

Draft 2011 Basin Highlights Report & FY 2011 Coordinated Monitoring





Red and Canadian River Basins Vicinity Map



Texline



Texarkana

Surface Water Quality

The Federal Clean Water Act – Sections 305(b) & 303(d)

The Environmental Protection Agency (EPA)

The State of Texas

Texas Commission on Environmental Quality (TCEQ)

**The Texas Water Quality Integrated Report
For Clean Water Act Sections 305(b) and 303(d)**

**Surface Water Quality Monitoring Team (SWQM)
Continuous Water Quality Monitoring Team (CWQM)**

Total Maximum Daily Load Team (TMDL)

Clean Rivers Program Partners (CRP)

The Red River Authority of Texas

Data and Information Used in the Basin Highlights Report

The Stakeholder

Red River Authority of Texas

www.rra.dst.tx.us

Texas Commission on Environmental Quality (TCEQ)

**[www.tceq.state.tx.us/compliance/monitoring/water/quality/
data/wqm/mtr/index.html](http://www.tceq.state.tx.us/compliance/monitoring/water/quality/data/wqm/mtr/index.html)**

United States Geological Service (USGS)

<http://waterdata.usgs.gov/tx/nwis/rt>

Water Quality in the Canadian River Basin

SUMMARY REPORT **of the** **Canadian and Red River Basins**

2009



This Report Was Prepared under
the Clean Rivers Program in Coop-
eration with and Financed through
Grants from the Texas Commis-
sion on Environmental Quality

*“ From a basin-wide perspective,
the waters of the Canadian River
Basin are generally good in quality.
Water quality throughout the vast
majority of the basin supports
aquatic life and recreational uses. “*

2009 Basin Summary Report



Water Quality Parameters Requiring Attention

Dissolved Salts

Total Dissolved Solids
Chlorides

Aquatic Health

Low Dissolved Oxygen
pH

Nutrient Enrichment

Ammonia
Chlorophyll-a
Nitrates
Total Phosphorous
Ortho-Phosphorous

Human/Wildlife Health

Bacteria – *E. coli*
Mercury – Fish Tissue

Weather ?

Drought, Floods, & Blizzards

Water Quality Monitoring in the Canadian River Basin

<u>ENTITY</u>	<u>FY 11</u>
RRA	11
TCEQ	9
USGS	4
<hr/>	
Total Stations Monitored	24



Canadian River Basin

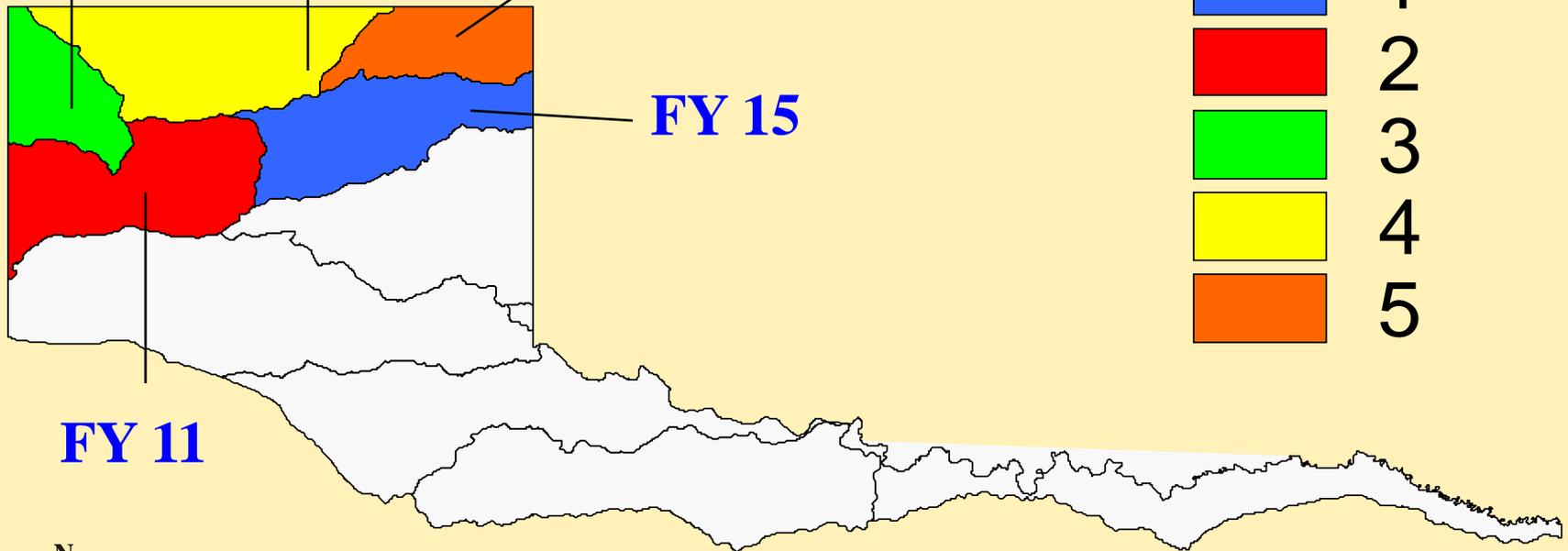
FY 12

FY 13

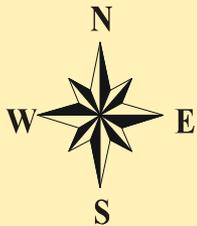
FY 14

FY 15

Basin Reaches



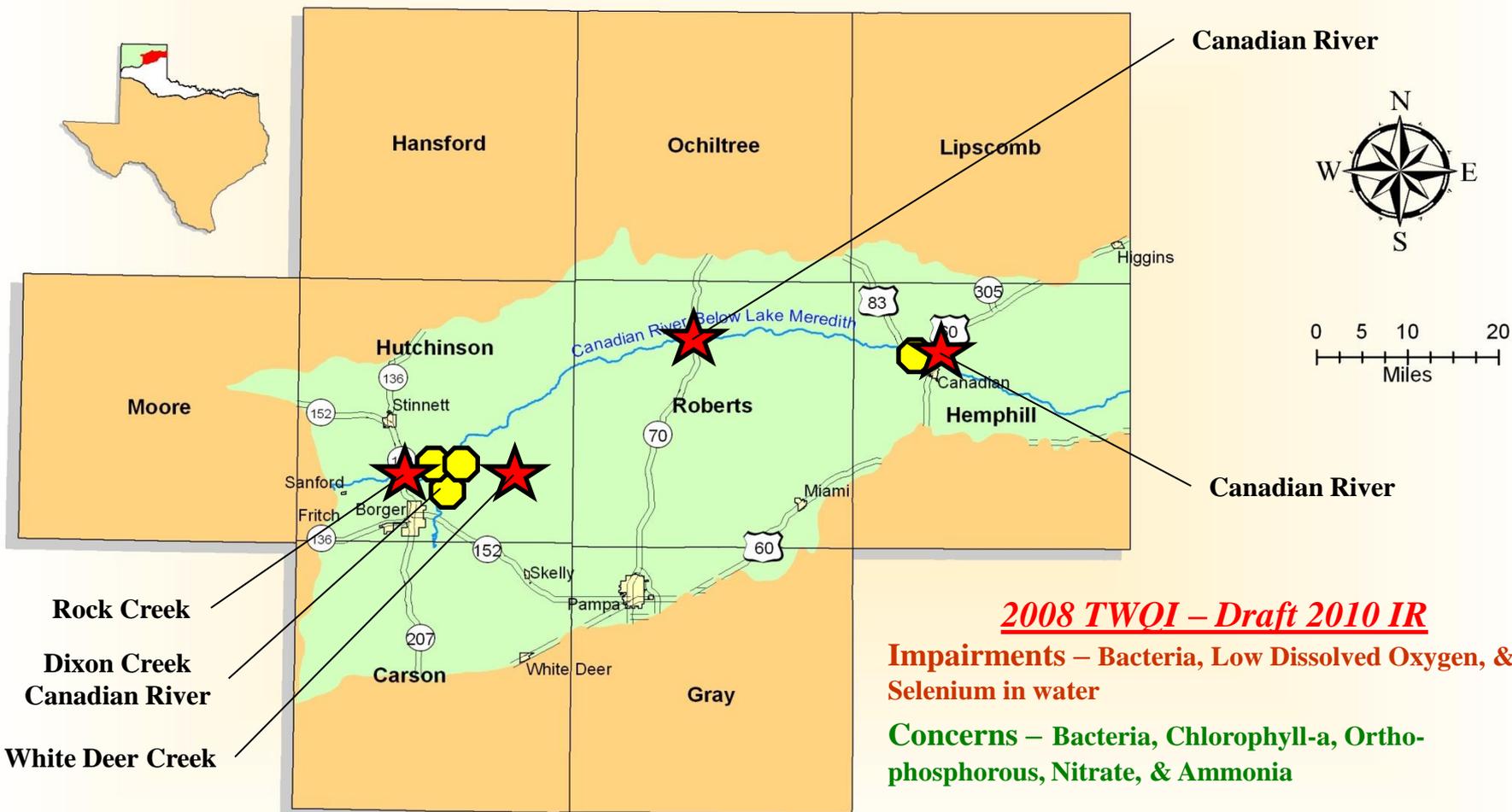
	1
	2
	3
	4
	5



Basin Reach Rotation Schematic



Canadian Basin Reach I



Rock Creek
Dixon Creek
Canadian River
White Deer Creek

2008 TWQI – Draft 2010 IR
Impairments – Bacteria, Low Dissolved Oxygen, & Selenium in water

Concerns – Bacteria, Chlorophyll-a, Ortho-phosphorous, Nitrate, & Ammonia

● Coordinated Monitoring Efforts

Canadian River @ US 83





White Deer Creek @ Jeep Crossing



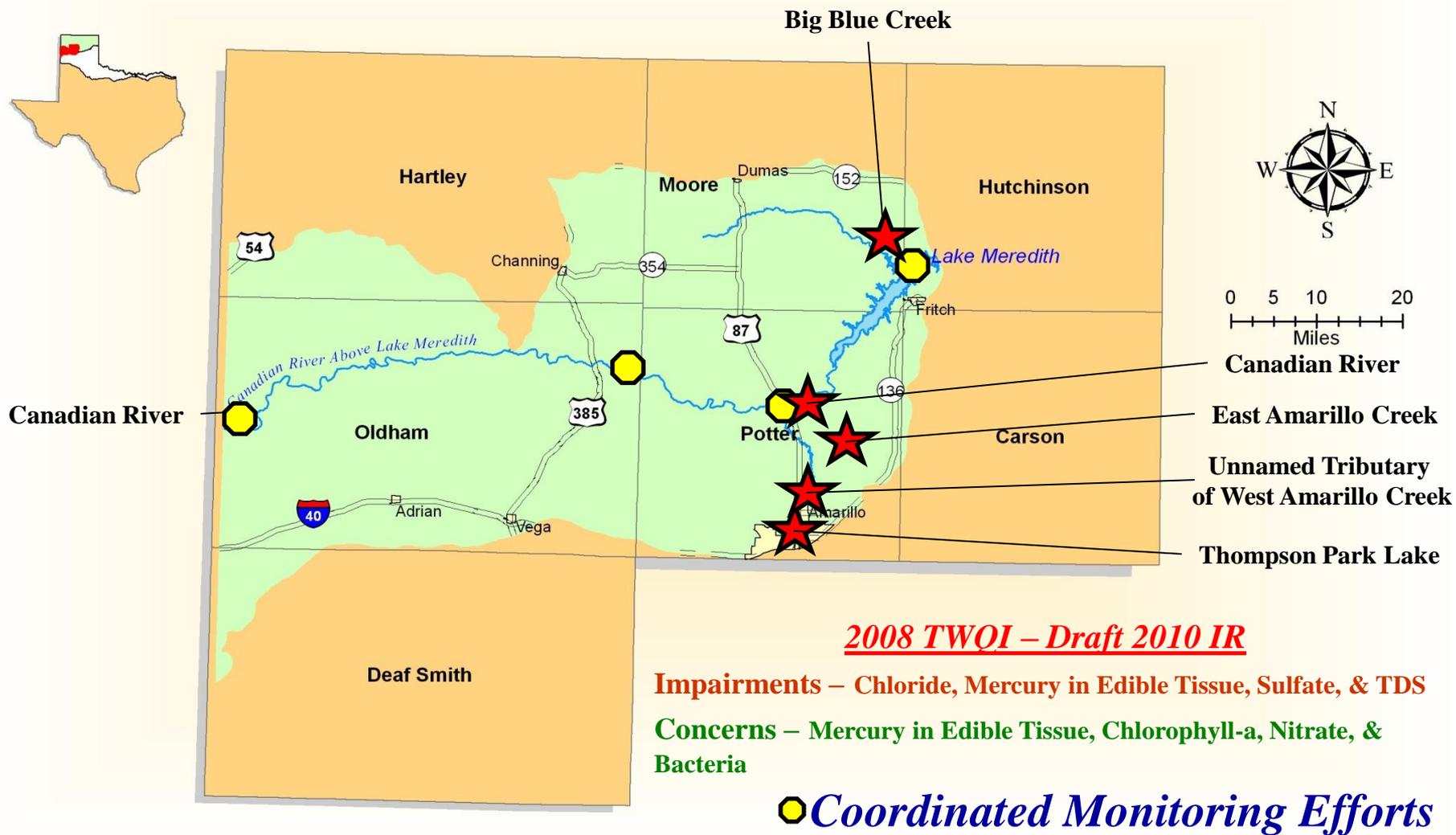
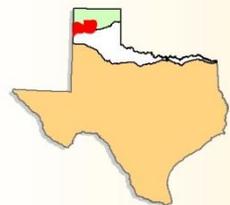
Canadian River @ SH 70



Canadian River @ SH 70



Canadian Basin Reach II



2008 TWQI – Draft 2010 IR

Impairments – Chloride, Mercury in Edible Tissue, Sulfate, & TDS

Concerns – Mercury in Edible Tissue, Chlorophyll-a, Nitrate, & Bacteria

● Coordinated Monitoring Efforts



Big Blue Creek @ FM 1913



Big Blue Creek @ FM 1913



Canadian River Basin Reach III

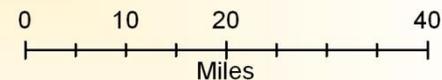


Rita Blanca Lake



2008 TWQI & Draft 2010 IR
Impairments – pH

**Concerns – Chlorophyll-a, Total Phosphorus,
Ortho-phosphorous, & Ammonia**



● Coordinated Monitoring Efforts



Rita Blanca Lake Near Dumas, Tx.



Rita Blanca Lake Near Dumas, Tx.



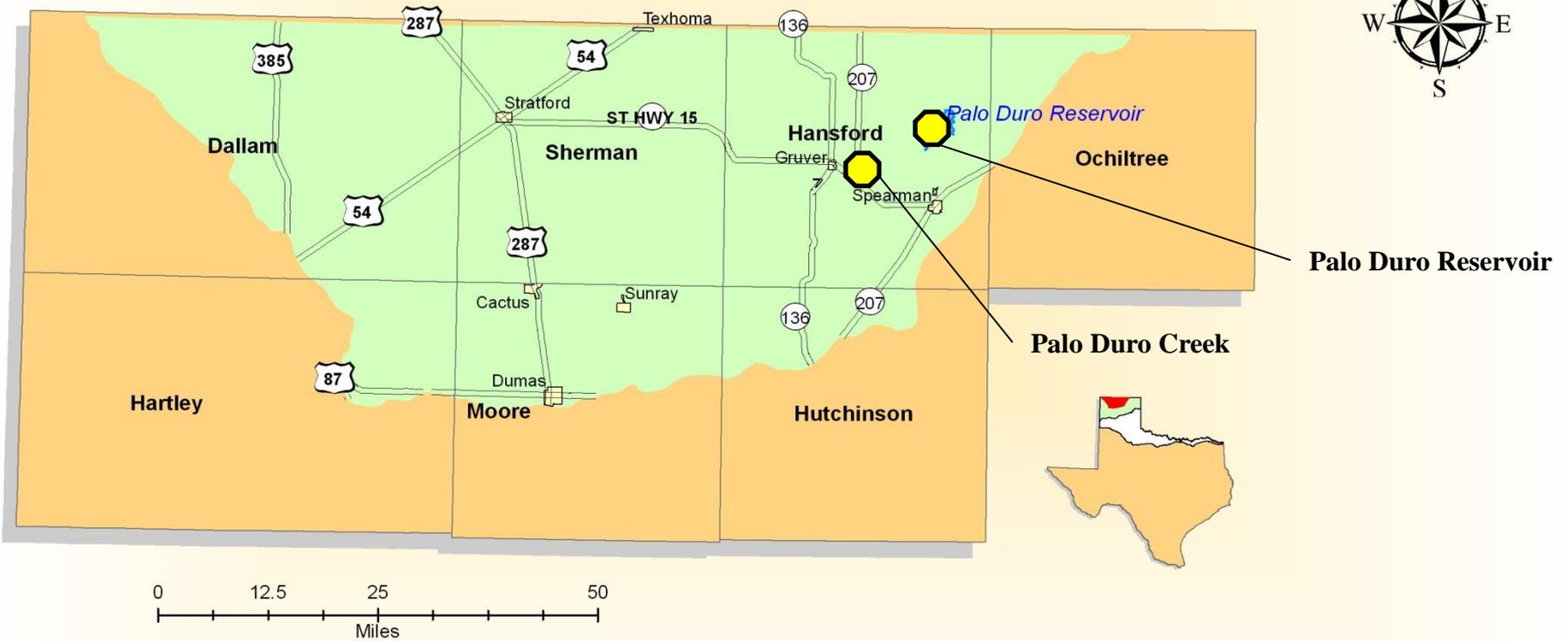
Canadian River Basin Reach IV



2008 TWQI & Draft 2010 IR

Impairments – Low Dissolved Oxygen

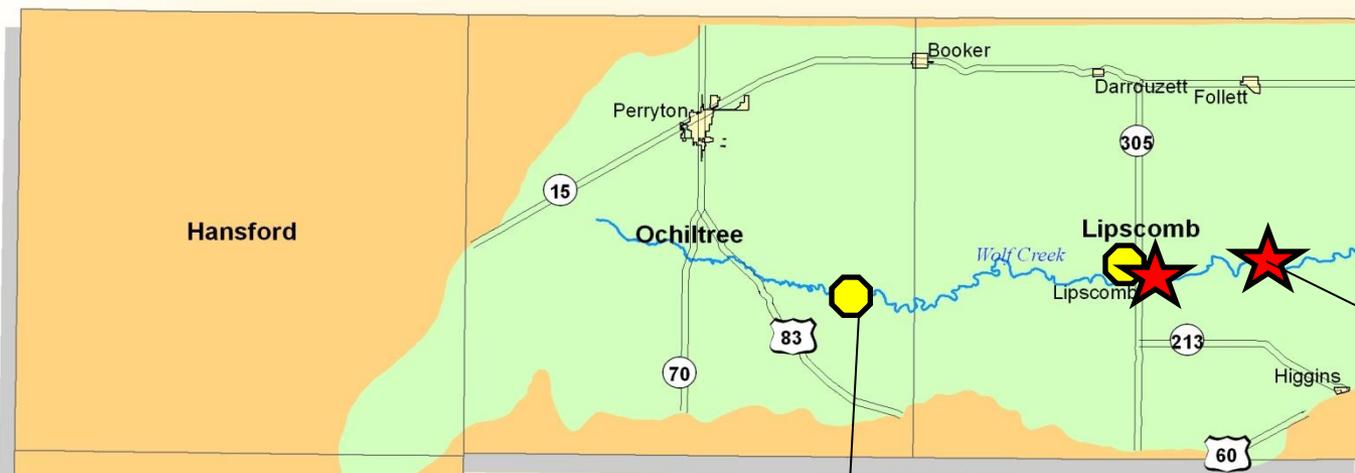
Concerns – Ammonia, Total Phosphorus, & Ortho-Phosphorus



● Coordinated Monitoring Efforts



Canadian River Basin Reach V

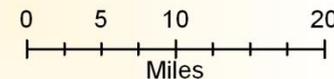


Wolf Creek

2008 TWQI & Draft 2010 IR

Impairments – None at this time;

Concerns – Chlorophyll-a



● Coordinated Monitoring Efforts



Wolf Creek @ FM 1454

An aerial photograph of a narrow, winding creek. The water is a muddy brown color. The banks are composed of light-colored sand, with patches of green grass and shrubs. A fallen log is visible in the middle of the creek. The surrounding area is densely populated with various green plants and trees.

Wolf Creek @ FM 1454

Wolf Creek @ SH 305



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*“ Water resources within the
Red River Basin are generally good
and support a hearty and robust
aquatic life with respect to stream
standards. “*

2009 Basin Summary Report



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Total Phosphorous
Ortho-Phosphorous

Human/Wildlife Health

Bacteria – *E. coli*

Drought, Floods, & Blizzards

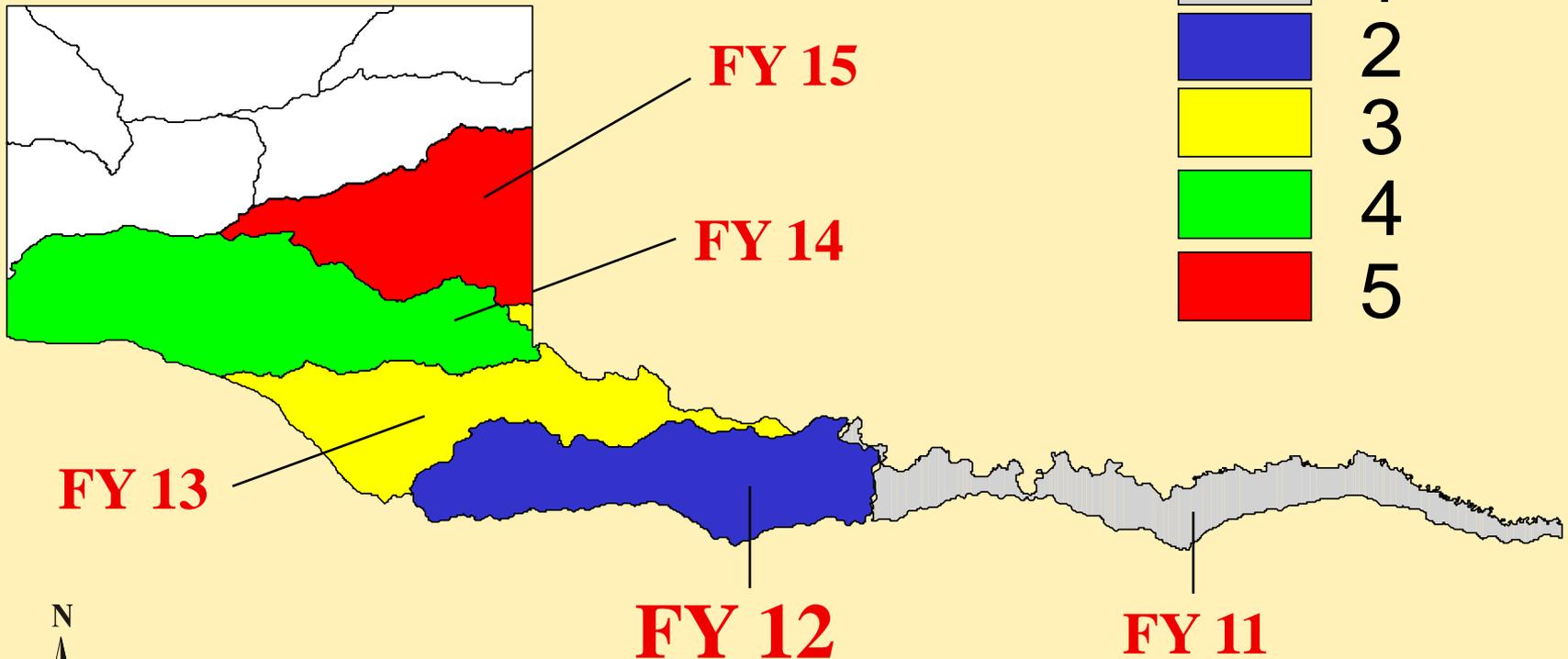
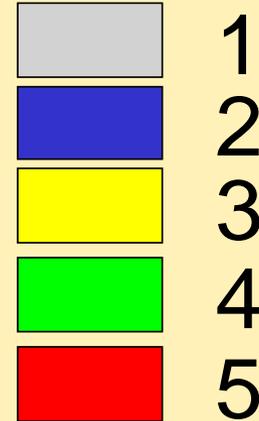
Water Quality Monitoring in the Red River Basin

<u>ENTITY</u>	<u>FY 11</u>
RRA	33
TCEQ	20
USGS	30
City of Sherman	7
<hr/>	
Total Stations Monitored	90



Red River Basin

Basin Reaches



Basin Reach Annual Rotation Schematic



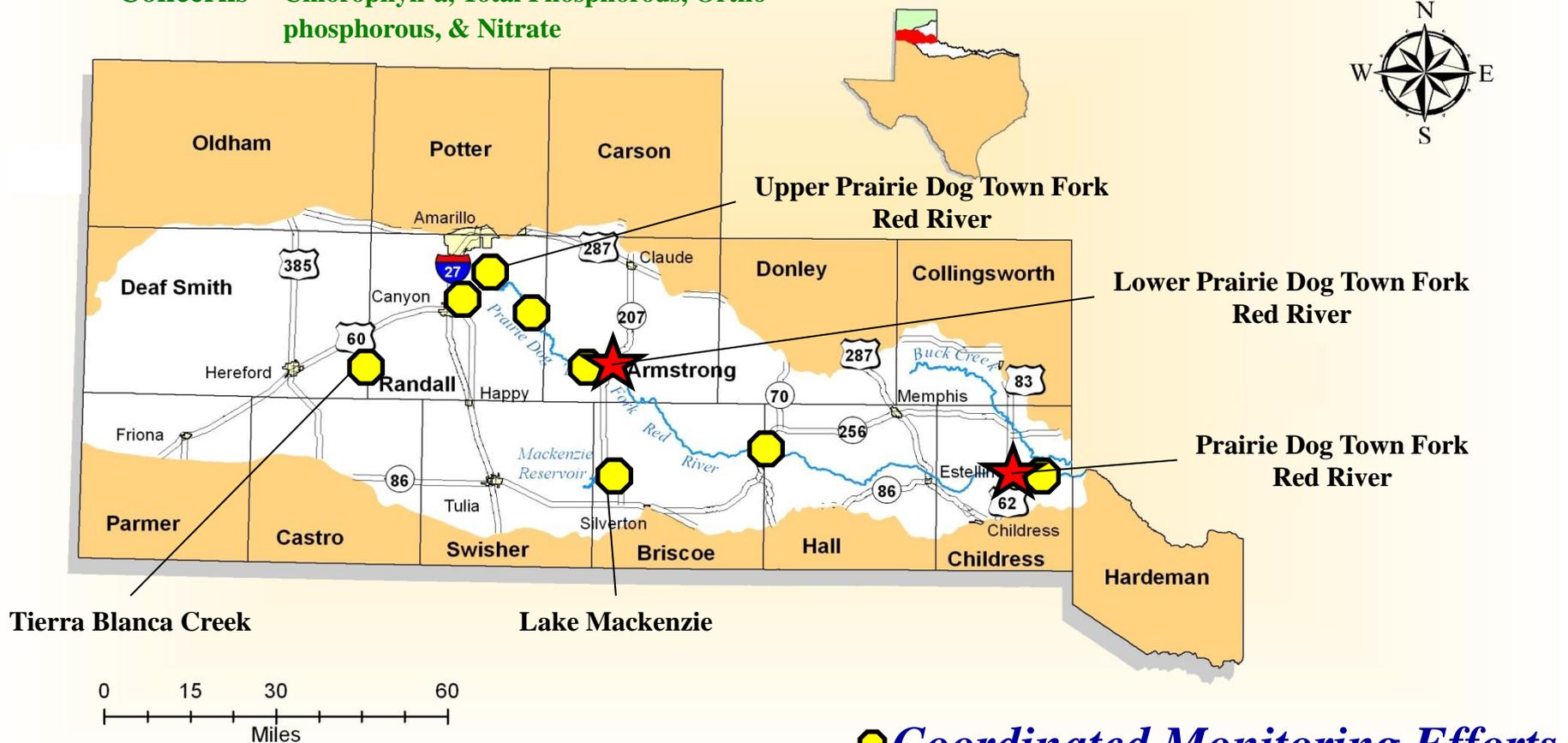
Red River Basin Reach IV



2008 TWQI & Draft 2010 IR

Impairments – Bacteria & pH

Concerns – Chlorophyll-a, Total Phosphorous, Ortho-phosphorous, & Nitrate



● Coordinated Monitoring Efforts



LPDTF Red River @ SH 207



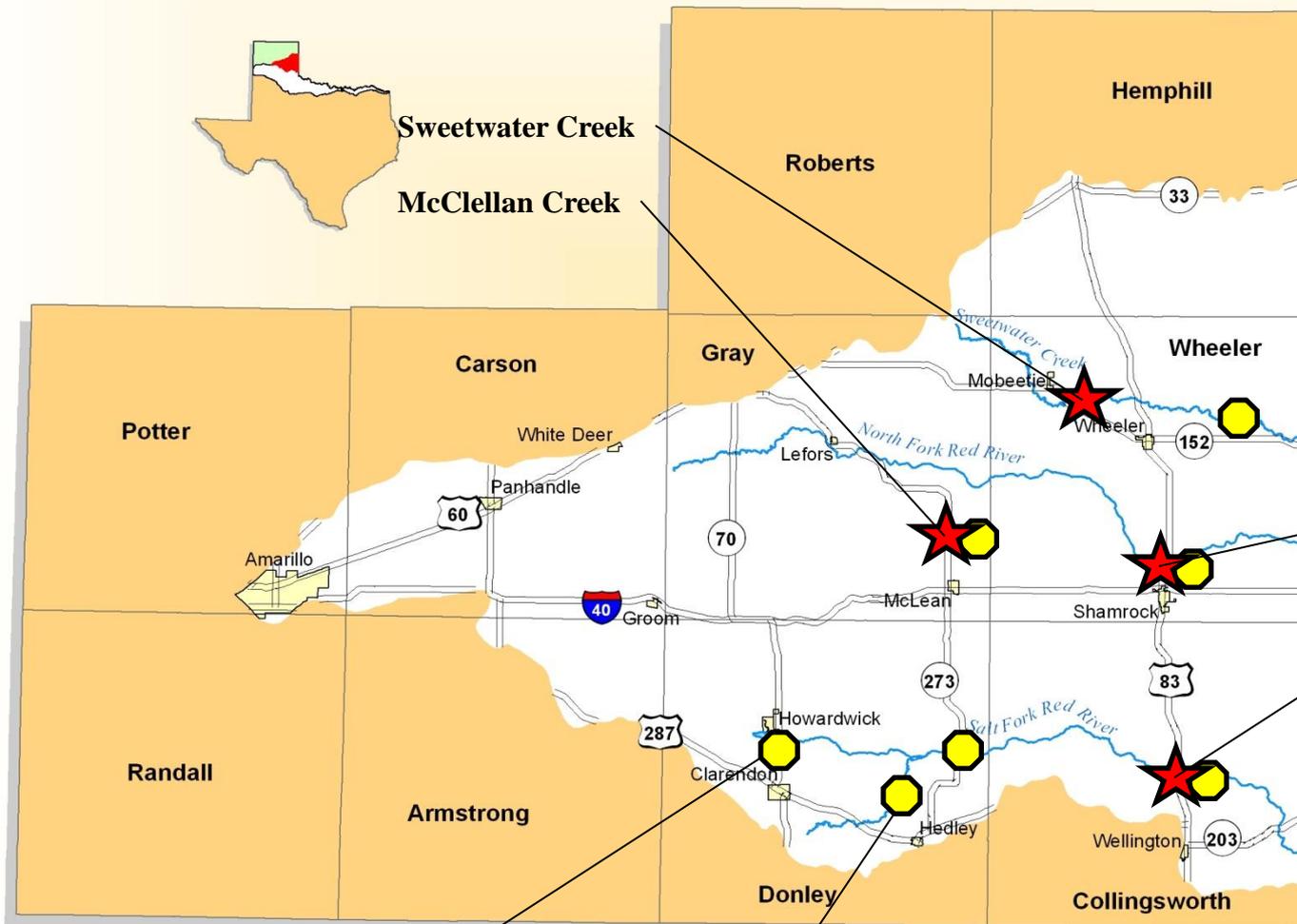
PDTF Red River @ US 83



PDTF Red River @ US 83



Red River Basin Reach V

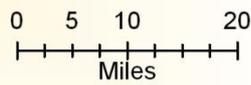


2008 TWQI
& Draft 2010 IR

Impairments - Bacteria
Concerns - None

North Fork Red River

Salt Fork Red River



Greenbelt Reservoir **Lelia Lake Creek**

Coordinated Monitoring Efforts



Salt Fork Red River @ US 83



North Fork Red River @ US 83

The Future of Water Quality Monitoring

Watershed Action Planning Process

Management Tool - To coordinate the planning, facilitation, and tracking of actions to address water quality issues.

Numerous Agencies – TCEQ Water Programs, River Authorities, CRP Partners, TSSWCB, and other interested entities.

Local Watershed Discussions

Characterize the Watershed – Who knows what!

Identify – Research, funding capabilities, and potential stakeholders.

Recommendations – What needs to be done!

QUESTIONS OR COMMENTS



www.rra.dst.tx.us