

# Lampasas River Watershed Partnership

Agriculture and Wildlife Work Group Meeting  
October 18, 2010

Lisa Prcin  
Watershed Coordinator  
Texas AgriLife Research at  
Blackland Research & Extension Center

# Introductions



# Past Business

# Steering Committee Report

- ▶ Members approved the dissolution of Education and Outreach Group
  - Tasks will be distributed between Urban NPS and Agriculture and Wildlife Work Groups
  - Tasks are:
    - Defining target audiences for both broad-based and source-specific outreach and awareness programs
    - Develop strategies to reach these audiences
- ▶ David Cole, Kempner Water Supply Corp requested to be removed from the Steering Committee
  - Members approved the Mr. Cole's resignation and decided to not to replace his position at this time

# Steering Committee Report

- ▶ Reviewed *E. coli* Load Duration Curves
  - Analyses indicated that load reductions were only needed in periods of high flow
  - Pollutants are very difficult to control in the high flow regime
- ▶ Steering Committee voted and approved a margin of safety (MOS) level set at 0%
  - Agreed that the Texas Surface Water Quality Standards had a 'built-in' MOS
- ▶ Discussed and made recommendations for water quality sampling points for Bacterial Source Tracking project

# 2010 Integrated Report

- ▶ DRAFT 2010 Texas Integrated Report was approved by the TCEQ Commissioners on August 25<sup>th</sup>
- ▶ Draft has been sent to EPA for final approval
- ▶ Lampasas River is NOT listed as impaired on draft, pending EPA's approval

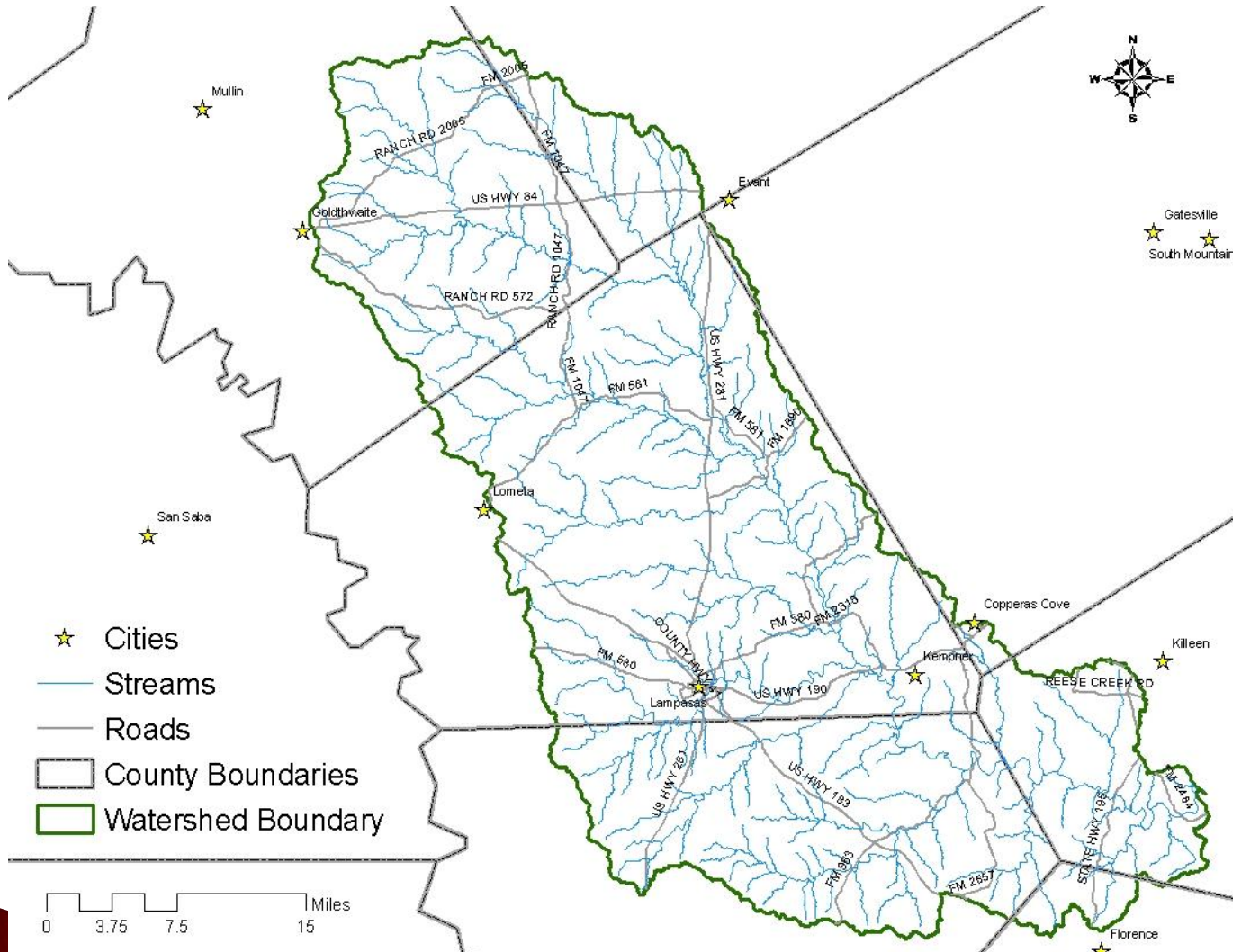
# Prioritize Subwatersheds for BMPs

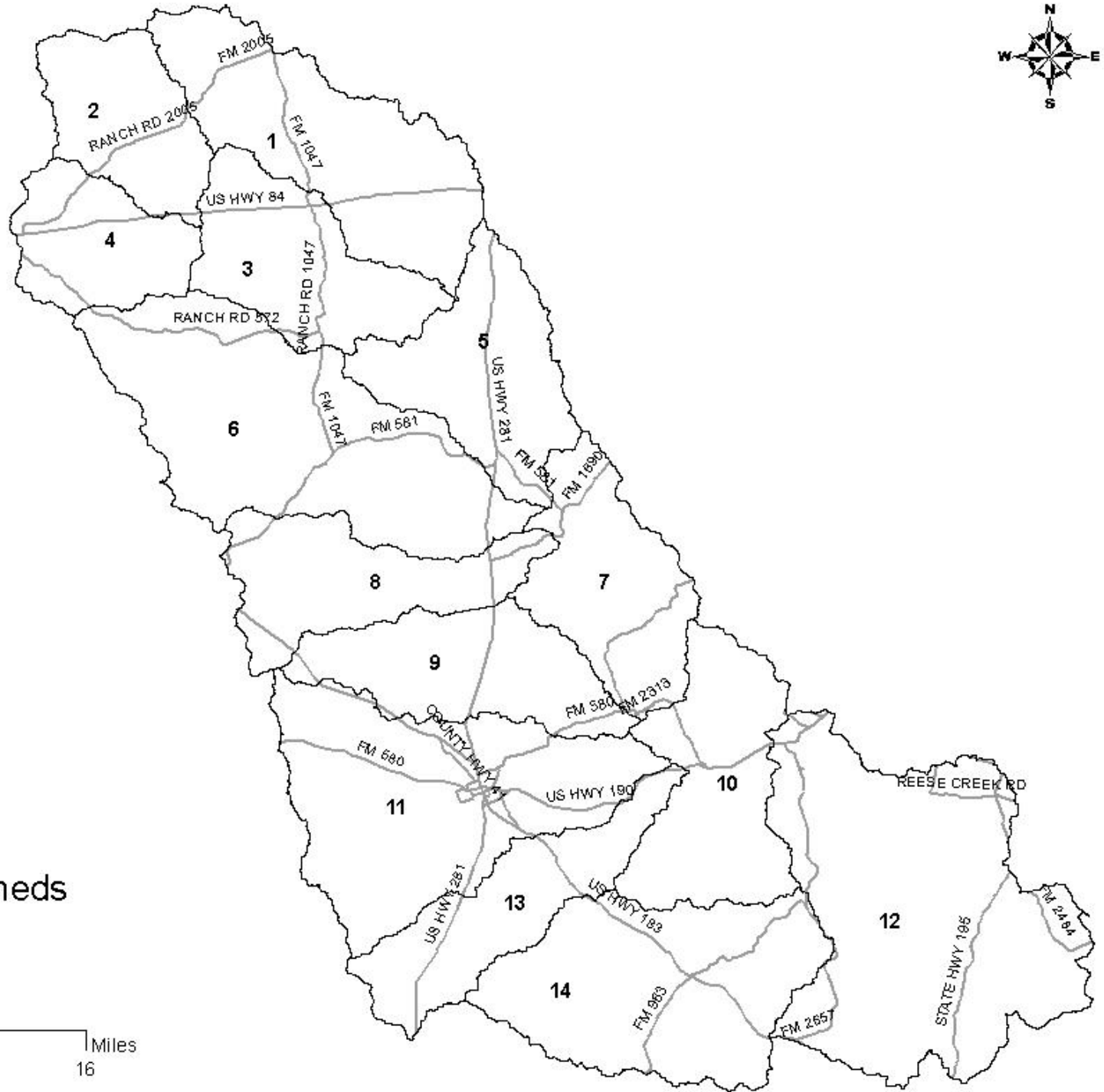
# Potential Sources with SELECT Analysis

- ▶ Urban NPS Work Group
  - Septic Systems
  - Wastewater Treatment Facilities
  - Dogs
- ▶ Agriculture & Wildlife Work Group
  - Horses
  - Goats
  - Sheep
  - Cattle
  - Confined Animal Feeding Operations
  - Deer
  - Feral Hogs

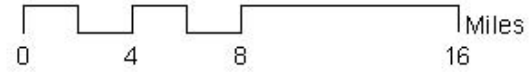


# Lampasas River Watershed

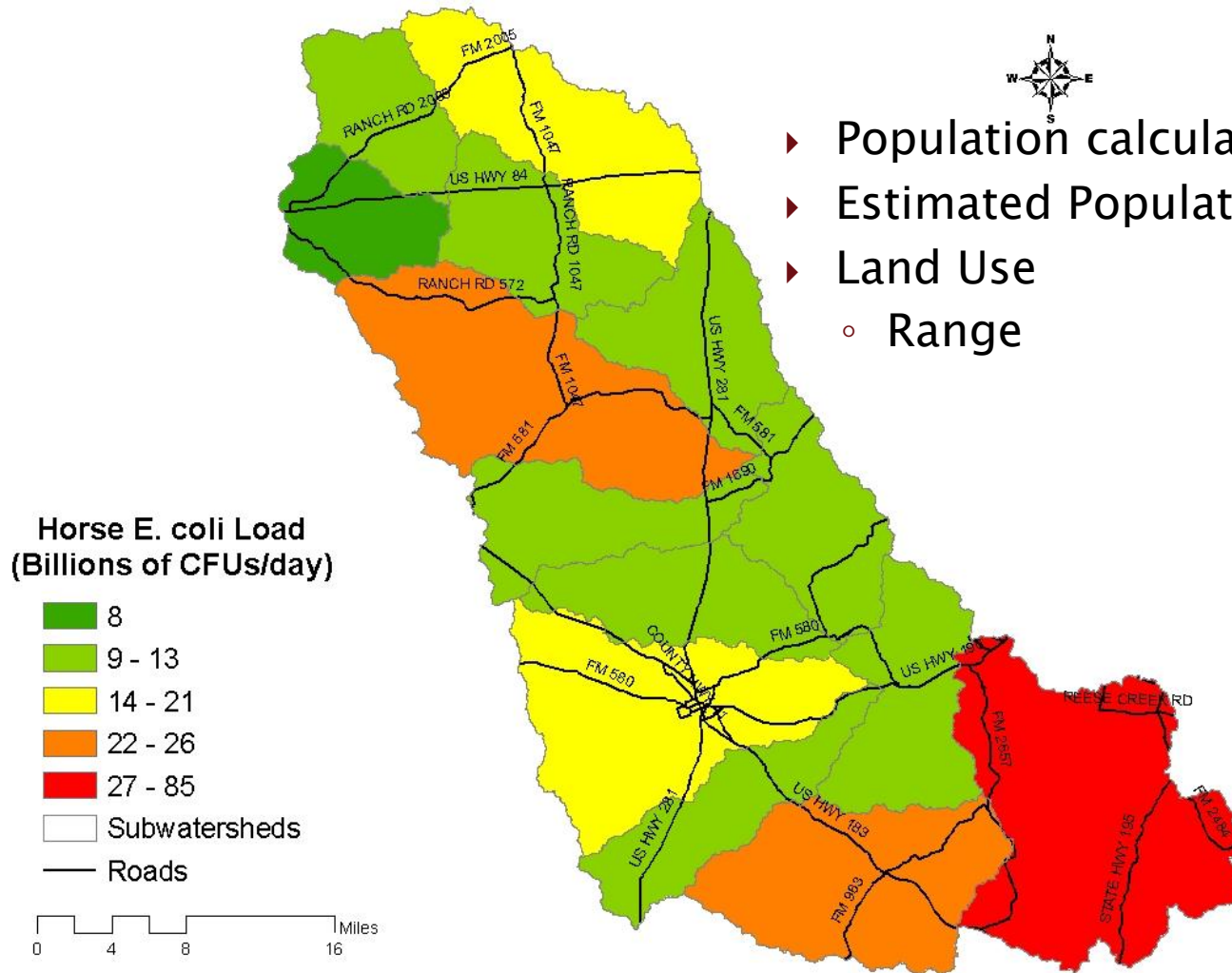




□ Subwatersheds  
— Roads

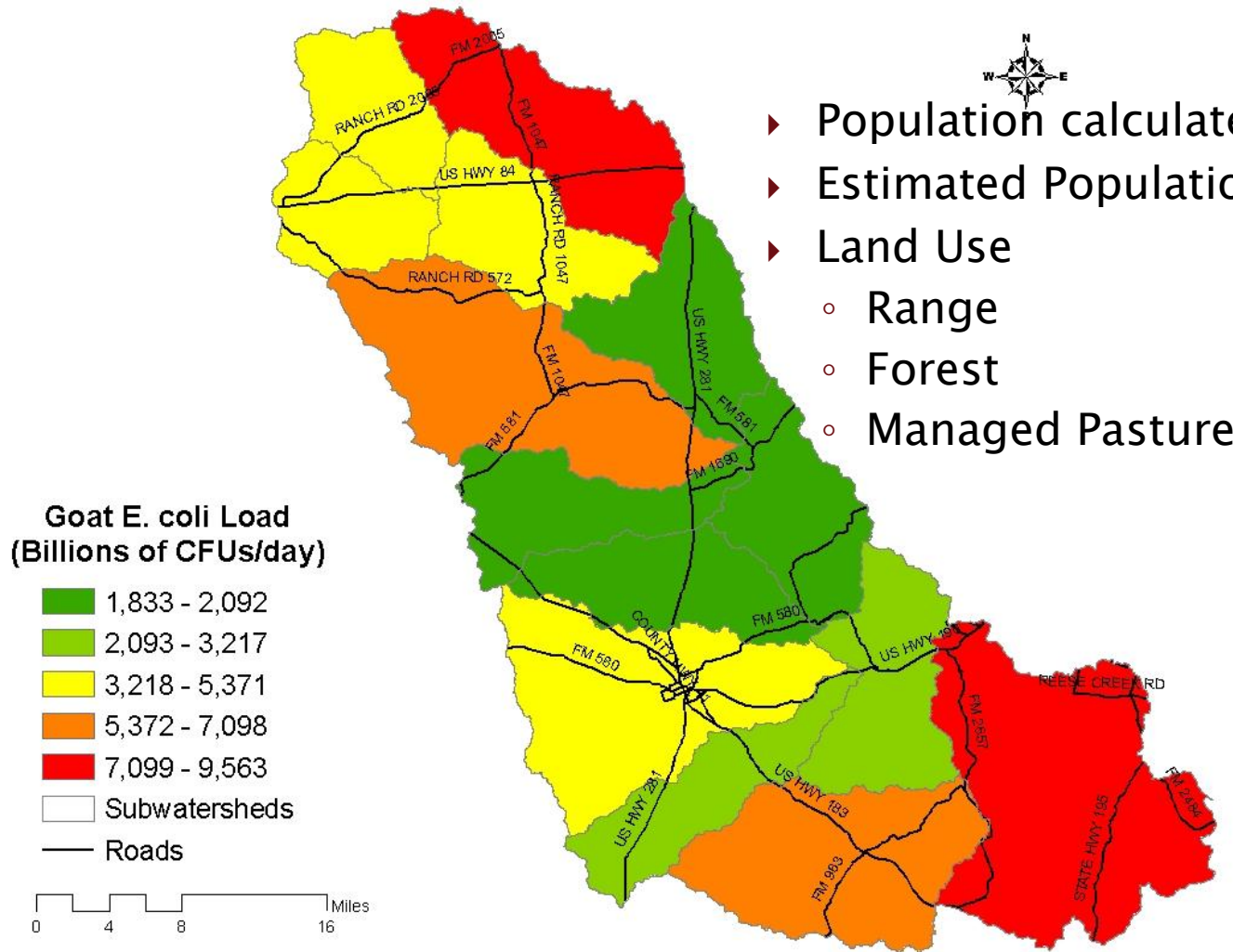


# Potential *E. coli* loads resulting from Horses

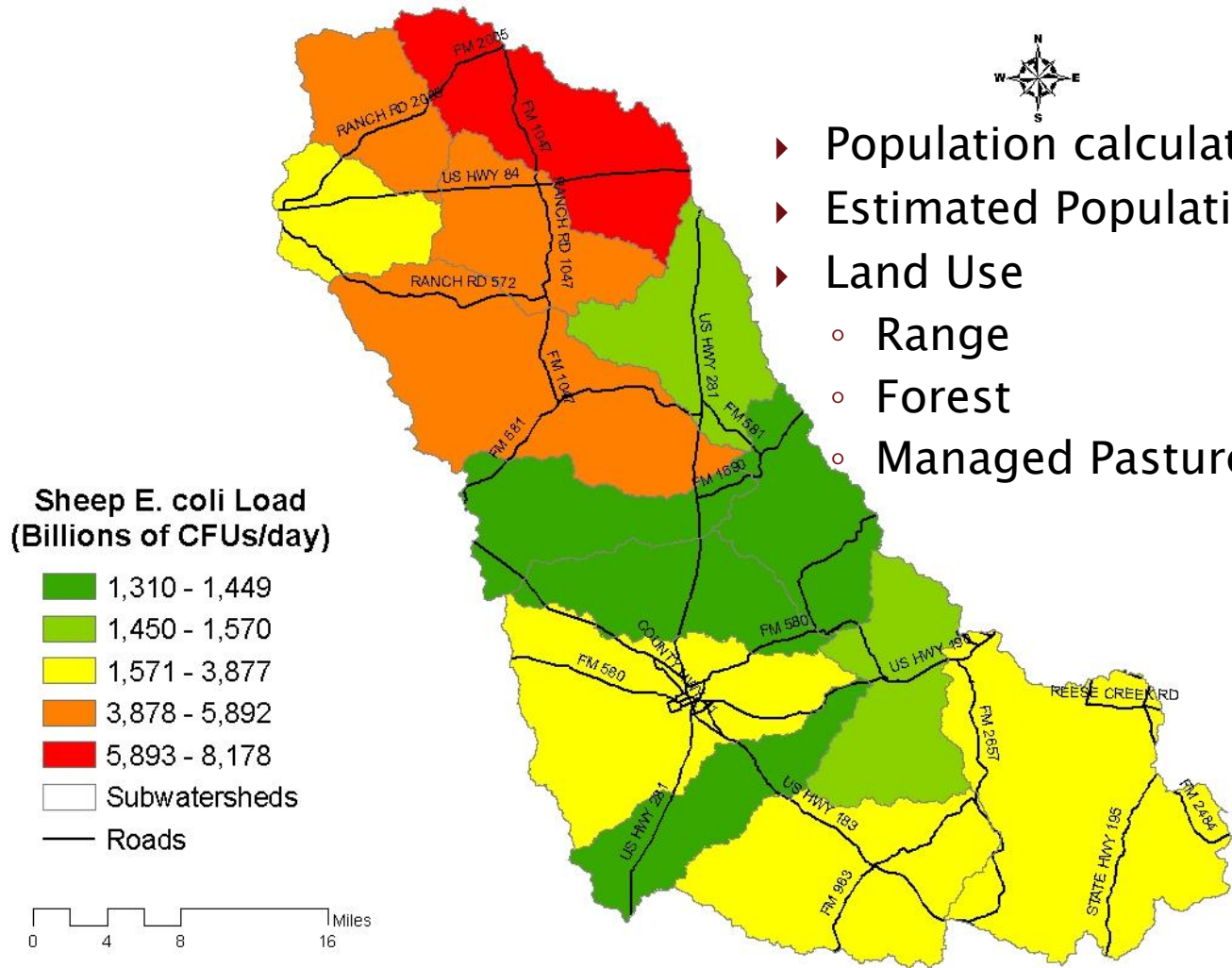


- ▶ Population calculated using NAS data
- ▶ Estimated Population: 1,288
- ▶ Land Use
  - Range

# Potential *E. coli* loads resulting from Goats

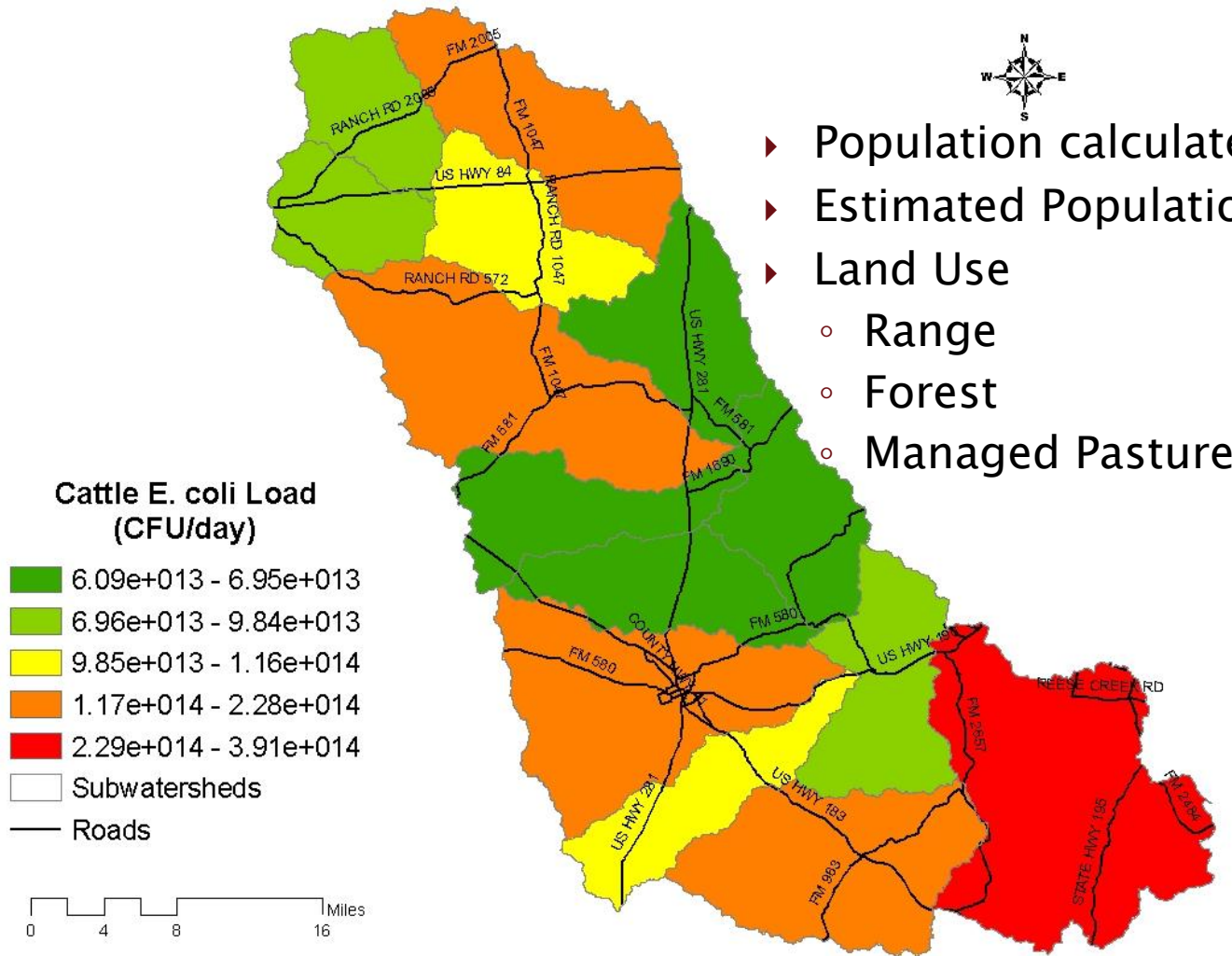


# Potential *E. coli* loads resulting from Sheep



- ▶ Population calculated using NAS data
- ▶ Estimated Population: 7,311
- ▶ Land Use
  - Range
  - Forest
  - Managed Pasture

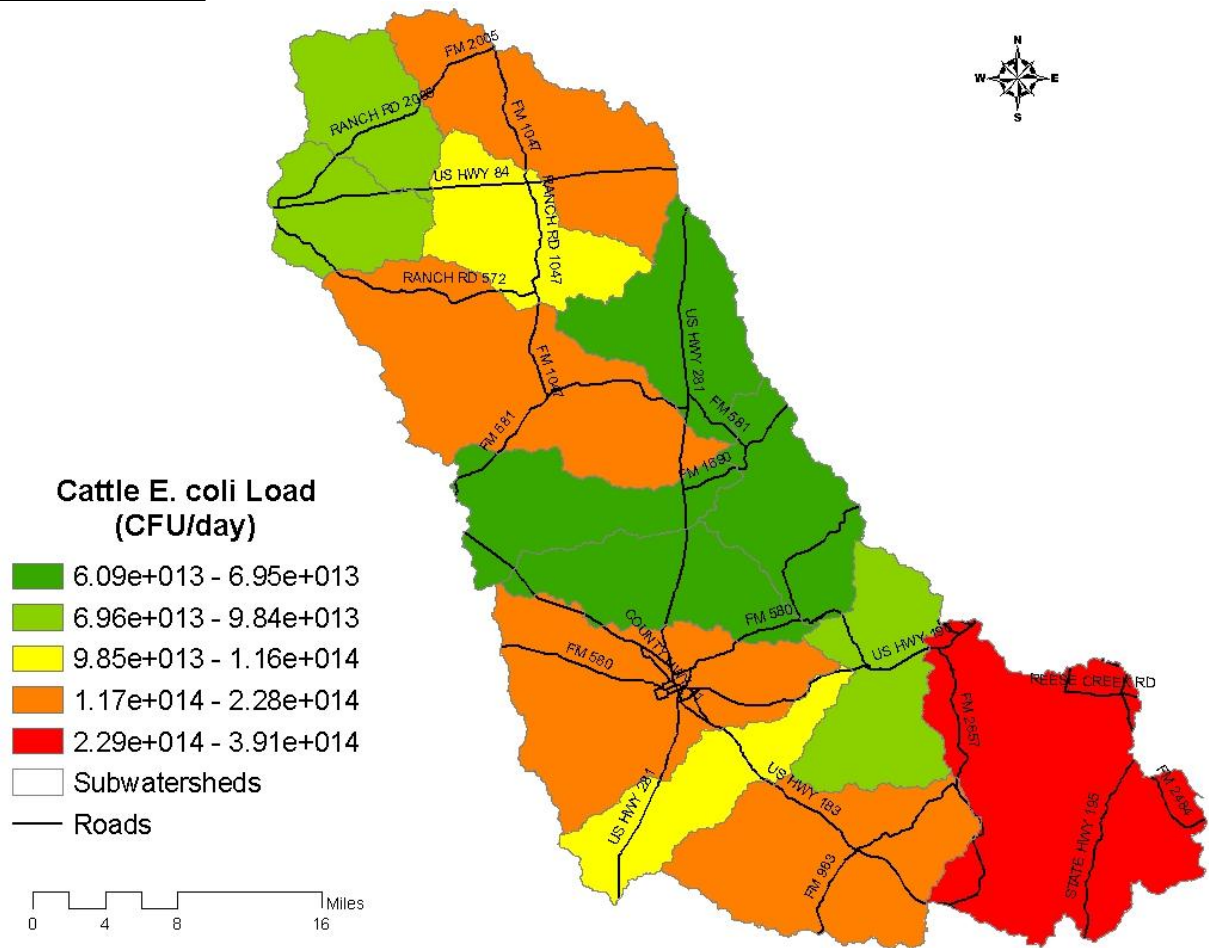
# Potential *E. coli* loads resulting from Cattle



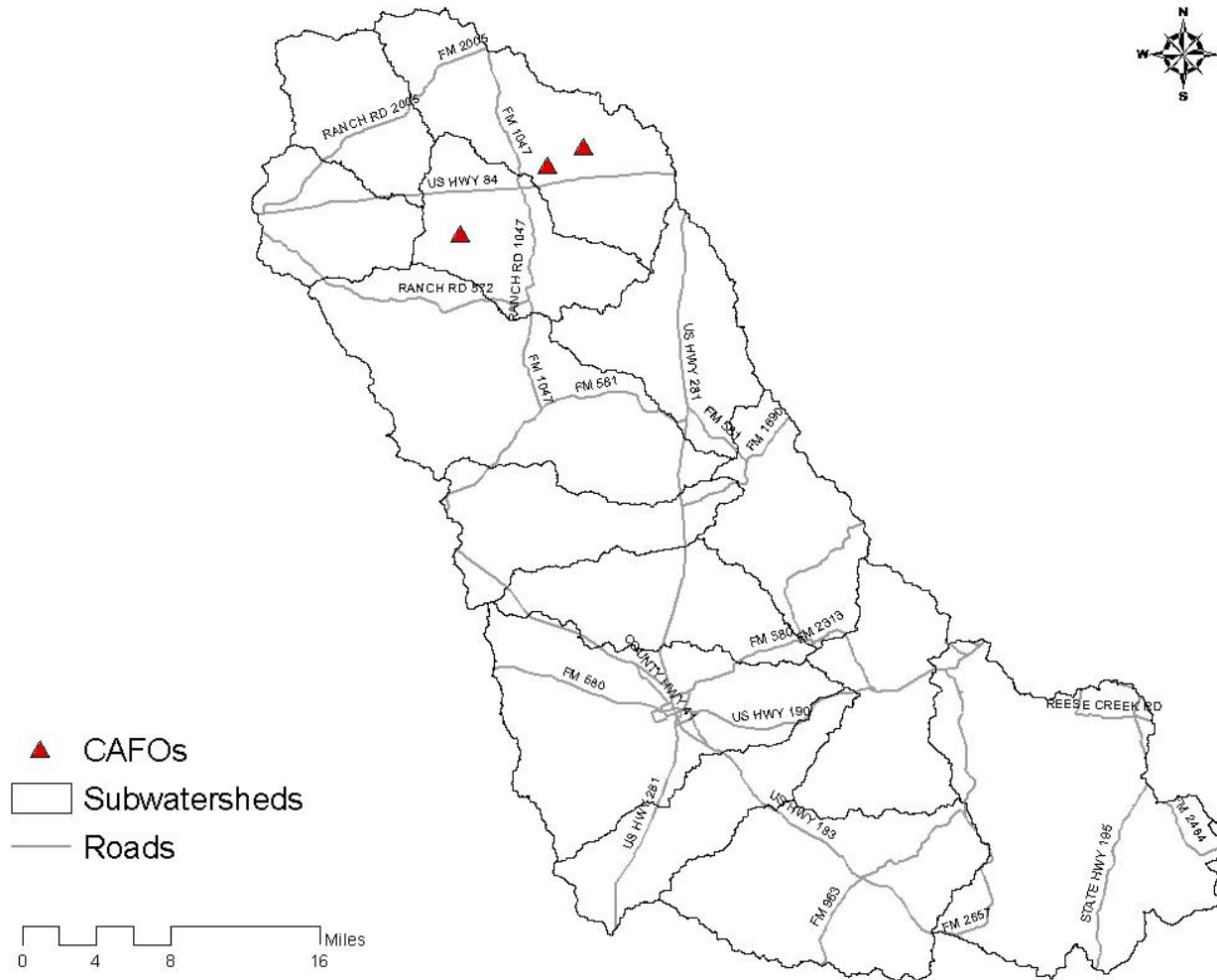
- ▶ Population calculated using NAS data
- ▶ Estimated Population: 34,338
- ▶ Land Use
  - Range
  - Forest
  - Managed Pasture

# Potential *E. coli* loads resulting from Cattle

Subwatershed	Number of Cattle
1	2392
2	1249
3	1529
4	1099
5	1390
6	3032
7	1284
8	1218
9	1267
10	1968
11	3205
12	7824
13	2312
14	4568

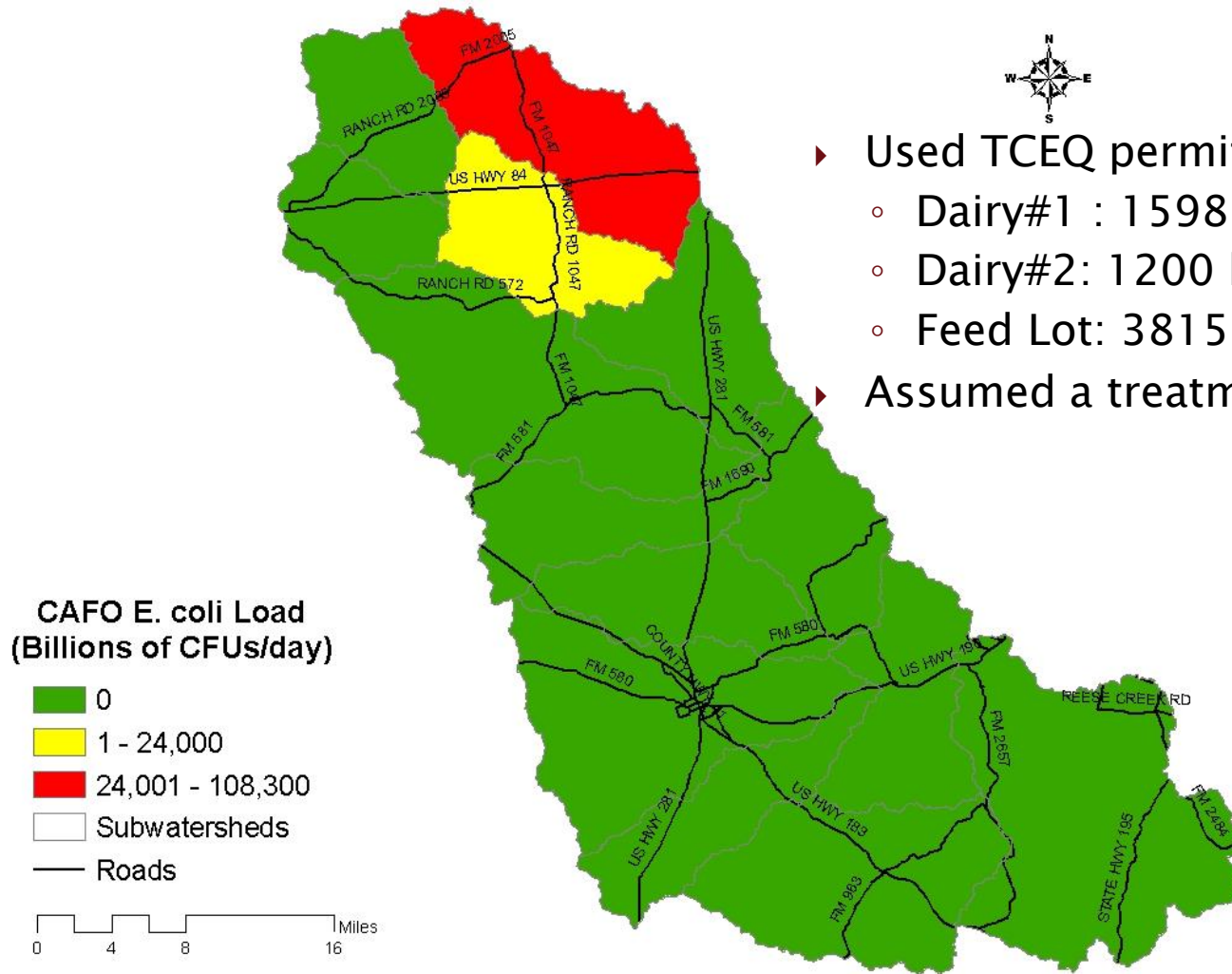


# Confined Animal Feeding Operations



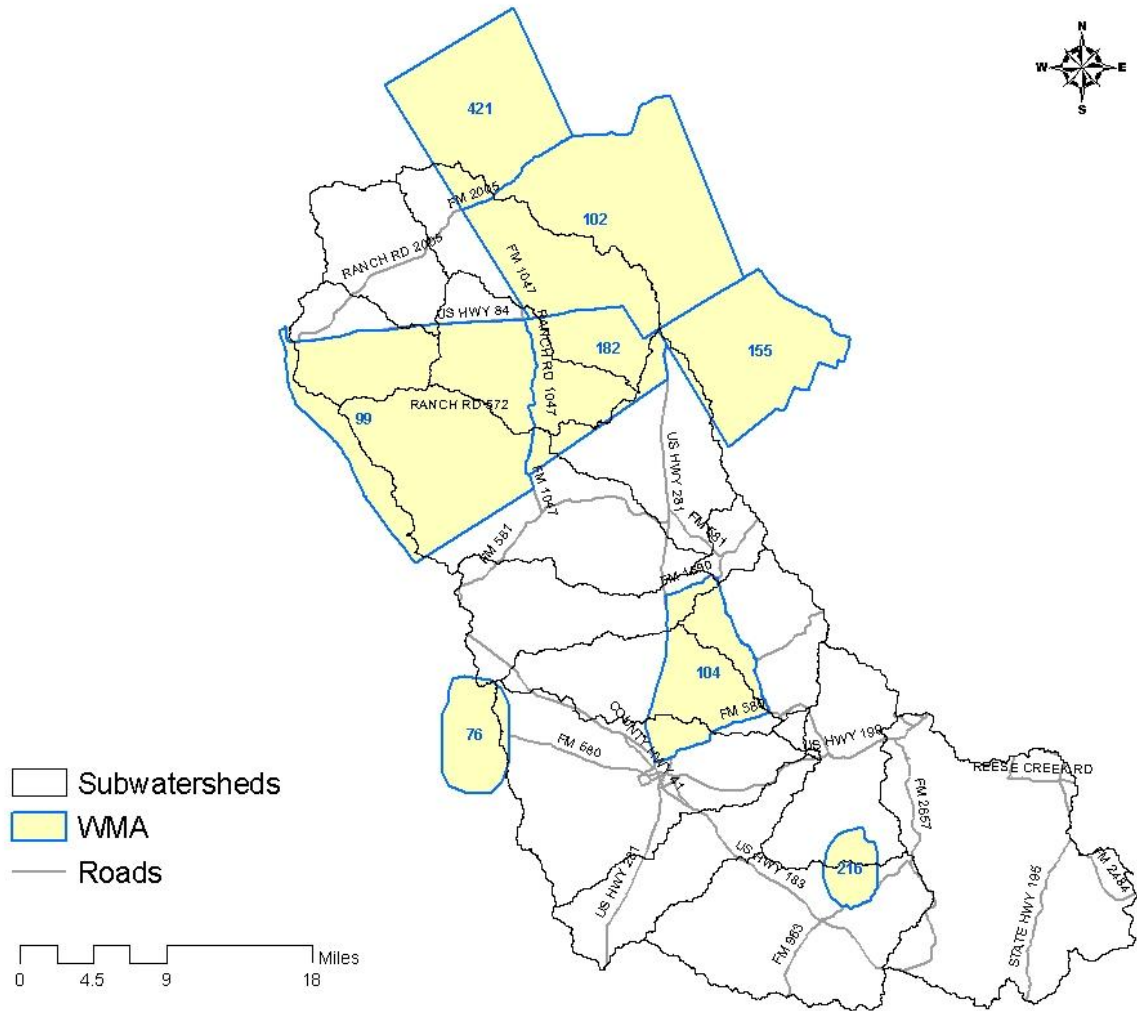


# Potential *E. coli* loads resulting from CAFOs

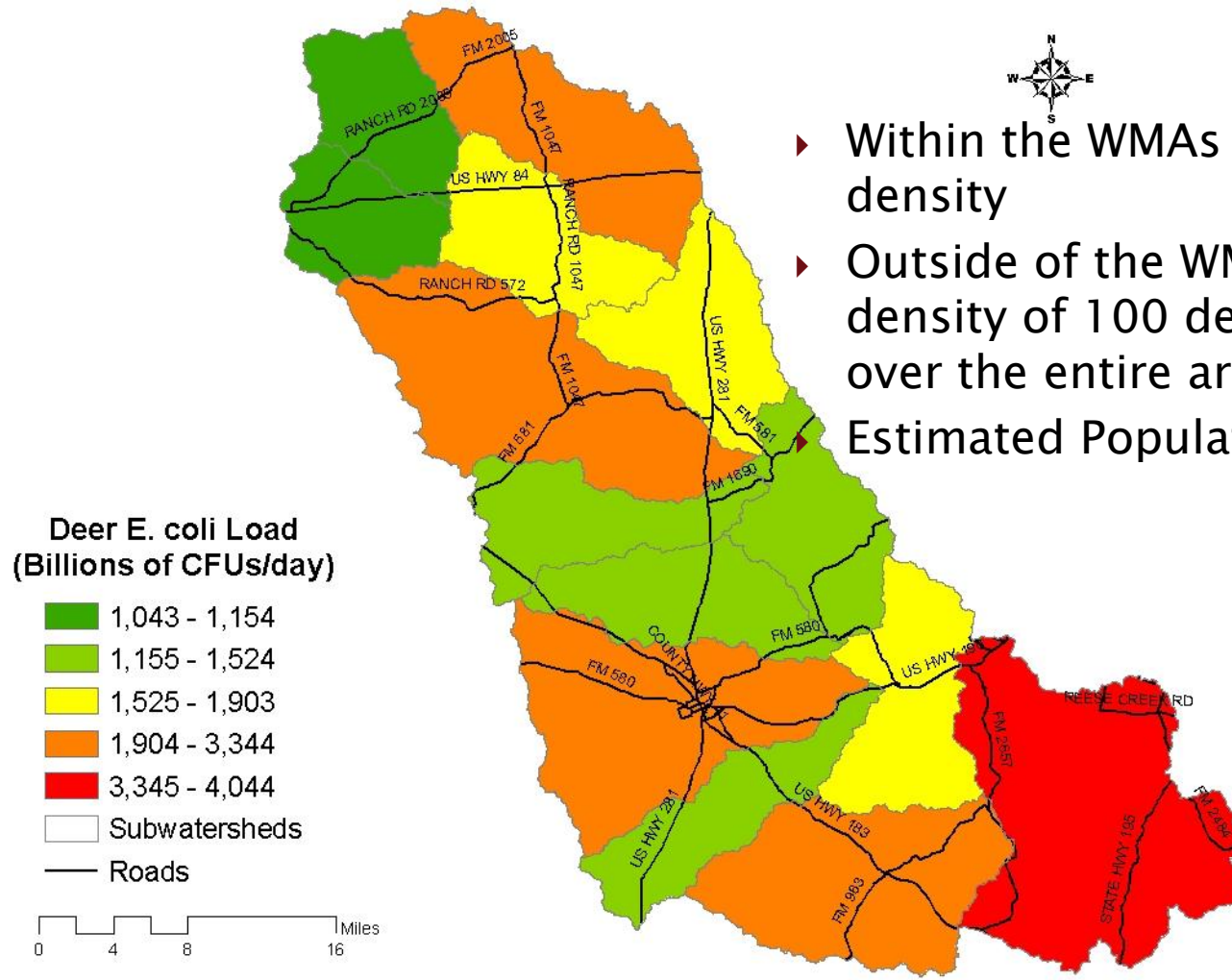


- ▶ Used TCEQ permitted head of cattle
  - Dairy#1 : 1598 head
  - Dairy#2: 1200 head
  - Feed Lot: 3815 head
- ▶ Assumed a treatment efficiency of 80%

# Deer

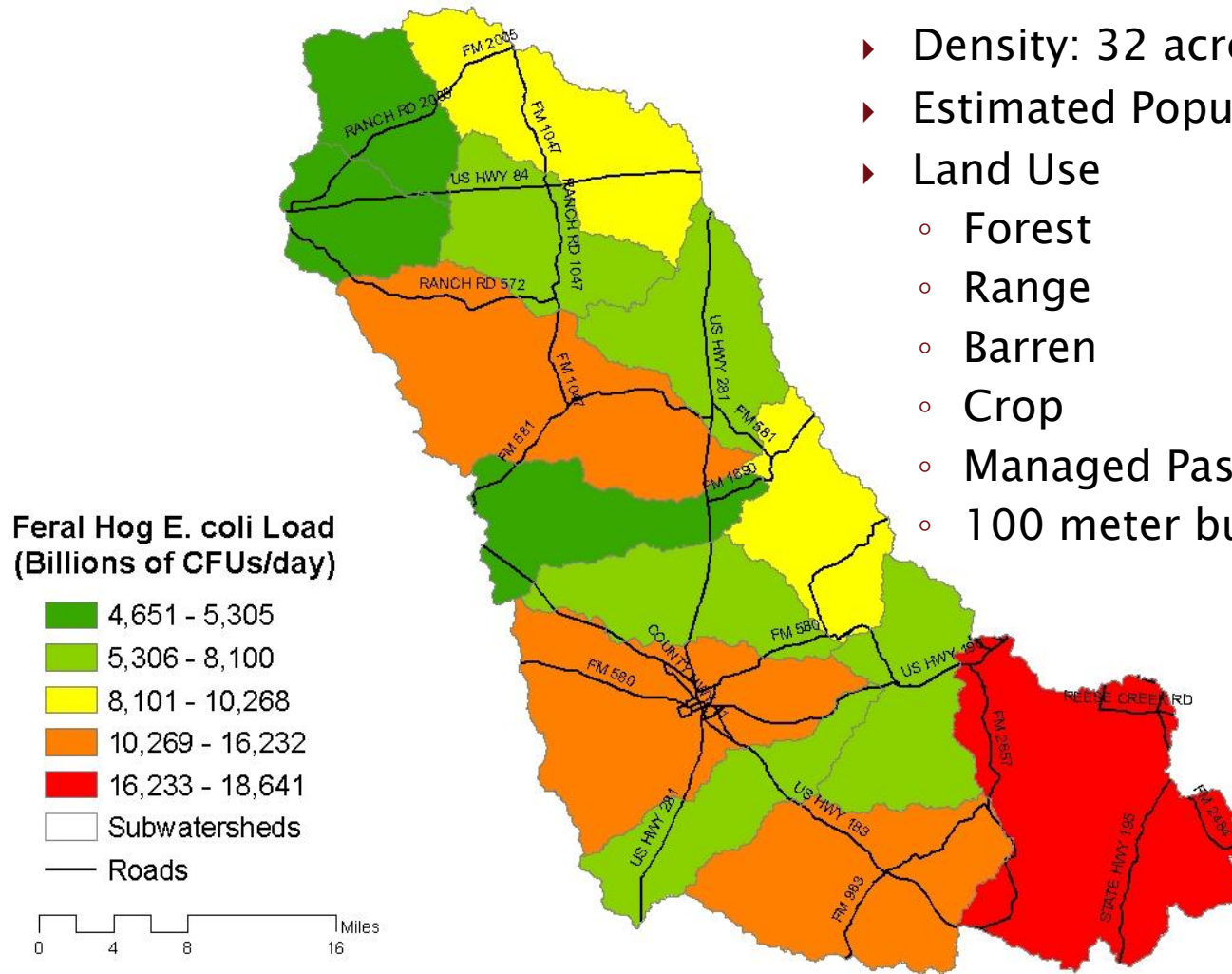


# Potential *E. coli* loads resulting from Deer (WMA)



- ▶ Within the WMAs used the WMA density
  - ▶ Outside of the WMAs applied a density of 100 deer per 1000 acres over the entire area of the watershed
- Estimated Population: 84,739

# Potential *E. coli* loads resulting from Feral Hogs



- ▶ Density: 32 acres per animal
- ▶ Estimated Population: 24,263
- ▶ Land Use
  - Forest
  - Range
  - Barren
  - Crop
  - Managed Pasture
  - 100 meter buffer around streams

# Potential Best Management Practices

# Conservation Programs

- ▶ Texas State Soil and Water Conservation Board Water Quality Management Plan Program
- ▶ Natural Resource and Conservation Service Farm Bill Programs
- ▶ Texas Parks and Wildlife Department Programs (for Private Landowners)
- ▶ Texas Forest Service Stewardship Program

# Farm Statistics

- ▶ Animal Unit Conversions
  - ▶ 1 AU =
    - ▶ 1 Cattle
    - ▶ 3.5 Sheep
    - ▶ 5.0 Goat
    - ▶ 0.5 Horse
- ▶ Estimated # of AU per Farm
  - ▶ 20 AU

Sub-basin	Total AU	Number of Farms	10% Reduction
1	3138	157	16
2	1649	82	8
3	1964	98	10
4	1449	72	7
5	1566	78	8
6	3611	181	18
7	1444	72	7
8	1370	69	7
9	1422	71	7
10	2160	108	11
11	3535	177	18
12	8537	427	43
13	2505	125	13
14	4952	248	25

# Deer

- ▶ Texas does not actively manage native wildlife population (deer) for water quality purposes, contributions are considered 'background' NPS
- ▶ Encourage participation in WMA
- ▶ Encourage hunters to harvest animals at proper levels

Sub-basin	Deer
1	1486
2	3264
3	700
4	940
5	3928
6	4527
7	3519
8	3772
9	2564
10	4463
11	7820
12	11556
13	3945
14	6834
Total	59316



# Feral Hogs

- ▶ Removal of feral hogs
- ▶ Support county-wide trapping programs
- ▶ Educational programs
  - Texas AgriLife Extension Service

Sub-basin	Feral Hogs	10% Reduction
1	1867	187
2	930	93
3	1114	111
4	846	85
5	1473	147
6	2951	295
7	1667	167
8	965	97
9	1276	128
10	1260	126
11	2561	256
12	3389	339
13	1266	127
14	2700	270
Total	24265	2427

# Next Steps

# Riparian Proper Functioning Condition Workshop

- ▶ Learn about the basic interaction of Hydrology – Erosion/Deposition and Vegetation for Central Texas creeks and rivers
- ▶ One-day course; ½ Classroom, ½ Field
  - Thursday, October 28<sup>th</sup>
    - Classroom and Field at Parrie Haynes Equestrian Center
    - Lunch provided by City of Killeen
  - Friday, October 29<sup>th</sup>
    - Classroom at Evant Methodist Church
    - Field at the Meis Ranch, 2650 CR 2965, Evant
    - Lunch provided by City of Lampasas
- ▶ Water will be provided at field sites
- ▶ Each workshop will be limited to 40 participants
- ▶ RSVP to me at (254) 774-6008 or [lprcin@brc.tamus.edu](mailto:lprcin@brc.tamus.edu)
- ▶ Open to all members of the Partnership and then to the general public

USDA – Natural Resources Conservation Service  
Proper Functioning Condition of Riparian Areas Workshop

- 8:00 – 8:25 Registration and Sign In
- 8:25 – 8:35 The Lampasas River Watershed Partnership  
Lisa Prcin, Texas AgriLife Research
- 8:35 – 8:45 Landowners Goals and Operation  
Adam Jarrett, Parrie Haynes Ranch  
Chris Meis, Meis Ranch
- 8:45 – 9:30 Introduction to Riparian Function  
Ricky Linex, USDA - NRCS
- 9:30 – 11:15 Hydrology/ Fluvial Morphology Principles and Interactions (with Break)  
Kenneth Mayben, USDA - NRCS
- 11:15 – 12:00 Riparian Vegetation  
Ricky Linex, USDA - NRCS
- 12:00 – 12:45 Lunch
- 12:45 – 1:00 Travel to Field Site
- 1:00 – 3:30 Observation and Discussion of Riparian Sites at Field Site  
Parrie Haynes Ranch – Killeen (Thursday, October 28<sup>th</sup>)  
Chris Meis Ranch – Evant (Friday, October 29<sup>th</sup>)

\*\*\* Special thanks to the Cities of Killeen and Lampasas for providing lunch\*\*\*

Join us for the 10th Annual  
**Bell County Water Symposium**  
Central Texas Council of Governments Building  
2180 N. Main Street  
Belton, Texas

October 21, 2010 8:15 a.m.—4:00 p.m.

**AGENDA**

- 8:15 a.m. *Registration*
- 8:45 a.m. *Welcome & Clearwater Update*
- 9:15 a.m. *Results of Edwards BFZ Aquifer Recharge Zone Studies*  
Randy Williams—Bar W Groundwater Exploration, LLC
- 10:00 a.m. *Break*
- 10:15 a.m. *Conserving Water through Sustainable Communities*  
Randy Doyle—Fort Hood Environmental Division
- 10:45 a.m. *Legislative Update on Water Issues*  
Brian Sledge—Lloyd Gosselink Attorneys at Law
- 11:30 a.m. *Lunch: Status of Water Supply in Central Texas & Upcoming Projects*  
Brad Brunett—Brazos River Authority
- 12:30 p.m. *State Water Planning Process & Future Outlook*  
Trey Buzbee—Brazos River Authority  
Bill Hutchison—Texas Water Development Board
- 1:15 p.m. *Wellhead Protection & Well Maintenance*  
Justin Mechell—Texas AgriLife Extension Service
- 2:00 p.m. *Break*
- 2:15 p.m. *Conservation Easements for Water Quality Protection*  
Susan Armstrong—Texas Land Trust Council
- 2:45 p.m. *Watershed Protection Plans for the Leon & Lampasas Rivers/Nolan Creek Study Results*  
Jay Bragg—Brazos River Authority  
Lisa Prcin—Blackland Research and Extension Center  
Kristina Ramirez—City of Killeen
- 3:45 p.m. *Closing Comments*

Three CEUs available  
for Licensed Private and  
Commercial Pesticide  
Applicators

**Please RSVP by October 12, 2010**

Clearwater Underground Water Conservation District  
P.O. Box 729, Belton, TX 76513

Phone: 254-933-0120 Fax: 254-770-2360 E-mail: [cmaxwell@clearwaterdistrict.org](mailto:cmaxwell@clearwaterdistrict.org)

Symposium Sponsors: Clearwater Underground Water Conservation District; Texas AgriLife Extension; Bell County;  
BarW Groundwater Exploration, LLC; Lloyd Gosselink Attorneys at Law; AECOM, Inc.

# November Steering Committee Meeting

- ▶ Thursday, November 18, 2010
- ▶ Lampasas County Farm Bureau (tentative)
- ▶ Discussion and approval of work group recommended BMPs
- ▶ Bacterial Source Tracking Project Update