program: Yes</p> <p>Warning Systems: Geronimo Volunteer Fire Department maintains an outdoor warning system.</p> | |
| <p>Indiahoma</p> | <p>Land Use Management</p> <p>Building Codes: No</p> <p>Building Permits/Building Inspections: No</p> <p>Capital Improvements: No</p> <p>Planned Capital Projects for Hazard Mitigation: No</p> <p>Planned Property Protection Projects: No</p> | <p>Indiahoma can increase capability by engaging in citywide drills and exercises to increase readiness and preparedness to natural</p> |

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| | <p>Comprehensive Plan: No Planning and/or Zoning Board: No Zoning Code: Indiahoma has a Floodplain Ordinance.</p> <p>Floodplain Management: Yes</p> <p>Floodplain Manager: No</p> <p>National Flood Insurance Program. Indiahoma does participate in FEMA’s National Flood Insurance Program (NFIP). There are no repetitive loss structures.</p> <p>Emergency Services and Management</p> <p>Ambulance Service: Kirks EMS and Comanche County Memorial Ambulance provide ambulance services for Indiahoma</p> <p>Emergency Manager: No</p> <p>Emergency Operations Plan: No</p> <p>Fire Protection: Indiahoma Volunteer Fire Department provides Fire and EMR Services to Town of Indiahoma and surrounding residents.</p> <p>Fire Wise Program: The Town of Indiahoma does not participate in the Fire Wise Program.</p> <p>Hospitals: Indiahoma does not have any hospitals within its’ town limits. It relies on the three (3) Hospitals located in Lawton.</p> <p>Law Enforcement: Comanche County Sheriff’s Office</p> <p>Storm Ready Program: Yes</p> <p>Warning Systems: Indiahoma does not have an outdoor warning system.</p> | <p>and human-made disasters.</p> <p>Indiahoma can increase capability by identifying and appointing a dedicated Floodplain Administrator.</p> |
| <p>Medicine Park</p> | <p>Land Use Management</p> <p>Building Codes: Yes</p> <p>Building Permits/Building Inspections: Yes</p> <p>Capital Improvements: Yes</p> <p>Planned Capital Projects for Hazard</p> | <p>Medicine Park can increase capability by engaging in citywide drills and exercises to increase readiness and preparedness to natural</p> |

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| | <p>Mitigation: No</p> <p>Planned Property Protection Projects: Yes</p> <p>Comprehensive Plan: Yes</p> <p>Planning and/or Zoning Board: Yes</p> <p>Zoning Code: Zoning Code is updated annually. Medicine Park also has a Floodplain Ordinance.</p> <p>Floodplain Management: Yes</p> <p>Floodplain Manager: Yes</p> <p>National Flood Insurance Program. Medicine Park does participate in FEMA’s National Flood Insurance Program (NFIP). There are no repetitive loss structures.</p> <p>Emergency Services and Management</p> <p>Ambulance Service: Kirks EMS and Comanche County Memorial Ambulance provide ambulance services for Medicine Park.</p> <p>Emergency Manager: Yes</p> <p>Emergency Operations Plan: Yes</p> <p>Fire Protection: Medicine Park Volunteer Fire Department provides Fire and EMR Services to Town of Medicine Park and surrounding residents.</p> <p>Fire Wise Program: The Town of Medicine Park does not participate in the Fire Wise Program.</p> <p>Hospitals: Medicine Park does not have any hospitals within its’ town limits. It relies on the three (3) Hospitals located in Lawton.</p> <p>Law Enforcement: Medicine Police Department and Comanche County Sheriff’s Office</p> <p>Storm Ready Program: Yes</p> <p>Warning Systems: Medicine Park does not have an outdoor warning system.</p> | <p>and human-made disasters.</p> |
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| <p>Sterling</p> | <p>Land Use Management</p> <p>Building Codes: Yes Building Permits/Building Inspections: Yes Capital Improvements: Yes Planned Capital Projects for Hazard Mitigation: No Planned Property Protection Projects: No Comprehensive Plan: No Planning and/or Zoning Board: Yes Zoning Code: Zoning Code is updated annually. Sterling also has a Floodplain Ordinance.</p> <p>Floodplain Management: Yes Floodplain Manager: Yes</p> <p>National Flood Insurance Program. Sterling does participate in FEMA’s National Flood Insurance Program (NFIP). There are no repetitive loss structures.</p> <p>Emergency Services and Management</p> <p>Ambulance Service: Kirks EMS and Comanche County Memorial Ambulance provide ambulance services for Sterling.</p> <p>Emergency Manager: No Emergency Operations Plan: No</p> <p>Fire Protection: Sterling Volunteer Fire Department provides Fire and EMR Services to Town of Sterling and surrounding residents.</p> <p>Fire Wise Program: The Town of Sterling does not participate in the Fire Wise Program.</p> <p>Hospitals: Sterling does not have any hospitals within its’ town limits. It relies on the three (3) Hospitals located in Lawton.</p> <p>Law Enforcement: Sterling Police Department and Comanche County</p> | <p>Sterling can increase capability by engaging in citywide drills and exercises to increase readiness and preparedness to natural and human-made disasters.</p> |
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| | <p>Sheriff's Office</p> <p>Storm Ready Program: Yes</p> <p>Warning Systems: Town of Sterling maintains an outdoor warning system.</p> | |
| <p>Lawton Public Schools</p> | <p>Capital Improvements Plan: Yes</p> <p>Emergency Management Plan and/or procedures in place: Yes</p> <p>Budget to raise funds for mitigation (bond): Yes</p> <p>Ways to raise funds through public partnerships, corporate donations etc.: Yes</p> <p>Designated emergency manager (even as a secondary position): Yes</p> <p>PTO/PTA: Yes</p> <p>Training for teachers to practice natural hazard response: Yes</p> <p>Training for teachers/coaches to ensure consistency in evaluating lightning: Yes</p> <p>Post-Disaster Recovery Plan: Yes</p> <p>Storm Ready: Yes</p> <p>Firewise: No</p> <p>Building Codes: Lawton Public Schools abides by the state required codes for the schools.</p> <p>Fire Protection: Lawton Fire Department is responsible for responding to a fire at Lawton Public Schools.</p> <p>Hospitals: There are three hospitals which are immediately available in the city of Lawton, Comanche County Memorial Hospital, Southwestern Medical Center, and USPHS Indian Hospital.</p> <p>Ambulance Service: Kirks EMS and Comanche County Memorial Ambulance</p> | <p>Lawton Public Schools can increase capability by engaging in citywide drills and exercises to increase readiness and preparedness to natural and human-made disasters.</p> |

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| <p>Cache Public Schools</p> | <p>Capital Improvements Plan: Yes</p> <p>Emergency Management Plan and/or procedures in place: Yes</p> <p>Budget to raise funds for mitigation (bond): Yes</p> <p>Ways to raise funds through public partnerships, corporate donations etc.: Yes</p> <p>Designated emergency manager (even as a secondary position): Yes</p> <p>PTO/PTA: Yes</p> <p>Training for teachers to practice natural hazard response: Yes</p> <p>Training for teachers/coaches to ensure consistency in evaluating lightning: Yes</p> <p>Post-Disaster Recovery Plan: Yes</p> <p>Storm Ready: Yes</p> <p>Firewise: No</p> <p>Building Codes: Cache Public Schools abides by the state’s required codes for the schools.</p> <p>Fire Protection: Cache Fire Department is responsible for responding to fires at Cache Public Schools.</p> <p>Hospitals: The closest hospital to Cache within Comanche County is Southwestern Medical Center. Comanche County Memorial Hospital and USPHS Lawton Indian Hospital are both additional options.</p> <p>Ambulance Service: Kirks EMS and Comanche County Memorial Hospital.</p> | <p>Cache Public Schools can increase capability by engaging in citywide drills and exercises to increase readiness and preparedness to natural and human-made disasters.</p> |
| <p>Geronimo Public Schools</p> | <p>Capital Improvements Plan: Yes</p> <p>Emergency Management Plan and/or procedures in place: Yes</p> | <p>Geronimo Public Schools can increase capability by engaging in citywide drills and exercises to increase</p> |

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| | <p>Budget to raise funds for mitigation (bond): Yes</p> <p>Ways to raise funds through public partnerships, corporate donations etc.: Yes</p> <p>Designated emergency manager (even as a secondary position): Yes</p> <p>PTO/PTA: Yes</p> <p>Training for teachers to practice natural hazard response: Yes</p> <p>Training for teachers/coaches to ensure consistency in evaluating lightning: Yes</p> <p>Post-Disaster Recovery Plan: Yes</p> <p>Storm Ready: Yes</p> <p>Firewise: No</p> <p>Building Codes: Geronimo Public Schools abides by the state’s required codes for the schools.</p> <p>Fire Protection: Geronimo Fire Department is responsible for responding to fires at Geronimo Public Schools.</p> <p>Hospitals: The closest hospital to Geronimo within Comanche County is Southwestern Medical Center. Comanche County Memorial Hospital and USPHS Lawton Indian Hospital are both additional options.</p> <p>Ambulance Service: Kirks EMS and Comanche County Memorial Hospital.</p> | <p>readiness and preparedness to natural and human-made disasters.</p> |
| <p>Sterling Public Schools</p> | <p>Capital Improvements Plan: Yes</p> <p>Emergency Management Plan and/or procedures in place: Yes</p> <p>Budget to raise funds for mitigation (bond): Yes</p> <p>Ways to raise funds through public</p> | <p>Sterling Public Schools can increase capability by engaging in citywide drills and exercises to increase readiness and preparedness to natural and human-made disasters.</p> |

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| | <p>partnerships, corporate donations etc.: Yes</p> <p>Designated emergency manager (even as a secondary position): Yes</p> <p>PTO/PTA: Yes</p> <p>Training for teachers to practice natural hazard response: Yes</p> <p>Training for teachers/coaches to ensure consistency in evaluating lightning: Yes</p> <p>Post-Disaster Recovery Plan: Yes</p> <p>Storm Ready: Yes</p> <p>Firewise: No</p> <p>Building Codes: Sterling Public Schools abides by the state’s required codes for the schools.</p> <p>Fire Protection: Sterling Fire Department is responsible for responding to fires at Sterling Public Schools.</p> <p>Hospitals: The closest hospital to Sterling within Comanche County is Comanche County Memorial Hospital. Southwestern Medical Center and USPHS Lawton Indian Hospital are both additional options.</p> <p>Ambulance Service: Kirks EMS and Comanche County Memorial Hospital.</p> | |
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4.2 NFIP Participation and Repetitive Loss

The Severe Repetitive Loss (SRL) Grant Program under FEMA provides federal funding to assist states and communities in implementing mitigation measures to reduce or eliminate the long-term risk of flood damage to severe repetitive loss residential structures insured under the NFIP. The Oklahoma Water Resource Board (OWRB) administers the SRL grant program for the State of Oklahoma. One of the goals of the FMA program is to reduce the burden of repetitive loss and severe repetitive loss properties on the NFIP through mitigation activities that significantly reduce or eliminate the threat of future flood damages.

Repetitive Loss properties are defined as structures that are:

- Any insurable building for which 2 or more claims of more than \$1,000 each, paid by the National Flood Insurance Program (NFIP) within any 10-year period, since 1978.
- May or may not be currently insured under the NFIP.

Severe Repetitive Loss properties are defined as residential properties that are:

- Covered under the NFIP and have at least four flood related damage claim payments (building and contents) over \$5,000.00 each, and the cumulative amount of such claims payments exceed \$20,000; or
- At least two separate claim payments (building payments only) have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. In either scenario, at least two of the referenced claims must have occurred within any ten-year period and must be greater than 10 days apart.

Substantial Damage Determination Provisions by Jurisdiction

| Jurisdiction | Substantial Damage Determination Provisions by Jurisdiction | Date Adopted |
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| Town of Medicine Park | 14-105 | January, 2020 ¹⁷ |
| City of Lawton | 19A-2-1-206 | June 2009 |
| Comanche County | Article II | July 2009 |
| City of Elgin | 10-2-1 | June 2013 |
| City of Cache | 6-3, 1-156 | May 2021 ¹⁸ |
| Town of Sterling | Not Adopted | |
| Town of Faxon | Not Adopted | |

¹⁷ Date of last known adoption

¹⁸ *ibid*

pg. 199

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| Town of Indiahoma | Not Adopted | |
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NFIP Status by Jurisdiction

| Jurisdiction | Total Repetitive Loss Structures and Type | NFIP Compliance Status |
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| Comanche County | 18 Repetitive Loss (Residential) 1 Repetitive Loss (Commercial) | Comanche County will continue to enforce Floodplain ordinances in Special Flood Hazard Areas to maintain compliance with NFIP requirements. Comanche County will also increase efforts to educate citizens on the benefits of having NFIP flood insurance. The Comanche County Floodplain Manager <u>does not</u> provide Floodplain Administration for any identified jurisdiction other than unincorporated Comanche County. |
| City of Lawton | 42 Repetitive Loss (Residential) 3 Severe Repetitive Loss (Residential) | Lawton will continue to enforce Floodplain ordinances in Special Flood Hazard Areas to maintain compliance with NFIP requirements. Lawton will also continue to promote an encourage flood insurance and public participation in the NFIP, through public education and public service initiatives. |
| City of Cache | 5 Repetitive Loss Structures (Residential) | Cache will continue to enforce Floodplain ordinances in Special Flood Hazard Areas to maintain compliance with NFIP requirements. Cache will also continue to promote an encourage flood insurance and public participation in the NFIP, through public education and public service initiatives. |
| Town of Chattanooga | N/A | Chattanooga does not participate in NFIP due to not containing any Special Flood Hazard Areas within their |

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| | | jurisdictional boundaries and has no residents requiring flood insurance. |
| City of Elgin | 0 | Elgin will continue to enforce Floodplain ordinances in Special Flood Hazard Areas to maintain compliance with NFIP requirements. |
| Town of Faxon | 0 | Faxon will continue to enforce Floodplain ordinances in Special Flood Hazard Areas to maintain compliance with NFIP requirements. |
| Town of Fletcher | N/A | Fletcher does not participate in the NFIP because they have not shown interest due to a lack of applicable residents requiring flood insurance. |
| City of Geronimo | N/A | Geronimo does not participate in the NFIP because they have not shown interest due to a lack of applicable residents requiring flood insurance. |
| Town of Indianahoma | 0 | Indianahoma will continue to enforce Floodplain ordinances in Special Flood Hazard Areas to maintain compliance with NFIP requirements. |
| Town of Medicine Park | 0 | Medicine Park will continue to enforce Floodplain ordinances in Special Flood Hazard Areas to maintain compliance with NFIP requirements. Medicine Park will also continue to promote an encourage flood insurance and public participation in the NFIP, through public education and public service initiatives. |
| Town of Sterling | 0 | Sterling will continue to enforce Floodplain ordinances in Special Flood Hazard Areas to maintain compliance with NFIP requirements. |

4.3 Mitigation Goals:

Goal 1: Minimize loss of life and property

Goal 2: Protect public health and safety

Goal 3: Increase public awareness of risk from natural hazards and disasters

Goal 4: Reduce risk and effects of natural hazards and disasters

Goal 5: Identify hazards and assess risk for Planning Area

Goal 6: Improve Building construction to reduce dangers of natural hazards

4.4 Mitigation Strategy:

All participating Jurisdictions within the Comanche County Planning Area submitted jurisdiction-specific Hazard Mitigation Strategies and Projects. A comprehensive list is located in Appendix A.

4.5 Action Item Prioritization

The Hazard Mitigation Plan Advisory Committee members from each participating jurisdiction in the Comanche County Multi-Jurisdictional Multi-Hazard Mitigation Plan Update will consider five primary considerations when prioritizing mitigation measures: Of most importance when determining priority is the protection of life; mitigation measures that ultimately prevent the loss of life in the Planning Area, its Communities and Public-School Districts will be placed at highest priority. Secondly, the participating jurisdictions will identify which mitigation measures will prevent loss of property; each jurisdiction will look at which hazards have caused the most property loss based on past event data. Third, the jurisdictions will consider which mitigation measures address multiple hazards in preventing loss of life and/or property; for example, public education and outreach programs mitigate against all hazards where lightning warning systems mitigate against only one hazard. Next, an estimate will be made to determine the population served by each mitigation measure. Mitigation measures that are determined to do the greatest good for the greatest number of people will be placed at higher priority than those that protect only a small portion of the population overall. Lastly, the cost of each project will be considered by each participating jurisdiction in the prioritization of mitigation measures. Project costs are continually changing. Therefore, a Benefit Cost Analysis (BCA) will be completed as funds become available and during project development. For mitigation measures in which it is not feasible to conduct a BCA, justification of project costs will be identified during project development.

In addition to the five criteria mentioned, the STAPLEE process, recommended by FEMA, will be heavily relied upon in prioritizing mitigation measures for The Planning Area, its Communities and Public-School Districts. Other considerations prioritizing the mitigation measures for each participating jurisdiction include historical considerations and post-disaster conditions.

STAPLEE – Prioritization and Review Criteria for Natural Hazard Mitigation Plan

| Evaluation Category | Sources of Information and Review for the Comanche County HMP |
|-----------------------|---|
| Social | Over 27 federal, state, local, and non-profit agencies and organizations were contacted and had input during the planning process. Some were team members, others participated by identifying critical facilities. The selected mitigation action projects were considered to do the most good for the greatest amount of people. |
| Technical | The following personnel/agencies were consulted as to the technical feasibility of the projects: Department of the Interior Fish and Wildlife Service, BIA, USDA, NRCS, OWRB, Oklahoma Department of Wildlife, DoD, ASCOG, AAA, LEPC, Comanche County School Administration Association, Western Farmers Electric Cooperative, Southwestern Electric Cooperative, Cotton Electric Cooperative, Association of County Commissioners, Comanche County Conservation District, and the Comanche County Natural Hazard Mitigation Planning Committee. It was agreed the selected actions would provide the best long-term solutions. |
| Administrative | Based on available funding, capability assessments, and organization responsibilities, staffing for implementation of the plan will rely on existing personnel. |
| Political | Representatives from state, federal, county, local, and non-profit agencies attended the county-wide meetings and were consensual. |
| Legal | The plan was presented to all participating agencies and authorities. In their opinion, no legal issues were involved in the actions selected. |
| Economic | Economic issues were discussed by all involved. It was felt, based on the benefit/cost analysis presented, and economic impact assessments, priorities, and funding capabilities, that the projects selected would do the most good at reducing the potential loss of lives, repetitive loss from disasters, and provide the most benefits. Each project is subject to a benefit/cost analysis. |
| Environmental | All environmental concerns were addressed by all participants, planning members, and agencies involved. Before construction of any project comments will be solicited from state, federal resource |

| | |
|--|--|
| | agencies in order to ensure compliance with all relevant statutes and regulations. |
|--|--|

Integration of Data, Goals and Action Items into Other Planning Mechanisms

Comanche County’s local planning mechanisms available for incorporating the recommendations and requirements of the Hazard Mitigation Measures are listed below. Comanche County Multi- Hazard Mitigation Plan will be approved and adopted by the Board of Commissioners as a guide to County mitigation activities. The Emergency Manager is responsible for overseeing the implementation and integration of the Hazard Mitigation Plan. Appropriate Action Items and Mitigation Measures from the Plan will be incorporated into the following plans and codes:

- Capital Improvement Plans and planning process
- Comanche County Unincorporated Building Codes and Regulations
- Comanche County Emergency Operations Plan
- Individual Community Building Codes and Ordinances
- Individual Community and School District Emergency Operations Plan

The process to include the adopted Mitigation Measures into other local planning mechanisms includes the following:

- The plans above are updated annually by their respective committees.
- With regard to Unincorporated Building Codes, they are updated annually by their respective committees.

City of Lawton

The City’s plans and ordinances, identified in Section 4.1, are annually updated and/or reviewed by the city council and administration. The Capital Improvement Plan is updated every 5 years. Prior to updating any plan, the City Management Staff and emergency manager review the hazard mitigation efforts of Lawton that could be included in the capital improvement plan. The Emergency Response Plan and the Post-Disaster Recovery Plan are reviewed annually by the Office of Emergency Management

City of Cache

The City Administration and city council update their comprehensive plan every 5 years, and review and update the other plans as needed. Ordinances are reviewed continually and revised as needed. The ordinances and plans are identified in Section 4.1, and they are updated and reviewed annually. The mayor and emergency manager review, prioritize, and implement hazard mitigation projects according to the approval of the city council.

Town of Chattanooga

The Mayor and Town Administration review and update ordinances and plans, identified in Section 4.1, annually. The mayor will review, prioritize, and implement hazard mitigation projects according to the approval of the town council.

City of Elgin

The City Administration and city council update their comprehensive plan every 5 years, and review and update the other plans as needed. Ordinances are reviewed continually and revised as needed. The ordinances and plans are identified in Section 4.1, and they are updated and reviewed annually. The mayor will review, prioritize, and implement hazard mitigation projects according to the approval of the city council.

Town of Faxon

The Town's plans and ordinances identified in Sections 4.1 are annually updated and/or reviewed by the town council and administration.

Town of Fletcher

The Town Administration and city council review and update ordinances and plans, identified in Section 4.1, annually. The mayor and emergency manager review, prioritize, and implement hazard mitigation projects according to the approval of the town council.

City of Geronimo

The City Administration and city council review and update ordinances and plans, identified in Section 4.1, annually. The mayor and emergency manager review, prioritize, and implement hazard mitigation projects according to the approval of the city council.

Town of Indianoma

The Town Administration review and update ordinances and plans, identified in Section 4.1, annually. The mayor and emergency manager review, prioritize, and implement hazard mitigation projects according to the approval of the town council.

Town of Medicine Park

The Town Administration and town council review and update ordinances and plans, identified in Section 4.1, annually. The mayor and emergency manager review, prioritize, and implement hazard mitigation projects according to the approval of the town council.

Town of Sterling

The Town Administration and town council review and update ordinances and plans, identified in Section 4.1, annually. The mayor and emergency manager review, prioritize, and implement hazard mitigation projects according to the approval of the town council.

Lawton Public Schools

Upon formal adoption of the Comanche County Multi-Jurisdictional Multi- Hazard Mitigation Plan by the school board, the Lawton Public Schools Superintendent is responsible for reviewing the hazard mitigation plan and integrating necessary information into the Lawton Public Schools Emergency Action Plan. This plan is updated annually. During the update process, the superintendent will meet with the Hazard Mitigation Planning Committee, and they will review the hazard profile data.

Upon approval of this plan, the School Superintendent and the School Board will be responsible for recommending hazard mitigation measures and Structural action items from the Plan for inclusion in District capital improvement plans which may determine the site of new facilities and avoid development in hazard prone areas. Approved recommendations will be submitted as bond items and voted on during public school board meetings. Once an action item is complete, it will be documented in the following Capital Improvement Plan Update.

Cache Public Schools

Upon formal adoption of the Comanche County Multi-Jurisdictional Multi- Hazard Mitigation Plan by the school board, the Cache Public Schools Superintendent is responsible for reviewing the hazard mitigation plan and integrating necessary information into the Cache Public Schools Emergency Action Plan. This plan is updated annually. During the update process, the superintendent will meet with the Hazard Mitigation Planning Committee, and they will review the hazard profile data.

Upon approval of this plan, the School Superintendent and the School Board will be responsible for recommending hazard mitigation measures and Structural action items from the Plan for inclusion in District capital improvement plans which may determine the site of new facilities and avoid development in hazard prone areas. Approved recommendations will be submitted as bond items and voted on during public school board meetings. Once an action item is complete, it will be documented in the following Capital Improvement Plan Update.

Geronimo Public Schools

Upon formal adoption of the Comanche County Multi-Jurisdictional Multi- Hazard Mitigation Plan by the school board, the Geronimo Public Schools Superintendent is responsible for reviewing the hazard mitigation plan and integrating necessary information into the Geronimo Public Schools Emergency Action Plan. This plan is updated annually. During the update process, the superintendent will meet with the Hazard Mitigation Planning Committee, and they will review the hazard profile data.

Upon approval of this plan, the School Superintendent and the School Board will be responsible for recommending hazard mitigation measures and Structural action items from the Plan for inclusion in District capital improvement plans which may determine the site of new facilities and avoid development in hazard prone areas. Approved recommendations will be submitted as bond items and voted on during public school board meetings. Once an

action item is complete, it will be documented in the following Capital Improvement Plan Update.

Sterling Public Schools

Upon formal adoption of the Comanche County Multi-Jurisdictional Multi- Hazard Mitigation Plan by the school board, the Sterling Public Schools Superintendent is responsible for reviewing the hazard mitigation plan and integrating necessary information into the Sterling Public Schools Emergency Action Plan. This plan is updated annually. During the update process, the superintendent will meet with the Hazard Mitigation Planning Committee, and they will review the hazard profile data.

Upon approval of this plan, the School Superintendent and the School Board will be responsible for recommending hazard mitigation measures and Structural action items from the Plan for inclusion in District capital improvement plans which may determine the site of new facilities and avoid development in hazard prone areas. Approved recommendations will be submitted as bond items and voted on during public school board meetings. Once an action item is complete, it will be documented in the following Capital Improvement Plan Update.

Chapter 5: Plan Update

Prioritization and Review

The plan maintenance section of this document describes the formal process that will ensure that the Comanche County Natural Hazard Mitigation Plan remains an active and relevant document with continued public participation. The plan maintenance process includes annual evaluations, revisions, or updates, as needed by the participants. The plan will be resubmitted for state and federal review every five years. Comanche County – Lawton Emergency Management, along with the Natural Hazard Mitigation Planning Committee and the Local Emergency Planning Committee (LEPC), will be responsible for evaluating and updating the plan. Plan updates or revisions will be submitted to the Comanche County Board of Commissioners for adoption.

5.1 Plan Monitoring

The Emergency Management office will be responsible for monitoring the plan. A monitoring report will be written and submitted to the County Commissioners upon the request of any of the three county commissioners. The Emergency Manager will also be the lead contact for phone calls and scheduling meetings.

The Natural Hazard Mitigation Plan will be kept on record in the Comanche County Clerk's Office, housed inside the Comanche County Courthouse in Lawton, Oklahoma. A copy will be on file with each participating city, school, and town. The County Commissioners will house the official plan at the Comanche County Courthouse. Any interested party may request a copy of the plan via the Comanche County Clerk's Office.

The Comanche County Natural Hazard Mitigation Committee has identified hazard mitigation projects to be included in the Natural Hazard Mitigation Plan. The Comanche County Emergency Planning Committee and participating entity will work with the public and local elected officials to evaluate potential projects.

5.2 Plan Evaluating

The Comanche County – Lawton Emergency Management Director, members of the LEPC, and members of the Comanche County Natural Hazard Mitigation Committee will evaluate the Natural Hazard Mitigation Plan every year to determine the effectiveness and/or progress of mitigation actions and the implementation of other actions.

Plan evaluation should address the following questions:

- Do actions address current and expected hazardous conditions?
- Has the nature or magnitude of risks changed?
- Are the current resources appropriate for implementing mitigation actions?
- Are there any implementation problems, such as technical, political, legal, or coordination issues with other agencies?

- Did the outcome of mitigation actions occur as expected?

The Committee and Emergency Management Director will have six months, from the date of the evaluation meeting, to update the plan with any changes needed. The County will resubmit the plan for state and federal review every five years.

The Comanche County Commissioners, Emergency Management Director, the LEPC, and members of the Natural Hazard Mitigation Committee will evaluate the Natural Hazard Mitigation Plan every year to determine the effectiveness and/or progress of mitigation actions and the implementation of other actions.

Items covered during the evaluation process should include:

- Evaluate magnitude of risk and determine if it has changed.
- Evaluate current resources and determine if they are appropriate for implementing mitigation actions.
- Determine if there were any implementation problems, such as technical, political, legal, or coordination issued with other agencies.
- Evaluate how other agencies and partners have participated.
- Evaluate mitigation actions and determine if outcome occurred as expected.
 - Was the intended purpose of the original mitigation action met?
 - Was the mitigation action met in the proposed timeline?
 - Did the listed agencies participate in the mitigation action?
 - Did mitigation action stay within the proposed budget?

The evaluation process assesses goals, objectives, and current/expected conditions; change in the nature or magnitude of risks; current resources for implementation; mitigation action item outcomes; and whether agencies and other partners participated as originally proposed.

Changes in Jurisdictional Priorities

Since the last plan update in 2013, Comanche County has experienced numerous Natural Hazard events:

- 2015 Flood Event (DR-4222) for Public Assistance
- 2016 Flooding and Severe Storms (DR-4274) for Public Assistance
- 2021 Severe Winter Storm (DR-4547) for Public Assistance
- 2021 Severe Winter Storm (DR-4587) for Public Assistance
- 2023 Severe Storm, Tornadoes, and Straight-line Winds (DR-4721) for Individual and Public Assistance

This also includes numerous wildfire outbreaks and States of Emergency. As the population continues to increase in the Comanche County Planning Area, the level of vulnerability to infrastructure, people, and property has increased. Those hazards such as Wildfire, Dam Failure, and Severe Winter Storm all pose an increasing risk. The focus has shifted to

increasing wildfire mitigation and preparedness in light of the expanding population in unincorporated Comanche County, which has cascading effects to all municipalities who provide fire protection services in these areas. This combined with a lack of targeted planning, the Planning Area has prioritized Community Outreach and Education through Fire Wise, the development of a Community Wildfire Protection Plan, the development of a dedicated planning and zoning office with applicable regulations, and hazardous fuel mitigation projects. Comanche County Lawton Emergency Management Office is actively pursuing the USDA Community Wildfire Defense Grant, which will fund the development of a countywide Community Wildfire Protection Plan (CWPP). This CWPP will provide foundational data for the development of targeted mitigation projects which can be funded through internal and external funds.

5.3 Status of Previous Mitigation Action Items

Action Items Accomplished

| Action Item | Hazard Mitigated | Jurisdiction Impacted |
|---|------------------|--------------------------------|
| Incorporate Base Level Engineering Data into Zone A mapping | Flooding | Unincorporated Comanche County |

Ongoing Action Items Not Accomplished

| Action Item | Hazard Mitigation | Jurisdiction Impacted | Reason Not Complete | Action Relevant? |
|--|---|-----------------------|---------------------|------------------|
| Develop All-Hazard Public Information, Education, Awareness Program | Flood, Extreme Heat, Earthquake, Dam Failure, Drought, Winter Storm, Severe Weather, Wildfire | All | Lack of funding | Y |
| Educate the public on the importance of a family disaster plan and supply kit. | Flood, Extreme Heat, Earthquake, Dam Failure, Drought, Winter Storm, Severe Weather, Wildfire | All | Ongoing | Y |
| Develop an inventory, registry and database of Special needs population. | Flood, Extreme Heat, Earthquake, Dam Failure, Drought, Winter Storm, Severe Weather, Wildfire | All | Ongoing | Y |
| Acquire and distribute NOAA Weather Radios to all Critical Facilities and the public | Flood, Extreme Heat, Earthquake, Dam Failure, Drought, Winter Storm, Severe Weather, Wildfire | All | Ongoing | Y |
| Post-Event Debris Management Program | Flood, Extreme Heat, Earthquake, Dam Failure, Drought, Winter Storm, Severe Weather, Wildfire | All | Lack of Funding | Y |
| Individual Backup Generator Program | Flood, High Wind, Tornado, Wildfire, Severe Weather | All | Ongoing | Y |
| Alternate Power Source | Flood, Extreme Heat, Earthquake, Dam Failure, Drought, Winter Storm, Severe Weather, Wildfire | All | Ongoing | Y |
| Above Ground fuel Pump with Back Up Generator | Flood, Extreme Heat, Earthquake, Dam Failure, Drought, Winter Storm, Severe Weather, Wildfire | All | Ongoing | Y |
| Protective Window Film | Severe Weather | All | Ongoing | Y |
| Tree Trimming and Branch Removal Program | Flood, Extreme Heat, Earthquake, Dam Failure, Drought, Winter Storm, Severe Weather, Wildfire | All | Ongoing | Y |
| Public School critical Facilities Safe Room | Severe Weather | All | Ongoing | Y |

| | | | | |
|-----------------------------|---|-----|------------------|---|
| Emergency Exercise Training | Flood, Extreme Heat, Earthquake, Dam Failure, Drought, Winter Storm, Severe Weather, Wildfire | All | Ongoing | Y |
| Lightning Detection Systems | Lightning | All | Lack of Funding | Y |
| Provide Covered Parking | Severe Weather | All | Ongoing | Y |
| Cooling Stations | Extreme Heat | All | Ongoing | Y |
| Community Shelter | Flood, Extreme Heat, Earthquake, Dam Failure, Drought, Winter Storm, Severe Weather, Wildfire | All | Lack of Training | Y |

Current Action Items

| | |
|-----------------------------------|---|
| Mitigation Project A | Public education and awareness campaign. |
| Hazard(s) Addressed | Dam Failure, Drought, Earthquake, Extreme Heat, Flood, Severe Thunderstorms, Winter Storms, Wildfire |
| Jurisdiction | Comanche County, City of Lawton |
| Action | Educate the public about various dangers associated with natural hazards. Education can be accomplished by sponsoring professional programs, school poster contests, essays, and other activities through workshops, public meetings, and various support groups (child care, senior citizens centers, public schools, 4-H, etc.). Have brochures available at rodeos, county fairs, health fairs, etc. |
| Responsible Party | Comanche County Lawton Emergency Management |
| Potential Implementation Timeline | Annually for five years - High Priority |
| Cost | \$3,000/per year for five years |
| Potential Funding Sources | Capital Improvement Plan, Annual Budget |

| | |
|-----------------------------|--|
| Mitigation Project B | Installation of NOAA receivers in public facilities. |
| Hazard(s) Addressed | Flood, Severe Thunderstorm, Winter Storms |
| Jurisdiction | Comanche County |
| Action | Purchase and install NOAA Weather Radio receivers in public facilities. |
| Responsible Party | Comanche County Lawton Emergency Management |
| Timeline | Ongoing – Medium Priority |
| Cost | \$3,460 |
| Potential Funding Sources | County, city, school, and town budgets, private donations, service clubs, HMPG |

| | |
|-----------------------------------|---|
| Mitigation Project C | Update storm warning system. |
| Hazard(s) Addressed | Severe Thunderstorm |
| Jurisdiction | City of Lawton |
| Action | Install, upgrade, and /or expand storm warning systems. |
| Responsible Party | Comanche County Lawton Emergency Management |
| Potential Implementation Timeline | 1 Year – High Priority |
| Cost | \$735,000 |
| Potential Funding Sources | Capital Improvement, HMPG, REAP Grants |

| | |
|-----------------------------------|--|
| Mitigation Project D | Development and Implementation of a Community Wildfire Protection Plan |
| Hazard(s) Addressed | Wildfires |
| Jurisdiction | All Comanche County HMP Planning Area jurisdictions. |
| Action | Develop a comprehensive CWPP which addresses mitigation to reduce impact of wildfires for all jurisdictions. |
| Responsible Party | Comanche County Lawton Emergency Management |
| Potential Implementation Timeline | 36 months – High Priority |
| Cost | \$250,000 |
| Potential Funding Sources | USDA Forest Service, Grants |

| | |
|-----------------------------------|--|
| Mitigation Project E | Hazardous Fuels Mitigation and Removal |
| Hazard(s) Addressed | Wildfire |
| Jurisdiction | All Comanche County HMP Planning Area jurisdictions. |
| Action | Conduct hazardous fuel mitigation activities through education, development of prescribed burns, and training of Volunteer Fire Departments. |
| Responsible Party | Comanche County Lawton Emergency Management |
| Potential Implementation Timeline | 36 Months – Medium Priority |
| Cost | \$250,000 |
| Potential Funding Sources | Oklahoma Department of Agriculture, HMGP |

| | |
|-----------------------------------|---|
| Mitigation Project F | Expand and improve notification system, develop and distribute evacuation route maps |
| Hazard(s) Addressed | High Hazard Potential Dam |
| Jurisdiction | All Comanche County HMP Planning Area jurisdictions. |
| Action | Expand and improve notification system to citizens in inundation zones in the event of potential dam failure. The expansion and improvement of the notification system consists of: reverse 911, ReGroup, social media, and television and radio media. Also included is development and distribution of evacuation routes. |
| Responsible Party | Comanche County Lawton Emergency Management |
| Potential Implementation Timeline | 24 months – Low Priority |
| Costs | \$150,000 |
| Potential Funding Sources | Oklahoma Water Resources Board, HMPG, Capital Improvement Plan |

| | |
|-----------------------------|---|
| Mitigation Project G | Training and equipment for swift water rescue |
| Hazard(s) Addressed | High Hazard Potential Dam, Flood |

| | |
|-----------------------------------|--|
| Jurisdiction | All Comanche County HMP Planning Area jurisdictions. |
| Action | Provide training to rescue teams and purchase equipment for swift water rescue for Public Safety agencies. |
| Responsible Party | Comanche County Lawton Emergency Management |
| Potential Implementation Timeline | 24 months – Medium Priority |
| Costs | \$150,000 |
| Potential Funding Sources | State of Oklahoma Fire Services, EMPG |

| | |
|-----------------------------------|--|
| Mitigation Project H | Improve NFIP Compliance |
| Hazard(s) Addressed | Flood |
| Jurisdiction | Town of Faxon, Town of Indiahoma, Town of Sterling |
| Action | Identify and appoint dedicated Floodplain Administrator and identify, adopt or update Floodplain Regulations/Ordinances for each jurisdiction. |
| Responsible Party | Jurisdiction having Authority |
| Potential Implementation Timeline | 24 months – Medium Priority |
| Costs | \$1000 |
| Potential Funding Sources | Capital Improvement Planning, OWRB Grants |

| | |
|-----------------------------|--|
| Mitigation Project I | Public Safe Room/Storm Shelter Grant Program |
| Hazard(s) Addressed | Severe Thunderstorms |
| Jurisdiction | All Comanche County HMP Planning Area jurisdictions. |
| Action | Apply and implement Safe Room Grant Program for the citizens of Comanche County. |

| | |
|-----------------------------------|---|
| Responsible Party | Comanche County Lawton Emergency Management |
| Potential Implementation Timeline | 24 months – Medium Priority |
| Costs | \$250,000 |
| Potential Funding Sources | HMGP |

5.4 Plan Updating

The plan will continue to be evaluated annually during the five-year cycle process and anytime there is a disaster. Beginning on the fourth year, the Comanche County Commissioners, Emergency Management Director, the Natural Hazard Mitigation Committee, and participating entities will make all plan revisions to be finalized and be approved by FEMA before the end of the fifth year so that the jurisdiction will maintain eligibility. The plan will be resubmitted for state and federal review every five years.

5.5 Incorporation into Existing Planning Mechanisms

While there is no officially documented instances of information from the previous plan being incorporated into existing planning mechanisms, there is some anecdotal instances of this occurring through the use of grant funding or one-time-use funding, primarily to increase capability of utility infrastructure.

When appropriate, the Comanche County Board of County Commissioner and each participating jurisdiction will establish resolutions to incorporate the natural hazard mitigation plan into all other jurisdictions planning mechanisms. The planning authority of the jurisdiction will review the natural hazard mitigation plan and if appropriate, incorporate the proposed mitigation actions into their respective planning mechanisms. The Natural Hazard Mitigation Planning Committee will request, review and recommend changes and additions of other plans to be incorporated into the Natural Hazard Mitigation Plan on an annual basis. The previous Hazard Mitigation Plan was limited to all jurisdictions with the exception of the City of Lawton. In identifying the hazard of Dam Failure in the previous plan, coupled with the City of Lawton having responsibility for two of the largest at-risk Dams in Comanche County, the Planning Committee felt it prudent to incorporate all jurisdictions under a single Hazard Mitigation Plan to better leverage planning, funding, and administrative support for this hazard due to the catastrophic potential of a dam failure.

The Comanche County HMP Planning Area currently utilizes an Emergency Operations Plan to guide recovery in the event of a natural hazard occurrence. After the Comanche County HMP Planning Area officially adopts the Natural Hazard Mitigation Plan, these existing mechanisms will have hazard mitigation strategies integrated into them.

The Comanche County HMP Planning Area currently utilizes capital improvement planning (CIP) to guide development in their respective jurisdiction. After the Natural Hazard Mitigation Plan is adopted, these existing mechanisms, which are updated annually, will have hazard mitigation strategies integrated into them.

One of the goals in the Natural Hazard Mitigation Plan directs county and local governments to protect life and property from natural disasters and hazards. The County Commissioners' office will conduct periodic review of the County's amendments and provide technical assistance to other local municipalities in implementing these requirements.

Any capital improvement planning that occurs in the future will also contribute to the goals in the Natural Hazard Mitigation Plan. The respective emergency manager will work with the capital improvement planners to secure high-hazard areas for low risk uses. Incorporating goals of other planning activities into the Natural Hazard Mitigation Plan will occur as each of these plans is updated.

Comanche County's local planning mechanisms available for incorporating the recommendations and requirements of the Hazard Mitigation Measures are listed below. Comanche County Multi-Jurisdiction Hazard Mitigation Plan will be approved and adopted by the Board of County Commissioners as a guide to County Mitigation activities. The

Emergency Management Office is responsible for seeing the implementation and integration of the Hazard Mitigation Plan. Appropriate Action Items and Mitigation Measures from the Plan will be incorporated into the following plans and codes:

- Capital Improvement Plans and planning process
- Comanche County Emergency Operations Plan
- Individual Community and School District Emergency Operations Plans
- Individual Community Building Codes and Ordinances

The process to include the adopted Mitigation Measures into other local planning mechanisms includes the annual update process by their respective committees.

The Comanche County Conservation District in Comanche County has a long-range plan that's updated annually and specifically addresses drought, flood protection, and other natural resources. This local unit of government has been, and will continue to be, active advisors to the Natural Hazard Mitigation Planning Committee.

Within six months of the formal adoption of the Natural Hazard Mitigation Plan, the policies listed above will be incorporated into the process of existing planning mechanisms.

5.5 Continued Public Participation

While the Natural Hazard Mitigation Planning Committee represents the public to some extent, the public will be able to directly comment on and provide feedback about the plan. Comanche County is dedicated to generating public interest in future updates of the Natural Hazard Mitigation Plan. Efforts to do so may include:

- Distributing information about the existence and purpose of the Natural Hazard Mitigation Plan to community groups and other public gatherings.
- A copy of the Natural Hazard Mitigation Plan will be posted to the Comanche County Website with an online portal to submit Public Comments.
- Posting information about the Natural Hazard Mitigation Plan on the ASCOG webpage, along with an email address for questions and input.
- Copies of the plan will be maintained at the Comanche County Courthouse and the Comanche County Website.

The Local Emergency Planning Committee, public meeting, will offer public comment annually. This meeting will be advertised to the public using our Comanche County Mass Notification System. These meetings will provide the public with a forum where they can express their concerns, opinions, or ideas about the plan. The Comanche County Website has a portal to allow for Public Comment regarding the Hazard Mitigation Plan. Citizens' comments and concerns will be discussed at the annual evaluation to determine if changes to the plan need to be made.

Listed below is the address and phone number of the Comanche County - Lawton Emergency Management Director who is responsible for keeping track of public comments on the plan. A copy of the plan may be reviewed at the Comanche County Clerk's Office. The public will also be invited to, and included in, the Natural Hazard Mitigation Planning Committee's annual evaluation of the plan. This meeting will provide the public with a forum for which they can express their concerns, opinions, or ideas about the plan.

Comanche County – Lawton Emergency Management
315 SW 5th Street, Room 107
Lawton, Oklahoma 73501
(580) 355-0535

**Appendix A:
Mitigation Strategies and
Projects**

Appendix A: Mitigation Action Strategies

| # | Project Description | Hail | Extreme Heat | Lightning | Drought | Flood | Tornado | Wildfire | High Wind | Winter Storm | Dam Failure | Earthquake | Lead & Support Agency | Funding Source | Target Completion Date | Interim Measure of Success | Priority | Status |
|----|--|------|--------------|-----------|---------|-------|---------|----------|-----------|--------------|-------------|------------|---------------------------------------|--|------------------------|--|----------|--|
| | City of Lawton | | | | | | | | | | | | | | | | | |
| 1 | Update all-hazards brochure to display and distribute at public events. | x | x | x | x | x | x | x | x | x | x | x | Public Works | FEMA Unified Hazard Mitigation Assistance Grants | 2028 | Develop draft brochure by March 2024 for Lawton's Home Show | H | |
| 2 | Identify, acquire, relocate, or demolish structures within SFHA (RL/SRL priority). | | | | | x | | | | | | x | Public Works | FEMA Unified Hazard Mitigation Assistance Grants | 2028 | Develop list of potential properties to acquire. Mitigate as many properties as funds allow. | H | |
| 3 | Upgrade flood control gates at Lake Ellsworth. | | | | | x | | | | | | x | Water and Wastewater | FEMA Unified Hazard Mitigation Assistance Grants | 2022 | Repair and replace damaged equipment | H | |
| 4 | Update and install debris catch for drainage systems within stormwater system. | | | | | x | | | | | | x | Public Works | FEMA Unified Hazard Mitigation Assistance Grants | 2028 | Improve drainage, anchor system and reduce discharge velocity | M | |
| 5 | Evaluate the City's storm sirens and upgrade the system based on the results of the evaluation. | | | | | | x | | x | | | | Emergency Management | Hazard Mitigation Grants | 2020 | Storm sirens are upgraded to be cost effective while also reaching the largest target audience possible. | H | |
| 6 | Apply for a FEMA Safe Room Grant that allows homeowners to be reimbursed 75% of the cost to install a storm shelter or safe room. | x | | | | | x | | x | | | | Emergency Management | Hazard Mitigation Grants | 2021 | The maximum allowable homeowners, as outlined in the grant, install new storm shelters or safe rooms. | H | |
| 7 | Maintain the City website to include all-hazards preparedness information. | x | x | x | x | x | x | x | x | x | x | x | Information Technology | Internal City Funds | Continuous | Refine information as needed | H | |
| 8 | Maintain City's Emergency Operations Plan, ensure that it is current, and coordinate it with the Hazard Mitigation Plan's Hazard Identification and Risk Assessment. | x | x | x | x | x | x | x | x | x | x | x | Emergency Management | Department of Homeland Security Grants | Continuous | Refine information as needed | H | |
| 9 | Identify new tools to educate the public on the hazards at most risk to the community, to include all social media outlets. | x | x | x | x | x | x | x | x | x | x | x | Information Technology | Internal City Funds | Continuous | Evaluate methods (e.g., newspaper, electronic media) to reach all intended audiences, to help direct research/identification efforts. This may include conducting a public survey. | M | |
| 10 | Maintain dedicated easements and restrict construction in those easements. | x | x | x | x | x | x | x | x | x | x | x | Public Works, AEP/PSO & Summit Energy | Internal City Funds | Continuous | Refine maintenance activities as needed. | M | |
| 11 | Enforce the City's floodplain ordinance; more specifically, prohibit critical structures from being built in the 500-year floodplain. | | | | | x | | | | | | x | Public Works | Internal City Funds | Continuous | Refine enforcement requirements as needed. | H | |
| 12 | Maintain a supply of spill prevention/cleanup materials. | | | | | | | | | | | | Fire Department | Department of Homeland Security Grants | Continuous | Determine items to acquire by 2013. | H | Ongoing. The Fire Department maintains supplies for spill prevention/cleanup. Supplies are replenished as needed. Funded through the supply cost recovery ordinance. |

Appendix A: Mitigation Action Strategies

| # | Project Description | Hail | Extreme Heat | Lightning | Drought | Flood | Tornado | Wildfire | High Wind | Winter Storm | Dam Failure | Earthquake | Lead & Support Agency | Funding Source | Target Completion Date | Interim Measure of Success | Priority | Status |
|----|---|------|--------------|-----------|---------|-------|---------|----------|-----------|--------------|-------------|------------|--|--|------------------------|---|----------|---|
| 13 | Update the Emergency Action Plans for High Hazard Potential Dams: Lake Ellsworth, Lake Lawtonka, B-II Detention Basin Dam, and Dolese Detention Dams as needed. | | | | | | | | | | x | | Water/Wastewater & Engineering | FEMA Unified Hazard Mitigation Assistance Grants | 2028 | Develop a working group, or identify responsible parties, to conduct the updates by 2028. | M | |
| 14 | Assess current zoning ordinances and enforce to eliminate building structures below High Hazard Potential Dams. | | | | | x | | | | | x | | Water/Wastewater & Engineering | Internal Department Funding | Continuous | Develop a working group, or identify responsible parties, to provide identification and enforcement. | M | |
| 15 | Update Floodgate Operation Policies for Lake Lawtonka and Lake Ellsworth as needed. | | | | | x | | | | | x | | Water/Wastewater & Engineering | FEMA Unified Hazard Mitigation Assistance Grants | 2028 | Develop a working group, or identify responsible parties, to conduct the updates by 2028. | M | |
| 16 | Assess and evaluate emergency power capability and capacity for Lakes Lawtonka and Ellsworth and secure redundant emergency power capabilities through installment of appropriately sized emergency power infrastructure. | | | | | x | | | | | x | | Water/Wastewater, Engineering, Emergency Management | FEMA Unified Hazard Mitigation Assistance Grants | 2028 | | H | |
| 17 | Assess and evaluate four High Hazard Potential Dams located in City of Lawton jurisdictional boundaries and develop appropriate design, safety, or other upgrade plans. | | | | | x | | | | | x | | Water/Wastewater & Engineering | OWRB High Hazard Potential Dam Mitigation Grant | 2028 | Coordinate with local water conservation district to integrate planning and upgrades of current infrastructure. | H | The City of Lawton was awarded an Oklahoma Water Resources Board Design grant to assess and develop updates to aging HHPD infrastructure. |
| 18 | Identify mission critical facilities within City of Lawton infrastructure and develop emergency power plans for each to include onsite generators, dedicated hook-ups, and/or emergency contracts for generator support. | x | | x | | | | | | | | x | Public Utilities, Emergency Management, Parks and Recreation | FEMA Hazard Mitigation Assistance Grants | 2028 | Develop list of priority locations through risk assessment or mission criticality. | H | |
| 19 | Identify available saferoom locations within City of Lawton infrastructure either existing or appropriate space and improve saferoom capacity. | | | | | | x | | x | | | | Public Utilities, Emergency Management, Police Department | FEMA Hazard Mitigation Assistance Grants | 2028 | | H | |
| 20 | Develop and maintain fire breaks within and around areas identified within the wildland urban interface. Improve existing firebreak locations as needed. | | | | | | | | x | | | | Fire Department | Internal Funding | 2028 | | H | |
| 21 | Develop shelter-in-place and evacuation policies for civilian and inmate populations at the City of Lawton Jail. | | | | | x | x | x | | x | x | x | Police Department, Emergency Management | Internal Funding | 2025 | | H | |

Appendix A: Mitigation Action Strategies

| # | Project Description | Hail | Extreme Heat | Lightning | Drought | Flood | Tornado | Wildfire | High Wind | Winter Storm | Dam Failure | Earthquake | Lead & Support Agency | Funding Source | Target Completion Date | Interim Measure of Success | Priority | Status |
|----|---|------|--------------|-----------|---------|-------|---------|----------|-----------|--------------|-------------|------------|---|--|------------------------|----------------------------|----------|--------|
| 22 | Identify Redundant Internet, Telecommunications, and Internet/Server provider or access and accessibility to Emergency Communications Area. If redundancies exist, identify which services currently are in place with an established backup line or entry to the building with connectivity. Research Network Failover Protection capabilities to provide automatic network switching in the event of network downtime or failure. | | | x | | x | x | x | x | x | x | x | Emergency Communications, Information Technology | Internal Funding, FEMA Hazard Mitigation Assistance Grants, Homeland Security Grants | 2028 | | H | |
| 23 | Research and identify limited VOIP phone capability which could be utilized if hardline phone service interruption and tie into network failover to re-establish telecommunications capabilities temporarily utilizing network systems. | | | x | | x | x | x | x | x | x | x | Emergency Communications, Information Technology | Internal Funding, FEMA Hazard Mitigation Assistance Grants, Homeland Security Grants | 2028 | | M | |
| 24 | Evaluation and identification of improved wind or impact-resistant structure to house above-ground generator which services building. | x | | x | | x | x | x | x | x | x | x | Emergency Communications, Information Technology | Internal Funding, FEMA Hazard Mitigation Assistance Grants, Homeland Security Grants | 2028 | | H | |
| 25 | Establishment of back-up generator service contract or agreement with appropriate size generator to maintain continuity of operations with minimal interruption to services. This would include standby electrician services to ensure proper and safe hook-up to the building or to establish a tie-in for the generator. | x | | x | | x | x | x | x | x | x | x | Emergency Communications, Information Technology, Police Department | Internal Funding, FEMA Hazard Mitigation Assistance Grants, Homeland Security Grants | 2028 | | H | |
| 26 | Identification of alternative tower locations to host backup repeaters to ensure continuity if primary tower location is impacted. Research mobile radio tower assets or capabilities for rent or purchase as alternative, cheaper option. | x | | x | | x | x | x | x | x | x | x | Emergency Communications, Information Technology, Police Department | Internal Funding, FEMA Hazard Mitigation Assistance Grants, Homeland Security Grants | 2028 | | H | |
| 27 | Research and identification of alternative dispatch center location which would house identical emergency communications capabilities at an equal or smaller scale to include equipment, which could be utilized to maintain operations if primary dispatch location sustained a direct impact and was unsafe or inoperable. | x | x | x | x | x | x | x | x | x | x | x | Emergency Communications, Information Technology | Internal Funding, FEMA Hazard Mitigation Assistance Grants, Homeland Security Grants | 2028 | | H | |
| 28 | Assess and evaluate current policies and procedures for utilization of staff to support whole-city disaster response and identify personnel who can support debris clean up, logistics, and shelter operations. | | | | | x | x | x | x | x | x | x | Parks and Recreation | Internal Funding | 2025 | | M | |

Appendix A: Mitigation Action Strategies

| # | Project Description | Hail | Extreme Heat | Lightning | Drought | Flood | Tornado | Wildfire | High Wind | Winter Storm | Dam Failure | Earthquake | Lead & Support Agency | Funding Source | Target Completion Date | Interim Measure of Success | Priority | Status | |
|----|--|------|--------------|-----------|---------|-------|---------|----------|-----------|--------------|-------------|------------|--|--|--|--|---|--------|--|
| 29 | Assess and evaluate the current cemetery record system and identify digitization solutions to improve recordkeeping and continuity of operations. Update and improve plot mapping and consolidate records. | | | | | x | x | x | | | | x | x | Parks and Recreation, Information Technology | Internal Funding, FEMA Hazard Mitigation Assistance Grants | 2028 | Implement a means to reconcile cemetery plot information in the event of disruption to cemetery grounds and displacement of interred persons. | H | |
| 30 | Assess current Community Shelter capability and identify strategic locations which could serve as support during mass sheltering operations. | | x | | | x | x | x | | x | x | x | Parks and Recreation, Emergency Management | Internal Funding, FEMA Hazard Mitigation Assistance Grants, Homeland Security Grants | 2028 | | H | | |
| 31 | Establishment of back-up generator service contract or agreement with appropriate size generator to maintain continuity of operations with minimal interruption to services. This would include standby electrician services to ensure proper and safe hook-up to the building or to establish a tie-in for the generator. To support Community wide shelter operations. | | x | | | x | x | x | | x | x | x | Parks and Recreation, Emergency Management | Internal Funding, FEMA Hazard Mitigation Assistance Grants, Homeland Security Grants | 2028 | | H | | |
| | Assess the current prioritized list of low-water crossings and install or update signage for flood-prone areas. | | | | | x | | | | | | x | Public Works | FEMA Unified Hazard Mitigation Assistance Grants | 2028 | Develop a prioritized list of low water crossing roads to replace by 2026. Design plans to address improvements. Oversee constructions and implementation of design. | L | | |
| | Assess current evacuation mapping and identify routes and update or develop to meet changing infrastructure needs. | | | | | x | x | x | x | x | x | x | Public Works, Emergency Management, GIS | FEMA Unified Hazard Mitigation Assistance Grants | 2028 | Identify any current evacuation routes and establish all-hazards evacuation routes. | M | | |
| | Spread sand /salt mixture on iced roadways. | | | | | | | | | x | | | Public Works | Internal City Funds | Continually, as needed | Ensure budget item included in annual budget for sand/salting. | L | | |
| | Inspect key roads and bridges after an event. | | | | | x | x | x | | | | x | Public Works | Internal City Funds | Continually, as needed | Refine inspection checklists as needed. Perform activities as needed. | L | | |
| | Coordinate with the County to maintain a Community Wildfire Protection Plan, focusing on wildland-urban interface. | | | | | | | x | | | | | Fire Department | FEMA Unified Hazard Mitigation Assistance Grants | Continuous | Refine plan as needed | H | | |
| | Maintain the current HazMat Response Team | | | | | | | | | | | | Fire Department | Internal City Funds | Continuous | Refine capabilities as needed | H | | |
| | Work with Comanche County and Fort Sill on vegetation control | | | x | | | | x | | | | | Fire Department | Internal City Funds | Continuous | Respond to requests for resources as appropriate | L | | |
| | Evacuate persons whose homes are in danger | | | | | x | x | x | x | x | x | x | Police Department / Fire Department | Internal City Funds/ FEMA Unified Hazard Mitigation Assistance Grants | Continuous | Identify critical points at which the decision to evacuate should occur. Develop evacuation plans and routes. Review capabilities. Obtain | H | | |
| | Provide real time notification to citizens about hazards and road closures to be displayed on City Website. | x | x | x | x | x | x | x | x | x | x | x | GIS | FEMA Unified Hazard Mitigation Assistance Grants | Continuous | Develop online mapping system to alert citizens of hazards and road closures. | M | | |
| | Develop electronic citizen engagement and warning software or interactive application for mobile devices. | x | x | x | x | x | x | x | x | x | x | x | Information Technology | FEMA Unified Hazard Mitigation Assistance Grants | Continuous | Develop citizen information distribution application | M | | |

Appendix A: Mitigation Action Strategies

| # | Project Description | Hail | Extreme Heat | Lightning | Drought | Flood | Tornado | Wildfire | High Wind | Winter Storm | Dam Failure | Earthquake | Lead & Support Agency | Funding Source | Target Completion Date | Interim Measure of Success | Priority | Status |
|---|---|------|--------------|-----------|---------|-------|---------|----------|-----------|--------------|-------------|------------|----------------------------------|--|------------------------|--|----------|--|
| | Continue lobbying efforts to encourage City officials to gain access to the County's current and timely records. | x | x | x | x | x | x | x | x | x | x | x | City Manager, Mayor | Internal City Funds | 2022 | Refine information exchange procedures as needed. | M | Ongoing. |
| | Build upon the City's Emergency Reserve Fund by increasing the deposits into the fund by 5% each year. | x | x | x | x | x | x | x | x | x | x | x | City Manager, Mayor | Internal City Funds | Yearly | Determine potential budget items that may be able to withstand a temporary cutback. | M | Ongoing. By ordinance an 5% increase in the Emergency Reserve Fund is budgeted. |
| | Determine feasibility of developing a Drought Preparedness and Response Plan. | | | | x | | | | | | | | Public Works | FEMA Unified Hazard Mitigation Assistance Grants | Continuous | Review hazard data and evaluate available resources. | M | Ongoing. Water restrictions updated by Ordinance 15-04 on 3/24/1. LCC 22-2-218 Garver Engineering was hired to perform a study on alternative water. |
| | Limit development in areas of steep slope. | | | | | | | | | | | | Community Services | Internal City Funds | Continuous | Identify all areas of steep slope within the City. | L | Ongoing. No action needed at this time. Compliant with regulation under current adopted code. |
| | Evaluate the need to retrofit existing cell towers that are not built to current wind code. | | | | | | | | x | | | | Community Services | Internal City Funds | Continuous | Determine requirements for retrofitting. | H | Ongoing. No action needed at this time. Compliant with regulation under current adopted code. |
| | Seek support for a statewide insurance program to cover hail damage to property and vehicles. | x | | | | | | | | | | | City Manager, Mayor | Internal City Funds | Continuous | Determine data collection needs in order to assess vulnerability. | M | Ongoing. Bill Phelps lobbies on behalf of the City on statewide issues. |
| | Evaluate glass windows in critical facilities and switch to tempered glass where appropriate. | x | | | | | | | | | | | Community Services | Internal City Funds | Continuous | Prioritize critical facilities list based upon hazard vulnerability and evaluate highest ranking structures first. | H | Ongoing. No action needed at this time. Compliant with regulation under current adopted code. |
| | Promote retrofitting of wiring all pre-building code structures; promote upgrade of wiring to Ground Fault Circuit Interrupter. | | | x | | | | | | | | | Community Services | Internal City Funds | Continuous | Compile a list of critical facilities to be retrofitted and determine estimated costs to update to GFCI. | M | Ongoing. No action needed at this time. Compliant with regulation under current adopted code. |
| | Determine if current building code design snow load requirements are sufficient or if requirements should be more stringent. | | | | | | | | x | | | | Community Services | Internal City Funds | Continuous | Conduct research to determine appropriate design requirements. | H | Ongoing. No action needed at this time. Compliant with regulation under current adopted code. |
| | Ensure that NRCS soil survey maps are overlayed to City of Lawton zoning regulations (i.e., maps) to ensure that new structures in areas with shrink/swell soils have appropriate foundation systems. | | | | | | | | | | | | Community Services | FEMA Unified Hazard Mitigation Assistance Grants | Continuous | Obtain soil survey data and assign responsibilities. | L | Ongoing. No action needed at this time. Compliant with regulation under current adopted code. |
| | Consider retrofit options or changes (strengthening) to building code in earthquake hazard areas. | | | | | | | | | | | x | Community Services | Internal City Funds | Continuous | Determine areas vulnerable to earthquakes and evaluate existing building codes. | L | Ongoing. No action needed at this time. Compliant with regulation under current adopted code. |
| | Retrofit the Emergency Operations Center and other public critical facilities. | x | x | x | x | x | x | x | x | x | x | x | Public Works | Department of Homeland Security Grants | Continuous | Identify critical facilities to retrofit and determine what parts of the buildings to retrofit by 2012. | M | Ongoing. |
| | Continue / codify stronger foundation construction practices. | x | x | x | x | x | x | x | x | x | x | x | Public Works, Community Services | Internal City Funds | Continuous | Identify existing construction manuals, or guidance, and educate builders on the resources they can use when constructing foundations. | M | Ongoing. No action needed at this time. Compliant with regulation under current adopted code. |
| | Meadowbrook Creek Flood Control Project Area | | | | | x | | | | | | | Public Works | Internal City Funds | 2022 | Develop a list of projects to be completed in the area and schedule construction based on priority | L | Ongoing. List of projects is being developed and prioritized. |
| | Replace SW 52nd St. Bridge over Wolf Creek Tributary (Area #22) | | | | | x | | | | | | | Public Works | Internal City Funds | 2022 | Evaluate the structure and prioritize its reconstruction | L | Ongoing. List of projects is being developed and prioritized. |

Appendix A: Mitigation Action Strategies

| # | Project Description | Hail | Extreme Heat | Lightning | Drought | Flood | Tornado | Wildfire | High Wind | Winter Storm | Dam Failure | Earthquake | Lead & Support Agency | Funding Source | Target Completion Date | Interim Measure of Success | Priority | Status |
|---|---|------|--------------|-----------|---------|-------|---------|----------|-----------|--------------|-------------|------------|--|---------------------|------------------------|--|----------|--|
| | Spread sand /salt mixture on iced roadways. | | | | | | | | | x | | | Public Works | Internal City Funds | Continually, as needed | Ensure budget item included in DPW annual budget for sand/salting. | L | Ongoing. Sand/salting is budgeted for and applied as needed. |
| | Assess and evaluate the Stormwater Master plan for effectiveness and ensure that it meets current best practices and/or national standards. Activities may include design planning, construction, or implementing of updated plans. | | | | | x | | | | | | | Public Works, Stormwater Management | Internal City Funds | Continually, as needed | | M | |
| | Assess, evaluate and update the Drainage Master plan to identify, prioritize, and propose projects to address aging infrastructure and flood prone areas. Activities may include design planning, construction, or implementing of updated plans. | | | | | x | | | | | | | Public Works, Stormwater Management | Internal City Funds | Continually, as needed | | M | |

Appendix A: Mitigation Action Strategies

| # | Project Description | Hail | Extreme Heat | Lightning | Drought | Flood | Tornado | Wildfire | High Wind | Winter Storm | Dam Failure | Earthquake | Lead & Support Agency | Funding Source | Target Completion Date | Interim Measure of Success | Priority | Status |
|---|--|------|--------------|-----------|---------|-------|---------|----------|-----------|--------------|-------------|------------|---|--|------------------------|---|----------|--|
| | City of Cache | | | | | | | | | | | | | | | | | |
| | Coordinate with Western District County Barn and County Floodplain Manager to identify mitigation activities such as debris clearing and removal for Crater Creek and other impactful waterways. | | | | | x | | | | | | | Floodplain Manager Western District Foreman | Internal City Funds, Floodplain Management Grant, Hazard Mitigation Grant | 2028 or As Needed | | M | |
| | Assess and evaluate current Stormwater Management program and identify policy, ordinances, or other enforcement mechanism in accordance with City Planning. | | | | | x | | | | | | | Stormwater/Floodplain Management Office | Internal City Funds, Floodplain Management Grant, Hazard Mitigation Grant | 2028 | | H | |
| | (Ref #6) Continue to Manage Saferooms within City of Cache, assess and prioritize upgrades or expansion to ensure most current building & fire codes are being followed. | x | | | | | x | | | x | | | Emergency Management City of Cache | Internal City Funds, Floodplain Management Grant, Hazard Mitigation Grant | 2028 | Assessing Saferoom capabilities will be an ongoing process to ensure that as the community and population expand so does appropriate sheltering options | H | This may align as part of the overall saferoom grant program |
| | (Ref #9) Increase public outreach to educate and inform citizens and community on emergency preparedness and response activities. | x | x | x | x | x | x | x | x | x | x | x | City of Cache Emergency Management | Internal City Funds, Hazard Mitigation Grant | 2025 | | H | |

Appendix A: Mitigation Action Strategies

| # | Project Description | Hail | Extreme Heat | Lightning | Drought | Flood | Tornado | Wildfire | High Wind | Winter Storm | Dam Failure | Earthquake | Lead & Support Agency | Funding Source | Target Completion Date | Interim Measure of Success | Priority | Status |
|---|--|------|--------------|-----------|---------|-------|---------|----------|-----------|--------------|-------------|------------|---|--|------------------------|---|----------|--------|
| | Town of Indiahoma | | | | | | | | | | | | | | | | | |
| | (Ref #19) Identify potential shelter locations which exist to be assessed for structural integrity. Identify potential consulting entity to review identified locations and provide recommendations for enhanced safety. Once shelter or saferooms have been identified, develop a list of location(s) to be provided to community. | x | | x | | | x | | x | | | | Town of Indiahoma Emergency Management | Internal City Funds, Hazard Mitigation Grant | 2028 | In coordination with Emergency Management, the Town of Indiahoma will develop a Community Shelter Operations plan to ensure sheltering for the community and citizens during disaster or critical infrastructure failure. | H | |
| | (Ref #18) Assess current town hall facilities and identify if the building has external generator capability or hook-up to maintain continuity of operations with minimal interruptions to services. This may include establishment of generator service agreement with appropriate size generator to include standby electrician services to ensure proper and safe hook-up or to establish a tie-in for the building. May also include permanent installation of an appropriate sized generator. | x | x | x | | | x | x | x | x | | x | Town of Indiahoma Emergency Management American Red Cross | Internal City Funds, Hazard Mitigation Grant | 2028 | Establishment of a redundant back up power system for the Town Hall facilities. | H | |
| | Develop Community Emergency Response Team within community to support community shelter operations and create capability to house and shelter community residents in the event of a disaster or critical infrastructure failure. | x | x | x | | | x | x | x | x | | x | Town of Indiahoma Emergency Management | Internal City Funds, Hazard Mitigation Grant | 2026 | | M | |

Appendix A: Mitigation Action Strategies

| # | Project Description | Hail | Extreme Heat | Lightning | Drought | Flood | Tornado | Wildfire | High Wind | Winter Storm | Dam Failure | Earthquake | Lead & Support Agency | Funding Source | Target Completion Date | Interim Measure of Success | Priority | Status |
|---|--|------|--------------|-----------|---------|-------|---------|----------|-----------|--------------|-------------|------------|-----------------------------------|--|------------------------|--|----------|--------|
| | Comanche County Health Department | | | | | | | | | | | | | | | | | |
| | (Ref #1) Update and develop Public Information and Safety Messaging to provide the public with pertinent public health related information during inclement weather, disaster, or critical infrastructure failure. | x | x | x | x | | | | | x | | | Comanche County Health Department | Internal Budget Hazard Mitigation Grant | 2026 | Review and update existing materials for pertinency and consolidate messaging for consistency. | M | |
| | Update aging HVAC infrastructure to ensure continuity of operations and maintenance of climate controlled critical operations such as vaccine storage and cold-chain. | | x | x | | | x | | | | | x | Comanche County Health Department | American Rescue Plan Act Hazard Mitigation Grant | 2024 | identify vendors, develop request for proposal and accept bids. | M | |

Appendix A: Mitigation Action Strategies

| # | Project Description | Hail | Extreme Heat | Lightning | Drought | Flood | Tornado | Wildfire | High Wind | Winter Storm | Dam Failure | Earthquake | Lead & Support Agency | Funding Source | Target Completion Date | Interim Measure of Success | Priority | Status |
|---|---|------|--------------|-----------|---------|-------|---------|----------|-----------|--------------|-------------|------------|-----------------------|---|------------------------|----------------------------|----------|--------|
| | Lawton Public Schools | | | | | | | | | | | | | | | | | |
| | Evaluate and assess current virtual education options for all students. Identify best practice, research-based curriculum and most current technology and devices available for update or upgrade. | | | | | | | | | | | | Lawton Public Schools | Internal Budget Hazard Mitigation Grant | 2024 | | M | |
| | Utilize student media production and fine arts classes to develop Public Awareness Campaigns to keep students, staff, families and stakeholders well-informed of weather events and precautions. This includes use with district mass messaging online platforms (website, district alerts, social media, branding and media entities) to share information and PSAs. | x | x | x | x | x | x | x | x | x | x | x | Lawton Public Schools | Internal Budget Hazard Mitigation Grant | 2024 | | M | |
| | Mitigate the risk of harm or damage to persons or property by modifying existing LPS sites and infrastructure to expand warning internal and external warning/intercom systems which meet or exceed standard safety and building codes. This expansion will allow for timely and effective communication to those at LPS events or daily operations. | x | x | x | x | x | x | x | x | x | x | x | Lawton Public Schools | Internal Budget Hazard Mitigation Grant | 2024 | | M | |
| | Work with state and local assessment teams to inspect current conditions of structures to determine vulnerabilities. The areas identified will need to be brought up to standards and code for safety of student body, staff and stakeholders on campus. | | | | x | | | | | | | | Lawton Public Schools | Internal Budget Hazard Mitigation Grant | 2024 | | M | |
| | Work with local Farmers and COOP for Soil and Water Conservation Best Practices. Once discussed, develop content and partnerships to have public service announcements produced by students. Students will need proper media equipment to produce and distribute PSA's via the district's media platforms to inform the public. | | | | x | | | | | | | | Lawton Public Schools | Internal Budget Hazard Mitigation Grant | 2024 | | M | |
| | Collaborate with local partners to provide alternate food sources for LPS livestock and increase cover crop on existing LPS Ag Farm property. This process will mitigate the damage caused by the drought and impacts to livestock and erosion of property. | | | | x | | | | | | | | Lawton Public Schools | Internal Budget Hazard Mitigation Grant | 2024 | | M | |

Appendix A: Mitigation Action Strategies

| # | Project Description | Hail | Extreme Heat | Lightning | Drought | Flood | Tornado | Wildfire | High Wind | Winter Storm | Dam Failure | Earthquake | Lead & Support Agency | Funding Source | Target Completion Date | Interim Measure of Success | Priority | Status |
|---|--|------|--------------|-----------|---------|-------|---------|----------|-----------|--------------|-------------|------------|-----------------------|---|------------------------|----------------------------|----------|--------|
| | Work with local organizations and business to ensure landscape and can thrive in drought conditions. In addition, develop natural system protections and processes to minimize damage or loss while protecting naturally occurring eco-systems and their functions. (i.e., floodplains, waterways, etc.) | | | | x | | | | | | | | Lawton Public Schools | Internal Budget Hazard Mitigation Grant | 2024 | | M | |

Appendix A: Mitigation Action Strategies

| # | Project Description | Hail | Extreme Heat | Lightning | Drought | Flood | Tornado | Wildfire | High Wind | Winter Storm | Dam Failure | Earthquake | Lead & Support Agency | Funding Source | Target Completion Date | Interim Measure of Success | Priority | Status |
|---|---|------|--------------|-----------|---------|-------|---------|----------|-----------|--------------|-------------|------------|-----------------------|---|------------------------|----------------------------|----------|--------|
| | Build more natural systems protection to ensure eco-systems thrive even through drought conditions. This means building a system to monitor drought condition and impacts, protecting animals' habitat, and identify water-dependent functions and determine steps to adapt those functions if conditions worsen. | | | | x | | | | | | | | Lawton Public Schools | Internal Budget Hazard Mitigation Grant | 2024 | | M | |
| | Build system to collect, store and utilize rain water when drought conditions make negative impacts to the property. | | | | x | | | | | | | | Lawton Public Schools | Internal Budget Hazard Mitigation Grant | 2024 | | M | |
| | Assess and evaluate all LPS Buildings and facilities to identify buildings which may need retrofiting, upgrades, or design. Develop a list of prioritized facilities are up to code and begin to address those that need repair and/or maintenance. | | | | | | | | | | | x | Lawton Public Schools | Internal Budget Hazard Mitigation Grant | 2024 | | M | |
| | Develop an plan to create a multipurpose building for student use indoors. This alternative plan will ensure students can continue their normal activities in an different environment. | | x | | | | | | | | | | Lawton Public Schools | Internal Budget Hazard Mitigation Grant | 2024 | | M | |
| | Work with Service partners to develop a preventative maintenance policy to provide timely and adequate service repairs to vehicles and ensure longevity of fleet. | | x | | | | | | | | | | Lawton Public Schools | Internal Budget Hazard Mitigation Grant | 2024 | | M | |
| | Educate the community on the importance of having a well-staffed transportation team. Shortage of drivers hinders ability to effectively transport students. | | | x | | | | | | | | | Lawton Public Schools | Internal Budget Hazard Mitigation Grant | 2024 | | H | |
| | Develop a process to perform wellness checks on students and staff with known health conditions and provide additional resources during these extreme temps to include independent mini split units. | | x | | | | | | | | | | Lawton Public Schools | Internal Budget Hazard Mitigation Grant | 2024 | | H | |
| | Identify Redundant Internet, Telecommunications, and Internet/Server provider or access and accessibility to Emergency Communications Area. If redundancies exist, identify which services currently are in place with an established backup line or entry to the building with connectivity. Research Network Failover Protection capabilities to provide automatic network switching in the event of network downtime or failure. | x | | x | | | x | | x | | | | Lawton Public Schools | Internal Budget Hazard Mitigation Grant | 2024 | | H | |

Appendix A: Mitigation Action Strategies

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|---|---|------|--------------|-----------|---------|-------|---------|----------|-----------|--------------|-------------|------------|-----------------------|---|------------------------|----------------------------|----------|--------|
| | Continue to maintain the structure and integrity of safe rooms at each site and the structures of other parts of the buildings | x | | x | | | x | | x | | | | Lawton Public Schools | Internal Budget Hazard Mitigation Grant | 2024 | | H | |
| | Develop alerts and messaging policy to identify key thresholds and triggers which would prompt early pickup and dismissal. | x | | x | | | x | | x | | | | Lawton Public Schools | Internal Budget Hazard Mitigation Grant | 2024 | | H | |
| | Develop policy and process to identify key triggers and thresholds to relocate critical assets like vehicles and busses to shelter in place. | x | | x | | | x | | x | | | | Lawton Public Schools | Internal Budget Hazard Mitigation Grant | 2024 | | H | |
| | Integrate into the Comanche County - Lawton Wildland Urban Interface plan and identify most vulnerable locations. | | | | | | | | | | | | Lawton Public Schools | Internal Budget Hazard Mitigation Grant | 2024 | | H | |
| | Ensure that LPS insurance policies are up to date and are adequate to replace all structures and assets in the event of a total loss. | | | | | | | | | | | | Lawton Public Schools | Internal Budget Hazard Mitigation Grant | 2024 | | H | |
| | Assess current evacuation and relocation policies and procedures and identify if updates are needed for those facilities identified as most vulnerable. | | | | | x | x | x | | | | | Lawton Public Schools | Internal Budget Hazard Mitigation Grant | 2024 | | H | |

Appendix A: Mitigation Action Strategies

| # | Project Description | Hail | Extreme Heat | Lightning | Drought | Flood | Tornado | Wildfire | High Wind | Winter Storm | Dam Failure | Earthquake | Lead & Support Agency | Funding Source | Target Completion Date | Interim Measure of Success | Priority | Status |
|---|---|------|--------------|-----------|---------|-------|---------|----------|-----------|--------------|-------------|------------|---|---|------------------------|---|----------|--|
| | Comanche County - Multi-Jurisdictional | | | | | | | | | | | | | | | | | |
| | Multi-use, standalone Incident Command Post, in the form of a trailer, or other appropriate vehicle to support extended Search and Rescue Operations during times of disaster, critical infrastructure failure, or mass casualty events. | x | x | x | x | x | x | x | x | x | x | x | Comanche County SAR Team Emergency Management | Hazard Mitigation Grants, REAP Grants, Other Grants | 2024 | This equipment will be utilized by credentialed, certified, trained individuals in the performance of duties for search and rescue operations for Comanche County. | M | |
| | Equipment to be used by trained, certified individuals in performance of Woodland Search and Rescue Operations. | x | x | x | x | x | x | x | x | x | x | x | Comanche County SAR Team Emergency Management | Hazard Mitigation Grants, Other Grants | 2024 | This equipment will be utilized by credentialed, certified, trained individuals in the performance of duties for search and rescue operations for Comanche County. | M | See Itemized List for additional information |
| | Equipment to be used by trained, certified individuals in performance of Structural Collapse Search and Rescue Operations and Technical Rescue Operations. | x | x | x | x | x | x | x | x | x | x | x | Comanche County SAR Team Emergency Management | Hazard Mitigation Grants, Other Grants | 2024 | This equipment will be utilized by credentialed, certified, trained individuals in the performance of duties for search and rescue operations for Comanche County. | M | See Itemized List for additional information |
| | Equipment to be used by trained, certified individuals in performance of Rock Search and Rescue Operations and Technical Rescue Operations. | x | x | x | x | x | x | x | x | x | x | x | Comanche County SAR Team Emergency Management | Hazard Mitigation Grants, Other Grants | 2024 | This equipment will be utilized by credentialed, certified, trained individuals in the performance of duties for search and rescue operations for Comanche County. | M | See Itemized List for additional information |
| | Equipment to be used by trained, certified individuals in performance of Search and Rescue Operations and Swift Water Technical Rescue Operations. | x | x | x | x | x | x | x | x | x | x | x | Comanche County SAR Team Emergency Management | Hazard Mitigation Grants, Other Grants | 2024 | This equipment will be utilized by credentialed, certified, trained individuals in the performance of duties for search and rescue operations for Comanche County. | M | See Itemized List for additional information |
| | Equipment to be used by trained, certified individuals in performance of Search and Rescue Operations and Dive Team Operations. | x | x | x | x | x | x | x | x | x | x | x | Comanche County SAR Team Emergency Management | Hazard Mitigation Grants, Other Grants | 2024 | This equipment will be utilized by credentialed, certified, trained individuals in the performance of duties for search and rescue operations for Comanche County. | M | See Itemized List for additional information |
| | To promote preparedness through public involvement through public education and outreach. Utilize strategic marketing campaigns over multiple platforms to share critical information with the public to increase preparedness, response, and recovery efficiency. Increase active participation of Emergency Management Office in community and planned events and bolster alert and notification system for information sharing and warnings. | x | x | x | x | x | x | x | x | x | x | x | Comanche County - Lawton Emergency Management | Hazard Mitigation Grants, Other Grants | 2025 | Development of Public Service Announcements (PSA), materials, handouts, and other media. Develop and maintain relationships with Public Affairs, Public Information, and other Community facing outlets to provide timely information and notifications to the citizens of Comanche County. | H | |

Appendix A: Mitigation Action Strategies

| # | Project Description | Hail | Extreme Heat | Lightning | Drought | Flood | Tornado | Wildfire | High Wind | Winter Storm | Dam Failure | Earthquake | Lead & Support Agency | Funding Source | Target Completion Date | Interim Measure of Success | Priority | Status |
|---|---|------|--------------|-----------|---------|-------|---------|----------|-----------|--------------|-------------|------------|--|--|------------------------|---|----------|--------|
| | Increase Disaster Preparedness within Comanche County & City of Lawton through validation of current plans through hazard & risk assessments and conduct targeted exercises designed to test existing policies and procedures and engagement of Community-wide leaders and stakeholders and facilitate multi-disciplinary planning. | x | x | x | x | x | x | x | x | x | x | x | Comanche County - Lawton Emergency Management | Hazard Mitigation Grants, Other Grants | 2028 | Design, organize, and facilitate multi-agency exercises to validate existing plans, policies, and procedures. | M | |
| | Enhance County-wide First Responder Capability, Capacity, and Safety through targeted initiatives and projects. Expand and enhance Emergency Medical Response capability by departments and licensing, training and equipment opportunities to all volunteer fire departments, and improving radio communication and interoperability through infrastructure and equipment upgrades. Improve scene management and safety through education and training of Incident Command System principles and practices for all first response agencies within Comanche County. | x | x | x | x | x | x | x | x | x | x | x | Comanche County - Lawton Emergency Management | Hazard Mitigation Grants, Other Grants | 2024 | An Incident Command System software has been purchased but has not been implemented yet but should be fully implemented by end of 2023. | M | |
| | Assess and evaluate capability to develop a comprehensive volunteer program, including Shelter Operations training and partnering with local churches and municipalities to manage and staff shelter operations across Comanche County. | x | x | x | x | x | x | x | x | x | x | x | Comanche County - Lawton Emergency Management | Hazard Mitigation Grants, Other Grants | 2024 | | M | |
| | Engage in pre-planning and coordination to identify ADA-compliant facilities. Shelter Operations training to ensure that designated shelters are properly staffed and equipped. Integrate and engage Medical Reserve Corps to assist with providing medical aid and/or mental health support. | x | x | x | x | x | x | x | x | x | x | x | Comanche County - Lawton Emergency Management | Hazard Mitigation Grants, Other Grants | 2024 | | H | |
| | Include businesses, faith-based organizations, public safety, and media stakeholders in the planning process to ensure accurate and timely information dissemination. Identify areas in which at-risk populations congregate to provide more targeted messaging. | x | x | x | x | x | x | x | x | x | x | x | Comanche County - Lawton Emergency Management | Hazard Mitigation Grants, Other Grants | 2025 | | M | |
| | Identify, assess, and prioritize all existing bridge structures within unincorporated Comanche County for erosion, subsidence, and hazards related to flooding, drought, earthquake, or dam failure to prevent bridge failure. Consolidate findings into a Construction Bridge plan to be executed based upon available funding, need, and priority. | | | | x | x | x | x | | x | x | x | Eastern District County Barn, Western District County Barn, Comanche County Board of County Commissioners, Oklahoma Department of Transportation | Hazard Mitigation Grants, Other Grants | 2026 | Completed list of all bridge structures within Comanche County with identified priorities. | H | |

Appendix A: Mitigation Action Strategies

| # | Project Description | Hail | Extreme Heat | Lightning | Drought | Flood | Tornado | Wildfire | High Wind | Winter Storm | Dam Failure | Earthquake | Lead & Support Agency | Funding Source | Target Completion Date | Interim Measure of Success | Priority | Status |
|---|--|------|--------------|-----------|---------|-------|---------|----------|-----------|--------------|-------------|------------|---|--|------------------------|--|----------|--------|
| | Seek funding for complete bridge replacement and/or site improvements to mitigate effects of identified hazards. | | | | x | x | | x | | | x | x | Eastern District County Barn, Western District County Barn, Comanche County Board of County Commissioners, Oklahoma Department of Transportation | Hazard Mitigation Grants, Other Grants | 2026 | Identify funding sources to apply towards bridge replacement and rehabilitation based upon | H | |
| | Provide new shelters for county, city, town, and school owned vehicles and vital equipment to protect from hail and winter storm damage. | x | | x | | | x | x | | x | | | All Comanche County HMP Planning Area jurisdictions. | Hazard Mitigation Grants, Other Grants, Internal Budgets | 2026 | | M | |
| | Place generators at each critical facility and make available to rural water districts to maintain water for agriculture, domestic consumption, and fire protection in rural areas. | x | | x | | | x | x | x | x | | | All Comanche County HMP Planning Area jurisdictions. | Hazard Mitigation Grants, Other Grants, Internal Budgets | 2026 | | H | |
| | Educate the public about various dangers associated with natural hazards. Education can be accomplished by sponsoring professional programs, school poster contests, essays, and other activities through workshops, public meetings, and various support groups (childcare, senior citizens centers, public schools, 4-H, etc.). Have brochures available at rodeos, county fairs, health fairs, etc. | x | x | x | x | x | x | x | x | x | x | x | All Comanche County HMP Planning Area jurisdictions. | Hazard Mitigation Grants, Other Grants, Internal Budgets | 2028 | | M | |
| | Drill additional water wells, ensuring that an adequate water supply is available for residents. | | | | x | | | | | | | x | All Comanche County HMP Planning Area jurisdictions. | Hazard Mitigation Grants, Other Grants, Internal Budgets | 2026 | | L | |
| | Jurisdictions will continue to review the existing floodplain management program and regulations in order to continue to provide up-to-date information to its citizens. All vulnerable jurisdictions will continue to issue permits. | | | | | x | | | | | | | All Comanche County HMP Planning Area jurisdictions. | Hazard Mitigation Grants, Other Grants, Internal Budgets | Continual | | H | |
| | Install protective film on windows of critical facilities to reduce heat and potential breakage. | x | x | | | | x | | x | | | x | All Comanche County HMP Planning Area jurisdictions. | Hazard Mitigation Grants, Other Grants, Internal Budgets | 2025 | | M | |
| | Purchase and install NOAA Weather Radio receivers in public facilities. | x | | x | | | x | x | x | x | x | x | Comanche County, City of Cache, Town of Chattanooga, City of Elgin, Town of Faxon, Town of Fletcher, City of Geronimo, Towns of Indianola, Town of Medicine Park, Town of Sterling. | Hazard Mitigation Grants, Other Grants, Internal Budgets | Continual | | M | |
| | Install, upgrade, and/or expand outdoor warning systems within established jurisdictional communities. | x | | x | | | x | | x | | | | Comanche County, City of Cache, Town of Chattanooga, City of Elgin, Town of Faxon, Town of Fletcher, City of Geronimo, Towns of Indianola, Town of Medicine Park, Town of Sterling. | Hazard Mitigation Grants, Other Grants, Internal Budgets | 2025 | | H | |

Appendix A: Mitigation Action Strategies

| # | Project Description | Hail | Extreme Heat | Lightning | Drought | Flood | Tornado | Wildfire | High Wind | Winter Storm | Dam Failure | Earthquake | Lead & Support Agency | Funding Source | Target Completion Date | Interim Measure of Success | Priority | Status |
|---|---|------|--------------|-----------|---------|-------|---------|----------|-----------|--------------|-------------|------------|---|--|------------------------|----------------------------|----------|--------|
| | Implement Firewise Program Countywide | | | | | | | x | | | | | Comanche County, City of Cache, Town of Chattanooga, City of Elgin, Town of Faxon, Town of Fletcher, City of Geronimo, Towns of Indianola, Town of Medicine Park, Town of Sterling. | Hazard Mitigation Grants, Other Grants, Internal Budgets | 2026 | | M | |
| | Construct reservoirs for water holding structures (cistern, blivet, or tank), specifically for the purpose of firefighting storage. | | | | | | | x | | | | | Comanche County, City of Cache, Town of Chattanooga, City of Elgin, Town of Faxon, Town of Fletcher, City of Geronimo, Towns of Indianola, Town of Medicine Park, Town of Sterling. | Hazard Mitigation Grants, Other Grants, Internal Budgets | 2026 | | M | |
| | Install lightning detection systems for outdoor activities for Public School systems countywide. | | | x | | | | | | | | | Lawton Public Schools, Cache Public Schools, Chattanooga Public Schools, Elgin Public Schools, Fletcher Public Schools, Flower Mound Public School, Geronimo Public Schools, Great Plains Technology Center, Indianola Public Schools, Sterling Public Schools. | Hazard Mitigation Grants, Other Grants, Internal Budgets | 2025 | | H | |
| | Install lightning protection and suppression systems to protect computers and other electrical equipment | | | x | | | | | | | | | Lawton Public Schools, Cache Public Schools, Chattanooga Public Schools, Elgin Public Schools, Fletcher Public Schools, Flower Mound Public School, Geronimo Public Schools, Great Plains Technology Center, Indianola Public Schools, Sterling Public Schools. | Hazard Mitigation Grants, Other Grants, Internal Budgets | 2026 | | L | |
| | Install Safe Rooms in rooms on school campuses | | | | | | | x | | | | | Lawton Public Schools, Cache Public Schools, Chattanooga Public Schools, Elgin Public Schools, Fletcher Public Schools, Flower Mound Public School, Geronimo Public Schools, Great Plains Technology Center, Indianola Public Schools, Sterling Public Schools. | Hazard Mitigation Grants, Other Grants, Internal Budgets | 2025 | | H | |

Appendix A: Mitigation Action Strategies

| # | Project Description | Hail | Extreme Heat | Lightning | Drought | Flood | Tornado | Wildfire | High Wind | Winter Storm | Dam Failure | Earthquake | Lead & Support Agency | Funding Source | Target Completion Date | Interim Measure of Success | Priority | Status |
|---|---|------|--------------|-----------|---------|-------|---------|----------|-----------|--------------|-------------|------------|---|--|------------------------|----------------------------|----------|--------|
| | Expand and improve notification systems to citizens in inundation zones in the event of potential dam failure. The expansion and improvement of the notification system consists of reverse 911, Mass Notification, social media, and television and radio media. Also included is development and distribution of evacuation routes. | | | | | | | | | | | | Comanche County, City of Lawton, City of Cache, Town of Medicine Park | Hazard Mitigation Grants, Other Grants, Internal Budgets | 2025 | | L | |
| | Install low flow faucets in all facilities. | | | | x | | | | | | | | All Comanche County HMP Planning Area jurisdictions. | Hazard Mitigation Grants, Other Grants, Internal Budgets | 2025 | | L | |

Appendix B:
Participation Documentation



Comanche County / Lawton Local Emergency Planning Committee (LEPC)

4500 SW Lee Blvd, Building 900, Lawton, OK 73541

Meeting Minutes for December 7, 2021

CALL TO ORDER

Clint Langford called the meeting to order at 10:07 am

IN ATTENDANCE

Jared Williams

Jessica Carter

Rick Franz

Rebecca Villa-Winsett

Kim O'Brien

Rachael Huey

Clint Langford

Erica Ramirez

Amy Hawkins

Elizabeth Woods

Alana Pack

Sam Talamantez

ACCEPTANCE OF MINUTES

Jessica Carter made a motion to accept the minutes from the September 1, 2021 meeting. Alana Pack seconded the motion. The minutes were unanimously approved as distributed.

AGENDA ITEMS

LEPC Membership: Clint Langford discussed merging the city/county/LPS/All Schools & municipalities and the need for updating members and additional LEPC members.

County Emergency Operations Plan (EOP) 2021: Clint Langford advised that the EOP has been approved. The Next EOP will be a joint EOP with City of Lawton and Lawton Public Schools.

2022 Hazard Mitigation Plan (HMP): Clint Langford discussed that core members need to be identified. Emergency Management is meeting with Matt Rollins from ODEMHS about the Hazard Mitigation Plan process. He stated that we need a commitment from all core members so show up at each meeting and participate.

Are Quarterly Meetings Enough?: Jared Williams suggested that quarterly meetings are sufficient now until the time comes that we need to meet more frequently. Clint Langford made a motion to meet quarterly for now. Alana Pack seconded the motion. The motion carried unanimously.

TRAINING

Clint Langford asked what training needs we have. Jared Williams suggested a type 4 Incident Management Team (IMT) City/County (2 teams, 3 deep) to better manage incidents. Clint Langford will look into implementation.

PROPOSED MEETING DATES FOR 2022

Rebecca Villa-Winsett made the motion that we keep the same schedule consisting of the 1st Wednesday of each quarter: March 2, 2022, June 1, 2022, September 7, 2022 and December 7, 2022 at 10:00 am in the Comanche County EOC at 4500 SW Lee Blvd, Bldg 900. Kim O'Brien seconded the motion. The motion carried unanimously.

Sam Talamantez suggested changing the meeting time from 10am to noon during the lunch hour and using the LEPC money for food, if allowed. Clint Langford will look into the ability to use LEPC funds for that purpose.

COVID-19 UPDATE

Rebecca Villa-Winsett gave a COVID-19 update:

In Comanche County: Age 12 and up 68.5% have received 1 vaccine. 56.6% are fully vaccinated. Age 65 and up 82.2% are fully vaccinated. We are the 3rd highest vaccinated rate in the state of OK. She stated that she would email stats on Herd Immunity.

MERC UPDATE

Alana Pack gave a MERC Update. Clint Langford suggested a demo for the App: RAVE Collaborate that MERC uses, to see if it will fit with the City of Lawton and Comanche County for mass notifications and to build situational awareness and a common operating picture for incidents.

ADJOURNMENT

Jessica Carter made a motion to adjourn. Alana seconded the motion. They ayes were unanimous. Meeting adjourned at 11:42 am.

Next Meeting, March 2, 2022 at the Comanche County Emergency Operations Center (EOC), 4500 SW Lee Blvd, Building 900, Lawton, OK 73501

Good afternoon,

Welcome to the Hazard Mitigation Planning Committee. As we dive into the 2022-2023 year, we are undertaking the update of the Hazard Mitigation Plan (HMP), and you are a key component to our success in making our county a safer, more prepared place to live.

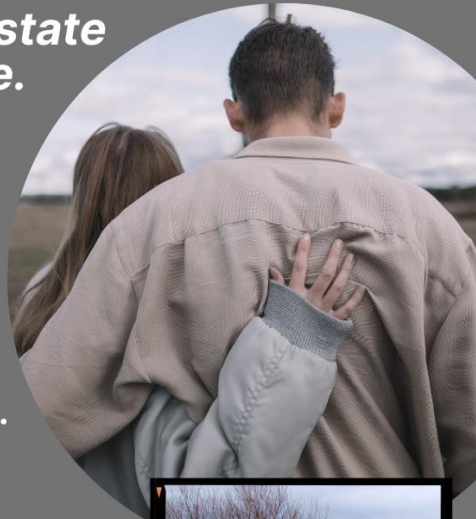
The most common question is “What is the Hazard Mitigation Plan?” Quite simply, hazard mitigation describes actions taken to help reduce or eliminate long-term risks caused by hazards or disasters, such as flooding, earthquakes, wildfires, tornadoes, or dam failure. This plan helps us, and communities become more resilient before a disaster strikes. Being a member of the HMP committee will assist you in being eligible for mitigation grants in your jurisdiction that can be used for things like storm sirens, generators, weather radios, flood acquisition projects, and much more.

We will be having a kickoff meeting on April 28th, 2022, at 10 a.m. at the Business Development Center at Great Plains Technology Center. It’s imperative that if you cannot attend that you send a representative on your behalf. We look forward to working with each one of you and working together to make a safer and more secure Comanche County.

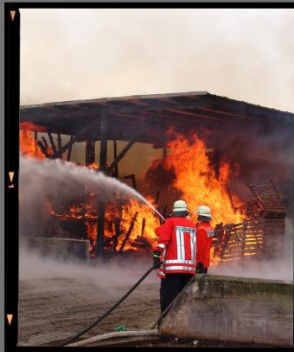
HAZARD MITIGATION PLAN

Natural disasters can devastate anyone, anytime, anywhere.

The Comanche County Hazard Mitigation Plan is being updated to help the county reduce its vulnerability to events such as flooding, winter storms, & tornados. Please join us.



Date: April 28, 2022
Time: 10 a.m.
Location: Business Development Center, Great Plains Tech Center



Comanche County ★ Lawton
**EMERGENCY
MANAGEMENT**

December 1, 2021

LEPC Meeting

Location - EOC

| <u>Name:</u> | <u>Agency</u> | <u>Phone #</u> | <u>Email Address</u> |
|-------------------|-----------------|----------------|--------------------------------|
| Jared Williams | LFD | 580-581-3289 | jared.williams@lawtonok.gov |
| Jessica Carter | 911 | 580 581 3492 | jessica.carter@lawtonok.gov |
| Rick Franz | 911 | 580 581 3492 | richard.franz@lawtonok.gov |
| Rebecca Vilk-Wins | ct Comanche CHD | 580 682-1572 | rebecca@health.ok.gov |
| Kim O'Brien | Red Cross | 580-461-1780 | kimberly.obrien@redcross.org |
| Alana Pack | Merc | | |
| Rachael Hney | Com | | Rachael.Hney@comanchecounty.us |
| Clint Langford | com | | C.Langford@comanchecounty.us |
| Erin Ramsey | Indianoma | | |
| Amy Hawkins | COM PD | | ahawkins@comanchecounty.us |
| Lizzy Wils | MERC | | |

April 13, 2022

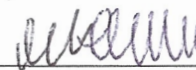
Mitigation Plan Extraordinary Circumstances Extension Letter
(DAM MEETING)

Location – EOC

| <u>Name:</u> | <u>Agency</u> | <u>Phone #</u> | <u>Email Address</u> |
|--------------------|--------------------|----------------|-----------------------------------|
| Natalie Orbesen | OWRB | 405-530-9800 | natalie.orbesen@owrb.ok.gov |
| Emma Moradi | OWRB | 405-530-8800 | emma.moradi@owrb.ok.gov |
| Kim Jenson | OEM | 405-590-0066 | Kim.jenson@oem.ok.gov |
| Zach Bradley | OWRB | 405-530-8800 | Zachary.bradley@owrb.ok.gov |
| Carl Gray | COL - P.W. | 405-351-0085 | Carl.gray@lawtonok.gov |
| DAVID HASTINGS | COL - Pub. Util | 580-512-7884 | DAVID.HASTINGS@LAWTONOK.GOV |
| Zach Hollandsworth | OWRB | 405-530-8800 | Zachary.hollandsworth@owrb.ok.gov |
| Cynthia Williams | COL - Public Works | 580-581-3478 | Cynthia.williams@Lawtonok.gov |
| Matthew Rollins | OEM/MS | 405-496-3004 | Matthew.rollins@oem.ok.gov |
| Clint Langford | EM | 580-351-8980 | c.langford@comanchecounty.us |
| RACHAEL HUEY | CCEM | 580-355-0535 | rachael.huey@comanchecounty.us |

April 28, 2022

HMP Meeting



Location - EOC

| <u>Name:</u> | <u>Agency</u> | <u>Phone #</u> | <u>Email Address</u> |
|------------------|---------------------|-------------------------|------------------------------|
| Sam Talamantez | OKTMDHS | | |
| Donya Haden | Comanche Nation | | |
| Bill Haden | Comanche Nation | | |
| Christi Chambers | OK Blood Institute | ⁵⁸⁰ 583-8992 | christi.chambers@obi.org |
| JOE PAINTER | CITY OF LAWTON | 405-919-2350 | JOSEPH.PAINTER@LAWTONOK.GOV |
| Pam LaRoche | CC Assessor | | |
| RAMON Adams | Goodyear | 512-2038 | RAMON.ADAMS@Goodyear.COM |
| CRAIG TRACTT | Fletcher PWA | | |
| Bob Hanefield | Camerson University | 580-581-8072 | |
| Michelle Cox | OSDH | 580-729-0140 | michelle.cox@health.ok.gov |
| Michael Ottinger | Cotton Electric | 580-875-3351 | mottinger@cottonelectric.com |

April 28, 2022

HMP Meeting

Location - EOC

| <u>Name:</u> | <u>Agency</u> | <u>Phone #</u> | <u>Email Address</u> |
|------------------|---------------------|----------------------|------------------------------|
| Steve Gluck | Ft. Sill BM | | |
| Jessie Nash | Geronimo | 580-585-0898 | |
| Trevor Vaughn | OSU Extension | 940-223-2893 | trevor.w.vaughn@okstate.edu |
| Eric Steinhilber | Lamarche County JDC | 580-357-2250 | LamarcheCountyJDC@gmail.com |
| Alvin Craig | District 3 Comm | | |
| Erica Ramirez | Indianoma | 580 246-3572 | |
| Billy Sizemore | OSDH | 405- 580-343-2454 | billy.sizemore@health.ok.gov |
| Brent Bassett | Lawton Fire | 680 | |
| Jared Williams | Lawton Fire | 581-3280 | |
| Sheila Hank | Juvenile Bureau | | |
| Cynthia Williams | Lawton PW | | |

April 28, 2022

HMP Meeting

Location - EOC

| <u>Name:</u> | <u>Agency</u> | <u>Phone #</u> | <u>Email Address</u> |
|------------------|------------------|----------------|-------------------------------|
| Carrie Tubbs | County Clerk | | countyclerk@comanchecounty.us |
| Dayle Tosh | CCSO | | |
| Kenny Mike | District 1 | | |
| Catherine Krantz | Connected Nation | | ckrantz@connectednation.org |
| Amber Zimmerman | UDFWS | | amber-zimmerman@fws.gov |
| Jack Duthier | Pecan Valley RWD | 580-454-9858 | pecanvalleyRWD@gmail.com |
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LOCAL EMERGENCY PLANNING COMMITTEE

4500 SW Lee Blvd, Bldg 900 Suite 1A, Lawton, OK 73505, 580-355-0535

Meeting Agenda

Wednesday, September 7, 2022

Time: 10:00am

Emergency Operations Center

THE COMANCHE COUNTY/LAWTON LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) WILL MEET FOR THEIR QUARTERLY MEETING AT THE EMERGENCY OPERATIONS CENTER.

AGENDA FOLLOWS:

1. Call to Order:
2. Roll Call / Attendees:
3. Reading and Approval of the June 1, 2021 Minutes:
4. Review and possible Adoption of LEPC Bylaws:
5. Possible Nomination and Election of LEPC Officers:
6. Emergency Management Update:
 - a. New Deputy Director / Floodplain Manager
 - b. 2022 Hazard Mitigation Plan Update / CoL HHPD Amendment
 - c. Virtual EOC Capability Update
 - d. Type IV Incident Command Capability Update
7. Partner Agency Updates:
 - a. Health Department- Region 5 Update
 - b. Regional Medical Response System – Region 3 Update
8. New Business: *(Consider any matter not known about or which could not have been reasonably foreseen prior to the time of posting this agenda.)*
9. Announcements & Audience Participation:
 - a. Next LEPC Meeting: Wednesday, December 7, 2022 at 10:00am.
10. Adjourn:

Respectfully Submitted

Clint A. Langford, EM Director



**COMANCHE COUNTY / LAWTON
LOCAL EMERGENCY PLANNING COMMITTEE
MEETING MINUTES 9.7.2022**

The LEPC met in quarterly meeting at 10:00 a.m., Wednesday, September 7, 2022, at the Emergency Operations Center in Lawton, Oklahoma.

1. CALL TO ORDER:

Clint Langford called the meeting to order at 10:05 a.m.

2. ROLL CALL/ATTENDEES:

Roll Call by Alana Pack, in attendance:

| | |
|--|---|
| STAN BOOKER – City of Lawton | RAANON ADAMS – Goodyear |
| ARCHIE CAMPBELL – Law/Ft. Sill Airport | CAITLIN GATLIN – City of Lawton |
| ALANA PACK – Comanche Co EM | JARRED BURK – KSWO |
| ROBERT STEWART – Region 3 Medical Emergency Response | AMY HAWKINS – Comanche Co EM |
| JAMIE HENNESSEE – Memorial EMS | KIM O’BRIEN – Red Cross |
| KASEY PITTS – Memorial EMS | BARBARA RUSSELL – Republic Paper |
| TREVOR VAUGHN – OSU Extension office | BILLY SIZEMORE – Comanche Co Health Dept. |
| NICK EIMERS-MOSIER – Memorial Hosp | JESSICA CARTER – Emergency Communications |
| SCOTT RAINS – Lawton Constitution | SCOTT BURROWS – CERT |
| TIM HUSHBECK – Public Service Oklahoma | CPT RYAN STUDEBAKER – Lawton Police Dept. |
| | |
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| | |
| | |

3. READING & APPROVE MINUTES FROM June 1, 2022:

Barbara Russell moved to approve minutes from June 1 meeting. Scott Rains seconded. All approved motion carried.

4. Review and possible Adoption of the LEPC Bylaws:

- Article 2 Section 1: Jamie Henneessee motioned to change ‘First Aid’ to ‘Emergency Medical Services’ as more common language. Scott Rains seconded. Motion carried.
- Article 2 Section 1: Robert Stewart motioned to change ‘Civil Defense’ to ‘Emergency Management’ for continuity. Billy Sizemore seconded. Motion carried.
- Article 2 Section 1: Alana Pack motioned to change ‘Health’ to ‘Public Health’ for more specific explanation. Seconded by Barbara Russell. Motion carried.
- Scott Burrows questioned Treasurer position, will LEPC be a 501-3c or ad hoc. Bob Stewart stated that no LEPC that he’s ever dealt with were 501-3c that all LEPC qualify as committee under county government.



**COMANCHE COUNTY / LAWTON
LOCAL EMERGENCY PLANNING COMMITTEE
MEETING MINUTES 9.7.2022**

- Barbara Russell motioned to accept Bylaws as written with exception of aforementioned changes. Robert Stewart seconded. Motion carries.

5. POSSIBLE NOMINATION & ELECTION OF LEPC OFFICERS:

Article V: Stan Booker motioned to defer voting to next meeting. Clint gave email address for recommendations for Chairperson, Vice-Chairperson, Secretary/Treasurer, Emergency Coordinator between now and next meeting. Those nominated to be presented at the next meeting. There was no second or vote.

6. EMERGENCY MANAGEMENT UPDATE:

Clint Langford introduced Alana Pack – new Deputy Director of Emergency Management. Alana Pack gave update regarding Hazard Mitigation Plan Survey results and plans going forward.

Clint Langford provided update on virtual Emergency Operations Center capabilities and Type IV Incident Command capability update.

7. PARTNER AGENCY UPDATES:

Billy Sizemore gave update on local health department and Covid Pandemic (see attached pages)

Robert Stewart provided update from Regional Medical Response System – Region 3 update. (see attached pages)

8. NEW BUSINESS: none

9. ANNOUNCEMENTS & AUDIENCE PARTICIPATION:

Next LEPC meeting Wednesday, Decemeber 7, 2022 at 10 a.m.

10. ADJOURN:

Scott Rains made motion to adjourn at 11:12 a.m. Scott Burrows seconded. Motion carries.

Comanche County Hazard Mitigation Meeting

Organizer  Clint Langford

Sent Tue 10/18/2022 1:01 PM

Time Thursday, October 20, 2022 1:00 PM-2:00 PM

Location [Comanche County EOC; 4500 SW Lee Blvd, Building 900, Lawton, OK 73505](#)

Response  Accepted [Change Response](#)

 Comanche County - City of Lawton Hazard Mitigation Plan HVA Priority.pdf
534 KB

 Structures and Assets Update.docx
51 KB

 Comanche Co-Lawton Hazard Mitigation Projects.xlsx
143 KB

Comanche County Planning Partners,

WHAT: Hazard Mitigation Planning meeting

WHEN: October 20th at 1:00 pm

WHERE: Comanche County EOC

WHO: Representatives from all Comanche County cities, townships, school districts, special districts (water districts, fire protection districts, etc) and other stakeholders.

WHY: To identify those vulnerabilities within our county and the proposed solutions. Our planning group will work together to identify which projects take priority and what the necessary steps will be to work towards completing those projects. This will begin with a quick tutorial on how to use the HMP Planning Worksheet to assist each agency in developing their mitigation projects.

The mitigation planning process is designed to encourage communities to integrate mitigation into their day-to-day decision making about land use planning, floodplain management, site design and other functions. Policies, procedures, equipment, resources, or personnel can all be forms of mitigation and should be considered as part of your planning. By completing this plan, we will continue to be eligible to receive federal funding in the form of Public Assistance disaster grants, Hazard Mitigation grants, Flood Mitigation Grants, etc.

NOTE: Attached are some documents we will utilize as tools to help everyone identify their individual agencies risk and possible mitigation to reduce or eliminate their risks. This meeting will focus on **HOW** to use these tools and what is expected of each agency.

For those unable to attend, you can call the emergency management office and we can schedule a time to meet with you individually.

Thank you again for all your contributions and continued support of this undertaking.



EMERGENCY MANAGEMENT

315 SW 5th Street Room 107, Lawton, OK 73501, 580-355-0535

Hazard Mitigation Planning Meeting

Thursday, October 20th, 2022

Time: 1:00 PM

Emergency Operations Center
4500 W. Lee Blvd., Building 900

Agenda Follows:

1. Hazard Mitigation Plan Overview
2. Community Project Tool Training
3. Discussion and Feedback
4. Moving Forward:
 - a. Dates for Submission
 - b. Next Actions

CLINT A. LANGFORD
Emergency Management Director

Oct. 20, 2022

Hazard Mitigation Meeting

Location - EOC

| <u>Name:</u> | <u>Agency</u> | <u>Phone #</u> | <u>Email Address</u> |
|-----------------------|-------------------------|---|---------------------------------|
| Barbara Russell | Republic Paperboard | 580 510 2297 | brussell@lawtonpaperboard.com |
| Cynthia Williams | City of Lawton | 580 581 3478 | Cynthia.Williams@lawtonok.gov |
| Amber Zimmerman | USFWS | 580 445-0118 | amber_zimmerman@fws.gov |
| DAVID HASTINGS | CITY OF LAWTON | 880-512-7884 | DAVID.HASTINGS@LAWTONOK.GOV |
| Carl Gray | LOL | 580 764 5147 | carl.gray@lawtonok.gov |
| Rebecca Villa-Winsett | Comanche CHD | 580 682 1572 | rebecca@health.ok.gov |
| Cristny Halpe-Engle | Lawton E 911 | ⁵⁸¹ 580 488 3493 | Cristnyhalpe-engle@lawtonok.gov |
| Billy Sizemore | Comanche CHD | 580 ⁴⁰⁵ 343-2454 | billy.sizemore@health.ok.gov |
| Yared Williams | Lawton Fire Comanche | 580-605-4217 | yaredwilliams@lawtonok.us |
| Lynn Cordes | LPS | (580) 351-8988 | lcordes@lawtonps.org |
| Morgan Thompson | LPS | (580) 351-2012 | morgan.thompson@lawtonps.org |
| Alana Pack | Comanche County EM | (580) 351-8788 | apack@comanche.county.us |

Hazard Mitigation Planning



APack@Comanchecounty.us

To lcordes@lawtonps.org; 'morgan.thompson@lawtonps.org'

Cc 'c.langford@comanchecounty.us'; Amy Hawkins; Mina Daniels



Thu 11/3/2022 10:48 AM

Good morning Lynn.

I wanted to touch base with you and Morgan and check in to see if there is anything we can do to assist you with the Mitigation Project tool. We are beginning to schedule meetings with our stakeholders beginning on November 14th through the 16th. Please let me know if any of those dates work for you as well as a time.

Looking forward to working with you!

Alana Pack

Emergency Management Deputy Director

Comanche County / Lawton

315 SW 5th St. Room 107

Lawton, OK 73501

Office: 580-355-0535

Cell: 580-351-8788

Fax: 580-355-9306

E-mail: apack@comanchecounty.us

CCEM Website: <https://www.comanchecounty.us/emergency-management>



LOCAL EMERGENCY PLANNING COMMITTEE

4500 SW Lee Blvd, Bldg 900 Suite 1A, Lawton, OK 73505, 580-355-0535

Meeting Agenda

Wednesday, December 7, 2022

Time: 10:00am

Emergency Operations Center

THE COMANCHE COUNTY/LAWTON LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) WILL MEET FOR THEIR QUARTERLY MEETING AT THE EMERGENCY OPERATIONS CENTER.

AGENDA FOLLOWS:

1. Call to Order:
2. Roll Call / Attendees:

| | | |
|--|-------------------------------------|--|
| City Elected Official | County Elected Official | |
| Lawton Police Dept | Comanche County Sheriff | |
| Lawton Fire Dept | Comanche County Volunteer Fire Dept | |
| Emergency Medical Service | Transportation Personnel | |
| Public Health | Broadcast & Print Media | |
| Hospital | Community Group | |
| Owner/Operator of Facilities w/ HazMat | Emergency Management | |

3. Reading and Approval of the September 7, 2022 Minutes:
4. Nomination and Election of LEPC Officers:
5. Emergency Management Update:
 - a. 2022 Hazard Mitigation Plan Update / CoL HHPD Amendment
 - b. 2023 Emergency Preparedness Projects/Activities:
 - i. Virtual EOC Capability
 - ii. Type IV Incident Command Capability
 - iii. First Responder Communications (800MHz & VHF Radios)
 - iv. VFD Emergency Medical Capability
 - v. Lawton First: Active Shooter FSE
6. Partner Agency Updates:
 - a. Health Department- District 5 Update
 - b. Regional Medical Response System – Region 3 Update

7. Guest Speaker:
 - a. Oklahoma Blood Institute-Christi Chambers, Executive Director
8. New Business: *(Consider any matter not known about or which could not have been reasonably foreseen prior to the time of posting this agenda.)*
9. Announcements & Audience Participation:
 - a. Next LEPC Meeting: Wednesday, March 1, 2023 at 10:00am.
10. Adjourn:

Respectfully Submitted: Clint A. Langford, EM Director



LOCAL EMERGENCY PLANNING COMMITTEE

4500 SW Lee Blvd, Bldg 900 Suite 1A, Lawton, OK 73505, 580-355-0535

Meeting Minutes

Wednesday, December 7, 2022

Time: 10:00am

Emergency Operations Center

The Comanche County/Lawton Local Emergency Planning Committee (LEPC) will meet for their quarterly meeting at the emergency operations center.

1. **Call to Order:** Mr. Clint Langford called to order at 10:10 a.m.
2. **Roll Call / Attendees:**

| | |
|---|--|
| City Elected Official Randy Warren (for Mayor) | County Elected Official |
| Lawton Police Dept Eric Carter | Comanche County Sheriff Doyle Tosh |
| Lawton Fire Dept Kyle Nyhart | Comanche County Volunteer Fire Dept |
| Emergency Medical Service Bruce Crowell Jessica Carter | Transportation Personnel Cliff Haggemiller |
| Public Health Rebecca Villa-Winslett Billy Sizemore | Broadcast & Print Media Jarred Burk Caitlin Gatlin Dalynna Wood Scott Rains |
| Hospital Nick Eimers-Mosier | Community Group Mary Jane Coffman |
| Owner/Operator of Facilities w/ HazMat Barbara Russell | Emergency Management Clint Langford Alana Pack Amy Hawkins |

A. ENTITIES WHO HAVE DESIGNATED PRIMARY & 2 ALTERNATES

| ENTITY | PRIMARY | ALT 1 | ALT 2 |
|----------------|--|--|--|
| Comanche Co HD | Rebecca Villa-Winslett, LERC rebeccaw@health.ok.gov 580-682-1572 | Billy Sizemore, LERS Billy.sizemore@health.ok.gov 405-343-2454 | Aaron Quickle, Pub Health Specialist AaronQ@health.ok.gov 580-704-9317 |
| KSWO | Jarred Burk jarred.burk@kswo.com | Matt Walker Matt.Walker@kswo.com | Kevin Haggemiller Kevin.Haggemiller@kswo.com |
| CCMH | Nicholas Eimers-Mosier Nicholas.eimer-mosier@ccmhhealth.com | Heather Love Heather.love@ccmhhealth.com | Rechelle Criger Rechelle.criger@ccmhhealth.com |
| | | | |
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|--|--|--|--|

Discussion regarding the positions with Mr. Clifford Haggemiller. Mr. Haggemiller felt that his place with Transportation was incorrect. It was explained that the categories are broad and encompassing according to FEMA Emergency Support Function definitions. The ESF 1 Transportation category core capabilities are:

- Monitors and reports the status of and damage to the transportation system and infrastructure. Identifies temporary alternative transportation solutions to be implemented when primary systems or routes are unavailable or overwhelmed.
- Implement appropriate air traffic and airspace management measures.
- Coordinates regulatory waivers and exemptions.
- Provides longer-term coordination of the restoration and recovery of the affected transportation systems and infrastructure if required

3. Reading and Approval of the September 7, 2022 Minutes:

Mrs. Jessica Carter moved to approve minutes from September 7th meeting. Mr. Scott Rains seconded. All approved, motion carried.

4. Nomination and Election of LEPC Officers:

CHAIRPERSON NOMINATIONS: Raanon Adams, Jared Williams, Jamie Hennessey
 VICE CHAIRPERSON: Sam Talamantez, Jared Williams
 SECRETARY/TREASURY: Jessica Carter, Nick Mosier, Alana Pack
 PIO/EMERGENCY COORDINATOR: Scott Rains, Amy Hawkins

Mrs. Rebecca Villa-Winslett spoke regarding the position of Secretary/Treasury, that it should be someone within the office of Emergency Management. Reason was because when it comes to handing the funds that LEPC receives and the minutes, that it is better if the person is closer to the chair.

Ms. Barbara nominated Mrs. Alana Pack to Secretary/Treasury
 Mr. Clifford Haggemiller nominated Mrs. Amy Hawkins to PIO/Emergency Coordinator

Mrs. Rebecca Villa-Winslett also asked that we vote on the officers that are at the meeting – i.e. Secretary/Treasury and PIO/Emergency Coordinator.

Mr. Jarred Burk motioned to table all elections to next meeting so that nominees can be informed and decide if they want to accept nomination. Mr. Eric Carter seconded. Vote: All aye, no nay.

5. Emergency Management Update:

Mr. Clint Langford introduced Mrs. Alana Pack – new Deputy Director of Emergency Management.

Mrs. Alana Pack gave update regarding Hazard Mitigation Plan Survey results and plans going forward.

Mr. Clint Langford provided update on virtual Emergency Operations Center capabilities and Type IV Incident Command capability update.

6. Partner Agency Updates:

Mr. Billy Sizemore gave update on local health department and Covid Pandemic (see attached pages)

Mr. Robert Stewart provided update from Regional Medical Response System – Region 3 update. (see attached pages)

7. Guest Speaker:

- a. Oklahoma Blood Institute-Christi Chambers, Executive Director – was unable to be in attendance

8. New Business: *(Consider any matter not known about or which could not have been reasonably foreseen prior to the time of posting this agenda.)*

- a) Vote on 2023 meeting schedule:

March 1, 2023

June 7, 2023

September 7, 2023

December 6, 2023

Motion made by Mr. Cliff Haggemiller and seconded by Scott Rains. Motion carried.

- b) EMS update from Mr. Bruce Crowell:

Staffing issues continue to plague the EMS community. We are looking for way to increase staffing in the surrounding areas, particularly by subsidizing taxes. Hopeful that Kirk's can get the new commissioners on board with this idea. Mr. Clint Langford stated that we do not have enough ambulances for the size of our service area. Mr. Bruce Crowell said that they have had 10,500 calls just for Kirks in our area.

9. Announcements & Audience Participation:

- a. Next LEPC Meeting: Wednesday, March 1, 2023, at 10:00am.

10. **Adjourn:**

Mr. Scott Rains motioned to adjourn at 11:40 a.m., Ms. Barbara Russell seconded, motion carried.

Minutes recorded by: Amy Hawkins

A. Hawkins
12/16/2022

Dec. 7, 2022

LEPC Meeting

Location - EOC

| <u>Name:</u> | <u>Agency</u> | <u>Phone #</u> | <u>Email Address</u> |
|----------------------|---------------------|------------------|---------------------------------------|
| Bruce Crowell | Kinks EMS | 580-89-6012 | bcrowellpro@gmail.com |
| Lizzy Woods | Reg 3 BMRB | 580-704-7132 | elizabethh.woods@drhhealth.org |
| Rebecca Vila-Winsett | Comanche CTD | 580-682-1572 | rebeccaw@health.ok.gov |
| DOYLE TOSH | CCSO | 353-4280 | dtosh@sheriff.comtuck.cdc |
| Nick Eimers-Mosior | CCMH | 580-919-9250 | nicholas.eimers-mosior@ccmhhealth.com |
| Jessica Carter | E-911 | 581-3492 | jessica.carter@lawtonok.gov |
| James Burk | KSWO | 591-2115 | James.Burk@kswocan |
| Kyle Nthart | LFD | 581-3280 4010 | Kyle.Nthart@lawtonok.gov |
| Scott Rains | Lawton Constitution | 580-351- 7132 | SRains@swoknews.com |
| Berb Russell | Republic Paperboy | 580-570 2297 | brussell@lawtonpaperboy.com |
| Cliff Haggitt | COL | 581-3427 | CHAGGITT@LAWTONOK.CO |

Dec. 7, 2022

LEPC Meeting

Location - EOC

| <u>Name:</u> | <u>Agency</u> | <u>Phone #</u> | <u>Email Address</u> | |
|------------------|-----------------|----------------|-------------------------------|--|
| Caitlin Gatlin | City of Lawton | 432-250-0180 | Caitlin.gatlin@lawtonok.gov | |
| Dalynna Wood | City of Lawton | 580 647 8196 | dalynna.wood@lawtonok.gov | |
| Billy Sizemore | CCHD District 5 | 405 343-2454 | billy.sizemore@health.ok.gov | |
| Randy Warren | COL - For Mayor | 580 678 4200 | randy.warren@lawtonok.gov | |
| Alana Pack | CCEM | 580-351-8788 | apack@comanche county.ogus | |
| Amy Hawkins | CCEM | 580-351-1535 | ahawkins@comanche county.us | |
| Clint Langford | EM | 351-8880 | c.langford@comanche county.us | |
| Eric Carter | LPP | | | |
| Margaret Loffman | ARC - | | | |
| | | | | |
| | | | | |



EMERGENCY MANAGEMENT

315 SW 5th Street Room 107, Lawton, OK 73501, 580-355-0535

Hazard Mitigation Planning Agenda


1. Introduction and Overview of Hazard Mitigation Planning for Comanche County
 - a. Review of Identified Hazards
 - b. Review of Jurisdictional Capabilities
2. Discussion of Information Needs
 - a. Valuations
 - b. Historical Information
 - c. Potential Threats and Hazards
 - d. Current Needs
3. Project Table Development
 - a. Identification of Critical Infrastructure
 - b. Identification of Need
4. Project Development
 - a. Project Proposal
 - b. Estimated Cost
 - c. Estimated Timeline
 - d. Resources Needed for Completion
 - i. Equipment
 - ii. Personnel
 - iii. Other
 - e. Point of Contact

Google Calendar <calendar-notification@google.com> on behalf of chattyfirechief@gmail.com

Accepted: Town of Chattanooga & Chattanooga PS HMP Meeting @ Tue Nov 15, 2022 11:30am - 12:30pm (CST) (Alana Pack)

When Tuesday, November 15, 2022 11:30 AM-12:30 PM (UTC-06:00) Central Time (US & Canada).

Location Chattanooga Volunteer Fire Department 209 3rd St.

 Google Calendar has accepted this meeting on behalf of chattyfirechief@gmail.com.



chattyfirechief@gmail.com has accepted this invitation.

When

Tuesday Nov 15, 2022 · 11:30am – 12:30pm (Central Time - Chicago)

Location

Chattanooga Volunteer Fire Department 209 3rd St.

[View map](#)

Organizer

Alana Pack

apack@comcoem.org

Guests

chattyfirechief@gmail.com - creator

c.langford@comanchecounty.us

jbrown@chatty.k12.ok.us

Amy Hawkins

HMP meeting follow-up



Wed 1/25/2023 9:13 AM



ahawkins@comanchecounty.us

To town of Chatty; plhumble373@gmail.com; rondaleewhite@gmail.com; nashppc@gmail.com; bpascoe@geronimo.k12.ok.us

Cc Alana Pack

Good Morning,

It has been a few weeks since we last spoke regarding the HMP plan update. I wanted to touch base with you and see if you needed any assistance and when you might have the information ready to send to us. Please get back with me and let me know as soon as possible. We are at the tail end of this update and could be putting the stamp on this project for FEMA approval, but we can not do it without your assistance.

Arry Hawkins

EM Specialist/Public Information Officer
Comanche County/Lawton Emergency Management

ahawkins@comanchecounty.us

office: 580-355-0535

cell: 580-583-9166



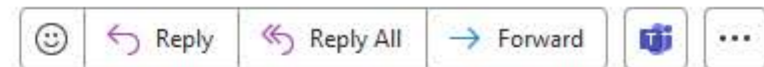
FW: HMP Chattanooga



ahawkins@comanchecounty.us

To Alana Pack

You replied to this message on 1/25/2023 9:58 AM.



Wed 1/25/2023 9:52 AM

Chatty sent back their excel document.

Amy

From: townofchatty townofchatty <townofchatty@pldi.net>

Sent: Wednesday, January 25, 2023 9:51 AM

To: ahawkins <ahawkins@comanchecounty.us>

Subject: HMP Chattanooga

I thought I sent this back in December. I'm sorry. Let me know if I need to fill out something else or if this is ok.

Thank You

Jaime Fisher

Town of Chattanooga

580-597-3390

Multi-Jurisdictional Hazard Mitigation Meeting

Organizer Emergency Management

Sent Thu 12/8/2022 3:30 PM

Time Wednesday, December 14, 2022 9:00 AM-10:00 AM

Location [801 1st St \(801 1st St, Elgin, Oklahoma 73538\); Elgin Community Center](#)

Response Accepted [Change Response](#)

This meeting is to review current information for your jurisdiction which is currently in the Comanche County Hazard Mitigation Plan and assist in developing future Mitigation Projects. Please feel free to share this invitation with any appropriate personnel so they may also attend. This meeting is scheduled to last an hour, and we will schedule additional one-on-one time as needed.

Thank you

Hazard Mitigation Community Planning



Alana Pack

To Shane Gilbreath (Sgilbreath@fletcherschools.org); agrimes@fletcherschools.org



Thu 12/8/2022 10:01 AM

Good Morning,

Our Office is working to review and update our Multi-Jurisdictional Hazard Mitigation Plan for Comanche County and all municipalities, special districts, and school districts within the county. We are scheduling time to meet with each municipality and adjoining school district to help identify what critical infrastructure & hazards and mitigation strategies, develop a project list, and update some existing information from the current Plan for your jurisdictions.

We would like schedule a meeting with representatives from Fletcher Public Schools and Town of Fletcher. This meeting would take approximately one hour and would be beneficial for all involved as we work together to create a more resilient community. This meeting will take place on December 14th at 9:00 am and is pending location. If you are unable to attend, please let us know and we will schedule a time at your convenience.

If you have any questions, please don't hesitate to reach out. My contact information is included below.

Thank you,

Alana Pack

Emergency Management Deputy Director

Comanche County / Lawton

315 SW 5th St. Room 107

Lawton, OK 73501

Office: 580-355-0535

Cell: 580-351-8788

Fax: 580-355-9306

E-mail: apack@comanchecounty.us

CCEM Website: <https://www.comanchecounty.us/emergency-management>

Dec. 14, 2022

HMP Meeting for Elgin, Fletcher, and Sterling Meeting

Location - EOC

| <u>Name:</u> | <u>Agency</u> | <u>Phone #</u> | <u>Email Address</u> |
|-------------------|-------------------|----------------|------------------------------|
| John Pinkston | Sterling Schools | 479-221-8608 | jpinkston@sterling.k12.ok.us |
| CRAIG TRACHT | Fletcher PWA/FVFD | 5807303338 | Cgtracht@gmail.com |
| JAMES JULIAN | STERLING POLICE | 5806953091 | LPDMAN.ZONE2@YAHOO.COM |
| Charlene Avila | Fletcher | 5805496550 | towngov.charlene@tds.net |
| Mike Baker | Elgin | 580-52-7014 | elginchief@cityofelginok.com |
| Amy Hawkins | CCLEM | 580-3555335 | ahawkins@comanche.co.us |
| Alana Pack | CCLEM | " " | APack@ComCoem.org |
| Clint Langford | CCLEM | " " | Clangford@Comanche.co.us |
| Ashley Sanders | CC Dist 1 | 580-492-4328 | a.sanders@comanchecounty.us |
| PAUL TRACY | ELGIN PD | 580-492-5117 | pTRACY@ELGINPD.COM |
| Machelle Reynolds | Elgin | 580-492-5777 | treasurer@cityofelginok.com |

HMP Follow-up



ahawkins@comanchecounty.us

To: jpinkston@sterling.k12.ok.us

Cc: Alana Pack



Reply

Reply All

Forward



Thu 1/26/2023 9:37 AM

Mr. Pinkston,

I wanted to reach out and follow-up with you regarding our Hazard Mitigation Plan update after our meeting in December. We need to get that information into our office as soon as possible so that we can move forward with finishing it up and submitting to FEMA for approval. If you do not have any new or updated information to put into the HMP, we will need a resolution from the school board stating as such.

We are here to assist you in any way that we can. Please reach out if we can help.

As a side note, the phone number we have for you was not working. Please verify the correct number for us.

Thank you,

Arny Hawkins

EM Specialist/Public Information Officer

Comanche County/Lawton Emergency Management

ahawkins@comanchecounty.us

office: 580-355-0535

cell: 580-583-9166



Hazard Mitigation Meeting - Follow up Documents



Alana Pack

To treasurer@cityofelginok.com

Reply Reply All Forward

Thu 12/15/2022 4:46 PM

Structure and Infrastructure Asset Valuation- Cities and Municipalities.docx
22 KB

Comanche Co-Lawton Hazard Mitigation Projects.xlsx
73 KB

Structure and Infrastructure Asset Valuation - School Districts.docx
18 KB

Good Afternoon,

I want to first thank each of you for your attendance yesterday. We would be unable to complete this project without each of you being willing to assist us and your willingness to participate and help us make our communities and county a more resilient place is very valuable. Attached here you will find the documents that we discussed yesterday. We would like to receive these back by the first of the year to help accelerate our process and get the plan submitted to the State and to FEMA for final approval.

Our office is available to assist you with any needs you may have, please do not hesitate to contact us. We can meet one-on-one or review any partially completed documents you may have and provide feedback and guidance. The County Assessors office is also available to assist with structure valuation information if needed.

We hope each of you have a Merry Christmas and a Happy New Year!

Respectfully,

Alana Pack

Emergency Management Deputy Director

Comanche County / Lawton

315 SW 5th St. Room 107

Lawton, OK 73501

Office: 580-355-0535

Cell: 580-351-8788

Fax: 580-355-9306

E-mail: apack@comanchecounty.us

CCEM Website: <https://www.comanchecounty.us/emergency-management>

Multi-Jurisdictional Hazard Mitigation Planning Meeting



APack@Comanchecounty.us

To dtrent@flowermound.k12.ok.us; 'hamptonh@bishop.k12.ok.us'

Cc 'c.langford@comanchecounty.us'; ahawkins@comanchecounty.us



Wed 1/25/2023 3:28 PM

Good Afternoon,

Our Office is working to review and update our Multi-Jurisdictional Hazard Mitigation Plan for Comanche County and all municipalities, special districts, and school districts within the county. We are scheduling time to meet with each municipality and adjoining school district to help identify what critical infrastructure & hazards and mitigation strategies, develop a project list, and update some existing information from the current Plan for your jurisdictions.

We would like to schedule a multi-jurisdictional meeting with representatives from your District. This meeting would take approximately one hour and would be beneficial for all involved as we work together to create a more resilient community. With the holiday season approaching, we understand that time may be limited, however, this meeting would be to verify existing information which was included in the previous Hazard Mitigation Plan which was completed in 2018.

We would like to schedule this meeting for next Thursday, February 2nd at 10:00 am. If either District has a space available to host, please let me know.

If you have any questions, don't hesitate to reach out. My contact information is included below.

Thank you,

Alana Pack

Emergency Management Deputy Director

Floodplain Manager

Comanche County / Lawton

315 SW 5th St. Room 107

Lawton, OK 73501

Office: 580-355-0535

Cell: 580-351-8788

Fax: 580-355-9306

E-mail: apack@comanchecounty.us

CCEM Website: <https://www.comanchecounty.us/emergency-management>

Comanche County Lawton Emergency Management



Emergency Management Orientation & Hazard Mitigation Project Update

City of Lawton Directors Meeting

January 23, 2023

| <u>Name:</u> | <u>Department:</u> | <u>Phone #</u> | <u>Email Address:</u> |
|--------------------|--------------------|------------------|-------------------------------|
| Brent Baggett | fire | 581-3280 4012 | matthew.baggett@lawtonok.gov |
| Jared Williams | fire | | jared.williams@lawtonok.gov |
| Cynthia Williams | PW | 580-581-3478 | Cynthia.williams@lawtonok.gov |
| DAVID HASTINGS | P. U. | 580-512-7884 | DAVID.HASTINGS@LAWTONOK.GOV |
| Jessica Carter | 911 | 580-581-3492 | jessica.carter@lawtonok.gov |
| LARRY WOLCOTT | PUBLIC WORKS | 580-581-3410 | LARRY.WOLCOTT@LAWTONOK.GOV |
| Christine James | Parks & Rec | 580-581-3400 | Christine.JAMES@lawtonok.gov |
| RON SERATTE | Police | 580-581-3200 | Rondell.Serratte@LawtonOK.gov |
| W. Rusty Whisenant | Public Utilities | 580-581-3400 | Willie.Whisenant@LawtonOK.gov |
| JOE DON DUNHAM | Finance | 580-581-3328 | joe.dunham@lawtonok.gov |

Comanche County Lawton Emergency Management



Emergency Management Orientation & Hazard Mitigation Project Update

City of Lawton Directors Meeting

January 23, 2023

| <u>Name:</u> | <u>Department:</u> | <u>Phone #</u> | <u>Email Address:</u> |
|---------------------------|---------------------------------|----------------|--|
| Judy Franco | ITS | 581-3338 | jfranco@lawtonok.gov |
| Dewayne Burk | City Manager | 581-3301 | dewayne larry.burk@lawtonok.gov |
| Amy Hawkins | EM Specialist | 355-0535 | ahawkins@ComancheCounty.us |
| Alana Pauc | Deputy Director ^{CCEM} | 355-0535 | apauc@Comcsem.org |
| Clint Langford | | | |
| Clint Langford | Director ^{CCEM} | | clangford@Comcsem.org |
| | | | |
| | | | |
| | | | |
| | | | |

Multi-Jurisdictional Hazard Mitigation Meeting



Emergency Management

Required Emergency Management; APack@Comanchecounty.us

Optional c.langford@comanchecounty.us; Amy Hawkins; Yolonda Ramos; Tom Crawford; Rickey Snider; rthomas@cachegov.com; chad.hance@cachepts.org; tammie.reynolds@cachepts.org; John Bowers; indiahomaclerk@gmail.com; Chris Jones; David McCoy; Alana Pack; Mina Daniels

No Response Required

Tue 1/31/2023 10:42 AM

We couldn't find this meeting in the calendar. It may have been moved or deleted.

- Comanche Co-Lawton Hazard Mitigation Projects.xlsx 69 KB
- Structure and Infrastructure Asset Valuation - School Districts.docx 15 KB
- Structure and Infrastructure Asset Valuation- Cities and Municipalities.docx 18 KB
- HMP Multi-Jurisdictional Meeting Agenda.pdf 134 KB

Wednesday, February 1, 2023 1:00 PM-2:00 PM Medicine Park Event Center (19001 Highway 49, Medicine Park, OK 73557, United States)

| | |
|------|--|
| | |
| 1 PM | |
| 2 PM | |

Good Morning,

Due to the continuing threat of inclement weather, this meeting is being postponed out of concern for the safety of all attendees. A follow up email with the new date and time will be sent out by weeks' end. You will receive a cancellation notice in addition to this email.

Thank you,

Alana Pack
 Emergency Management Deputy Director
 Floodplain Manager
 Comanche County / Lawton
 315 SW 5th St. Room 107
 Lawton, OK 73501
 Office: 580-355-0535
 Cell: 580-351-8788
 Fax: 580-355-9306
 E-mail: apack@comanchecounty.us
 CCEM Website: <https://www.comanchecounty.us/emergency-management>

Comanche County Lawton Emergency Management



Multi-Jurisdictional Hazard Mitigation Meeting at Medicine Park Event Center

February 8, 2023

| <u>Name:</u> | <u>Department:</u> | <u>Phone #</u> | <u>Email Address:</u> |
|----------------|--------------------|----------------|--------------------------------|
| ANDY ANDERSON | MEDICINE PARK | 580-585-7606 | SHOVELHEAD381@GMAIL.COM |
| Chris Jones | Indianhome Fire | 580-351-7712 | |
| Tom Crawford | MEDICINE PARK PD | 580-678-8076 | mppd120@medicinepark.com |
| RODNEY WHALEY | MED PARK PWA VFD | 580.458.2596 | rodney.whaley@medicinepark.com |
| YOLONDA RAMOS | MED PARK | 580-647-6740 | treasurer@medicinepark.com |
| DAVID MCCOY | MPFD | 580-574-8819 | DAVIDMCCOY8819@GMAIL.COM |
| Clint Langford | CCEM | | c.langford@comanchecounty.us |
| Alana Pack | CCEM | | apack@comanchecounty.us |
| | | | |
| | | | |

Hazard Mitigation Planning Documents



Alana Pack

To ○ 'Code Enforcement'

Reply Reply All Forward

Tue 2/7/2023 10:30 AM

Comanche Co-Lawton Hazard Mitigation Projects.xlsx
73 KB

Hazard Mitigation Assistance Eligible Activities.pdf
318 KB

Structure and Infrastructure Asset Valuation- Cities and Municipalities.docx
22 KB

Paul,

It was great speaking with you today and I look forward to meeting you and working with you.

Alana Pack

Emergency Management Deputy Director

Comanche County / Lawton

315 SW 5th St. Room 107

Lawton, OK 73501

Office: 580-355-0535

Cell: 580-351-8788

Fax: 580-355-9306

E-mail: apack@comanchecounty.us

CCEM Website: <https://www.comanchecounty.us/emergency-management>

Fwd: Multi-Jurisdictional Hazard Mitigation Planning Meeting



Alana Pack <apack@comanchecounty.us>

To don.wise@indiahomaps.org



Thu 1/26/2023 8:52 AM

Mr. Wise,

I wanted to make sure that you received a copy of the email that I have sent out. We are in the final planning stages and wanted to ensure that Indianhoma school district was included in the planning.

Please let me know if you have any questions.

Good Afternoon,

Our Office is working to review and update our Multi-Jurisdictional Hazard Mitigation Plan for Comanche County and all municipalities, special districts, and school districts within the county. We are scheduling time to meet with each municipality and adjoining school district to help identify what critical infrastructure & hazards and mitigation strategies, develop a project list, and update some existing information from the current Plan for your jurisdictions.

We would like to schedule a multi-jurisdictional meeting with representatives from your jurisdiction. This meeting would take approximately one hour and would be beneficial for all involved as we work together to create a more resilient community. With the holiday season approaching, we understand that time may be limited, however, this meeting would be to verify existing information which was included in the previous Hazard Mitigation Plan which was completed in 2018.

We would like to schedule this meeting for next **Wednesday, February 1st at 1:00 pm.** We are still looking for location to hold this meeting and we'd like to keep it centrally located for all attendees. If anyone has a space that could be utilized and would like to offer, please let me know.

If you have any questions, please don't hesitate to reach out. My contact information is included below.

Thank you,

Alana Pack

Emergency Management Deputy Director

Floodplain Manager

Comanche County / Lawton

315 SW 5th St. Room 107

Lawton, OK 73501

Office: 580-355-0535

Cell: 580-351-8788

Fax: 580-355-9306

E-mail: apack@comanchecounty.us

CCEM Website: <https://www.comanchecounty.us/emergency-management>

Hazard Mitigation Planning



APack@Comanchecounty.us

To indiahomaclerk@gmail.com



Mon 2/13/2023 10:07 AM



Jodee,

Here are the documents we discussed on the phone, please let me know if you need any assistance or have any questions. I will see you tomorrow at 9:30.

Thank you,

Alana Pack

Emergency Management Deputy Director

Floodplain Manager

Comanche County / Lawton

315 SW 5th St. Room 107

Lawton, OK 73501

Office: 580-355-0535

Cell: 580-351-8788

Fax: 580-355-9306

E-mail: apack@comanchecounty.us


CCEM Website: <https://www.comanchecounty.us/emergency-management>

SPAM Public Utilities HMP



David Hastings <david.hastings@lawtonok.gov>

To: APack@Comanchecounty.us

 You forwarded this message on 3/7/2023 9:03 AM.



Comanche Co-Public Utilities Lawton Hazard Mitigation Projects.xlsx
71 KB



Thu 2/23/2023 7:45 AM

Please see an attempt to fill this form with some information from the Lawton HMP from 2019.

I tried to tailor to Public Utilities but also put in some overall Lawton information.

Let me know how it looks and if we need to add more detail, remove items, etc.

I really want this to be correct and relevant.

Thank you,

David Hastings

City of Lawton

Wastewater Plant Superintendent

P: (580) 529-2703

C: (580) 512-7884

GoTo: 2410

david.hastings@lawtonok.gov

Hazard Mitigation Plan Tool



APack@Comanchecounty.us

To rondell.seratte@lawtonok.gov; Eric Carter (Eric.Carter@lawtonok.gov)
Cc c.langford@comanchecounty.us

Reply Reply All Forward

Fri 2/17/2023 1:44 PM

- Comanche Co-Lawton Hazard Mitigation Projects - LPD.xlsx 74 KB
- Comanche County Seismic Risk.pdf 825 KB
- fema_bara-new-checklist_10-4-2017.pdf 3 MB
- tornado-protection_selecting-refuge-area-in-buildings.pdf 9 MB
- FEMA 431 - Tornado Protection.pdf 12 MB

Sirs,

Attached is your completed Project Tool for your review. I included the items that we discussed on Monday on the tool and tried to articulate the proposed actions as best I could. Please feel free to adjust the language or send back over suggestions for revision. I also included some documents for a bit of light reading on identifying saferooms and a checklist that can be completed to help assess building risks. Additionally I've included a GIS map which was generated from the Resilience Analysis and Planning Tool (RAPT) which FEMA provides to identify areas which fall within certain seismic zones or other hazardous impact trends. This map includes both hazards which we discussed (earthquake and tornado) and provides some historical and geological information to assist you in decision-making.

If there is anything else I can do to be of assistance please don't hesitate to reach out.

Have a great weekend,

Alana Pack
Emergency Management Deputy Director
Floodplain Manager
Comanche County / Lawton
315 SW 5th St. Room 107
Lawton, OK 73501
Office: 580-355-0535
Cell: 580-351-8788
Fax: 580-355-9306
E-mail: apack@comanchecounty.us
CCEM Website: <https://www.comanchecounty.us/emergency-management>



LOCAL EMERGENCY PLANNING COMMITTEE

4500 SW Lee Blvd, Bldg 900 Suite 1A, Lawton, OK 73505, 580-355-0535

Meeting Agenda

Wednesday, April 5th, 2023

Time: 1:00 PM

Emergency Operations Center

THE COMANCHE COUNTY/LAWTON LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) WILL MEET FOR THEIR QUARTERLY MEETING AT THE EMERGENCY OPERATIONS CENTER.

AGENDA FOLLOWS:

1. Call to Order:
2. Roll Call / Attendees:

| | | |
|--|-------------------------------------|--|
| City Elected Official | County Elected Official | |
| Lawton Police Dept | Comanche County Sheriff | |
| Lawton Fire Dept | Comanche County Volunteer Fire Dept | |
| Emergency Medical Service | Transportation Personnel | |
| Public Health | Broadcast & Print Media | |
| Hospital | Community Group | |
| Owner/Operator of Facilities w/ HazMat | Emergency Management | |

3. Reading and Approval of the December 7, 2022, Minutes:
4. Guest Speaker:
 - a. Matthew Wormus, Oklahoma Department of Environmental Quality
5. Emergency Management Update:
 - a. 2022 Hazard Mitigation Plan Update
 - b. 2023 Emergency Preparedness Projects/Activities:
 - i. Lawton First: Active Shooter FSE
 - ii. EM Volunteer Program
6. Partner Agency Updates:
 - a. Comanche County Health Department
 - b. Region 3 RMRS
7. Nomination and Election of LEPC Officers

8. New Business: *(Consider any matter not known about or which could not have been reasonably foreseen prior to the time of posting this agenda.)*
9. Announcements & Audience Participation:
 - a. Next LEPC Meeting: Wednesday, June 7th, 2023, at 10:00am.
10. Adjourn:

Respectfully Submitted: Clint A. Langford, EM Director

Comanche County Lawton Emergency Management



Local Emergency Planning Committee (LEPC) Meeting

April 5th, 2023

| <u>Name:</u> | <u>Department:</u> | <u>Phone #</u> | <u>Email Address:</u> |
|-----------------|----------------------|----------------|--------------------------------|
| Leslie Burrows | CERT | 5039564288 | leslieburrows73507@gmail.com |
| Scott Burrows | CERT | 5034737251 | sburrows97211@comcast.net |
| Clint Langford | Emergency Management | 355-0535 | clangford@comanchecountyok.gov |
| Lizzy Woods | Reg 3 RMRS | 580-574-2500 | lizzywoods@okhealth.org |
| Barbara Russell | Industry | 580-510-2297 | brussell@lantzpaperboard.com |
| Billy Sizemore | Comanche Health | 405343-2454 | billy.sizemore@health.ok.gov |
| Bruce Crowell | Rates | 580-819-0012 | bcrowellp70@gmail.com |
| Robert Stewart | AMRS | 580-280-0260 | Robert.Stewart@okhealth.org |
| Kenny Curry | Comanche #11 | 5803518182 | KennyMikeCurry@gmail.com |
| Scott Rains | CEMgmt | 580-351-7132 | srains@swoknews.com |

Comanche County Lawton Emergency Management



Local Emergency Planning Committee (LEPC) Meeting

April 5th, 2023

| <u>Name:</u> | <u>Department:</u> | <u>Phone #</u> | <u>Email Address:</u> |
|----------------|--------------------|----------------|--------------------------------|
| Jeff Brewer | Red Cross | 580-917-2053 | rjs rentals @ MSN.com |
| Jared Williams | Lawton Fire | 580-625-0117 | |
| Matt Warmus | ODEG | | |
| Dalynna Wood | City of Lawton | | dalynna.wood@lawtonok.gov |
| Caitlin Gattin | City of Lawton | | caitlin.gattin@lawtonok.gov |
| Alana Pack | CCEM | | apack@comanchecountyok.gov |
| Clint Langford | CCEM | | clangford@comanchecountyok.gov |
| | | | |
| | | | |
| | | | |
| | | | |



LOCAL EMERGENCY PLANNING COMMITTEE

4500 SW Lee Blvd, Bldg 900 Suite 1A, Lawton, OK 73505, 580-355-0535

Meeting Agenda

Wednesday, June 7th, 2023

Time: 10:00 AM

Emergency Operations Center

THE COMANCHE COUNTY/LAWTON LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) WILL MEET FOR THEIR QUARTERLY MEETING AT THE EMERGENCY OPERATIONS CENTER.

AGENDA FOLLOWS:

1. Call to Order:
2. Roll Call / Attendees:

| | | |
|--|-------------------------------------|--|
| City Elected Official | County Elected Official | |
| Lawton Police Dept | Comanche County Sheriff | |
| Lawton Fire Dept | Comanche County Volunteer Fire Dept | |
| Emergency Medical Service | Transportation Personnel | |
| Public Health | Broadcast & Print Media | |
| Hospital | Community Group | |
| Owner/Operator of Facilities w/ HazMat | Emergency Management | |

3. Reading and Approval of the April 5, 2023, Minutes:
4. Emergency Management Update:
 - a. New EM Specialist: Thad Hulbert
 - b. 2022 Hazard Mitigation Plan Update
 - c. 2023 Emergency Preparedness Projects/Activities:
 - i. Lawton First: Active Shooter FSE
 - ii. ARPA Projects
5. Partner Agency Updates:
 - a. Comanche County Health Department- Rebecca Villa-Winsett
 - b. Region 3 RMRS- Lizzy Woods
6. Funds/Budget:
 - a. \$1,000.00 received from DEQ for Tier II reports
 - b. Utilization
7. Review of current LEPC bylaws

8. Committee Goals/ Future Projects (open discussion)

New Business: *(Consider any matter not known about or which could not have been reasonably foreseen prior to the time of posting this agenda.)*

9. Announcements:
 - a. Next LEPC Meeting: September 7th, 2023
10. Adjourn:

Prepared by: Nick Eimers-Mosier, LEPC Secretary



LOCAL EMERGENCY PLANNING COMMITTEE

4500 SW Lee Blvd, Bldg 900 Suite 1A, Lawton, OK 73505, 580-355-0535

Meeting Agenda

Wednesday, Dec. 5th, 2023

Time: 10:00 AM

Emergency Operations Center

THE COMANCHE COUNTY/LAWTON LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) WILL MEET FOR THEIR QUARTERLY MEETING AT THE EMERGENCY OPERATIONS CENTER.

AGENDA FOLLOWS:

1. Call to Order:
2. Roll Call / Attendees:

| | | |
|--|-------------------------------------|--|
| City Elected Official | County Elected Official | |
| Lawton Police Dept | Comanche County Sheriff | |
| Lawton Fire Dept | Comanche County Volunteer Fire Dept | |
| Emergency Medical Service | Transportation Personnel | |
| Public Health | Broadcast & Print Media | |
| Hospital | Community Group | |
| Owner/Operator of Facilities w/ HazMat | Emergency Management | |

3. Discussion and Review of June meeting
4. Nomination and Election of LEPC Secretary
5. Emergency Management Update:
 - a. 2023 Hazard Mitigation Plan Update
 - b. 2023/2024 Emergency Preparedness Projects/Activities:
 - i. IAP Software
 - ii. EM Volunteer Program
6. Partner Agency Updates:
 - a. Comanche County Health Department
 - b. Region 3 RMRS

7. New Business: *(Consider any matter not known about or which could not have been reasonably foreseen prior to the time of posting this agenda.)*
8. Announcements & Audience Participation:
 - a. Next LEPC Meeting: Wednesday, March 6th, 2024, at 10:00am.
9. Adjourn:

Respectfully Submitted: Clint A. Langford, EM Director



EMERGENCY MANAGEMENT

315 SW 5th Street Room 107, Lawton, OK 73501, 580-355-0535

Emergency Management Update

1. 2022 HMP Update
 - a. First Draft has been submitted to ODEMHS for review. Our Office received recommendations and is currently working on those updates and changes for resubmission.
2. 2023 Emergency Preparedness Projects
 - a. Emergency Management Volunteer Program has been officially launched as part of the Emergency Management Office. They will be supporting Emergency Management with EOC Operations, Field Operations, and other special projects.
 - b. Radio Interoperability Project: Radios have been delivered to Emergency Management and have been inventoried and are being prepared for programming by Stolz. Once they have been programmed, we will be scheduling time for installation.
 - c. VFD EMS Initiative: 17 of 19 VFD Departments are either licensed, awaiting their licenses, or awaiting their inspections.
 - d. Disaster Declaration DR-4721: Emergency Management is currently processing damages from both Comanche County and City of Lawton and working with FEMA.
3. Emergency Management Office Updates: We have added 2 New Employees to the EM Office
 - a. Jerry Smith – Emergency Management Specialist (Training and Exercise Coordinator)
 - b. Thad Hulbert – Emergency Management Specialist (Public Education and Outreach Coordinator)
4. Virtual EOC Update
 - a. IAPSoftware Implementation Countywide: Emergency Management hosted ICS-220 Training in lieu of IAPSoftware Training. IAPSoftware provides a Common Operating Picture, Incident Management, Resource Management and Accountability, and documentation generation.

Comanche County Lawton Emergency Management



LEPC Meeting

Dec. 6, 2023

| <u>Name:</u> | <u>Department:</u> | <u>Phone #</u> | <u>Email Address:</u> |
|--------------------|-------------------------------|----------------|----------------------------------|
| Leslie Burrows | CERT | 5039564288 | leslieburrows73507@gmail.com |
| Scott Burrows | CERT | 5034737251 | sburrows97211@comcast.net |
| ✓ Robert Stewart | RMRS Res3 MERE | 580 280 0260 | Robert.Stewart@drhhealth.org |
| ✓ Samuel Talamante | ODEMHS | 405206810 | Samuel.talamante@ocem.ok.gov |
| ✓ Clint Langford | CCLEM | (580) 357-8780 | clangford@comanche-county-ok.gov |
| ✓ Heather Love | CCMH | 580-704-8380 | heather.love@ccmhhealth.com |
| ✓ Billy Sizemore | ODEMHS | 4052135318 | billy.sizemore@ocem.ok.gov |
| ✓ Jared Williams | LFD | 580-665-4017 | |
| ✓ Kannon Adams | Goodyear | 580-576-2372 | |
| ✓ Jarred Burk | KSWO | 580-5112115 | |
| ✓ JOSH POWERS | COMANCHE COUNTY COMMISSIONERS | 5806958340 | |

Comanche County Lawton Emergency Management



LEPC Meeting

Dec. 6, 2023

Name:

Department:

Phone #

Email Address:

| | | | |
|------------------|---------------------|-------------------|--------------------------------|
| ✓ John Bordelon | District 1 | (580) 678-2870 | |
| ✓ Aaron Pickle | OSDH | (580) 704-9317 | aaronq@health.ok.gov |
| ✓ Scott Rain | Lawton Constitution | 580-351-7132 | srains@jwooknews.com |
| ✓ Mina Daniels | CCEM | 580 355-0535 | mdaniels@comanchecountyok.gov |
| ✓ Clint Langford | CCEM | 580 355-0535 | clangford@comanchecountyok.gov |
| ✓ Alana Pack | CCEM | 580 355-0535 | apack@comanchecountyok.gov |
| ✓ Jerry Smith | Sterling VFD/CCEM | 580 355-0536 | |
| | | | |
| | | | |
| | | | |
| | | | |

Hazard Mitigation Project 2022-2023

Hazard Mitigation Plans are prepared and adopted by communities with the primary purpose of identifying, assessing, and reducing the long-term risk to life and property from hazard events. Effective mitigation planning can break the cycle of disaster damage, reconstruction, and repeated damage. Hazard mitigation plans can address a range of natural and human-caused hazards.

They typically include four key elements: 1) a risk assessment, 2) capability assessment, 3) mitigation strategy, and 4) plan maintenance procedures.

Plans can be developed for a single community or as a multi-jurisdictional plan that includes multiple communities across a county or larger multi-county planning region. While most hazard mitigation plans are prepared as stand-alone documents, they can also be developed as an integrated component of a community's local comprehensive plan.

The Hazard Mitigation planning Committee will meet monthly over the next year & a half to revise and edit the current Hazard Mitigation Plan that was adopted in 2018.

The Committee is comprised of over 60 federal, state, and local officials.

On this page, we are asking for residents to share any issues or concerns with regards to the hazards, risks, preparedness, and overall how your town or your county can better serve you during a disaster. Please think large scale tornado, flooding, and the like.

Share your thoughts

First Name

Last Name

Email *

Message

Phone

Submit

Appendix C
Jurisdiction Adoption
Signature Page

Committees

2024-2025

Safe and Healthy School

Trent Parrish (Admin)
Tonya Jordan (ES)
Steve Laughly (Police)
Landry Curry (Student)
Marty Curry (Admin)
Amanda Lewis (HS)
Van Monroe (HS)
Tisha Break (HS)
Tasha Garrett (HS)
Mike Moore (Comm. Member)
Chandra Monroe (ES)
Stacey Jay (Cafeteria Person)
Kiel Rowan (HS)
Kylee Birdwell (HS)
Courtney Lile (Parent)
Jacob Wilson (ES)
Tisha Break (Comm. Member)

CLEP

Trent Parrish
Kiel Rowan
Maranda Milam
Jacob Wilson
Mike Moore
Janie Ingram
Kylee Birdwell
Taylor Break
Zoe Forehand

Reading Sufficiency

Trent Parrish
Tonya Jordan
Chandra Monroe
Gina Barrett
Ashlyn McCall
Michele Woolbright
Raegan Jackson
Madison Woolbright
Casey Johnson
Miranda Milam
Michelle Anderson

Technology

Morgan Curry
Janie Ingram
Lori King
Jacob Wilson
Taylor Break
Marty Curry
Jayson Wilson

Professional Development

Trent Parrish
Zoe Forehand
Madison Bradshaw
Gina Barrett
Tasha Garrett
Van Monroe
Sierra Dodson
Michelle Anderson
Jennifer Taylor

Gifted and Talented

Amanda Lewis
Janie Ingram
Kelley Bridges
Lacey Clements
Jayson Wilson
Tasha Garrett
Jessica Smart
Ashlyn McCall
Jennifer Taylor

Title 1

Michele Woolbright
Trent Parrish
Kelly Bridges
Casey Johnson
Raegan Jackson
Marty Curry
Lacey Clements
Jessica Smart
Sierra Dodson

**School District
2024-2025 Estimate of Needs
and
Financial Statement of the Fiscal Year 2023-2024**

**Board of Education of Sterling Public Schools
District No. I-3
County of Comanche
State of Oklahoma**

To the Excise Board of said County and State, Greetings:

Pursuant to the requirements of 68 O. S. 2001 Section 3002, we submit herewith, for your consideration the within statement of the financial condition of the Board of Education of Sterling Public Schools, District No. I-3, County of Comanche, State of Oklahoma for the fiscal year beginning July 1, 2024, and ending June 30, 2025, together with an itemized statement of the estimated Income and Probable Needs of said School District for the ensuing fiscal year. We have separately prepared, executed and submit Financial Statements for the Fiscal Year so terminated, and Estimate of Requirements for the ensuing Fiscal Year, for such Sinking Fund, if any, as pertains to this District for the Bond, Coupon, and Judgment indebtedness, if any, outstanding and unpaid as of June 30, 2025, and also for the Sinking Fund of any disorganized District whose area or the major portion thereof is now embraced within the boundaries of this District; and this Certificate is as applicable thereto as if fully embodied therein. The same have been prepared in conformity with Statute.

Two copies of this Financial Statement and Estimate of Needs should be filed with the County Clerk not later than September 30 for all School Districts. One complete signed copy must be sent to the State Auditor and Inspector, 2300 N. Lincoln Blvd Room 100, Oklahoma City, OK 73105-4801 and one copy will be retained by the County Clerk. If publication may not be had by date required for filing, affidavit and proof of publication are required to be attached within five days after date of filing.

Prepared by: Bledsoe, Hewett & Gullekson CPA's

Submitted to the Comanche County Excise Board

This _____ Day of _____, 2024

School Board Member's Signatures

| | |
|-----------------|---------------|
| Chairman: _____ | Clerk: _____ |
| Member: _____ | Member: _____ |
| Member: _____ | Member: _____ |
| Member: _____ | Member: _____ |
| Member: _____ | Member: _____ |
| Treasurer _____ | |

In addition,

1. We, the undersigned, duly elected, qualified and acting officers of the Board of Education of the aforesaid School District located wholly or in major area in the County and State aforesaid, do hereby certify that, at regular session begun at the time provided by law, we carefully considered the reports submitted by the several officers and employees as required by 68 O. S. 2001 Section 3004, carefully considered the statements and estimate of needs heretofore prepared for the purpose of ascertaining any additional or emergency levy necessary for the ensuing fiscal year and revised, corrected or amended the same to disclose the true fiscal condition as of June 30, 2024, and to provide for the needs of the District for the ensuing fiscal year as now ascertained; and we do hereby certify that the within statement of the financial condition is true and correct, and that the within estimates for all purposes for the ensuing fiscal year are reasonably necessary for the proper conduct of the affairs of said School District, and that the statement of Estimated Income from sources other than ad valorem taxes is not in excess of the lawfully authorized ratio of the actual collections from such sources during the previous fiscal year.

2. We further certify that any cash fund balance reported in our Building Fund is required for immediate or cumulative program of construction unless there be attached within a verified copy of a resolution signed by a majority of the members of this Board to the effect the program of building has been completed or abandoned. If attached, then the Excise Board is directed to apply said Balance to reduce Levies in accordance with 62 O. S. 2001, Section 333.

3. We also certify that a levy of 15.000 Mills over and above the number of mills allocated by the County Excise Board will be reasonably necessary for the proper conduct of the affairs of said school district during the fiscal year 2024-2025.

4. We also certify that, after due and legal notice of an election thereon, an emergency levy of 5.000 Mills, over and above the number of mills provided by Law and allocated by the County Excise Board in addition thereto for school purposes, were made permanent by election.

5. We also certify that, after due and legal notice of an election thereon, a local support levy of 10.000 Mills, in addition to the levies hereinbefore provided, were made permanent by election.

6. We also certify that, after due and legal notice of an election thereon, pursuant to Article 10, Section 10, of the Constitution of Oklahoma, an additional levy of 5.000 Mills, were made permanent by election.

Clerk of Board of Education

President of Board of Education

Treasurer of Board of Education

Subscribed and sworn to before me this ____ day of _____, 2024.

Notary Public

My Commission Expires

Affidavit of Publication

State of Oklahoma, County of Comanche

I, _____, the undersigned duly qualified and acting Clerk of the Board of Education of Sterling Public Schools, School District No. I-3, County and State aforesaid, being first duly sworn according to law, hereby depose and say:

- 1. That I complied with 68 O. S. 2001 Section 3002, (both independent and dependent) by having the within Financial Statement and Estimate of Needs which was prepared at the time and in the manner provided by law, published as required by law, in a legally-qualified newspaper of general circulation in the district, there being no legally-qualified newspaper published in the school district, as evidenced by a copy of such published statement and estimate together with proof of publication thereof attached hereto marked Exhibit No. 1 and made a part hereof (strike inapplicable phrases).
- 2. That I complied with currently effective statutes, by having the Notice of Emergency Levy Election and the call for such Election on the date hereinbefore certified by the Governing Board, the Itemized Statements and the Itemized Estimate of the amount necessary for the ensuing fiscal year requiring such emergency levy for the current expense purposes as prepared by the Board of Education duly published or posted, as the case may be, in full compliance with law for this class of school district, and as provided by law duly made public in the manner and at the time provided by law, for this class of district and in all respects according to law, in relation to said election on such emergency levy as hereinbefore certified by said Governing Board.
- 3. That I complied with the statute by having published or posted (if required for this class of district) the notice of local support levy election, and the call for such election on the date hereinbefore certified by the Board of Education. That the Estimate of Needs as prepared by the Board of Education required such local support levy in addition to other tax levies, to fully meet the current expense purposes of the school district for the ensuing year.
- 4. That in conformity to resolution by said Board of Education, I caused Notice of Building Fund Levy Election under the provisions of Article 10, Section 10, Oklahoma Constitution, and the Call of such Election on the date hereinbefore certified by the Governing Board, together with Itemized Statements and an Estimate of the amount necessary for the ensuing fiscal year requiring such levy for the purpose of erecting, remodeling or repairing school buildings, and for purchasing school furniture, in said District, published or posted to contain such Notice and Call, fixing the number of voting places and particularly describing each and every such place or places, and fixing the day on which such election should be had after the expiration of such notice, duly published or posted as is required by law for this class of district.

Clerk, Board of Education
Subscribed and sworn to before me this _____ day of _____, 2024.

Notary Public

My Commission Expires

Secretary and Clerk of Excise Board
Comanche County, Oklahoma



BLEDSON, HEWETT & GULLEKSON
CERTIFIED PUBLIC ACCOUNTANTS, PLLLP

Eric M. Bledsoe, CPA
Jeffrey D. Hewett, CPA
Christopher P. Gullekson, CPA

P.O. BOX 1310 • 121 E. COLLEGE ST. • BROKEN ARROW, OK 74013 • (918) 449-9991 • (800) 522-3831 • FAX (918) 449-9779

September 5, 2024

Honorable Board of Education
Sterling Independent School District, I-003
Comanche County, Oklahoma

Management is responsible for the accompanying financial statements and supporting information of the District as of and for the year ended June 30, 2024, which comprise of the 2024-25 estimate of needs and financial statements for the fiscal year ended June 30, 2024, included in the accompanying form (SAI Form 2661R06) and the publication sheet (SAI Form 2662R06) prescribed by the Oklahoma State Auditor and Inspector per 68 OS § 3003.B as defined by rules promulgated by the Oklahoma State Department of Education per 70 OS § 5-134.1.D. We have performed a compilation engagement in accordance with Statements on Standards for Accounting and Review Services promulgated by the Accounting and Review Services Committee of the American Institute of Certified Public Accountants. We did not audit or review the financial statements included in the accompanying prescribed form nor were we required to perform any procedures to verify the accuracy or completeness of the information provided by management. Accordingly, we do not express an opinion, a conclusion, nor provide any form of assurance on these financial statements and supporting information included in the prescribed form.

Other Matters

The financial statements, estimate of needs and publication sheet included in the accompanying prescribed forms are presented in accordance with the requirements prescribed by Office of the Oklahoma State Auditor and Inspector per 68 OS § 3003.B as defined by rules promulgated by the Oklahoma State Department of Education per 70 OS § 5-134.1.D, and are not intended to be a complete presentation in accordance with accounting principles generally accepted in the United States of America.

This report is intended solely for the information and use of management, the Oklahoma State Department of Education, the County Excise Board, and for filing with the Oklahoma State Auditor and Inspector and is not intended to be and should not be used by anyone other than these specified parties.

Eric, Jeff & Chris

Bledsoe, Hewett & Gullekson CPAs, PLLLP
Broken Arrow, OK

Index Page

General.....1
Building.....7
Sinking Fund Bonds.....13
Sinking Fund.....15
Capital Project Total.....21
Capital Project Individual.....23
Exhibit Y.....25
Exhibit Z.....29
Exhibit KK.....31

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GENERAL FUND ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024
ESTIMATE OF NEEDS FOR 2024-2025

EXHIBIT 'A'

| Schedule 1: Current Balance Sheet for June 30, 2024 | | Amount |
|--|--|---------------------|
| ASSETS: | | |
| Cash Balances | | \$364,610.86 |
| Investments | | \$0.00 |
| TOTAL ASSETS | | \$364,610.86 |
| LIABILITIES AND RESERVES: | | |
| Warrants Outstanding | | \$62,209.30 |
| Reserve for Interest on Warrants | | \$0.00 |
| Reserves From Schedule 8 | | \$2,482.12 |
| TOTAL LIABILITIES AND RESERVES | | \$64,691.42 |
| CASH FUND BALANCE JUNE 30, 2024 | | \$299,919.44 |
| TOTAL LIABILITIES, RESERVES AND CASH FUND BALANCE | | \$364,610.86 |

| Schedule 2: Revenue and Requirements, 2023-2024 | | |
|---|------------------|-------------------------------|
| REVENUE: | Estimated Budget | Actual Revenue & Expenditures |
| Revenues, Non-Revenue Receipts & Cash Balances (Schedule 6) | \$3,321,228.95 | \$3,453,839.58 |
| LESS: REQUIREMENTS: | | |
| Expenditures (Schedule 8) | \$3,321,228.95 | \$3,153,920.14 |
| CASH FUND BALANCE JUNE 30, 2024 | \$0.00 | \$299,919.44 |

| Schedule 3: General Fund Cash Accounts of Current and all Prior Years | | | | |
|---|-----------------------|---------------------|---------------|-----------------------|
| CURRENT AND ALL PRIOR YEARS | 2023-24 | 2022-23 | PRE-2022 | Total |
| Cash Balance Reported to Excise Board 6-30-23 | \$0.00 | \$136,405.97 | \$0.00 | \$136,405.97 |
| REVENUES, NON-REVENUE RECEIPTS & CASH BALANCE | | | | |
| Revenues/Non-Rev (Sch 6 Source Codes 1000 to 5999) | \$3,392,128.95 | \$0.00 | \$0.00 | \$3,392,128.95 |
| Cash Balances Transferred (Sch 6 Source Code 6110) | \$61,710.63 | -\$61,710.63 | \$0.00 | \$0.00 |
| Prior Year Lapsed Appropri (Sch 6 Source Code 6130) | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Estopped Warrants (Sch 6 Source Code 6140) | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Interfund Transfers (Sch 6 Source Code 6200) | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| TOTAL REVENUES, NON-REVENUE RECEIPTS & CASH BALANCE | \$3,453,839.58 | -\$61,710.63 | \$0.00 | \$3,392,128.95 |
| Warrants Paid of Year in Caption | \$3,089,228.72 | \$74,695.34 | \$0.00 | \$3,163,924.06 |
| TOTAL DISBURSEMENTS | \$3,089,228.72 | \$74,695.34 | \$0.00 | \$3,163,924.06 |
| CASH & INVESTMENTS BALANCE JUNE 30, 2024 | \$364,610.86 | \$0.00 | \$0.00 | \$364,610.86 |
| Reserve for Warrants Outstanding (Schedule 4) | \$62,209.30 | \$0.00 | \$0.00 | \$62,209.30 |
| Reserve for Encumbrances (Schedule 8) | \$2,482.12 | \$0.00 | \$0.00 | \$2,482.12 |
| TOTAL LIABILITIES AND RESERVE | \$64,691.42 | \$0.00 | \$0.00 | \$64,691.42 |
| DEFICIT: | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| CASH FUND BAL FORWARD TO SUCCEEDING YEAR | \$299,919.44 | \$0.00 | \$0.00 | \$299,919.44 |

| Schedule 4: General Fund Warrant Accounts of Current and all Prior Years | | | | |
|--|-----------------------|--------------------|---------------|-----------------------|
| CURRENT AND ALL PRIOR YEARS | 2023-24 | 2022-23 | PRE-2022 | Total |
| Warrants Outstanding 6-30 of Year in Caption | \$0.00 | \$64,951.21 | \$0.00 | \$64,951.21 |
| Warrants Registered During Year | \$3,151,438.02 | \$9,744.13 | \$0.00 | \$3,161,182.15 |
| TOTAL | \$3,151,438.02 | \$74,695.34 | \$0.00 | \$3,226,133.36 |
| Warrants Paid During Year | \$3,089,228.72 | \$74,695.34 | \$0.00 | \$3,163,924.06 |
| Warrants Converted to Bonds or Judgments | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Warrants Estopped by Statute/Canceled | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| TOTAL WARRANTS RETIRED | \$3,089,228.72 | \$74,695.34 | \$0.00 | \$3,163,924.06 |
| BALANCE WARRANTS OUTSTANDING JUNE 30, 2024 | \$62,209.30 | \$0.00 | \$0.00 | \$62,209.30 |

| Schedule 5: 2023 Ad Valorem Tax Account | | |
|--|--------------|-------------------|
| ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024 | 37.850 Mills | Amount |
| 2023 Net Valuation Certified to County Excise Board | | \$12,864,579.00 |
| Total Proceeds of Levy as Certified | | \$486,079.07 |
| Additions: | | \$0.00 |
| Deductions: | | \$0.00 |
| Gross Balance Tax | | \$486,079.07 |
| Less Reserve for Delinquent Tax | | \$44,189.01 |
| Reserve for Protests Pending | | \$0.00 |
| Balance Available Tax | | \$441,890.06 |
| Deduct 2023 Tax Apportioned | | \$438,574.01 |
| Net Balance 2023 Tax in Process of Collection | | \$3,316.05 |
| Excess Collections | | \$0.00 |

GENERAL FUND ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024
ESTIMATE OF NEEDS FOR 2024-2025

EXHIBIT 'A'

| Schedule 6: Revenue, Non-Revenue Receipts & Cash Balances | | |
|--|-----------------------|-----------------------|
| SOURCE | 2023-24 Account | |
| | AMOUNT ESTIMATED | ACTUALLY COLLECTED |
| 1000 DISTRICT SOURCES OF REVENUE: | | |
| 1100 TAXES LEVIED/ASSESSED | | |
| 1110 Ad Valorem Tax Levy (Current Year) | \$441,890.06 | \$438,574.01 |
| 1120 Ad Valorem Tax Levy (Prior Years) | \$8,400.00 | \$17,292.44 |
| 1130 Revenue In Lieu Of Taxes | \$2,633.00 | \$2,981.32 |
| 1140 Revenue From Local Governmental Units Other Than Leas | \$0.00 | \$0.00 |
| 1190 Other Taxes | \$0.00 | \$0.00 |
| TOTAL TAXES LEVIED/ASSESSED | \$452,923.06 | \$458,847.77 |
| 1200 Tuition & Fees | \$0.00 | \$0.00 |
| 1300 Earnings on Investments and Bond Sales | \$900.00 | \$1,755.49 |
| 1400 Rental, Disposals and Commissions | \$600.00 | \$18,776.00 |
| 1500 Reimbursements | \$30,000.00 | \$28,112.51 |
| 1600 Other Local Sources of Revenue | \$2,000.00 | \$6,234.68 |
| 1700 Child Nutrition Programs | \$50,000.00 | \$42,531.08 |
| 1800 Athletics | \$0.00 | \$0.00 |
| TOTAL DISTRICT SOURCES OF REVENUE | \$536,423.06 | \$556,257.53 |
| 2000 INTERMEDIATE SOURCES OF REVENUE: | | |
| 2100 County 4 Mill Ad Valorem Tax | \$53,000.00 | \$52,222.68 |
| 2200 County Apportionment (Mortgage Tax) | \$11,000.00 | \$7,976.29 |
| 2300 Resale of Property Fund Distribution | \$0.00 | \$3,875.05 |
| 2900 Other Intermediate Sources of Revenue | \$0.00 | \$0.00 |
| TOTAL INTERMEDIATE SOURCES OF REVENUE | \$64,000.00 | \$64,074.02 |
| 3000 STATE SOURCES OF REVENUE: | | |
| 3100 STATE DEDICATED SOURCES OF REVENUE | | |
| 3110 Gross Production Tax | \$500.00 | \$392.24 |
| 3120 Motor Vehicle Collections | \$145,000.00 | \$140,124.14 |
| 3130 Rural Electric Cooperative Tax | \$98,000.00 | \$86,756.73 |
| 3140 State School Land Earnings | \$51,000.00 | \$55,635.66 |
| 3150 Vehicle Tax Stamps | \$250.00 | \$269.40 |
| 3160 Farm Implement Tax Stamps | \$0.00 | \$0.00 |
| 3170 Trailers and Mobile Homes | \$0.00 | \$0.00 |
| 3190 Other Dedicated Revenue | \$0.00 | \$0.00 |
| TOTAL STATE DEDICATED SOURCES OF REVENUE | \$294,750.00 | \$283,178.17 |
| 3200 STATE AID - NONCATEGORICAL | | |
| 3210 Foundation and Salary Incentive Aid | \$1,644,897.07 | \$1,699,478.72 |
| 3220 Mid-Term Adjustment For Attendance | \$0.00 | \$0.00 |
| 3230 Teacher Consultant Stipend | \$0.00 | \$0.00 |
| 3240 Disaster Assistance | \$0.00 | \$0.00 |
| 3250 Flexible Benefit Allowance | \$329,296.08 | \$268,666.98 |
| TOTAL STATE AID - NONCATEGORICAL | \$1,974,193.15 | \$1,968,145.70 |
| 3300 State Aid - Competitive Grants - Categorical | \$0.00 | \$0.00 |
| 3400 State - Categorical | \$25,764.71 | \$46,981.14 |
| 3500 Special Programs | \$0.00 | \$0.00 |
| 3600 Other State Sources of Revenue | \$0.00 | \$1,828.36 |
| 3700 Child Nutrition Program | \$1,700.00 | \$1,788.74 |
| 3800 State Vocational Programs - Multi-Source | \$31,089.00 | \$33,720.00 |
| TOTAL STATE SOURCES OF REVENUE | \$2,327,496.86 | \$2,335,642.11 |
| 4000 FEDERAL SOURCES OF REVENUE: | | |
| 4100 Grants-In-Aid Direct From The Federal Government | \$47,630.00 | \$63,550.00 |
| 4200 Disadvantaged Students | \$64,296.79 | \$64,296.79 |
| 4300 Individuals With Disabilities | \$71,697.59 | \$85,067.81 |
| 4400 No Child Left Behind | \$10,000.00 | \$42,811.88 |
| 4500 Grants-In-Aid Passed Through Other State/Intermediate Sources | \$0.00 | \$0.00 |
| 4600 Other Federal Sources Passed Through State Dept Of Education | \$18,974.02 | \$19,120.20 |
| 4700 Child Nutrition Programs | \$115,000.00 | \$143,175.78 |
| 4800 Federal Vocational Education | \$4,000.00 | \$0.00 |
| TOTAL FEDERAL SOURCES OF REVENUE | \$331,598.40 | \$418,022.46 |
| 5000 NON-REVENUE RECEIPTS: | \$0.00 | \$18,132.83 |
| TOTAL NON-REVENUE RECEIPTS | \$0.00 | \$18,132.83 |
| 6000 BALANCE SHEET ACCOUNTS: | | |
| 6100 CASH ACCOUNTS | | |
| 6110 Cash Forward | \$61,710.63 | \$61,710.63 |
| 6130 Prior-Year Lapsed Appropriations (Schedule 6) | \$0.00 | \$0.00 |
| 6140 Estopped Warrants by Statute | \$0.00 | \$0.00 |
| TOTAL CASH ACCOUNTS | \$61,710.63 | \$61,710.63 |
| 6200 Interfund Transfers | \$0.00 | \$0.00 |
| TOTAL BALANCE SHEET ACCOUNTS | \$61,710.63 | \$61,710.63 |
| GRAND TOTAL | \$3,321,228.95 | \$3,453,839.58 |

GENERAL FUND ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024
ESTIMATE OF NEEDS FOR 2024-2025

EXHIBIT 'A'

| Schedule 6: Revenue, Non-Revenue Receipts & Cash Balances (Continued) | | | | |
|---|---------------------|----------------------------------|------------------------------------|-----------------------------|
| SOURCE | 2023-24 Account | BASIS AND LIMIT OF ENSUING | ESTIMATED BY GOVERNING BOARD | APPROVED BY EXCISE BOARD |
| | OVER/UNDER | | | |
| 1000 DISTRICT SOURCES OF REVENUE: | | | | |
| 1100 TAXES LEVIED/ASSESSED | | | | |
| 1110 Ad Valorem Tax Levy (Current Year) | -\$3,316.05 | 103.74% | \$454,977.00 | \$454,977.00 |
| 1120 Ad Valorem Tax Levy (Prior Years) | \$8,892.44 | 19.18% | \$3,316.05 | \$3,316.05 |
| 1130 Revenue In Lieu Of Taxes | \$348.32 | 0.00% | \$0.00 | \$0.00 |
| 1140 Revenue From Local Governmental Units Other Than Leas | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 1190 Other Taxes | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| TOTAL TAXES LEVIED/ASSESSED | \$5,924.71 | | \$458,293.05 | \$458,293.05 |
| 1200 Tuition & Fees | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 1300 Earnings on Investments and Bond Sales | \$855.49 | 0.00% | \$0.00 | \$0.00 |
| 1400 Rental, Disposals and Commissions | \$18,176.00 | 0.00% | \$0.00 | \$0.00 |
| 1500 Reimbursements | -\$1,887.49 | 0.00% | \$0.00 | \$0.00 |
| 1600 Other Local Sources of Revenue | \$4,234.68 | 0.00% | \$0.00 | \$0.00 |
| 1700 Child Nutrition Programs | -\$7,468.92 | 95.00% | \$40,404.53 | \$40,404.53 |
| 1800 Athletics | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| TOTAL DISTRICT SOURCES OF REVENUE | \$19,834.47 | | \$498,697.58 | \$498,697.58 |
| 2000 INTERMEDIATE SOURCES OF REVENUE: | | | | |
| 2100 County 4 Mill Ad Valorem Tax | -\$777.32 | 90.00% | \$47,000.41 | \$47,000.41 |
| 2200 County Apportionment (Mortgage Tax) | -\$3,023.71 | 90.00% | \$7,178.66 | \$7,178.66 |
| 2300 Resale of Property Fund Distribution | \$3,875.05 | 0.00% | \$0.00 | \$0.00 |
| 2900 Other Intermediate Sources of Revenue | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| TOTAL INTERMEDIATE SOURCES OF REVENUE | \$74.02 | | \$54,179.07 | \$54,179.07 |
| 3000 STATE SOURCES OF REVENUE: | | | | |
| 3100 STATE DEDICATED SOURCES OF REVENUE: | | | | |
| 3110 Gross Production Tax | -\$107.76 | 101.98% | \$400.00 | \$400.00 |
| 3120 Motor Vehicle Collections | -\$4,875.86 | 99.91% | \$140,000.00 | \$140,000.00 |
| 3130 Rural Electric Cooperative Tax | -\$11,243.27 | 97.98% | \$85,000.00 | \$85,000.00 |
| 3140 State School Land Earnings | \$4,635.66 | 98.86% | \$55,000.00 | \$55,000.00 |
| 3150 Vehicle Tax Stamps | \$19.40 | 74.24% | \$200.00 | \$200.00 |
| 3160 Farm Implement Tax Stamps | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 3170 Trailers and Mobile Homes | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 3190 Other Dedicated Revenue | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| TOTAL STATE DEDICATED SOURCES OF REVENUE | -\$11,571.83 | | \$280,600.00 | \$280,600.00 |
| 3200 STATE AID - NONCATEGORICAL | | | | |
| 3210 Foundation and Salary Incentive Aid | \$54,581.65 | 98.62% | \$1,676,049.00 | \$1,676,049.00 |
| 3220 Mid-Term Adjustment For Attendance | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 3230 Teacher Consultant Stipend | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 3240 Disaster Assistance | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 3250 Flexible Benefit Allowance | -\$60,629.10 | 102.36% | \$275,000.00 | \$275,000.00 |
| TOTAL STATE AID - NONCATEGORICAL | -\$6,047.45 | | \$1,951,049.00 | \$1,951,049.00 |
| 3300 State Aid - Competitive Grants - Categorical | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 3400 State - Categorical | \$21,216.43 | 389.06% | \$182,786.89 | \$182,786.89 |
| 3500 Special Programs | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 3600 Other State Sources of Revenue | \$1,828.36 | 109.39% | \$2,000.00 | \$2,000.00 |
| 3700 Child Nutrition Program | \$88.74 | 83.86% | \$1,500.00 | \$1,500.00 |
| 3800 State Vocational Programs - Multi-Source | \$2,631.00 | 100.00% | \$33,720.00 | \$33,720.00 |
| TOTAL STATE SOURCES OF REVENUE | \$8,145.25 | | \$2,451,655.89 | \$2,451,655.89 |
| 4000 FEDERAL SOURCES OF REVENUE: | | | | |
| 4100 Grants-In-Aid Direct From The Federal Government | \$15,920.00 | 73.31% | \$46,588.00 | \$46,588.00 |
| 4200 Disadvantaged Students | \$0.00 | 93.32% | \$60,000.00 | \$60,000.00 |
| 4300 Individuals With Disabilities | \$13,370.22 | 83.93% | \$71,395.28 | \$71,395.28 |
| 4400 No Child Left Behind | \$32,811.88 | 23.36% | \$10,000.00 | \$10,000.00 |
| 4500 Grants-In-Aid Passed Through Other State/Intermediate Sources | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 4600 Other Federal Sources Passed Through State Dept Of Education | \$146.18 | 395.01% | \$75,526.92 | \$75,526.92 |
| 4700 Child Nutrition Programs | \$28,175.78 | 90.80% | \$130,000.00 | \$130,000.00 |
| 4800 Federal Vocational Education | -\$4,000.00 | 0.00% | \$0.00 | \$0.00 |
| TOTAL FEDERAL SOURCES OF REVENUE | \$86,424.06 | | \$393,510.20 | \$393,510.20 |
| 5000 NON-REVENUE RECEIPTS: | | | | |
| TOTAL NON-REVENUE RECEIPTS | \$18,132.83 | 82.72% | \$15,000.00 | \$15,000.00 |
| 6000 BALANCE SHEET ACCOUNTS: | | | | |
| 6100 CASH ACCOUNTS | | | | |
| 6110 Cash Forward | \$0.00 | 486.01% | \$299,919.44 | \$299,919.44 |
| 6130 Prior-Year Lapsed Appropriations (Schedule 6) | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 6140 Estopped Warrants by Statute | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| TOTAL CASH ACCOUNTS | \$0.00 | | \$299,919.44 | \$299,919.44 |
| 6200 Interfund Transfers | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| TOTAL BALANCE SHEET ACCOUNTS | \$0.00 | | \$299,919.44 | \$299,919.44 |
| GRAND TOTAL | \$132,610.63 | | \$3,712,962.18 | \$3,712,962.18 |

GENERAL FUND ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024
ESTIMATE OF NEEDS FOR 2024-2025

EXHIBIT 'A'

| Schedule 7: Report of Prior Year Warrants Issued From Reserves | | | |
|--|------------------------|--------------------------|-------------------|
| FISCAL YEAR ENDING JUNE 30, 2023 | | | |
| | RESERVES 06-30-2023 | WARRANTS ISSUED SINCE | BALANCE LAPSED |
| TOTAL PRIOR YEAR RESERVES | \$9,744.13 | \$9,744.13 | \$0.00 |

| Schedule 8: Report of Current Year Expenditures | | | |
|---|-----------------------|-----------------------------|-------------------------|
| FISCAL YEAR ENDING JUNE 30, 2024 | | | |
| APPROPRIATED ACCOUNTS | APPROPRIATIONS | | |
| | ORIGINAL | SUPPLEMENTAL ADJUSTMENTS | FINAL APPROPRIATIONS |
| 1000 INSTRUCTION | \$1,819,215.54 | \$0.00 | \$1,819,215.54 |
| 2000 SUPPORT SERVICES: | | | |
| 2100 Support Services - Students | \$128,884.61 | \$0.00 | \$128,884.61 |
| 2200 Support Services - Instructional Staff | \$33,646.45 | \$0.00 | \$33,646.45 |
| 2300 Support Services - General Administration | \$159,805.38 | \$0.00 | \$159,805.38 |
| 2400 Support Services - School Administration | \$238,021.47 | \$0.00 | \$238,021.47 |
| 2500 Support Services - Business | \$57,890.89 | \$0.00 | \$57,890.89 |
| 2600 Operations And Maintenance of Plant Services | \$332,889.97 | \$0.00 | \$332,889.97 |
| 2700 Student Transportation Services | \$107,109.94 | \$0.00 | \$107,109.94 |
| TOTAL SUPPORT SERVICES | \$1,058,248.71 | \$0.00 | \$1,058,248.71 |
| 3000 OPERATION OF NON-INSTRUCTION SERVICES: | | | |
| 3100 Child Nutrition Programs Operations | \$259,475.04 | \$0.00 | \$259,475.04 |
| 3200 Other Enterprise Service Operations | \$0.00 | \$0.00 | \$0.00 |
| 3300 Community Services Operations | \$16,802.84 | \$0.00 | \$16,802.84 |
| TOTAL OPERATION OF NON-INSTRUCTIONAL SERVICES | \$276,277.88 | \$0.00 | \$276,277.88 |
| 4000 FACILITIES ACQUISITION & CONSTRUCTION SERVICES: | | | |
| 4200 Land Acquisition Services | \$0.00 | \$0.00 | \$0.00 |
| 4300 Land Improvement Services | \$0.00 | \$0.00 | \$0.00 |
| 4400 Architecture and Engineering Services | \$0.00 | \$0.00 | \$0.00 |
| 4500 Educational Specifications Development Services | \$0.00 | \$0.00 | \$0.00 |
| 4600 Building Acquisition and Construction Services | \$0.00 | \$0.00 | \$0.00 |
| 4700 Building Improvement Services | \$0.00 | \$0.00 | \$0.00 |
| TOTAL FACILITIES ACQUISITION & CONST. SERVICES | \$0.00 | \$0.00 | \$0.00 |
| 5000 OTHER OUTLAYS: | | | |
| 5100 Debt Service | \$0.00 | \$0.00 | \$0.00 |
| 5200 Fund Transfer/Reimbursement (Child Nutrition Fund) | \$0.00 | \$0.00 | \$0.00 |
| 5300 Clearing Account | \$0.00 | \$0.00 | \$0.00 |
| 5400 Indirect Cost Entitlement | \$0.00 | \$0.00 | \$0.00 |
| 5500 Private Nonprofit Schools | \$0.00 | \$0.00 | \$0.00 |
| 5600 Correcting Entry | \$0.00 | \$0.00 | \$0.00 |
| 5800 Charter School Reimbursement | \$80.00 | \$0.00 | \$80.00 |
| 5900 Arbitrage | \$0.00 | \$0.00 | \$0.00 |
| TOTAL OTHER OUTLAYS | \$80.00 | \$0.00 | \$80.00 |
| 7000 OTHER USES / UNBUDGETED ITEMS: | \$167,308.81 | \$0.00 | \$167,308.81 |
| 8000 REPAYMENTS: | \$98.01 | \$0.00 | \$98.01 |
| TOTAL GENERAL FUND 2023-24 FISCAL YEAR | \$3,321,228.95 | \$0.00 | \$3,321,228.95 |

GENERAL FUND ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024
ESTIMATE OF NEEDS FOR 2024-2025

EXHIBIT 'A'

| Schedule 8: Report of Current Year Expenditures (Continued) | | | | |
|---|-----------------------|-------------------|---|---|
| FISCAL YEAR ENDING JUNE 30, 2024 | | | | |
| APPROPRIATED ACCOUNTS | WARRANTS ISSUED | RESERVES | LAPSED BALANCE KNOWN TO BE UNENCUMBERED | 2023-2024 EXPENDITURES FOR CURRENT EXPENSE PURPOSES |
| 1000 INSTRUCTION: | \$1,819,215.54 | \$0.00 | \$0.00 | \$1,819,215.54 |
| 2000 SUPPORT SERVICES: | | | | |
| 2100 Support Services - Students | \$128,884.61 | \$0.00 | \$0.00 | \$128,884.61 |
| 2200 Support Services - Instructional Staff | \$33,646.45 | \$0.00 | \$0.00 | \$33,646.45 |
| 2300 Support Services - General Administration | \$159,805.38 | \$0.00 | \$0.00 | \$159,805.38 |
| 2400 Support Services - School Administration | \$238,021.47 | \$0.00 | \$0.00 | \$238,021.47 |
| 2500 Support Services - Business | \$57,845.89 | \$45.00 | \$0.00 | \$57,890.89 |
| 2600 Operations And Maintenance of Plant Services | \$331,642.39 | \$1,247.58 | \$0.00 | \$332,889.97 |
| 2700 Student Transportation Services | \$106,907.67 | \$202.27 | \$0.00 | \$107,109.94 |
| TOTAL SUPPORT SERVICES | \$1,056,753.86 | \$1,494.85 | \$0.00 | \$1,058,248.71 |
| 3000 OPERATION OF NON-INSTRUCTION SERVICES: | | | | |
| 3100 Child Nutrition Programs Operations | \$258,487.77 | \$987.27 | \$0.00 | \$259,475.04 |
| 3200 Other Enterprise Service Operations | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 3300 Community Services Operations | \$16,802.84 | \$0.00 | \$0.00 | \$16,802.84 |
| TOTAL OPERATION OF NON-INSTRUCTIONAL SERVICES | \$275,290.61 | \$987.27 | \$0.00 | \$276,277.88 |
| 4000 FACILITIES ACQUISITION & CONSTRUCTION SERVICES: | | | | |
| 4200 Land Acquisition Services | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 4300 Land Improvement Services | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 4400 Architecture and Engineering Services | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 4500 Educational Specifications Development Services | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 4600 Building Acquisition and Construction Services | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 4700 Building Improvement Services | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| TOTAL FACILITIES ACQUISITION & CONST. SERVICES | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 5000 OTHER OUTLAYS: | | | | |
| 5100 Debt Service | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 5200 Fund Transfer/Reimbursement (Child Nutrition Fund) | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 5300 Clearing Account | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 5400 Indirect Cost Entitlement | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 5500 Private Nonprofit Schools | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 5600 Correcting Entry | \$80.00 | \$0.00 | -\$80.00 | \$80.00 |
| 5800 Charter School Reimbursement | \$0.00 | \$0.00 | \$80.00 | \$0.00 |
| 5900 Arbitrage | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| TOTAL OTHER OUTLAYS | \$80.00 | \$0.00 | \$0.00 | \$80.00 |
| 7000 OTHER USES / UNBUDGETED ITEMS: | \$0.00 | \$0.00 | \$167,308.81 | \$0.00 |
| 8000 REPAYMENTS: | \$98.01 | \$0.00 | \$0.00 | \$98.01 |
| TOTAL GENERAL FUND 2023-24 FISCAL YEAR | \$3,151,438.02 | \$2,482.12 | \$167,308.81 | \$3,153,920.14 |

| ESTIMATE OF NEEDS FOR THE FISCAL YEAR 2024-25 | Estimate of Needs by Governing Board | Approved by County Excise Board |
|---|--------------------------------------|---------------------------------|
| PURPOSE: | | |
| Current Expense | \$3,712,962.18 | \$3,712,962.18 |
| Pro rata share of County Assessor's Budget as determined by County Excise Board | \$0.00 | \$0.00 |
| GRAND TOTAL - Home School | \$3,712,962.18 | \$3,712,962.18 |

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BUILDING FUND ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024
ESTIMATE OF NEEDS FOR 2024-2025

EXHIBIT 'C'

| Schedule 1: Current Balance Sheet for June 30, 2024 | | Amount |
|--|--|---------------------|
| ASSETS: | | |
| Cash Balances | | \$237,011.98 |
| Investments | | \$0.00 |
| TOTAL ASSETS | | \$237,011.98 |
| LIABILITIES AND RESERVES: | | |
| Warrants Outstanding | | \$3,240.47 |
| Reserve for Interest on Warrants | | \$0.00 |
| Reserves From Schedule 8 | | \$0.00 |
| TOTAL LIABILITIES AND RESERVES | | \$3,240.47 |
| CASH FUND BALANCE JUNE 30, 2024 | | \$233,771.51 |
| TOTAL LIABILITIES, RESERVES AND CASH FUND BALANCE | | \$237,011.98 |

| Schedule 2: Revenue and Requirements, 2023-2024 | | |
|---|------------------|-------------------------------|
| REVENUE: | Estimated Budget | Actual Revenue & Expenditures |
| Revenues, Non-Revenue Receipts & Cash Balances (Schedule 6) | \$186,854.55 | \$315,790.70 |
| LESS: REQUIREMENTS: | | |
| Expenditures (Schedule 8) | \$186,854.55 | \$82,019.19 |
| CASH FUND BALANCE JUNE 30, 2024 | \$0.00 | \$233,771.51 |

| Schedule 3: Building Fund Cash Accounts of Current and all Prior Years | | | | |
|--|---------------------|----------------------|---------------|---------------------|
| CURRENT AND ALL PRIOR YEARS | 2023-24 | 2022-23 | PRE-2022 | Total |
| Cash Balance Reported to Excise Board 6-30-23 | \$0.00 | \$123,699.58 | \$0.00 | \$123,699.58 |
| REVENUES, NON-REVENUE RECEIPTS & CASH BALANCE | | | | |
| Revenues/Non-Rev (Sch 6 Source Codes 1000 to 5999) | \$192,091.12 | \$0.00 | \$0.00 | \$192,091.12 |
| Cash Balances Transferred (Sch 6 Source Code 6110) | \$123,699.58 | -\$123,699.58 | \$0.00 | \$0.00 |
| Prior Year Lapsed Appropri (Sch 6 Source Code 6130) | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Estopped Warrants (Sch 6 Source Code 6140) | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Interfund Transfers (Sch 6 Source Code 6200) | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| TOTAL REVENUES, NON-REVENUE RECEIPTS & CASH BALANCE | \$315,790.70 | -\$123,699.58 | \$0.00 | \$192,091.12 |
| Warrants Paid of Year in Caption | \$78,778.72 | \$0.00 | \$0.00 | \$78,778.72 |
| TOTAL DISBURSEMENTS | \$78,778.72 | \$0.00 | \$0.00 | \$78,778.72 |
| CASH & INVESTMENTS BALANCE JUNE 30, 2024 | \$237,011.98 | \$0.00 | \$0.00 | \$237,011.98 |
| Reserve for Warrants Outstanding (Schedule 4) | \$3,240.47 | \$0.00 | \$0.00 | \$3,240.47 |
| Reserve for Encumbrances (Schedule 8) | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| TOTAL LIABILITIES AND RESERVE | \$3,240.47 | \$0.00 | \$0.00 | \$3,240.47 |
| DEFICIT: | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| CASH FUND BAL FORWARD TO SUCCEEDING YEAR | \$233,771.51 | \$0.00 | \$0.00 | \$233,771.51 |

| Schedule 4: Building Fund Warrant Accounts of Current and all Prior Years | | | | |
|---|--------------------|---------------|---------------|--------------------|
| CURRENT AND ALL PRIOR YEARS | 2023-24 | 2022-23 | PRE-2022 | Total |
| Warrants Outstanding 6-30 of Year in Caption | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Warrants Registered During Year | \$82,019.19 | \$0.00 | \$0.00 | \$82,019.19 |
| TOTAL | \$82,019.19 | \$0.00 | \$0.00 | \$82,019.19 |
| Warrants Paid During Year | \$78,778.72 | \$0.00 | \$0.00 | \$78,778.72 |
| Warrants Converted to Bonds or Judgments | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Warrants Estopped by Statute/Canceled | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| TOTAL WARRANTS RETIRED | \$78,778.72 | \$0.00 | \$0.00 | \$78,778.72 |
| BALANCE WARRANTS OUTSTANDING JUNE 30, 2024 | \$3,240.47 | \$0.00 | \$0.00 | \$3,240.47 |

| Schedule 5: 2023 Ad Valorem Tax Account | | |
|--|-------------|-----------------|
| ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024 | 5.410 Mills | Amount |
| 2023 Net Valuation Certified to County Excise Board | | \$12,864,579.00 |
| Total Proceeds of Levy as Certified | | \$69,470.47 |
| Additions: | | \$0.00 |
| Deductions: | | \$0.00 |
| Gross Balance Tax | | \$69,470.47 |
| Less Reserve for Delinquent Tax | | \$6,315.50 |
| Reserve for Protests Pending | | \$0.00 |
| Balance Available Tax | | \$63,154.97 |
| Deduct 2023 Tax Apportioned | | \$62,881.49 |
| Net Balance 2023 Tax in Process of Collection | | \$273.48 |
| Excess Collections | | \$0.00 |

BUILDING FUND ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024
ESTIMATE OF NEEDS FOR 2024-2025

EXHIBIT 'C'

| Schedule 6: Revenue, Non-Revenue Receipts & Cash Balances | | |
|--|---------------------|-----------------------|
| SOURCE | 2023-24 Account | |
| | AMOUNT ESTIMATED | ACTUALLY COLLECTED |
| 1000 DISTRICT SOURCES OF REVENUE: | | |
| 1100 TAXES LEVIED/ASSESSED | | |
| 1110 Ad Valorem Tax Levy (Current Year) | \$63,154.97 | \$62,881.49 |
| 1120 Ad Valorem Tax Levy (Prior Years) | \$0.00 | \$2,270.62 |
| 1130 Revenue In Lieu Of Taxes | \$0.00 | \$0.00 |
| 1140 Revenue From Local Governmental Units Other Than Leas | \$0.00 | \$0.00 |
| 1190 Other Taxes | \$0.00 | \$0.00 |
| TOTAL TAXES LEVIED/ASSESSED | \$63,154.97 | \$65,152.11 |
| 1200 Tuition & Fees | \$0.00 | \$0.00 |
| 1300 Earnings on Investments and Bond Sales | \$0.00 | \$770.00 |
| 1400 Rental, Disposals and Commissions | \$0.00 | \$0.00 |
| 1500 Reimbursements | \$0.00 | \$0.00 |
| 1600 Other Local Sources of Revenue | \$0.00 | \$0.00 |
| 1700 Child Nutrition Programs | \$0.00 | \$0.00 |
| 1800 Athletics | \$0.00 | \$0.00 |
| TOTAL DISTRICT SOURCES OF REVENUE | \$63,154.97 | \$65,922.11 |
| 2000 INTERMEDIATE SOURCES OF REVENUE | | |
| 2100 County 4 Mill Ad Valorem Tax | \$0.00 | \$0.00 |
| 2200 County Apportionment (Mortgage Tax) | \$0.00 | \$0.00 |
| 2300 Resale of Property Fund Distribution | \$0.00 | \$0.00 |
| 2900 Other Intermediate Sources of Revenue | \$0.00 | \$0.00 |
| TOTAL INTERMEDIATE SOURCES OF REVENUE | \$0.00 | \$0.00 |
| 3000 STATE SOURCES OF REVENUE: | | |
| 3100 STATE DEDICATED SOURCES OF REVENUE | | |
| 3110 Gross Production Tax | \$0.00 | \$0.00 |
| 3120 Motor Vehicle Collections | \$0.00 | \$0.00 |
| 3130 Rural Electric Cooperative Tax | \$0.00 | \$0.00 |
| 3140 State School Land Earnings | \$0.00 | \$0.00 |
| 3150 Vehicle Tax Stamps | \$0.00 | \$0.00 |
| 3160 Farm Implement Tax Stamps | \$0.00 | \$0.00 |
| 3170 Trailers and Mobile Homes | \$0.00 | \$0.00 |
| 3190 Other Dedicated Revenue | \$0.00 | \$0.00 |
| TOTAL STATE DEDICATED SOURCES OF REVENUE | \$0.00 | \$0.00 |
| 3200 STATE AID - NONCATEGORICAL | | |
| 3210 Foundation and Salary Incentive Aid | \$0.00 | \$0.00 |
| 3220 Mid-Term Adjustment For Attendance | \$0.00 | \$0.00 |
| 3230 Teacher Consultant Stipend | \$0.00 | \$0.00 |
| 3240 Disaster Assistance | \$0.00 | \$0.00 |
| 3250 Flexible Benefit Allowance | \$0.00 | \$0.00 |
| TOTAL STATE AID - NONCATEGORICAL | \$0.00 | \$0.00 |
| 3300 State Aid - Competitive Grants - Categorical | \$0.00 | \$0.00 |
| 3400 State - Categorical | \$0.00 | \$105,618.01 |
| 3500 Special Programs | \$0.00 | \$0.00 |
| 3600 Other State Sources of Revenue | \$0.00 | \$0.00 |
| 3700 Child Nutrition Program | \$0.00 | \$0.00 |
| 3800 State Vocational Programs - Multi-Source | \$0.00 | \$0.00 |
| TOTAL STATE SOURCES OF REVENUE | \$0.00 | \$105,618.01 |
| 4000 FEDERAL SOURCES OF REVENUE: | | |
| 4100 Grants-In-Aid Direct From The Federal Government | \$0.00 | \$20,551.00 |
| 4200 Disadvantaged Students | \$0.00 | \$0.00 |
| 4300 Individuals With Disabilities | \$0.00 | \$0.00 |
| 4400 No Child Left Behind | \$0.00 | \$0.00 |
| 4500 Grants-In-Aid Passed Through Other State/Intermediate Sources | \$0.00 | \$0.00 |
| 4600 Other Federal Sources Passed Through State Dept Of Education | \$0.00 | \$0.00 |
| 4700 Child Nutrition Programs | \$0.00 | \$0.00 |
| 4800 Federal Vocational Education | \$0.00 | \$0.00 |
| TOTAL FEDERAL SOURCES OF REVENUE | \$0.00 | \$20,551.00 |
| 5000 NON-REVENUE RECEIPTS: | | |
| TOTAL NON-REVENUE RECEIPTS | \$0.00 | \$0.00 |
| 6000 BALANCE SHEET ACCOUNTS | | |
| 6100 CASH ACCOUNTS | | |
| 6110 Cash Forward | \$123,699.58 | \$123,699.58 |
| 6130 Prior-Year Lapsed Appropriations (Schedule 6) | \$0.00 | \$0.00 |
| 6140 Estopped Warrants by Statute | \$0.00 | \$0.00 |
| TOTAL CASH ACCOUNTS | \$123,699.58 | \$123,699.58 |
| 6200 Interfund Transfers | \$0.00 | \$0.00 |
| TOTAL BALANCE SHEET ACCOUNTS | \$123,699.58 | \$123,699.58 |
| GRAND TOTAL | \$186,854.55 | \$315,790.70 |

BUILDING FUND ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024
ESTIMATE OF NEEDS FOR 2024-2025

EXHIBIT 'C'

| Schedule 6: Revenue, Non-Revenue Receipts & Cash Balances (Continued) | | | | |
|---|---------------------|----------------------------------|------------------------------------|-----------------------------|
| SOURCE | 2023-24 Account | BASIS AND LIMIT OF ENSUING | ESTIMATED BY GOVERNING BOARD | APPROVED BY EXCISE BOARD |
| | OVER/UNDER | | | |
| 1000 DISTRICT SOURCES OF REVENUE: | | | | |
| 1100 TAXES LEVIED/ASSESSED | | | | |
| 1110 Ad Valorem Tax Levy (Current Year) | -\$273.48 | 103.41% | \$65,025.39 | \$65,025.39 |
| 1120 Ad Valorem Tax Levy (Prior Years) | \$2,270.62 | 12.04% | \$273.48 | \$273.48 |
| 1130 Revenue In Lieu Of Taxes | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 1140 Revenue From Local Governmental Units Other Than Leas | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 1190 Other Taxes | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| TOTAL TAXES LEVIED/ASSESSED | \$1,997.14 | | \$65,298.87 | \$65,298.87 |
| 1200 Tuition & Fees | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 1300 Earnings on Investments and Bond Sales | \$770.00 | 0.00% | \$0.00 | \$0.00 |
| 1400 Rental, Disposals and Commissions | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 1500 Reimbursements | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 1600 Other Local Sources of Revenue | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 1700 Child Nutrition Programs | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 1800 Athletics | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| TOTAL DISTRICT SOURCES OF REVENUE | \$2,767.14 | | \$65,298.87 | \$65,298.87 |
| 2000 INTERMEDIATE SOURCES OF REVENUE | | | | |
| 2100 County 4 Mill Ad Valorem Tax | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 2200 County Apportionment (Mortgage Tax) | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 2300 Resale of Property Fund Distribution | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 2900 Other Intermediate Sources of Revenue | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| TOTAL INTERMEDIATE SOURCES OF REVENUE | \$0.00 | | \$0.00 | \$0.00 |
| 3000 STATE SOURCES OF REVENUE: | | | | |
| 3100 STATE DEDICATED SOURCES OF REVENUE: | | | | |
| 3110 Gross Production Tax | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 3120 Motor Vehicle Collections | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 3130 Rural Electric Cooperative Tax | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 3140 State School Land Earnings | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 3150 Vehicle Tax Stamps | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 3160 Farm Implement Tax Stamps | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 3170 Trailers and Mobile Homes | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 3190 Other Dedicated Revenue | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| TOTAL STATE DEDICATED SOURCES OF REVENUE | \$0.00 | | \$0.00 | \$0.00 |
| 3200 STATE AID - NONCATEGORICAL | | | | |
| 3210 Foundation and Salary Incentive Aid | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 3220 Mid-Term Adjustment For Attendance | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 3230 Teacher Consultant Stipend | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 3240 Disaster Assistance | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 3250 Flexible Benefit Allowance | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| TOTAL STATE AID - NONCATEGORICAL | \$0.00 | | \$0.00 | \$0.00 |
| 3300 State Aid - Competitive Grants - Categorical | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 3400 State - Categorical | \$105,618.01 | 47.34% | \$50,000.00 | \$50,000.00 |
| 3500 Special Programs | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 3600 Other State Sources of Revenue | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 3700 Child Nutrition Program | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 3800 State Vocational Programs - Multi-Source | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| TOTAL STATE SOURCES OF REVENUE | \$105,618.01 | | \$50,000.00 | \$50,000.00 |
| 4000 FEDERAL SOURCES OF REVENUE: | | | | |
| 4100 Grants-In-Aid Direct From The Federal Government | \$20,551.00 | 48.66% | \$10,000.00 | \$10,000.00 |
| 4200 Disadvantaged Students | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 4300 Individuals With Disabilities | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 4400 No Child Left Behind | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 4500 Grants-In-Aid Passed Through Other State/Intermediate Sources | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 4600 Other Federal Sources Passed Through State Dept Of Education | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 4700 Child Nutrition Programs | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 4800 Federal Vocational Education | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| TOTAL FEDERAL SOURCES OF REVENUE | \$20,551.00 | | \$10,000.00 | \$10,000.00 |
| 5000 NON-REVENUE RECEIPTS: | | | | |
| TOTAL NON-REVENUE RECEIPTS | \$0.00 | | \$0.00 | \$0.00 |
| 6000 BALANCE SHEET ACCOUNTS | | | | |
| 6100 CASH ACCOUNTS | | | | |
| 6110 Cash Forward | \$0.00 | 188.98% | \$233,771.51 | \$233,771.51 |
| 6130 Prior-Year Lapsed Appropriations (Schedule 6) | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| 6140 Estopped Warrants by Statute | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| TOTAL CASH ACCOUNTS | \$0.00 | | \$233,771.51 | \$233,771.51 |
| 6200 Interfund Transfers | \$0.00 | 0.00% | \$0.00 | \$0.00 |
| TOTAL BALANCE SHEET ACCOUNTS | \$0.00 | | \$233,771.51 | \$233,771.51 |
| GRAND TOTAL | \$128,936.15 | | \$359,070.38 | \$359,070.38 |

BUILDING FUND ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024
ESTIMATE OF NEEDS FOR 2024-2025

EXHIBIT 'C'

| Schedule 7: Report of Prior Year Warrants Issued From Reserves | | | |
|--|------------------------|--------------------------|-------------------|
| FISCAL YEAR ENDING JUNE 30, 2023 | | | |
| | RESERVES 06-30-2023 | WARRANTS ISSUED SINCE | BALANCE LAPSED |
| TOTAL PRIOR YEAR RESERVES | \$0.00 | \$0.00 | \$0.00 |

| Schedule 8: Report of Current Year Expenditures | | | |
|---|---------------------|-----------------------------|-------------------------|
| FISCAL YEAR ENDING JUNE 30, 2024 | | | |
| APPROPRIATED ACCOUNTS | APPROPRIATIONS | | |
| | ORIGINAL | SUPPLEMENTAL ADJUSTMENTS | FINAL APPROPRIATIONS |
| 1000 INSTRUCTION: | \$112,863.00 | \$0.00 | \$112,863.00 |
| 2000 SUPPORT SERVICES: | | | |
| 2100 Support Services - Students | \$73,991.55 | \$0.00 | \$73,991.55 |
| 2200 Support Services - Instructional Staff | \$0.00 | \$0.00 | \$0.00 |
| 2300 Support Services - General Administration | \$0.00 | \$0.00 | \$0.00 |
| 2400 Support Services - School Administration | \$0.00 | \$0.00 | \$0.00 |
| 2500 Support Services - Business | \$0.00 | \$0.00 | \$0.00 |
| 2600 Operations And Maintenance of Plant Services | \$0.00 | \$0.00 | \$0.00 |
| 2700 Student Transportation Services | \$0.00 | \$0.00 | \$0.00 |
| TOTAL SUPPORT SERVICES | \$73,991.55 | \$0.00 | \$73,991.55 |
| 3000 OPERATION OF NON-INSTRUCTION SERVICES: | | | |
| 3100 Child Nutrition Programs Operations | \$0.00 | \$0.00 | \$0.00 |
| 3200 Other Enterprise Service Operations | \$0.00 | \$0.00 | \$0.00 |
| 3300 Community Services Operations | \$0.00 | \$0.00 | \$0.00 |
| TOTAL OPERATION OF NON-INSTRUCTIONAL SERVICES | \$0.00 | \$0.00 | \$0.00 |
| 4000 FACILITIES ACQUISITION & CONSTRUCTION SERVICES: | | | |
| 4200 Land Acquisition Services | \$0.00 | \$0.00 | \$0.00 |
| 4300 Land Improvement Services | \$0.00 | \$0.00 | \$0.00 |
| 4400 Architecture and Engineering Services | \$0.00 | \$0.00 | \$0.00 |
| 4500 Educational Specifications Development Services | \$0.00 | \$0.00 | \$0.00 |
| 4600 Building Acquisition and Construction Services | \$0.00 | \$0.00 | \$0.00 |
| 4700 Building Improvement Services | \$0.00 | \$0.00 | \$0.00 |
| TOTAL FACILITIES ACQUISITION & CONST. SERVICES | \$0.00 | \$0.00 | \$0.00 |
| 5000 OTHER OUTLAYS: | | | |
| 5100 Debt Service | \$0.00 | \$0.00 | \$0.00 |
| 5200 Fund Transfer/Reimbursement (Child Nutrition Fund) | \$0.00 | \$0.00 | \$0.00 |
| 5300 Clearing Account | \$0.00 | \$0.00 | \$0.00 |
| 5400 Indirect Cost Entitlement | \$0.00 | \$0.00 | \$0.00 |
| 5500 Private Nonprofit Schools | \$0.00 | \$0.00 | \$0.00 |
| 5600 Correcting Entry | \$0.00 | \$0.00 | \$0.00 |
| 5800 Charter School Reimbursement | \$0.00 | \$0.00 | \$0.00 |
| 5900 Arbitrage | \$0.00 | \$0.00 | \$0.00 |
| TOTAL OTHER OUTLAYS | \$0.00 | \$0.00 | \$0.00 |
| 7000 OTHER USES / UNBUDGETED ITEMS: | \$0.00 | \$0.00 | \$0.00 |
| 8000 REPAYMENTS: | \$0.00 | \$0.00 | \$0.00 |
| TOTAL BUILDING FUND 2023-24 FISCAL YEAR | \$186,854.55 | \$0.00 | \$186,854.55 |

BUILDING FUND ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024
ESTIMATE OF NEEDS FOR 2024-2025

EXHIBIT 'C'

| Schedule 8: Report of Current Year Expenditures (Continued) | | | | |
|---|--------------------|---------------|---|---|
| FISCAL YEAR ENDING JUNE 30, 2024 | | | | |
| APPROPRIATED ACCOUNTS | WARRANTS ISSUED | RESERVES | LAPSED BALANCE KNOWN TO BE UNENCUMBERED | 2023-2024 EXPENDITURES FOR CURRENT EXPENSE PURPOSES |
| 1000 INSTRUCTION: | \$27,108.55 | \$0.00 | \$85,754.45 | \$27,108.55 |
| 2000 SUPPORT SERVICES: | | | | |
| 2100 Support Services - Students | \$0.00 | \$0.00 | \$73,991.55 | \$0.00 |
| 2200 Support Services - Instructional Staff | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 2300 Support Services - General Administration | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 2400 Support Services - School Administration | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 2500 Support Services - Business | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 2600 Operations And Maintenance of Plant Services | \$54,910.64 | \$0.00 | -\$54,910.64 | \$54,910.64 |
| 2700 Student Transportation Services | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| TOTAL SUPPORT SERVICES | \$54,910.64 | \$0.00 | \$19,080.91 | \$54,910.64 |
| 3000 OPERATION OF NON-INSTRUCTION SERVICES: | | | | |
| 3100 Child Nutrition Programs Operations | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 3200 Other Enterprise Service Operations | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 3300 Community Services Operations | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| TOTAL OPERATION OF NON-INSTRUCTIONAL SERVICES | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 4000 FACILITIES ACQUISITION & CONSTRUCTION SERVICES: | | | | |
| 4200 Land Acquisition Services | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 4300 Land Improvement Services | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 4400 Architecture and Engineering Services | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 4500 Educational Specifications Development Services | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 4600 Building Acquisition and Construction Services | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 4700 Building Improvement Services | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| TOTAL FACILITIES ACQUISITION & CONST. SERVICES | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 5000 OTHER OUTLAYS: | | | | |
| 5100 Debt Service | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 5200 Fund Transfer/Reimbursement (Child Nutrition Fund) | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 5300 Clearing Account | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 5400 Indirect Cost Entitlement | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 5500 Private Nonprofit Schools | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 5600 Correcting Entry | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 5800 Charter School Reimbursement | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 5900 Arbitrage | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| TOTAL OTHER OUTLAYS | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 7000 OTHER USES / UNBUDGETED ITEMS: | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 8000 REPAYMENTS: | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| TOTAL BUILDING FUND 2023-24 FISCAL YEAR | \$82,019.19 | \$0.00 | \$104,835.36 | \$82,019.19 |

| ESTIMATE OF NEEDS FOR THE FISCAL YEAR 2024-25 | Estimate of Needs by Governing Board | Approved by County Excise Board |
|---|--------------------------------------|---------------------------------|
| PURPOSE: | | |
| Current Expense | \$359,070.38 | \$359,070.38 |
| Pro rata share of County Assessor's Budget as determined by County Excise Board | \$0.00 | \$0.00 |
| GRAND TOTAL - Home School | \$359,070.38 | \$359,070.38 |

SINKING FUND ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024
ESTIMATE OF NEEDS FOR 2024-2025

EXHIBIT "E"

| Schedule 1: Detail of Bond and Coupon Indebtedness as of June 30, 2024 - Not Affecting Homesteads (New) | | | | | |
|---|--------------------|-------------------------|---------------|---------------|------------------------|
| PURPOSE OF BOND ISSUE: | | | | | 2022 Building Bonds |
| Date Of Issue | | | | | 7/1/2022 |
| Date Of Sale By Delivery | | | | | 7/1/2022 |
| HOW AND WHEN BONDS MATURE: | | | | | |
| Uniform Maturities: | | | | | |
| Date Maturity Begins | | | | | 7/1/2024 |
| Amount Of Each Uniform Maturity | | | | | \$ 60,000.00 |
| Final Maturity Otherwise: | | | | | |
| Date of Final Maturity | | | | | 7/1/2029 |
| Amount of Final Maturity | | | | | \$ 70,000.00 |
| AMOUNT OF ORIGINAL ISSUE | | | | | \$ 60,000.00 |
| Cancelled, In Judgement Or Delayed For Final Levy Year | | | | | \$ 0.00 |
| Basis of Accruals Contemplated on Net Collections or Better in Anticipation: | | | | | |
| Bond Issues Accruing By Tax Levy | | | | | \$ 60,000.00 |
| Years To Run | | | | | 1 |
| Normal Annual Accrual | | | | | \$ 0.00 |
| Tax Years Run | | | | | 1 |
| Accrual Liability To Date | | | | | \$ 60,000.00 |
| Deductions From Total Accruals: | | | | | |
| Bonds Paid Prior To 6-30-2023 | | | | | \$ 0.00 |
| Bonds Paid During 2023-2024 | | | | | \$ 0.00 |
| Matured Bonds Unpaid | | | | | \$ 0.00 |
| Balance Of Accrual Liability | | | | | \$ 60,000.00 |
| TOTAL BONDS OUTSTANDING 6-30-2024: | | | | | |
| Matured | | | | | \$ 0.00 |
| Unmatured | | | | | \$ 60,000.00 |
| Coupon Computation: | Coupon Date | Unmatured Amount | % Int. | Months | Interest Amount |
| Bonds and Coupons | 7/1/2024 | \$ 60,000.00 | 3.350% | 0 Mo. | \$ 0.00 |
| Bonds and Coupons | | | | Mo. | \$ 0.00 |
| Bonds and Coupons | | | | Mo. | \$ 0.00 |
| Bonds and Coupons | | | | Mo. | \$ 0.00 |
| Bonds and Coupons | | | | Mo. | \$ 0.00 |
| Bonds and Coupons | | | | Mo. | \$ 0.00 |
| Bonds and Coupons | | | | Mo. | \$ 0.00 |
| Bonds and Coupons | | | | Mo. | \$ 0.00 |
| Bonds and Coupons | | | | Mo. | \$ 0.00 |
| Bonds and Coupons | | | | Mo. | \$ 0.00 |
| Bonds and Coupons | | | | Mo. | \$ 0.00 |
| Requirement for Interest Earnings After Last Tax-Levy Year: | | | | | |
| Terminal Interest To Accrue | | | | | \$ 0.00 |
| Years To Run | | | | | 0 |
| Accrue Each Year | | | | | \$ 0.00 |
| Tax Years Run | | | | | 0 |
| Total Accrual To Date | | | | | \$ 0.00 |
| Current Interest Earned Through 2024-2025 | | | | | \$ 0.00 |
| Total Interest To Levy For 2024-2025 | | | | | \$ 0.00 |
| INTEREST COUPON ACCOUNT: | | | | | |
| Interest Earned But Unpaid 6-30-2023: | | | | | |
| Matured | | | | | \$ 0.00 |
| Unmatured | | | | | \$ 0.00 |
| Interest Earnings 2023-2024 | | | | | \$ 4,020.00 |
| Coupons Paid Through 2023-2024 | | | | | \$ 0.00 |
| Interest Earned But Unpaid 6-30-2024: | | | | | |
| Matured | | | | | \$ 0.00 |
| Unmatured | | | | | \$ 4,020.00 |

SINKING FUND ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024
ESTIMATE OF NEEDS FOR 2024-2025

EXHIBIT "E"

| Schedule 1: Detail of Bond and Coupon Indebtedness as of June 30, 2024 - Not Affecting Homesteads (New) | | | | | | |
|---|--------------------|-------------------------|---------------|---------------|------------------------|---------------------|
| PURPOSE OF BOND ISSUE: | | | | | | 2022 Building Bonds |
| Date Of Issue | | | | | | 7/1/2022 |
| Date Of Sale By Delivery | | | | | | 7/1/2022 |
| HOW AND WHEN BONDS MATURE: | | | | | | |
| Uniform Maturities: | | | | | | |
| Date Maturity Begins | | | | | | 7/1/2024 |
| Amount Of Each Uniform Maturity | | | | | | \$ 60,000.00 |
| Final Maturity Otherwise: | | | | | | |
| Date of Final Maturity | | | | | | 7/1/2029 |
| Amount of Final Maturity | | | | | | \$ 70,000.00 |
| AMOUNT OF ORIGINAL ISSUE | | | | | | \$ 350,000.00 |
| Cancelled, In Judgement Or Delayed For Final Levy Year | | | | | | \$ 0.00 |
| Basis of Accruals Contemplated on Net Collections or Better in Anticipation: | | | | | | |
| Bond Issues Accruing By Tax Levy | | | | | | \$ 350,000.00 |
| Years To Run | | | | | | 5 |
| Normal Annual Accrual | | | | | | \$ 70,000.00 |
| Tax Years Run | | | | | | 0 |
| Accrual Liability To Date | | | | | | \$ 0.00 |
| Deductions From Total Accruals: | | | | | | |
| Bonds Paid Prior To 6-30-2023 | | | | | | \$ 0.00 |
| Bonds Paid During 2023-2024 | | | | | | \$ 0.00 |
| Matured Bonds Unpaid | | | | | | \$ 0.00 |
| Balance Of Accrual Liability | | | | | | \$ 0.00 |
| TOTAL BONDS OUTSTANDING 6-30-2024: | | | | | | |
| Matured | | | | | | \$ 0.00 |
| Unmatured | | | | | | \$ 350,000.00 |
| Coupon Computation: | Coupon Date | Unmatured Amount | % Int. | Months | Interest Amount | |
| Bonds and Coupons | 7/1/2025 | \$ 70,000.00 | 3.350% | 12 Mo. | \$ 2,345.00 | |
| Bonds and Coupons | 7/1/2026 | \$ 70,000.00 | 3.350% | 12 Mo. | \$ 2,345.00 | |
| Bonds and Coupons | 7/1/2027 | \$ 70,000.00 | 3.350% | 12 Mo. | \$ 2,345.00 | |
| Bonds and Coupons | 7/1/2028 | \$ 70,000.00 | 3.350% | 12 Mo. | \$ 2,345.00 | |
| Bonds and Coupons | 7/1/2029 | \$ 70,000.00 | 3.350% | 12 Mo. | \$ 2,345.00 | |
| Bonds and Coupons | | | | Mo. | \$ 0.00 | |
| Bonds and Coupons | | | | Mo. | \$ 0.00 | |
| Bonds and Coupons | | | | Mo. | \$ 0.00 | |
| Bonds and Coupons | | | | Mo. | \$ 0.00 | |
| Bonds and Coupons | | | | Mo. | \$ 0.00 | |
| Requirement for Interest Earnings After Last Tax-Levy Year: | | | | | | |
| Terminal Interest To Accrue | | | | | | \$ 0.00 |
| Years To Run | | | | | | 0 |
| Accrue Each Year | | | | | | \$ 0.00 |
| Tax Years Run | | | | | | 0 |
| Total Accrual To Date | | | | | | \$ 0.00 |
| Current Interest Earned Through 2024-2025 | | | | | | \$ 11,725.00 |
| Total Interest To Levy For 2024-2025 | | | | | | \$ 11,725.00 |
| INTEREST COUPON ACCOUNT: | | | | | | |
| Interest Earned But Unpaid 6-30-2023: | | | | | | |
| Matured | | | | | | \$ 0.00 |
| Unmatured | | | | | | \$ 0.00 |
| Interest Earnings 2023-2024 | | | | | | \$ 23,450.00 |
| Coupons Paid Through 2023-2024 | | | | | | \$ 0.00 |
| Interest Earned But Unpaid 6-30-2024: | | | | | | |
| Matured | | | | | | \$ 0.00 |
| Unmatured | | | | | | \$ 23,450.00 |

SINKING FUND ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024
ESTIMATE OF NEEDS FOR 2024-2025

EXHIBIT "E"

| Schedule 1: Detail of Bond and Coupon Indebtedness as of June 30, 2024 - Not Affecting Homesteads (New) | | Total All Bonds |
|---|--|----------------------|
| PURPOSE OF BOND ISSUE: | | |
| HOW AND WHEN BONDS MATURE: | | |
| Uniform Maturities: | | |
| Amount Of Each Uniform Maturity | | \$ 120,000.00 |
| Final Maturity Otherwise: | | |
| Amount of Final Maturity | | \$ 140,000.00 |
| AMOUNT OF ORIGINAL ISSUE | | \$ 410,000.00 |
| Cancelled, In Judgement Or Delayed For Final Levy Year | | \$ 0.00 |
| Basis of Accruals Contemplated on Net Collections or Better in Anticipation: | | |
| Bond Issues Accruing By Tax Levy | | \$ 410,000.00 |
| Normal Annual Accrual | | \$ 70,000.00 |
| Accrual Liability To Date | | \$ 60,000.00 |
| Deductions From Total Accruals: | | |
| Bonds Paid Prior To 6-30-2023 | | \$ 0.00 |
| Bonds Paid During 2023-2024 | | \$ 0.00 |
| Matured Bonds Unpaid | | \$ 0.00 |
| Balance Of Accrual Liability | | \$ 60,000.00 |
| TOTAL BONDS OUTSTANDING 6-30-2024: | | |
| Matured | | \$ 0.00 |
| Unmatured | | \$ 410,000.00 |
| Requirement for Interest Earnings After Last Tax-Levy Year: | | |
| Terminal Interest To Accrue | | \$ 0.00 |
| Accrue Each Year | | \$ 0.00 |
| Total Accrual To Date | | \$ 0.00 |
| Current Interest Earned Through 2024-2025 | | \$ 11,725.00 |
| Total Interest To Levy For 2024-2025 | | \$ 11,725.00 |
| INTEREST COUPON ACCOUNT: | | |
| Interest Earned But Unpaid 6-30-2023: | | |
| Matured | | \$ 0.00 |
| Unmatured | | \$ 0.00 |
| Interest Earnings 2023-2024 | | \$ 27,470.00 |
| Coupons Paid Through 2023-2024 | | \$ 0.00 |
| Interest Earned But Unpaid 6-30-2024: | | |
| Matured | | \$ 0.00 |
| Unmatured | | \$ 27,470.00 |

SINKING FUND ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024
ESTIMATE OF NEEDS FOR 2024-2025

EXHIBIT "E"

| Schedule 2: Detail of Judgment Indebtedness as of June 30, 2024 - Not Affecting Homesteads (New) | | | | | |
|--|----------------|----------------|----------------|----------------|---------------------------|
| Judgments For Indebtedness Originally Incurred After January 8, 1937. (New) | | | | | |
| IN FAVOR OF | | | | | TOTAL ALL JUDGMENTS |
| BY WHOM OWNED | | | | | |
| PURPOSE OF JUDGMENT | | | | | |
| Case Number | | | | | |
| NAME OF COURT | | | | | |
| Date of Judgment | | | | | |
| Principal Amount of Judgment | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Interest Rate Assigned by Court | 0.00% | 0.00% | 0.00% | 0.00% | |
| Tax Levies Made | 0 | 0 | 0 | 0 | |
| Principal Amount Provided for to June 30, 2023 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Principal Amount Provided for in 2023-2024 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| PRINCIPAL AMOUNT NOT PROVIDED FOR | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| AMOUNT TO PROVIDE BY TAX LEVY FISCAL YEAR 2024-2025 | | | | | |
| Principal 1/3 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Interest | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| FOR ALL JUDGMENTS REPORTED LEVIED FOR BUT UNPAID JUDGMENT OBLIGATIONS OUTSTANDING JUNE 30, 2023 | | | | | |
| Principal | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Interest | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| JUDGMENT OBLIGATIONS SINCE LEVIED FOR: | | | | | |
| Principal | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Interest | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| JUDGMENT OBLIGATIONS SINCE PAID: | | | | | |
| Principal | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Interest | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| LEVIED BUT UNPAID JUDGMENT OBLIGATIONS OUTSTANDING JUNE 30, 2024 | | | | | |
| Principal | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Interest | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Total | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |

| Schedule 3: Prepaid Judgments as of June 30, 2024 | | | | | |
|---|---------|---------|---------|---------|-----------------------------------|
| Prepaid Judgments On Indebtedness Originating After January 8, 1937 | | | | | |
| NAME OF JUDGMENT | | | | | TOTAL ALL PREPAID JUDGMENTS |
| CASE NUMBER | | | | | |
| NAME OF COURT | | | | | |
| Date of Judgment | | | | | |
| Principal Amount of Judgment | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Tax Levies Made | 0 | 0 | 0 | 0 | |
| Unreimbursed Balance At June 30, 2023 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Reimbursement By 2023-2024 Tax Levy | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Annual Accrual On Prepaid Judgments | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Stricken By Court Order | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Asset Balance | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |

SINKING FUND ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024
ESTIMATE OF NEEDS FOR 2024-2025

EXHIBIT "E"

| Schedule 4: Sinking Fund Cash Statement | | |
|--|--------------|--------------|
| Revenue Receipts and Disbursements (Fund 41) | SINKING FUND | |
| | Detail | Extension |
| Cash on Hand June 30, 2023 | | \$ (468.17) |
| Investments Since Liquidated | \$ 0.00 | |
| COLLECTED AND APPORTIONED: | | |
| Contributions From Other Districts | \$ 0.00 | |
| 2022 and Prior Ad Valorem Tax | \$ 3,360.09 | |
| 2023 Ad Valorem Tax | \$ 83,347.53 | |
| Miscellaneous Receipts | \$ 187.28 | |
| TOTAL RECEIPTS | | \$ 86,894.90 |
| TOTAL RECEIPTS AND BALANCE | | \$ 86,426.73 |
| DISBURSEMENTS: | | |
| Coupons Paid | \$ 0.00 | |
| Interest Paid on Past-Due Coupons | \$ 0.00 | |
| Bonds Paid | \$ 0.00 | |
| Interest Paid on Past-Due Bonds | \$ 0.00 | |
| Commission Paid to Fiscal Agency | \$ 0.00 | |
| Judgments Paid | \$ 0.00 | |
| Interest Paid on Such Judgments | \$ 0.00 | |
| Investments Purchased | \$ 0.00 | |
| Judgments Paid Under 62 O.S. 1981, Sect 435 | \$ 0.00 | |
| TOTAL DISBURSEMENTS | | \$ 0.00 |
| CASH BALANCE ON HAND JUNE 30, 2024 | | \$86,426.73 |

| Schedule 5: Sinking Fund Balance Sheet | | |
|--|--------------|---------------|
| | SINKING FUND | |
| | Detail | Extension |
| Cash Balance on Hand June 30, 2024 | | \$ 86,426.73 |
| Legal Investments Properly Maturing | \$ 0.00 | |
| Judgments Paid to Recover by Tax Levy | \$ 0.00 | |
| TOTAL LIQUID ASSETS | | \$ 86,426.73 |
| DEDUCT MATURED INDEBTEDNESS: | | |
| a. Past-Due Coupons | \$ 0.00 | |
| b. Interest Accrued Thereon | \$ 0.00 | |
| c. Past-Due Bonds | \$ 0.00 | |
| d. Interest Thereon After Last Coupon | \$ 0.00 | |
| e. Fiscal Agent Commission On Above | \$ 0.00 | |
| f. Judgements and Interest Levied for But Unpaid | \$ 0.00 | |
| TOTAL Items a. Through f. (To Extension Column) | | \$ 0.00 |
| BALANCE OF ASSETS SUBJECT TO ACCRUALS | | \$ 86,426.73 |
| DEDUCT ACCRUAL RESERVES IF ASSETS SUFFICIENT: | | |
| g. Earned Unmatured Interest | \$ 27,470.00 | |
| h. Accrual on Final Coupons | \$ 0.00 | |
| i. Accrued on Unmatured Bonds | \$ 60,000.00 | |
| TOTAL Items g. Through i. (To Extension Column) | | \$ 87,470.00 |
| EXCESS OF ASSETS OVER ACCRUAL RESERVES | | \$ (1,043.27) |

| Schedule 6: Estimate of Sinking Fund Needs | | |
|--|-----------------------------|--------------------------|
| | SINKING FUND | |
| | Computed By Governing Board | Provided By Excise Board |
| Interest Earnings on Bonds | \$ 11,725.00 | \$ 11,725.00 |
| Accrual on Unmatured Bonds | \$ 70,000.00 | \$ 70,000.00 |
| Annual Accrual on "Prepaid" Judgments | \$ 0.00 | \$ 0.00 |
| Annual Accrual on Unpaid Judgments | \$ 0.00 | \$ 0.00 |
| Interest on Unpaid Judgments | \$ 0.00 | \$ 0.00 |
| Participating Contributions (Annexations): | \$ 0.00 | \$ 0.00 |
| For Credit to School Dist. No. | \$ 0.00 | \$ 0.00 |
| For Credit to School Dist. No. | \$ 0.00 | \$ 0.00 |
| For Credit to School Dist. No. | \$ 0.00 | \$ 0.00 |
| For Credit to School Dist. No. | \$ 0.00 | \$ 0.00 |
| Annual Accrual From Exhibit KK | \$ 330.79 | \$ 330.79 |
| TOTAL SINKING FUND PROVISION | \$ 82,055.79 | \$ 82,055.79 |

SINKING FUND ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024
ESTIMATE OF NEEDS FOR 2024-2025

EXHIBIT "E"

| Schedule 7: Ad Valorem Tax Account - Sinking Funds | | | |
|--|------|-------------|---------------|
| ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024 | | 7.177 Mills | |
| Gross Value | \$ | Net Value | \$ |
| | 0.00 | | 12,864,579.00 |
| Total Proceeds of Levy as Certified | | | |
| | | | \$ 92,335.08 |
| Additions: | | | |
| | | | \$ 0.00 |
| Deductions: | | | |
| | | | \$ 0.00 |
| Gross Balance Tax | | | |
| | | | \$ 92,335.08 |
| Less Reserve for Delinquent Tax | | | |
| | | | \$ 4,396.91 |
| Reserve for Protests Pending | | | |
| | | | \$ 0.00 |
| Balance Available Tax | | | |
| | | | \$ 87,938.17 |
| Deduct 2023 Tax Apportioned | | | |
| | | | \$ 83,347.53 |
| Net Balance 2023 Tax in Process of Collection | | | |
| | | | \$ 4,590.64 |
| Excess Collections | | | |
| | | | \$ 0.00 |

| Schedule 8: Sinking Fund Contributions From Other Districts Due To Boundary Changes | | | |
|---|--|-------------------|--|
| SCHOOL DISTRICT CONTRIBUTIONS | | SINKING FUND | |
| | | Actually Received | Provided For in Budget of Contributing School District |
| From School District No. | | \$ 0.00 | \$ 0.00 |
| From School District No. | | \$ 0.00 | \$ 0.00 |
| From School District No. | | \$ 0.00 | \$ 0.00 |
| From School District No. | | \$ 0.00 | \$ 0.00 |
| From School District No. | | \$ 0.00 | \$ 0.00 |
| From School District No. | | \$ 0.00 | \$ 0.00 |
| From School District No. | | \$ 0.00 | \$ 0.00 |
| From School District No. | | \$ 0.00 | \$ 0.00 |
| From School District No. | | \$ 0.00 | \$ 0.00 |
| From School District No. | | \$ 0.00 | \$ 0.00 |
| TOTALS | | \$ 0.00 | \$ 0.00 |

SINKING FUND ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024
ESTIMATE OF NEEDS FOR 2024-2025

EXHIBIT "E"

| Schedule 10: Miscellaneous Revenue | 2023-24 ACCOUNT |
|---|------------------|
| Source | Amount |
| 1000 DISTRICT SOURCES OF REVENUE: | |
| 1200 Tuition & Fees | \$ 0.00 |
| 1300 EARNINGS ON INVESTMENTS AND BOND SALES | |
| 1310 Interest Earnings | \$ 187.28 |
| 1320 Dividends on Insurance Policies | \$ 0.00 |
| 1330 Premium on Bonds Sold | \$ 0.00 |
| 1340 Accrued Interest on Bond Sales | \$ 0.00 |
| 1350 Interest on Taxes | \$ 0.00 |
| 1360 Earnings From Oklahoma Commission on School Funds Management | \$ 0.00 |
| 1370 Proceeds From Sale of Original Bonds | \$ 0.00 |
| 1390 Other Earnings on Investments | \$ 0.00 |
| TOTAL EARNINGS ON INVESTMENTS AND BOND SALES | \$ 187.28 |
| 1400 RENTAL, DISPOSALS AND COMMISSIONS | |
| 1410 Rental of School Facilities | \$ 0.00 |
| 1420 Rental of Property Other Than School Facilities | \$ 0.00 |
| 1430 Sales of Building and/or Real Estate | \$ 0.00 |
| 1440 Sales of Equipment, Services and Materials | \$ 0.00 |
| 1450 Bookstore Revenue | \$ 0.00 |
| 1460 Commissions | \$ 0.00 |
| 1470 Shop Revenue | \$ 0.00 |
| 1490 Other Rental, Disposals and Commissions | \$ 0.00 |
| TOTAL RENTAL, DISPOSALS AND COMMISSIONS | \$ 0.00 |
| 1500 Reimbursements | \$ 0.00 |
| 1600 Other Local Sources of Revenue | \$ 0.00 |
| 1700 Child Nutrition Programs | \$ 0.00 |
| 1800 Athletics | \$ 0.00 |
| TOTAL DISTRICT SOURCES OF REVENUE | \$ 187.28 |
| 2000 INTERMEDIATE SOURCES OF REVENUE: | |
| 2100 County 4 Mill Ad Valorem Tax | \$ 0.00 |
| 2200 County Apportionment (Mortgage Tax) | \$ 0.00 |
| 2300 Resale of Property Fund Distribution | \$ 0.00 |
| 2900 Other Intermediate Sources of Revenue | \$ 0.00 |
| TOTAL INTERMEDIATE SOURCES OF REVENUE | \$ 0.00 |
| 3000 STATE SOURCES OF REVENUE: | |
| 3100 Total Dedicated Revenue | \$ 0.00 |
| 3200 Total State Aid - General Operations - Non-Categorical | \$ 0.00 |
| 3300 State Aid - Competitive Grants - Categorical | \$ 0.00 |
| 3400 State - Categorical | \$ 0.00 |
| 3500 Special Programs | \$ 0.00 |
| 3600 Other State Sources of Revenue | \$ 0.00 |
| 3700 Child Nutrition Program | \$ 0.00 |
| 3800 State Vocational Programs - Multi-Source | \$ 0.00 |
| TOTAL STATE SOURCES OF REVENUE | \$ 0.00 |
| 4000 FEDERAL SOURCES OF REVENUE: | |
| TOTAL FEDERAL SOURCES OF REVENUE | \$ 0.00 |
| 5000 NON-REVENUE RECEIPTS: | |
| TOTAL NON-REVENUE RECEIPTS | \$ 0.00 |
| GRAND TOTAL | \$ 187.28 |

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TOTAL CAPITAL PROJECT FUND ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024
ESTIMATE OF NEEDS FOR 2024-2025

EXHIBIT "G"

| Schedule 1: Current Balance Sheet - June 30, 2024 | TOTAL OF ALL FUNDS |
|--|--------------------|
| ASSETS: | Amount |
| Cash Balances | \$10,122.53 |
| Investments | \$0.00 |
| TOTAL ASSETS | \$10,122.53 |
| LIABILITIES AND RESERVES: | |
| Warrants Outstanding | \$0.00 |
| Reserve for Interest on Warrants | \$0.00 |
| Reserves From Schedule 8 | \$0.00 |
| TOTAL LIABILITIES AND RESERVES | \$0.00 |
| CASH FUND BALANCE JUNE 30, 2024 | \$10,122.53 |
| TOTAL LIABILITIES, RESERVES AND CASH FUND BALANCE | \$10,122.53 |

| Schedule 3: Capital Projects Fund Total Of All Funds Cash Accounts of Current and all Prior Years | | |
|---|--------------------|---------------------|
| CURRENT AND ALL PRIOR YEARS | 2023-24 | 2023 & Prior Years |
| Cash Balance Reported to Excise Board 6-30-23 | \$0.00 | \$220,341.16 |
| REVENUES, NON-REVENUE RECEIPTS & CASH BALANCES | | |
| 1000 DISTRICT SOURCES OF REVENUE (Source 1000 to 1999) | \$62.94 | |
| 2000 INTERMEDIATE SOURCES OF REVENUE (Source 2000 to 2999) | \$0.00 | |
| 3000 STATE SOURCES OF REVENUE (Source 3000 to 3999) | \$0.00 | |
| 4000 FEDERAL SOURCES OF REVENUE (Source 4000 to 4999) | \$0.00 | |
| 5000 NON-REVENUE RECEIPTS (Source 5000 to 5999) | \$0.00 | |
| 6000 BALANCE SHEET ACCOUNTS | | |
| 6100 CASH ACCOUNTS | | |
| 6110 Cash Balances Transferred | \$18,997.26 | |
| 6130 Prior Year Lapsed Appropriations | \$0.00 | |
| 6140 Estopped Warrants | \$0.00 | |
| TOTAL CASH ACCOUNTS | \$18,997.26 | |
| 6200 Interfund Transfers | \$0.00 | |
| TOTAL BALANCE SHEET ACCOUNTS | \$18,997.26 | |
| TOTAL REVENUES, NON-REV RECEIPTS & CASH BALANCES | \$19,060.20 | \$306,343.90 |
| Warrants Paid of Year in Caption | \$8,937.67 | \$306,343.90 |
| TOTAL DISBURSEMENTS | \$8,937.67 | \$306,343.90 |
| CASH & INVESTMENTS BALANCE JUNE 30, 2024 | \$10,122.53 | \$0.00 |
| Reserve for Warrants Outstanding | \$0.00 | \$0.00 |
| Reserve for Interest on Warrants | \$0.00 | \$0.00 |
| Reserves From Schedule 8 | \$0.00 | \$0.00 |
| TOTAL LIABILITIES AND RESERVE | \$0.00 | \$0.00 |
| DEFICIT | \$0.00 | \$0.00 |
| CASH FUND BAL FORWARD TO SUCCEEDING YEAR | \$10,122.53 | \$0.00 |

| Schedule 7: Report of Prior Year Warrants Issued From Reserves | FISCAL YEAR ENDING JUNE 30, 2023 | | |
|--|----------------------------------|--------------------------|----------------------------------|
| | RESERVES 6/30/23 | WARRANTS SINCE ISSUED | BALANCE LAPSED APPROPRIATIONS |
| TOTAL PRIOR YEAR RESERVES | \$201,343.90 | \$201,343.90 | \$0.00 |

| Schedule 8: Report of Current Year Expenditures | FISCAL YEAR ENDING JUNE 30, 2024 | | |
|--|----------------------------------|---------------|-----------------------|
| | WARRANTS ISSUED | RESERVES | TOTAL EXPENDITURES |
| 1000 Instruction | \$3,757.67 | \$0.00 | \$3,757.67 |
| 2000 Support Services | \$5,180.00 | \$0.00 | \$5,180.00 |
| 3000 Operation Of Non-Instruction Services | \$0.00 | \$0.00 | \$0.00 |
| 4000 Facilities Acquisition & Constructicon Services | \$0.00 | \$0.00 | \$0.00 |
| 5000 Other Outlays | \$0.00 | \$0.00 | \$0.00 |
| 7000 Other Uses | \$0.00 | \$0.00 | \$0.00 |
| 8000 Repayments | \$0.00 | \$0.00 | \$0.00 |
| TOTAL EXPENDITURES 2023-24 FISCAL YEAR | \$8,937.67 | \$0.00 | \$8,937.67 |

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CAPITAL PROJECT FUNDS BY ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024
ESTIMATE OF NEEDS FOR 2024-2025

EXHIBIT "G"

| Schedule 1: Current Balance Sheet - June 30, 2024 | Bond | Fund 31 |
|--|------|--------------------|
| ASSETS: | | Amount |
| Cash Balances | | \$10,122.53 |
| Investments | | \$0.00 |
| TOTAL ASSETS | | \$10,122.53 |
| LIABILITIES AND RESERVES: | | |
| Warrants Outstanding | | \$0.00 |
| Reserve for Interest on Warrants | | \$0.00 |
| Reserves From Schedule 8 | | \$0.00 |
| TOTAL LIABILITIES AND RESERVES | | \$0.00 |
| CASH FUND BALANCE JUNE 30, 2024 | | \$10,122.53 |
| TOTAL LIABILITIES, RESERVES AND CASH FUND BALANCE | | \$10,122.53 |

| Schedule 3: Capital Projects Fund 31 Cash Accounts of Current and all Prior Years | | |
|---|--------------------|---------------------|
| CURRENT AND ALL PRIOR YEARS | 2023-24 | 2023 & Prior Years |
| Cash Balance Reported to Excise Board 6-30 of Year in Caption | \$0.00 | \$31,459.96 |
| REVENUES, NON-REVENUE RECEIPTS & CASH BALANCES | | |
| 1000 DISTRICT SOURCES OF REVENUE (Source 1000 to 1999) | \$62.94 | \$0.00 |
| 2000 INTERMEDIATE SOURCES OF REVENUE (Source 2000 to 2999) | \$0.00 | \$0.00 |
| 3000 STATE SOURCES OF REVENUE (Source 3000 to 3999) | \$0.00 | \$0.00 |
| 4000 FEDERAL SOURCES OF REVENUE (Source 4000 to 4999) | \$0.00 | \$0.00 |
| 5000 NON-REVENUE RECEIPTS (Source 5000 to 5999) | \$0.00 | \$0.00 |
| 6000 BALANCE SHEET ACCOUNTS | | |
| 6100 CASH ACCOUNTS | | |
| 6110 Cash Balances Transferred | \$16,517.06 | -\$16,517.06 |
| 6130 Prior Year Lapsed Appropriations | \$0.00 | |
| 6140 Estopped Warrants | \$0.00 | |
| TOTAL CASH ACCOUNTS | \$16,517.06 | -\$16,517.06 |
| 6200 Interfund Transfers | \$0.00 | |
| TOTAL BALANCE SHEET ACCOUNTS | \$16,517.06 | -\$16,517.06 |
| TOTAL REVENUES, NON-REV RECEIPTS & CASH BALANCES | \$16,580.00 | \$14,942.90 |
| Warrants Paid of Year in Caption | \$6,457.47 | \$14,942.90 |
| TOTAL DISBURSEMENTS | \$6,457.47 | \$14,942.90 |
| CASH & INVESTMENTS BALANCE JUNE 30, 2024 | \$10,122.53 | \$0.00 |
| Reserve for Warrants Outstanding | \$0.00 | \$0.00 |
| Reserve for Interest on Warrants | \$0.00 | \$0.00 |
| Reserves From Schedule 8 | \$0.00 | \$0.00 |
| TOTAL LIABILITIES AND RESERVE | \$0.00 | \$0.00 |
| DEFICIT | \$0.00 | \$0.00 |
| CASH FUND BAL FORWARD TO SUCCEEDING YEAR | \$10,122.53 | \$0.00 |

| Schedule 7: Report of Prior Year Warrants Issued From Reserves | FISCAL YEAR ENDING JUNE 30, 2023 | | |
|--|----------------------------------|--------------------------|----------------------------------|
| | RESERVES 6/30/23 | WARRANTS SINCE ISSUED | BALANCE LAPSED APPROPRIATIONS |
| TOTAL PRIOR YEAR RESERVES | \$14,942.90 | \$14,942.90 | \$0.00 |

| Schedule 8: Report of Current Year Expenditures | FISCAL YEAR ENDING JUNE 30, 2024 | | |
|--|----------------------------------|---------------|-----------------------|
| | WARRANTS ISSUED | RESERVES | TOTAL EXPENDITURES |
| 1000 Instruction | \$3,757.67 | \$0.00 | \$3,757.67 |
| 2000 Support Services | \$2,699.80 | \$0.00 | \$2,699.80 |
| 3000 Operation Of Non-Instruction Services | \$0.00 | \$0.00 | \$0.00 |
| 4000 Facilities Acquisition & Constructicon Services | \$0.00 | \$0.00 | \$0.00 |
| 5000 Other Outlays | \$0.00 | \$0.00 | \$0.00 |
| 7000 Other Uses | \$0.00 | \$0.00 | \$0.00 |
| 8000 Repayments | \$0.00 | \$0.00 | \$0.00 |
| TOTAL EXPENDITURES 2023-24 FISCAL YEAR | \$6,457.47 | \$0.00 | \$6,457.47 |

CAPITAL PROJECT FUNDS BY ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024
ESTIMATE OF NEEDS FOR 2024-2025

EXHIBIT "G"

| Schedule 1: Current Balance Sheet - June 30, 2024 | Bond | Fund 33 |
|---|------|---------|
| ASSETS: | | Amount |
| Cash Balances | | \$0.00 |
| Investments | | \$0.00 |
| TOTAL ASSETS | | \$0.00 |
| LIABILITIES AND RESERVES: | | |
| Warrants Outstanding | | \$0.00 |
| Reserve for Interest on Warrants | | \$0.00 |
| Reserves From Schedule 8 | | \$0.00 |
| TOTAL LIABILITIES AND RESERVES | | \$0.00 |
| CASH FUND BALANCE JUNE 30, 2024 | | \$0.00 |
| TOTAL LIABILITIES, RESERVES AND CASH FUND BALANCE | | \$0.00 |

| Schedule 3: Capital Projects Fund 33 Cash Accounts of Current and all Prior Years | 2023-24 | 2023 & Prior Years |
|---|------------|--------------------|
| CURRENT AND ALL PRIOR YEARS | | |
| Cash Balance Reported to Excise Board 6-30 of Year in Caption | \$0.00 | \$188,881.20 |
| REVENUES, NON-REVENUE RECEIPTS & CASH BALANCES | | |
| 1000 DISTRICT SOURCES OF REVENUE (Source 1000 to 1999) | \$0.00 | \$0.00 |
| 2000 INTERMEDIATE SOURCES OF REVENUE (Source 2000 to 2999) | \$0.00 | \$0.00 |
| 3000 STATE SOURCES OF REVENUE (Source 3000 to 3999) | \$0.00 | \$0.00 |
| 4000 FEDERAL SOURCES OF REVENUE (Source 4000 to 4999) | \$0.00 | \$0.00 |
| 5000 NON-REVENUE RECEIPTS (Source 5000 to 5999) | \$0.00 | \$0.00 |
| 6000 BALANCE SHEET ACCOUNTS | | |
| 6100 CASH ACCOUNTS | | |
| 6110 Cash Balances Transferred | \$2,480.20 | -\$2,480.20 |
| 6130 Prior Year Lapsed Appropriations | \$0.00 | |
| 6140 Estopped Warrants | \$0.00 | |
| TOTAL CASH ACCOUNTS | \$2,480.20 | -\$2,480.20 |
| 6200 Interfund Transfers | \$0.00 | |
| TOTAL BALANCE SHEET ACCOUNTS | \$2,480.20 | -\$2,480.20 |
| TOTAL REVENUES, NON-REV RECEIPTS & CASH BALANCES | \$2,480.20 | \$186,401.00 |
| Warrants Paid of Year in Caption | \$2,480.20 | \$186,401.00 |
| TOTAL DISBURSEMENTS | \$2,480.20 | \$186,401.00 |
| CASH & INVESTMENTS BALANCE JUNE 30, 2024 | \$0.00 | \$0.00 |
| Reserve for Warrants Outstanding | \$0.00 | \$0.00 |
| Reserve for Interest on Warrants | \$0.00 | \$0.00 |
| Reserves From Schedule 8 | \$0.00 | \$0.00 |
| TOTAL LIABILITIES AND RESERVE | \$0.00 | \$0.00 |
| DEFICIT | \$0.00 | \$0.00 |
| CASH FUND BAL FORWARD TO SUCCEEDING YEAR | \$0.00 | \$0.00 |

| Schedule 7: Report of Prior Year Warrants Issued From Reserves | FISCAL YEAR ENDING JUNE 30, 2023 | | |
|--|----------------------------------|--------------------------|----------------------------------|
| | RESERVES 6/30/23 | WARRANTS SINCE ISSUED | BALANCE LAPSED APPROPRIATIONS |
| TOTAL PRIOR YEAR RESERVES | \$186,401.00 | \$186,401.00 | \$0.00 |

| Schedule 8: Report of Current Year Expenditures | FISCAL YEAR ENDING JUNE 30, 2024 | | |
|---|----------------------------------|----------|-----------------------|
| | WARRANTS ISSUED | RESERVES | TOTAL EXPENDITURES |
| 1000 Instruction | \$0.00 | \$0.00 | \$0.00 |
| 2000 Support Services | \$2,480.20 | \$0.00 | \$2,480.20 |
| 3000 Operation Of Non-Instruction Services | \$0.00 | \$0.00 | \$0.00 |
| 4000 Facilities Acquisition & Construction Services | \$0.00 | \$0.00 | \$0.00 |
| 5000 Other Outlays | \$0.00 | \$0.00 | \$0.00 |
| 7000 Other Uses | \$0.00 | \$0.00 | \$0.00 |
| 8000 Repayments | \$0.00 | \$0.00 | \$0.00 |
| TOTAL EXPENDITURES 2023-24 FISCAL YEAR | \$2,480.20 | \$0.00 | \$2,480.20 |

CERTIFICATE OF EXCISE BOARD

State of Oklahoma, County of Comanche

We, do further certify that we have examined the statement of estimated needs for the current fiscal year ending June 30, 2024, as certified by the Board of Education of Sterling Public Schools, District Number I-3 of said County and State, and its financial statement for the preceding year, and in so doing we have diligently performed the duties imposed upon this Excise Board by 68 O. S. 2001 Section 3007, by (1) ascertaining that the financial statements, as to the statistics therein contained, reflect the true fiscal condition at the close of the fiscal year, or caused the same to be corrected so to show; (2) struck from the estimate of needs so submitted any items not authorized by law and reduced to the sum authorized by law any items restricted by statute as to the amount lawfully expendable therefor; (3) supplemented such estimate, after appropriate action, by an estimate of needs prepared by this Excise Board to make provision for mandatory functions based upon statistics authoritatively submitted; (4) computed the total means available to each fund in the manner provided, applying the Governing Board's estimate of revenue to be derived from surplus tax of the immediately preceding year and from sources other than ad valorem tax, or reduced such estimate to not less than the lawfully authorized ratio of the several sums realized from such sources during the preceding fiscal year or to such lesser sum as may reasonably be anticipated under altered law or circumstance and using for such determination the basic collections of the preceding year and the ratios on which distribution or apportionment must be made during the ensuing or current year.

To the several and specific purposes of the estimated needs as certified, we have and do hereby appropriate the surplus balances of cash on hand of the prior year, estimates of income from sources other than ad valorem taxation within the limitation fixed by law, and the proceeds of ad valorem tax levy within the number of mills authorized, either by apportionment by the Legislature, allocation by the excise board or by legal election, all of which appropriations are made in so far as the available surpluses, revenues, and levies will permit, except in that we have also provided that, after deducting items consisting of cash and the revenue from all sources other than the 2024 tax and the proceeds of the 2024 tax levy are in excess of the residue of such appropriations, by a sum included for delinquent tax, computed at .0% of such residue. And provided further, if said School District has been ascertained to be a well defined State Aid District, the local budget, as approved and appropriated for, has been applied wholly to its operating accounts.

We further certify that the amount required to be raised from tax, excluding Homesteads, for General Revenue Fund purposes as approved, requires a total ad valorem tax levy of 35.000 Mills. Said levy is within the statutory limit, and if in excess, is within the constitutional limit and has been authorized by a vote of the people of said district, as shown by certificate of the School Board to-wit:

To this District, with valuations shown below, the Excise Board allocated 5.000 Mills, plus 15.000 Mills authorized by the Constitution, plus an emergency levy of 5.000 Mills; plus local support levy of 10.000 Mills; for a total levy for the General Fund of 35.000 Mills.

We further certify that the amount required to be raised for building fund purposes as approved requires a tax levy of 5.000 Mills, and said levy has been certified as authorized by a vote of the people at an election held for that purpose. We further certify that Assessed Values used in computing Mill-vote levies have been applied as certified by the County Assessor.

We further certify that we have examined the within statements of account and estimated needs or requirements of the Governing Board of Sterling Public Schools, School District No. I-3 of said County and State, in relation to the Sinking Fund or Funds thereof, and after finding the same correct or having caused the same to be corrected pursuant to 68 O. S. 2001 Section 3009, have approved the requirements therefor to fulfill the conditions of Section 26 and 28 of Article 10, Oklahoma Constitution, and have made and certified a tax levy therefor to the extent of the excess of said total requirements over the total of items 2, 3, 6, and 12 of Exhibit Y and any other legal deduction, including a reserve of .0% for delinquent taxes.

CERTIFICATE OF EXCISE BOARD
ESTIMATE OF NEEDS FOR 2024-2025

| EXHIBIT "Y" | | | | | |
|---|-----------------|---------------|------------|----------------------|------------------------------------|
| County Excise Board's Appropriation of Income and Revenue | General Fund | Building Fund | Co-op Fund | Child Nutrition Fund | New Sinking Fund (Exc. Homesteads) |
| Appropriation Approved and Provision Made | \$ 3,712,962.18 | \$ 359,070.38 | \$ 0.00 | \$ 0.00 | \$ 82,055.79 |
| Appropriation of Revenues: | | | | | |
| Excess of Assets Over Liabilities | \$ 299,919.44 | \$ 233,771.51 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Unclaimed Protest Tax Refunds | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Miscellaneous Estimated Revenues | \$ 2,954,749.69 | \$ 60,000.00 | \$ 0.00 | \$ 0.00 | None |
| Est. Value of Surplus Tax in Process | \$ 3,316.05 | \$ 273.48 | \$ 0.00 | \$ 0.00 | None |
| Sinking Fund Contributions | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Surplus Building Fund Cash | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Total Other Than 2024 Tax | \$ 3,257,985.18 | \$ 294,044.99 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Balance Required | \$ 454,977.00 | \$ 65,025.39 | \$ 0.00 | \$ 0.00 | \$ 82,055.79 |
| Add Allowance for Delinquency | \$ 45,497.70 | \$ 6,502.54 | \$ 0.00 | \$ 0.00 | \$ 4,102.79 |
| Total Required for 2024 Tax | \$ 500,474.70 | \$ 71,527.93 | \$ 0.00 | \$ 0.00 | \$ 86,158.58 |
| Rate of Levy Required and Certified | ----- | ----- | ----- | ----- | 6.50 Mills |

We further certify that the net assessed valuation of the Property, subject to ad valorem taxes, after the amount of all Homestead Exemptions have been deducted in the said School District as finally equalized and certified by the Board of Equalization for the current year 2024-2025 is as follows:

| VALUATION AND LEVIES EXCLUDING HOMESTEADS | | | | |
|---|---------------|------------|----------------|---------------|
| County | Real | Personal | Public Service | Total |
| This County Comanche | \$ 9,870,101 | \$ 807,583 | \$ 1,389,723 | \$ 12,067,407 |
| Joint County Grady | \$ 725,765 | \$ 80,552 | \$ 917 | \$ 807,234 |
| Joint County Stephens | \$ 360,051 | \$ 8,885 | \$ 1,885 | \$ 370,821 |
| Joint County | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Joint County | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Joint County | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Joint County | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Joint County | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Joint County | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Joint County | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Joint County | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Joint County | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Joint County | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Joint County | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Joint County | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Total Valuations, All Counties | \$ 10,955,917 | \$ 897,020 | \$ 1,392,525 | \$ 13,245,462 |

The assessed valuations herein certified have been used in computing the rates of mill levies and the proceeds thereof appropriated as aforesaid; and that having ascertained as aforesaid, the aggregate amount to be raised by ad valorem taxation, be raised by ad valorem taxation, we thereupon made the above levies therefor as provided by law as follows:

CERTIFICATE OF EXCISE BOARD
ESTIMATE OF NEEDS FOR 2024-2025

| EXHIBIT "Y" Continued: | | Primary County And All Joint Counties | | | | |
|--------------------------------|----------|---|---------------|----------------------|-----------------------------|------------------|
| Levies Required and Certified: | | Valuation And Levies Excluding Homesteads | | | Total Required For 2024 Tax | |
| County | | General Fund | Building Fund | Total Valuation | General | Building |
| This County | Comanche | 37.85 Mills | 5.41 Mills | \$ 12,067,407 | \$ 456,751 | \$ 65,285 |
| Joint Co. | Grady | 37.48 Mills | 5.35 Mills | \$ 807,234 | \$ 30,255 | \$ 4,319 |
| Joint Co. | Stephens | 36.32 Mills | 5.19 Mills | \$ 370,821 | \$ 13,468 | \$ 1,925 |
| Joint Co. | | 0.00 Mills | 0.00 Mills | \$ 0 | \$ 0 | \$ 0 |
| Joint Co. | | 0.00 Mills | 0.00 Mills | \$ 0 | \$ 0 | \$ 0 |
| Joint Co. | | 0.00 Mills | 0.00 Mills | \$ 0 | \$ 0 | \$ 0 |
| Joint Co. | | 0.00 Mills | 0.00 Mills | \$ 0 | \$ 0 | \$ 0 |
| Joint Co. | | 0.00 Mills | 0.00 Mills | \$ 0 | \$ 0 | \$ 0 |
| Joint Co. | | 0.00 Mills | 0.00 Mills | \$ 0 | \$ 0 | \$ 0 |
| Joint Co. | | 0.00 Mills | 0.00 Mills | \$ 0 | \$ 0 | \$ 0 |
| Joint Co. | | 0.00 Mills | 0.00 Mills | \$ 0 | \$ 0 | \$ 0 |
| Joint Co. | | 0.00 Mills | 0.00 Mills | \$ 0 | \$ 0 | \$ 0 |
| Joint Co. | | 0.00 Mills | 0.00 Mills | \$ 0 | \$ 0 | \$ 0 |
| Joint Co. | | 0.00 Mills | 0.00 Mills | \$ 0 | \$ 0 | \$ 0 |
| Joint Co. | | 0.00 Mills | 0.00 Mills | \$ 0 | \$ 0 | \$ 0 |
| Totals | | | | \$ 13,245,462 | \$ 500,475 | \$ 71,528 |

Sinking Fund: 6.50 Mills

We do hereby order the above levies to be certified forthwith by the Secretary of this Board to the County Assessor of said County, in order that the County Assessor may immediately extend said levies upon the Tax Rolls for the year 2024 without regard to any protest that may be filed against any levies, as required by 68 O. S. 2001, Section 2869.

Signed at _____, Oklahoma, this _____ day of _____, _____

Excise Board Member

Excise Board Chairman

Excise Board Member

Excise Board Secretary

Joint School District Levy Certification for Sterling Public Schools I-3

Career Tech District Number _____: General Fund _____

Building Fund _____

State of Oklahoma)

) ss

County of Comanche)

I, _____, Comanche County Clerk, do hereby certify that the above levies are true and correct for the taxable year 2024.

Witness my hand and seal, on _____, _____.

Comanche County Clerk

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ALL FUND ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024
STATISTICAL DATA FOR 2024-2025

EXHIBIT "Z"

Schedule I: SUMMARY RECAPITULATION OF SCHOOL COSTS FOR THE FISCAL YEAR ENDING JUNE 30, 2024, AND
APPORTIONMENT THEREOF

| CLASSIFICATION | ACCUMULATION OF EXPENDITURES AND UNLIQUIDATED COMMITMENTS TO DETERMINE PER CAPITA COSTS | | | | | |
|-------------------------------|--|----------------------------|---------------------|-----------------|-----------------------------|-----------------------------|
| | GENERAL REVENUE FUND | CHILD NUTRITION FUND | BUILDING FUND | SINKING FUND | SPECIAL REVENUE FUNDS | CAPITAL PROJECT FUNDS |
| Current Exp. - Educational | \$ 3,044,352.34 | \$ 0.00 | \$ 82,019.19 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Current Exp. - Transportation | \$ 106,907.67 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Current Res. - Educational | \$ 2,279.85 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Current Res. - Transportation | \$ 202.27 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Capital Exp. - Educational | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Capital Exp. - Transportation | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Capital Res. - Educational | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Capital Res. - Transportation | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Interest Paid and Reserved | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| TOTALS | \$ 3,153,742.13 | \$ 0.00 | \$ 82,019.19 | \$ 0.00 | \$ 0.00 | \$ 0.00 |

| | | | | | |
|--------------------|------|-------------------------------------|------|-------------------------------|------|
| Enumeration | 0.00 | Average Daily Attendance | 0.00 | Average Daily Haul | 0.00 |
|--------------------|------|-------------------------------------|------|-------------------------------|------|

| Expenditures and Reserves | ENTERPRISE FUNDS | ACTIVITY FUNDS | EXPENDABLE TRUST FUNDS | NON- EXPENDABLE TRUST FUNDS | INTERNAL SERVICE FUNDS |
|---------------------------------------|---------------------|-------------------|------------------------------|--------------------------------------|------------------------------|
| Current Expenditures - Educational | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Current Expenditures - Transportation | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Current Reserves - Educational | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Current Reserves - Transportation | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Capital Expenditures - Educational | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Capital Expenditures - Transportation | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Capital Reserves - Educational | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Capital Reserves - Transportation | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Interest Paid and Reserved | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| TOTALS | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 | \$ 0.00 |

| | | | | |
|-----------------------------|------------------|---------|-----------------------|---------|
| Per Capita Cost for: | Education | \$ 0.00 | Transportation | \$ 0.00 |
|-----------------------------|------------------|---------|-----------------------|---------|

| Expenditures and Reserves | TOTAL OF ALL APPLICABLE COSTS 2023-2024 | OPERATION COSTS ONLY | TRANSPORTATION COSTS ONLY |
|---------------------------------------|--|-------------------------|------------------------------|
| Current Expenditures - Educational | \$ 3,126,371.53 | \$ 3,126,371.53 | \$ 0.00 |
| Current Expenditures - Transportation | \$ 106,907.67 | \$ 0.00 | \$ 106,907.67 |
| Current Reserves - Educational | \$ 2,279.85 | \$ 2,279.85 | \$ 0.00 |
| Current Reserves - Transportation | \$ 202.27 | \$ 0.00 | \$ 202.27 |
| Capital Expenditures - Educational | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Capital Expenditures - Transportation | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Capital Reserves - Educational | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Capital Reserves - Transportation | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| Interest Paid and Reserved | \$ 0.00 | \$ 0.00 | \$ 0.00 |
| TOTALS | \$ 3,235,761.32 | \$ 3,128,651.38 | \$ 107,109.94 |

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SINKING FUND ACCOUNTS COVERING THE PERIOD JULY 1, 2023 TO JUNE 30, 2024

EXHIBIT KK

CALCULATION OF ACCRUALS WHERE A DEFICIT EXISTS

Sterling Public Schools, School District No. I-3, Comanche County, Oklahoma

EXHIBIT "KK"

| DETERMINATION OF REQUIREMENTS FOR SINKING FUND WHEN A DEFICIT EXISTS | Amount |
|--|--------------|
| A. Total Liquid Assets at 6-30-2024 (From Schedule 5) | \$ 86,426.73 |
| B. Less Cash Requirements for the Current Fiscal Year (Cash Basis): | |
| b1. Unmatured Coupons Due Before 4-1-2025 | \$ 0.00 |
| b2. Unmatured Bonds So Due | \$ 0.00 |
| C. Remainder For Line E Below | \$ 0.00 |
| D. Deficit as Shown on Sinking Fund Balance Sheet (From Schedule 5) | \$ 1,043.27 |
| E. Less Cash Requirements for Current Fiscal Year in Excess of Cash on Hand (Line C) | \$ 0.00 |
| F. Total Deficit Remaining | \$ 1,043.27 |

| Purpose of Bond Issue | Date of Issue | Unmatured Bonds Outstanding | Percentage of Column 3 to Total Bonds Outstanding | Column 4 Times Remaining Deficit | Years Yet to Run | Deficit Requirement for Each Remaining Year |
|---|---------------|-----------------------------|---|----------------------------------|------------------|---|
| 2022 Building Bonds | 7/1/2022 | \$ 60,000.00 | 14.634% | \$ 152.67 | 0 | \$ 152.67 |
| 2022 Building Bonds | 7/1/2022 | \$ 350,000.00 | 85.366% | \$ 890.60 | 5 | \$ 178.12 |
| Totals from Columns | | \$ 410,000.00 | 100.000% | \$ 1,043.27 | - | \$ 330.79 |
| Plus Deficit from Line E Above | | | | | | \$ 0.00 |
| Transfer Total to Sinking Fund Estimate of Needs (Schedule 6) | | | | | | \$ 330.79 |

**Sterling Public Schools
2024-25 Budget Summary
General Fund**

| CODE | SOURCE | 2024-25 Estimated Revenue |
|-------------|---|--|
| 1110 | Ad Valorem Tax-current | 454,977.00 |
| 1120 | Ad Valorem Tax-prior | 3,316.05 |
| 1700 | Child Nutrition Local Sources | 40,404.53 |
| 2100 | 4-Mill Levy | 47,000.41 |
| 2200 | Mortgage Tax | 7,178.66 |
| 3110 | Gross Production Tax | 400.00 |
| 3120 | Motor Vehicle Collections | 140,000.00 |
| 3130 | R.E.A. Tax | 85,000.00 |
| 3140 | State School Land Earnings | 55,000.00 |
| 3150 | Vehicle Tax Stamps | 200.00 |
| 3210 | Foundation & Salary Incentive | 1,676,049.00 |
| 3250 | Flexible Benefit | 275,000.00 |
| 3400 | State - Categorical - Textbooks | 20,359.00 |
| 3400 | State - Categorical - Reading Sufficiency | 2,500.00 |
| 3400 | State - Categorical - Resource Officer | 159,927.89 |
| 3600 | Other State Sources (ACE) | 2,000.00 |
| 3700 | Child Nutrition State Sources | 1,500.00 |
| 3800 | Vocational - State | 33,720.00 |
| 4100 | Indian Education | 11,064.00 |
| 4100 | Impact Aid | 2,000.00 |
| 4100 | Small, Rural School Ach. Program | 33,524.00 |
| 4200 | Title I | 50,000.00 |
| 4200 | Title II, Part A | 10,000.00 |
| 4300 | IDEA-B Flowthrough | 68,810.93 |
| 4300 | IDEA-B Pre-School | 2,084.35 |
| 4300 | IDEA-B Prof Dev | 500.00 |
| 4400 | Title IV, Part A | 10,000.00 |
| 4600 | Stronger Connection Grant - 715 | 75,526.92 |
| 4700 | Child Nutrition Federal Sources - Lunches | 95,000.00 |
| 4700 | Child Nutrition Federal Sources - Breakfast | 35,000.00 |
| 5100 | Non-Revenue Receipts | 15,000.00 |

| | |
|-------------------------------------|-------------------------------|
| Total Revenue Estimates | 3,413,042.74 |
| Fund Balance, 7-01-24 | <u>299,919.44</u> |
| TOTAL 2024-25 APPROPRIATIONS | <u>\$ 3,712,962.18</u> |

Note - The above appropriation amount is the maximum amount that you can legally obligate your school district encumbrances and payments. If you exceed this amount, you must add to your appropriations.

CERTIFIED and ADJUNCT SALARY SCHEDULE

| <u>YEAR OF EXPERIENCE</u> | <u>BACHELOR'S DEGREE</u> | <u>MASTER'S DEGREE</u> | <u>DOCTORATE DEGREE</u> |
|----------------------------------|---------------------------------|-------------------------------|--------------------------------|
| 0 | 40821 | 42211 | 43601 |
| 1 | 41255 | 42645 | 44035 |
| 2 | 41689 | 43079 | 44469 |
| 3 | 42124 | 43514 | 44904 |
| 4 | 42558 | 43948 | 45338 |
| 5 | 44030 | 45420 | 46810 |
| 6 | 44493 | 45883 | 47274 |
| 7 | 44957 | 46347 | 47737 |
| 8 | 45420 | 46810 | 48200 |
| 9 | 45883 | 47274 | 48664 |
| 10 | 47904 | 49788 | 52165 |
| 11 | 48397 | 50281 | 52658 |
| 12 | 48890 | 50774 | 53151 |
| 13 | 49382 | 51267 | 53644 |
| 14 | 49875 | 51759 | 54136 |
| 15 | 51387 | 53272 | 55650 |
| 16 | 51880 | 53765 | 56143 |
| 17 | 52373 | 54258 | 56636 |
| 18 | 52866 | 54751 | 57129 |
| 19 | 53359 | 55244 | 57622 |
| 20 | 53872 | 55758 | 58137 |
| 21 | 54365 | 56251 | 58630 |
| 22 | 54859 | 56744 | 59123 |
| 23 | 55352 | 57238 | 59617 |
| 24 | 55845 | 57731 | 60110 |
| 25 | 57269 | 59191 | 61615 |
| 26 | 57669 | 59991 | 62015 |
| 27 | 58069 | 60791 | 62415 |
| 28 | 58469 | 61591 | 62815 |
| 29 | 58869 | 62391 | 63215 |
| 30 | 59269 | 63191 | 63615 |