

Atascosa River Bacteria Source Assessment

**Total Maximum Daily Load Program
Water Programs
Texas Commission on Environmental Quality**



Potential Sources

Point Sources

Wastewater

Stormwater

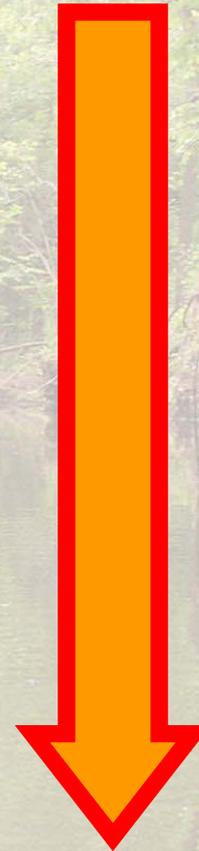
Nonpoint Sources

Septic system

Agricultural\Urban runoff

Wildlife\Natural Sources

Highly controllable



Less Controllable



Facility Inspections

TCEQ Office of Compliance and Enforcement

Inspections of TCEQ permitted discharges

Possible Atascosa Discharge Inspections

City of Lytle

City of Jourdanton

City of Pleasanton

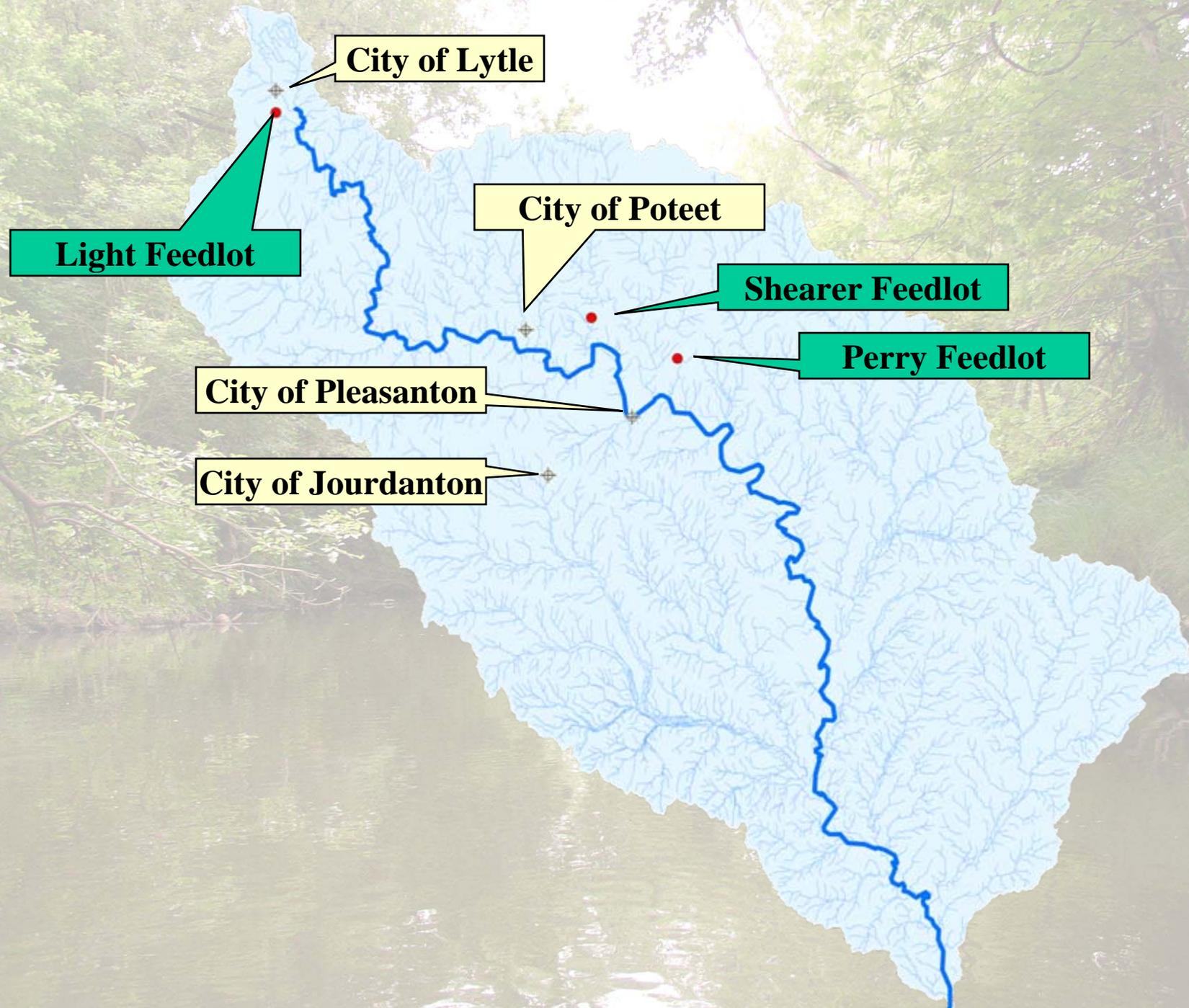
City of Poteet

Light Cattle Feedlot

Shearer Cattle Feedlot

Perry Cattle Feedlot





City of Lytle

City of Poteet

Light Feedlot

Shearer Feedlot

City of Pleasanton

Perry Feedlot

City of Jourdanton

Source Identification

Load Duration Curves (LDC)

Analysis of bacteria samples at all flows

Graphic presentation of bacteria contamination

Can separate point and nonpoint sources



Load Duration Curves

Advantages

Lower data requirements

Simple graphical presentation

Can guide implementation efforts

Disdvantages

Separates only point and nonpoint sources

Only works in flowing waters

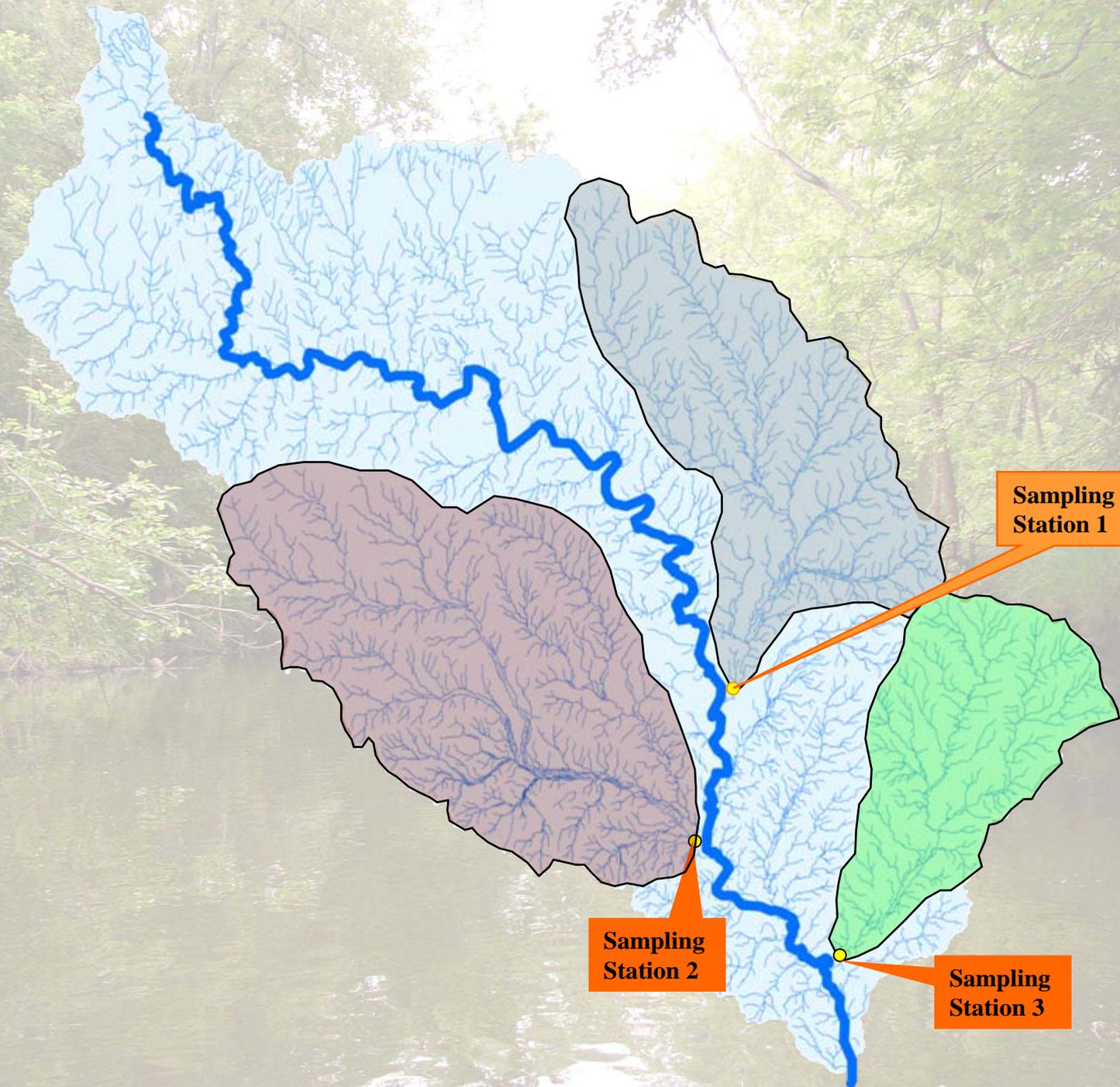


Targeted Monitoring

Sample near suspected sources of bacteria

Assess bacteria in smaller areas





**Sampling
Station 1**

**Sampling
Station 2**

**Sampling
Station 3**

Watershed Survey

Tool to identify sources of pollution

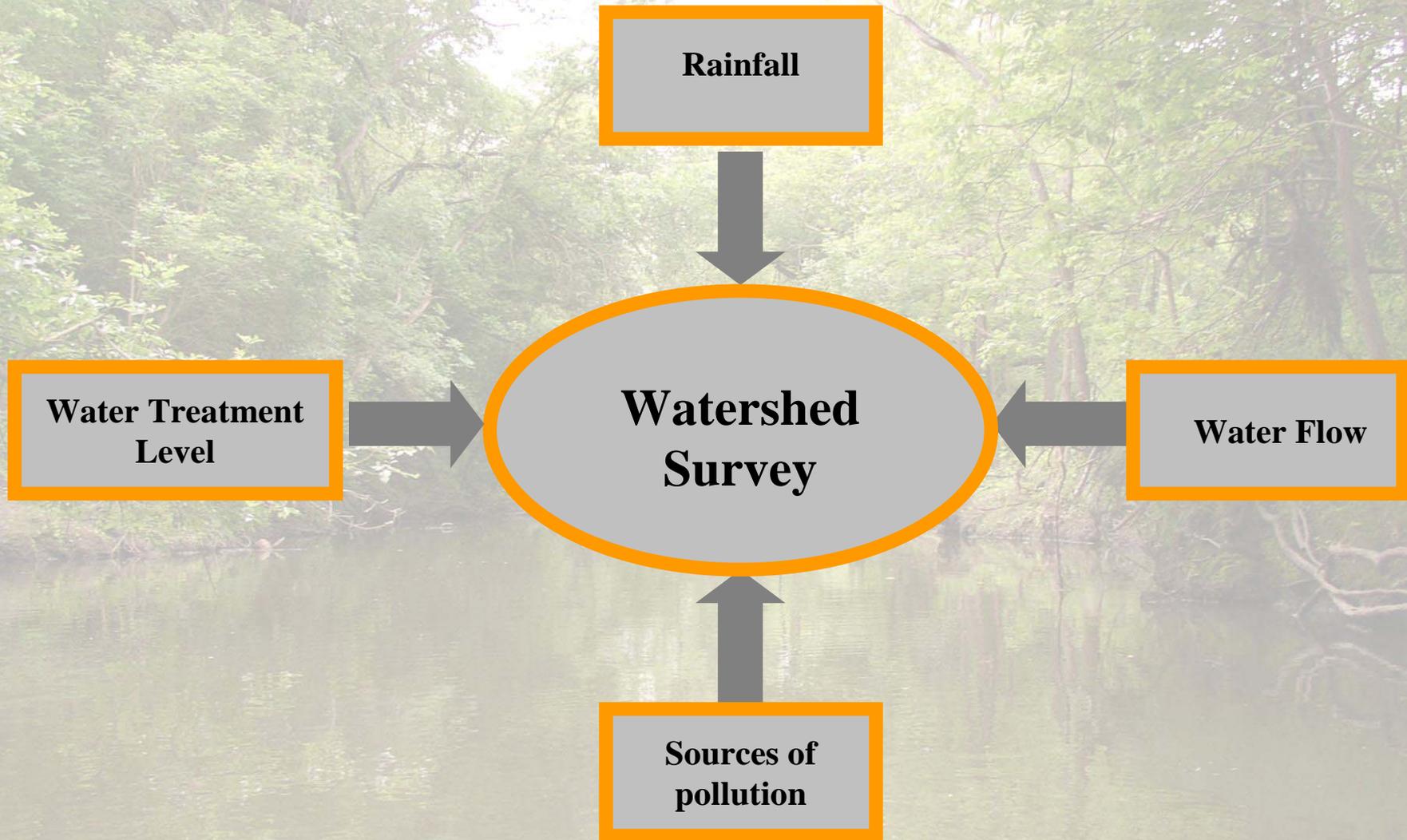
Provide information on:

Source controls and identification

Persistent problems

Management actions





Bacteria Source Tracking

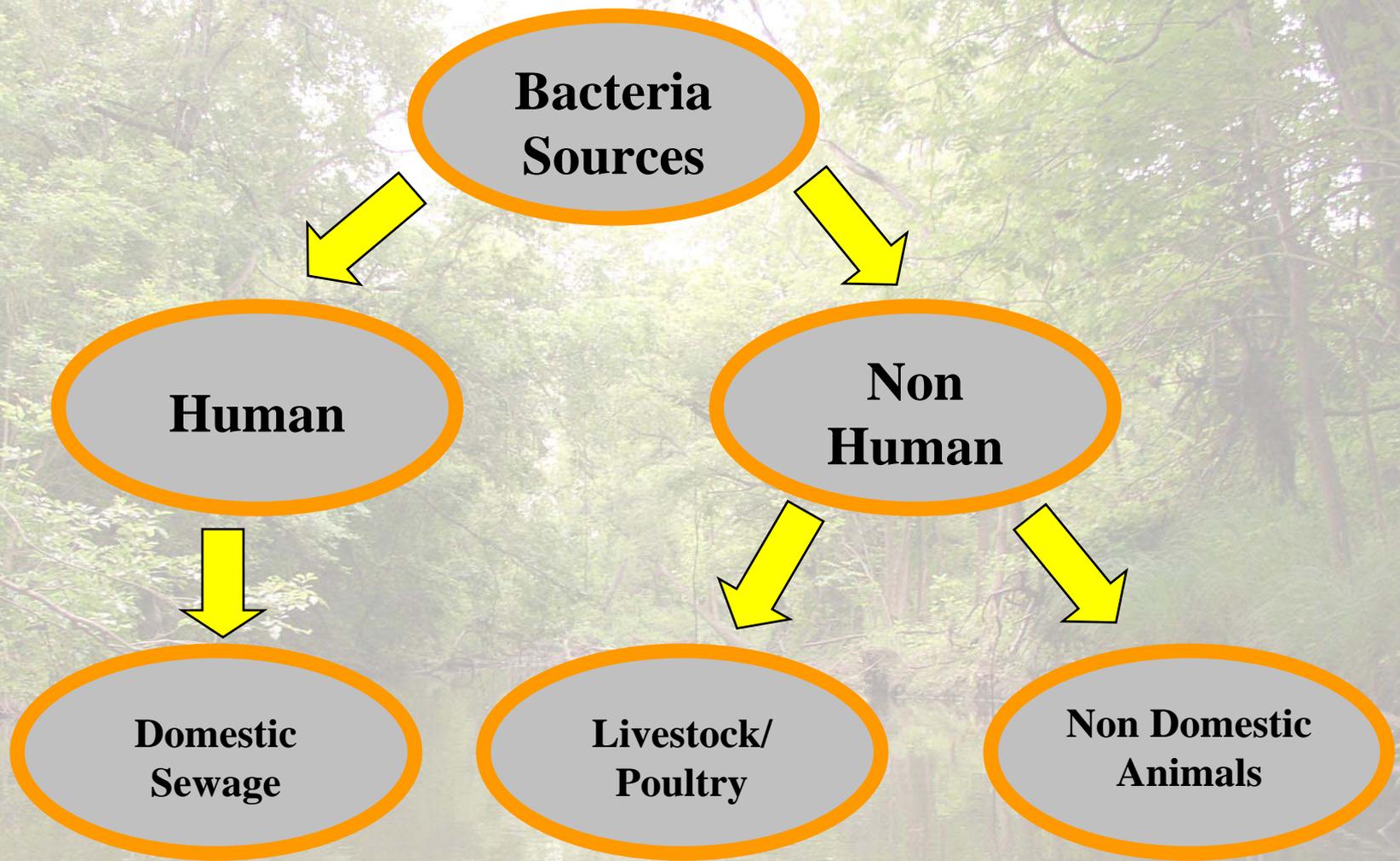
DNA fingerprinting methods

Library dependent vs independent methods

Genotypic vs phenotypic methods

Multimethod approaches





Texas Bacteria Task Force indicates these 3 groups to be more scientifically justified

“Toolbox approach”



Project Status

Verified Impairment

Targetted data collection

Water quality assessment

Past

Evaluating Potential Sources

Load duration curve development

Additional sampling \ Inspections

Watershed Surveys

Bacteria Source Tracking

Present

Plan Development

Water Quality Standards Revision

Future