

Draft 2010 Basin Highlights Report & FY 2010 Coordinated Monitoring





Red and Canadian River Basins Vicinity Map

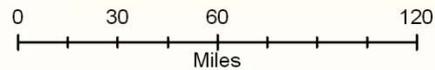


Texline



Legend

- Hydrology
- Interstate Highway
- US Highway
- State Highway
- Populated Area
- Canadian River Basin
- Red River Basin



How is Surface Water Quality Determined?

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 Inventory & 303(d) List

(In 2010 – The Integrated Report)

(Various Divisions)

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

Where Do We Collect Information for the BHR?

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>

What is the 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



What Water Quality Parameters Require 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

Drought & Floods

Water Quality Monitoring in the Canadian River Basin

<u>ENTITY</u>	<u>FY 10</u>
RRA	11
TCEQ	9
USGS	4
<hr/>	
Total Stations Monitored	24



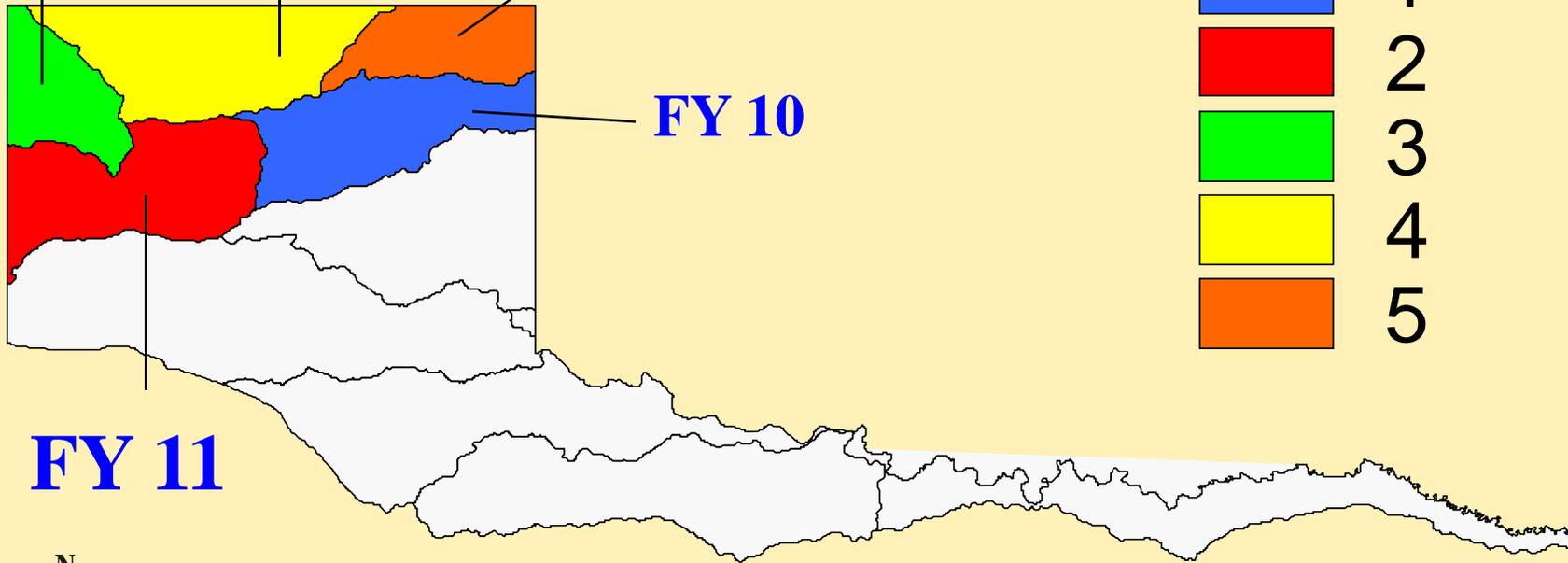
Canadian River Basin

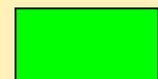
FY 12

FY 13

FY 14

Basin Reaches



	1
	2
	3
	4
	5

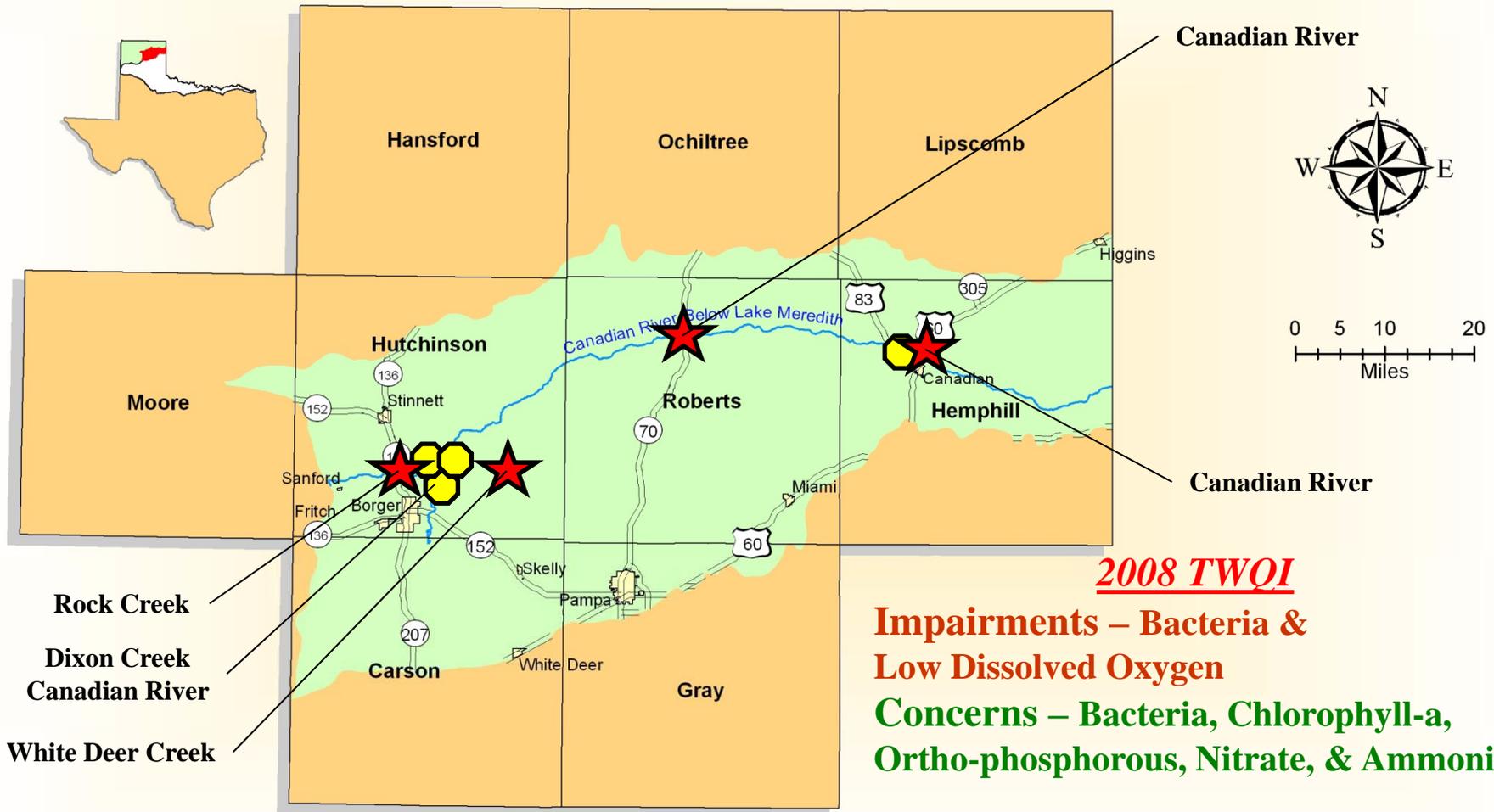
FY 11



Basin Reach Annual Rotation Schematic



Canadian Basin Reach I



2008 TWQI
Impairments – Bacteria & Low Dissolved Oxygen
Concerns – Bacteria, Chlorophyll-a, Ortho-phosphorous, Nitrate, & Ammonia
Coordinated Monitoring Efforts

Canadian River @ US 83

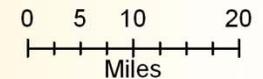
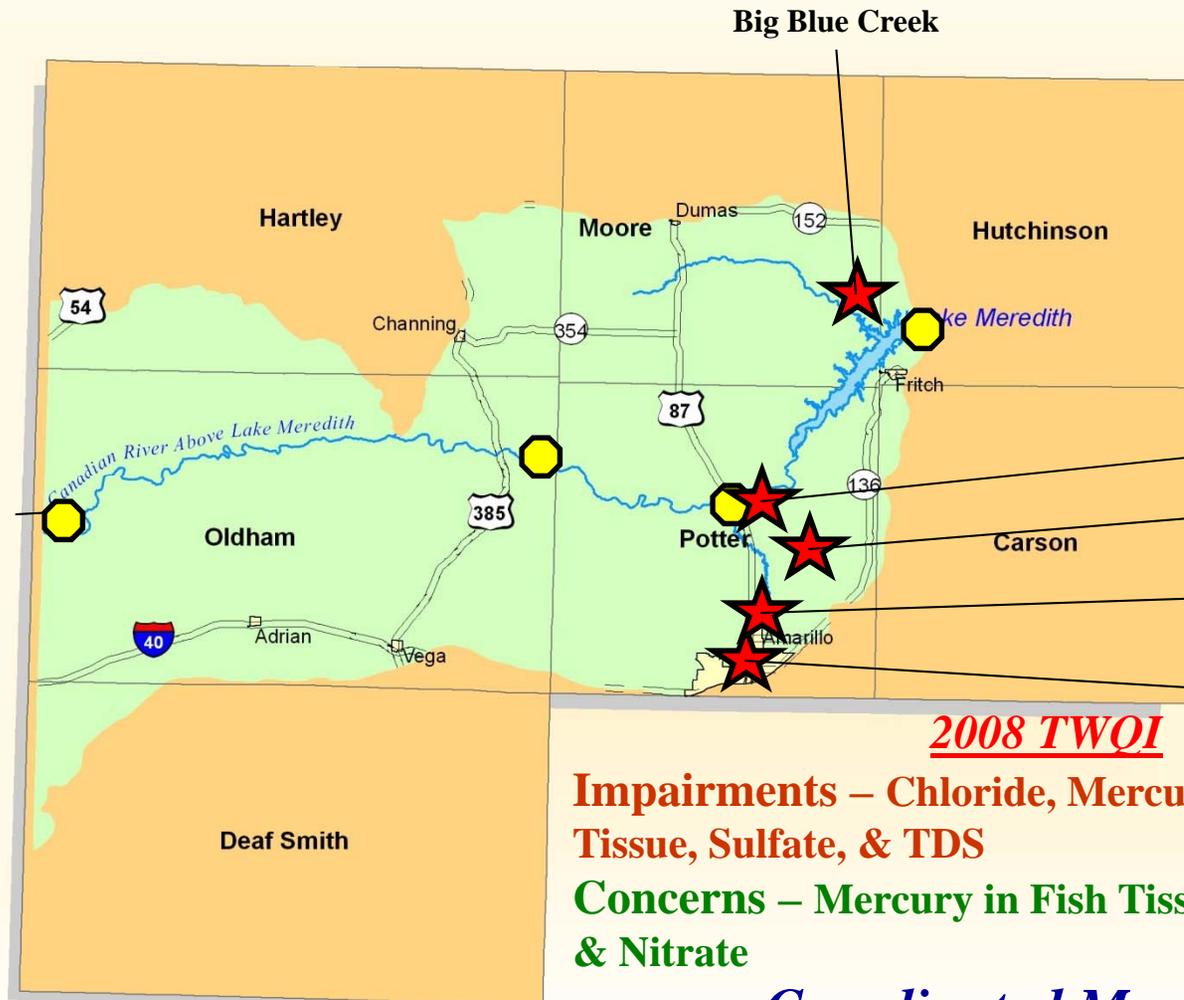
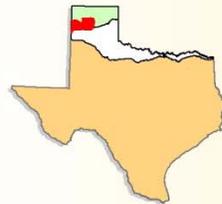




Canadian River @ SH 70



Canadian Basin Reach II



Canadian River

East Amarillo Creek

Unnamed Tributary
of West Amarillo Creek

Thompson Park Lake

2008 TWQI

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

**Concerns – Mercury in Fish Tissue, Chlorophyll-a,
& Nitrate**

Coordinated Monitoring Efforts



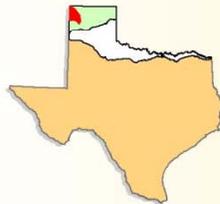
Big Blue Creek @ FM 1913



Big Blue Creek @ FM 1913



Canadian River Basin Reach III

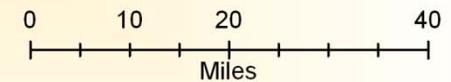


Rita Blanca Lake



2008 TWQI

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



Coordinated Monitoring Efforts

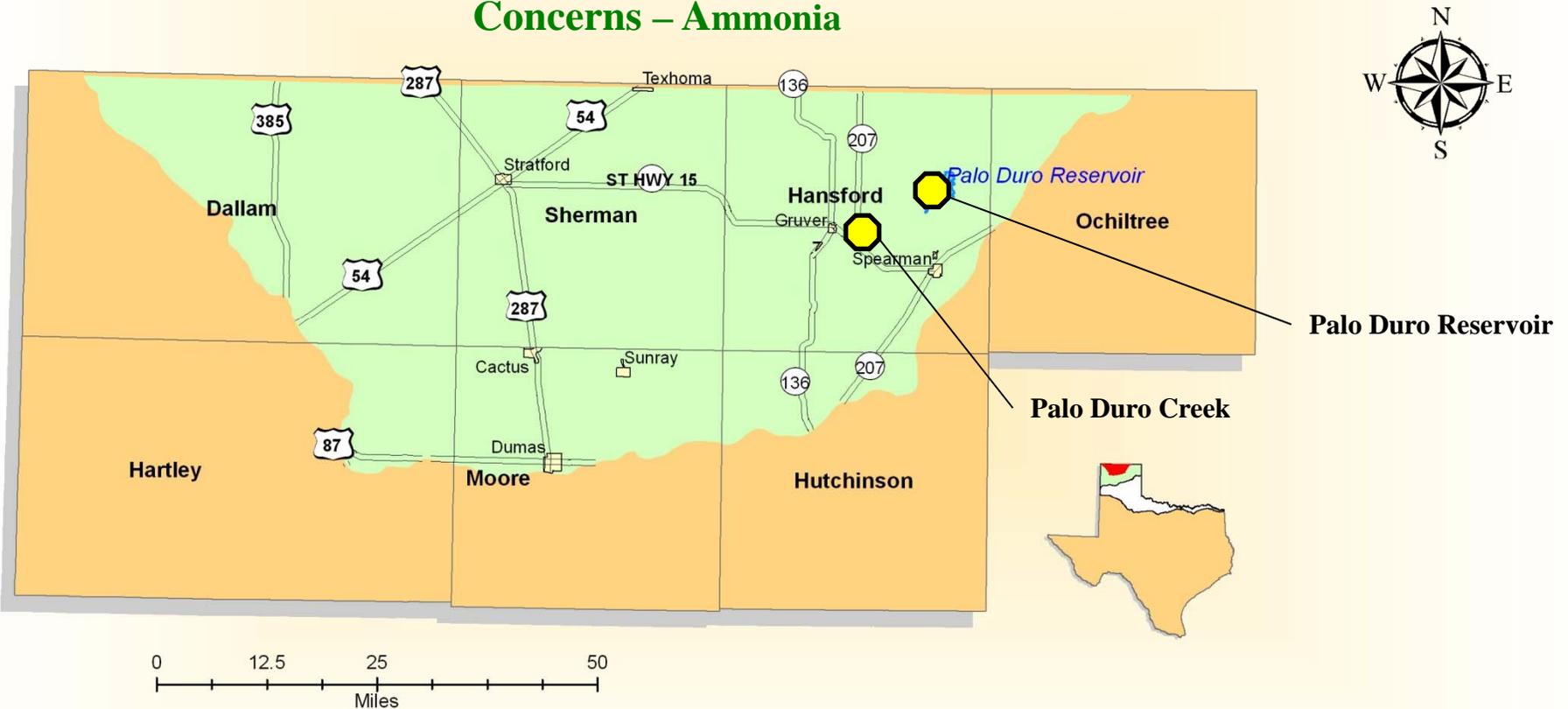


Canadian River Basin Reach IV



2008 TWQI

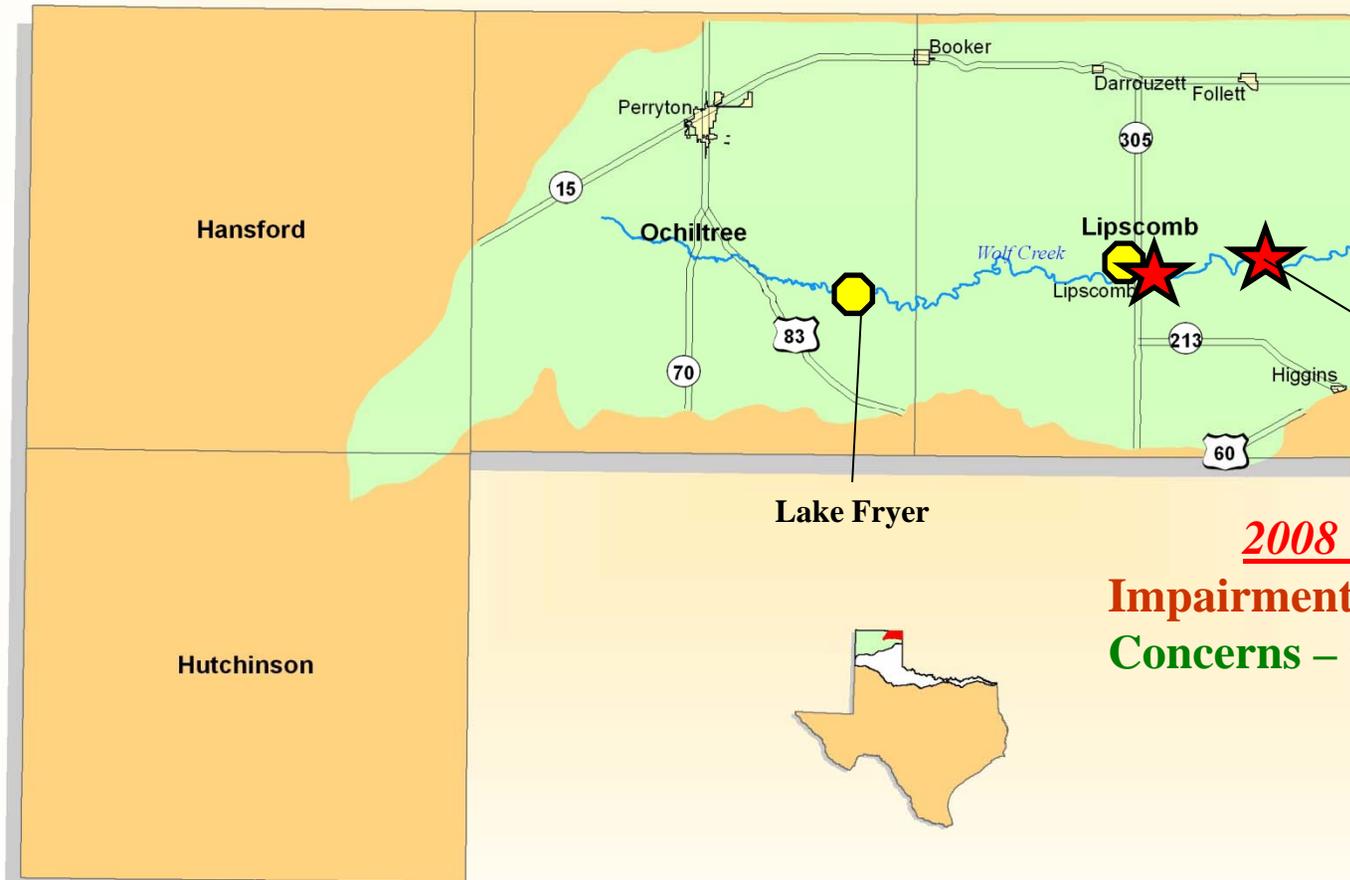
**Impairments – Low Dissolved Oxygen
Concerns – Ammonia**



Coordinated Monitoring Efforts



Canadian River Basin Reach V



Coordinated Monitoring Efforts



Wolf Creek @ FM 1454



Wolf Creek @ FM 1454

Wolf Creek @ SH 305



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2009



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eration with and Financed through
Grants from the Texas Commis-
sion on Environmental Quality

*“ 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



What Water Quality Parameters Require Attention ?

Dissolved Salts

Total Dissolved Solids
Chlorides

Aquatic Health

Low Dissolved Oxygen

Nutrient Enrichment

Ammonia
Chlorophyll-a
Nitrates
Total Phosphorous
Ortho-Phosphorous

Human/Wildlife Health

Bacteria – *E. coli*

Drought & Floods

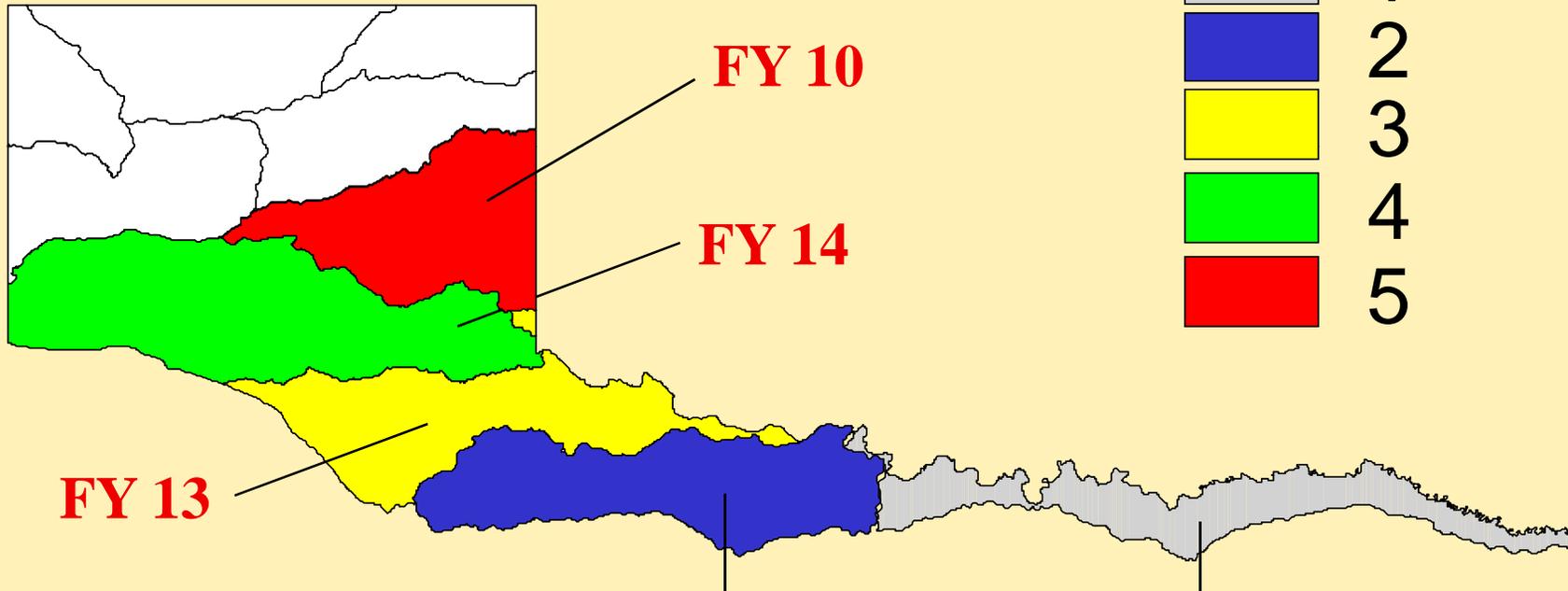
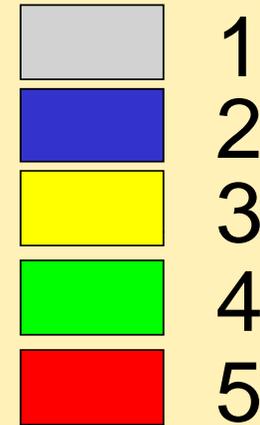
Water Quality Monitoring in the Red River Basin

<u>ENTITY</u>	<u>FY 10</u>
RRA	30
TCEQ	24
USGS	30
City of Sherman	7
<hr/>	
Total Stations Monitored	91



Red River Basin

Basin Reaches



Basin Reach Annual Rotation Schematic



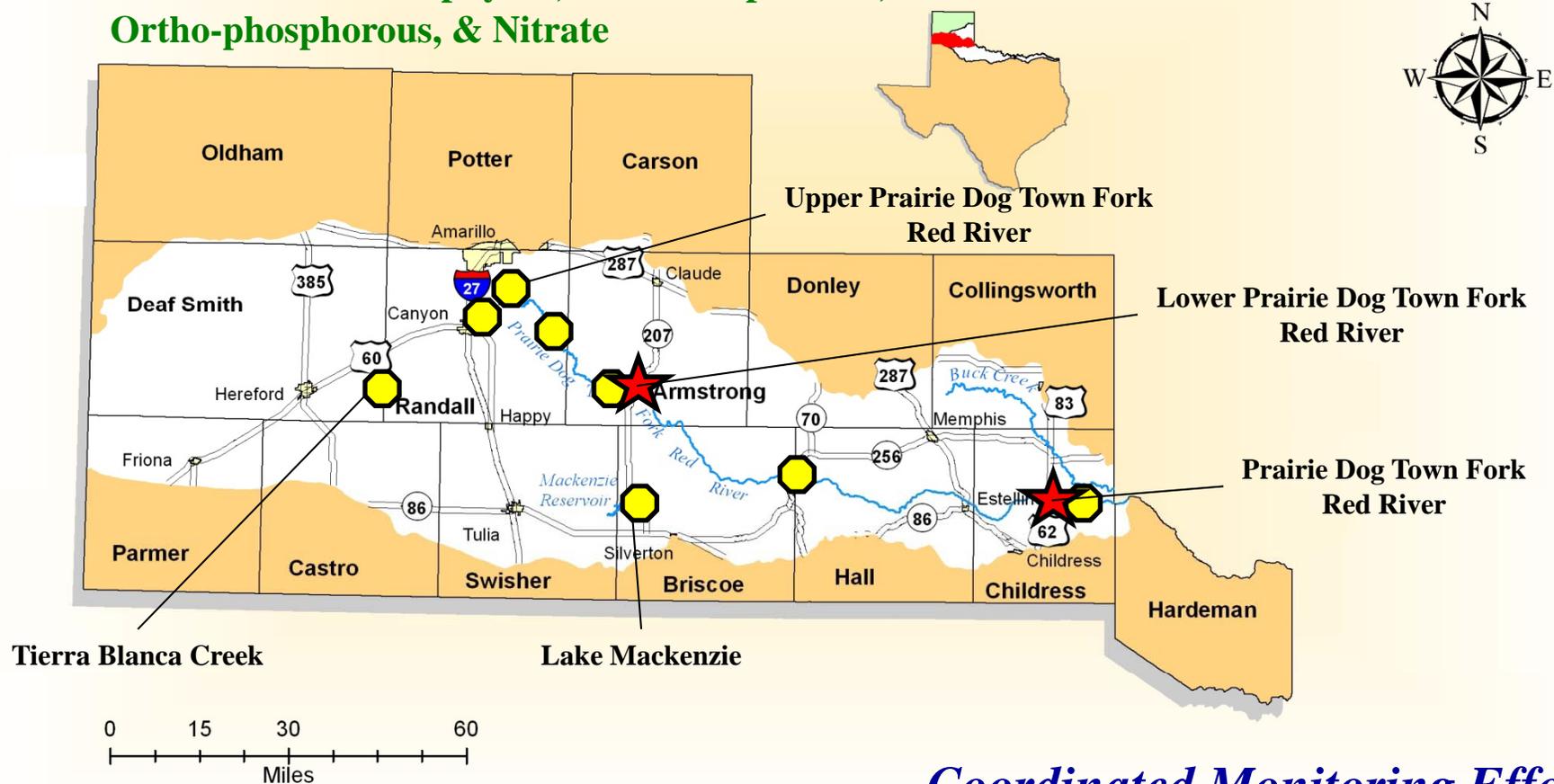
Red River Basin Reach IV



2008 TWQI

Impairments – Bacteria & pH

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



Coordinated Monitoring Efforts

LPDTF Red River @ SH 207





PDTF Red River @ US 83

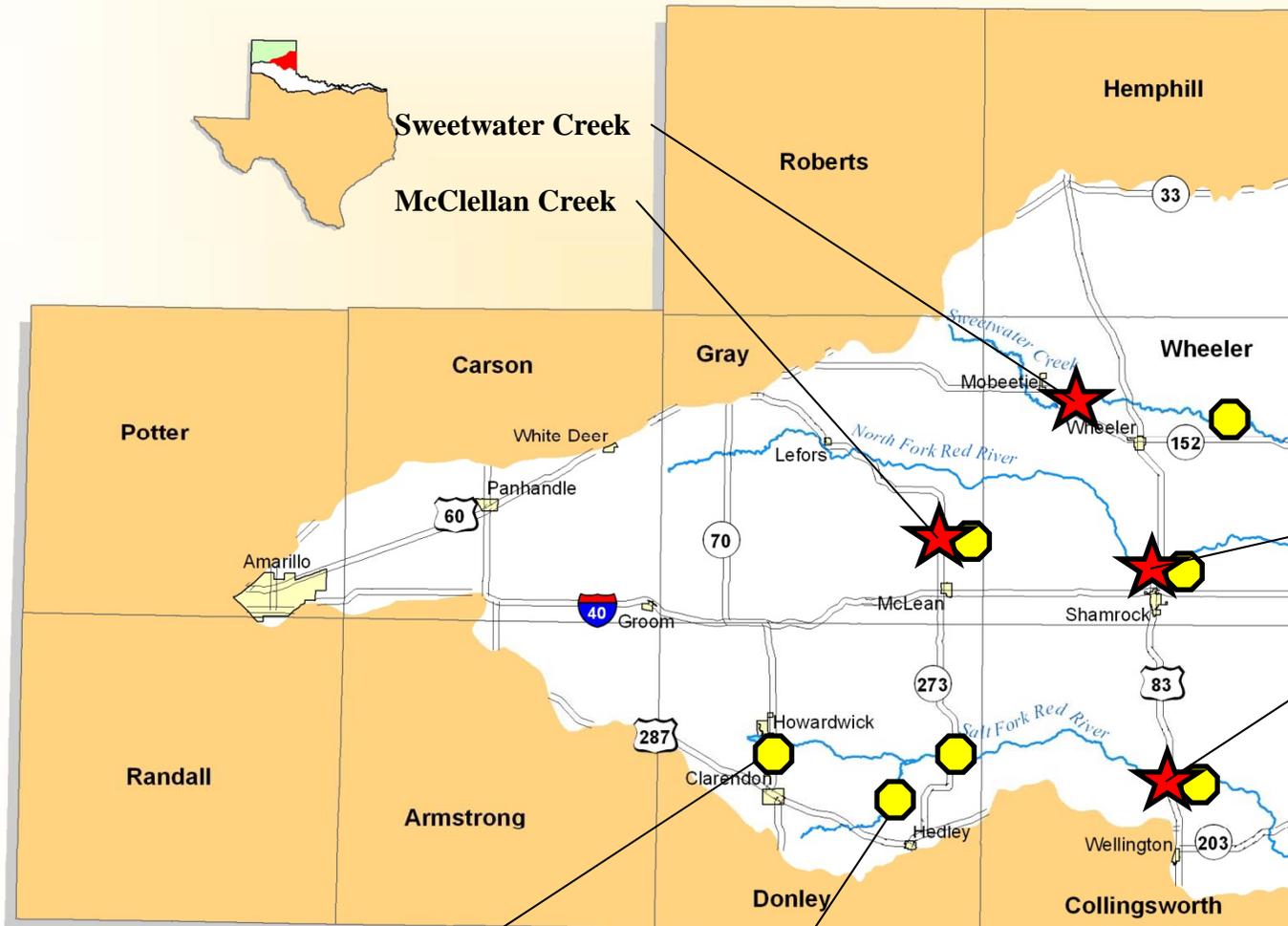


**PDTF Red River
Total Dissolved Solids**

11/15/2005



Red River Basin Reach V



2008 TWQI

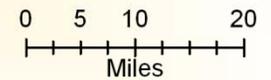
Impairments

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



McClellan Creek @ SH 273

QUESTIONS OR COMMENTS



www.rra.dst.tx.us