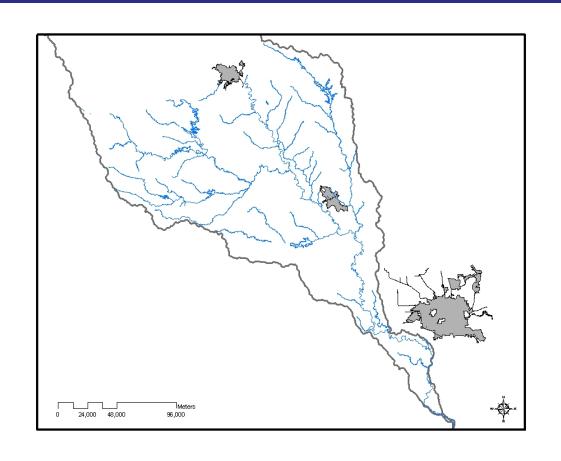
### Water Quality in the Brazos Basin

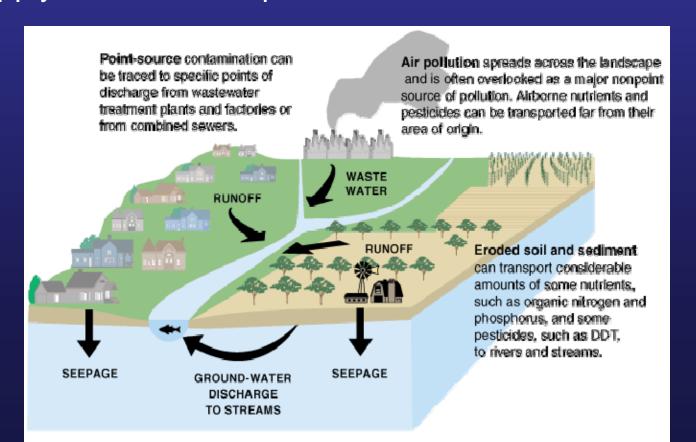
Dakus Geeslin
Texas Commission on Environmental Quality





### What is Water Quality

- Physical, chemical, and biological characteristics in relation to a set of standards
- Aquatic Life Use, Contact Recreation, Public Water Supply, Fish Consumption



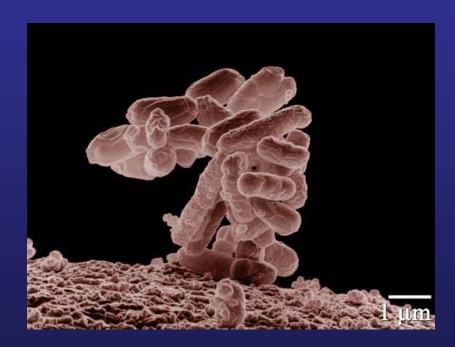
### Standards Criteria

		Uses			Criteria						
Segment No.	Segment Name	Recreation	Aquatic Life Use	Domestic Water Supply	Cl <sup>-1</sup> (mg/L)	SO <sub>4</sub> <sup>-2</sup> (mg/L)	TDS (mg/L)	DO (mg/L)	pH (SU)	indicator bacteria #/100ml	Temp
1202	Brazos below Navasota	Contact Recreation	High	Public Supply	300	200	750	5	6.5-9.0	126/200	95 F
1242	Brazos above Navasota	Contact Recreation	High	Public Supply	350	200	1000	5	6.5-9.0	126/200	95 F



#### Concerns

Thompson's Creek, Campbell's Creek, Mud Creek, Pin Oak Creek, Spring Creek, Tehuacana Creek, Big Creek, Allen's Creek, and Upper Oyster Creek all have have elevated E. Coli levels.



**Bacteria** 

### Concerns



Still Creek, Cottonwood Branch, Thompson's Creek, and Allen's Creek

**Nutrients** 



Total Maximum Daily Load (TMDL) Leon River below Proctor Lake Bacteria TMDL Bryan/College Station Carters Creek Bacteria TMDL Rocky Creek Salado Creek Aquatic Life TMDL **Aquatic Life TMDL** 

™eters

92,000

23,000 46,000

Upper Oyster Creek Bacteria and Dissolved Oxygen TMDL

# TMDL Implementation

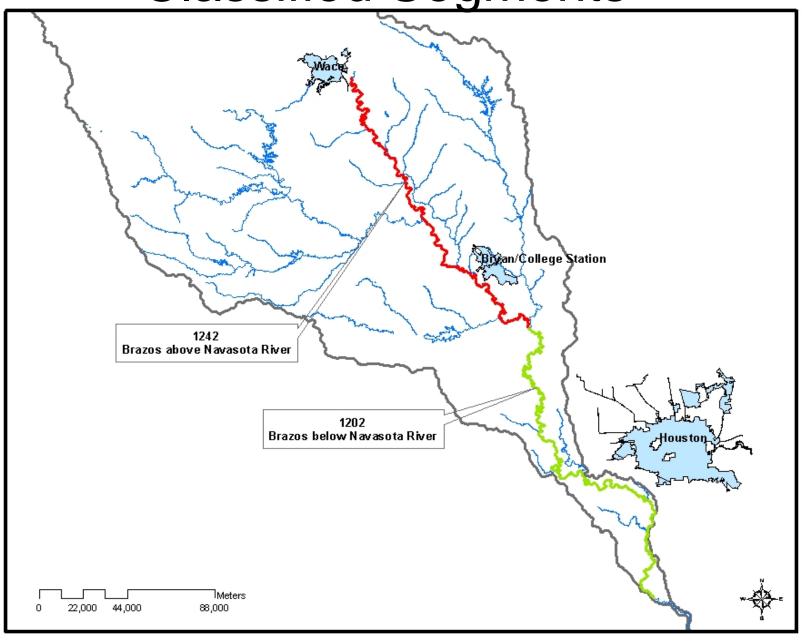
Adjustment of effluent limitation in permits

Schedule of elimination of pollutant

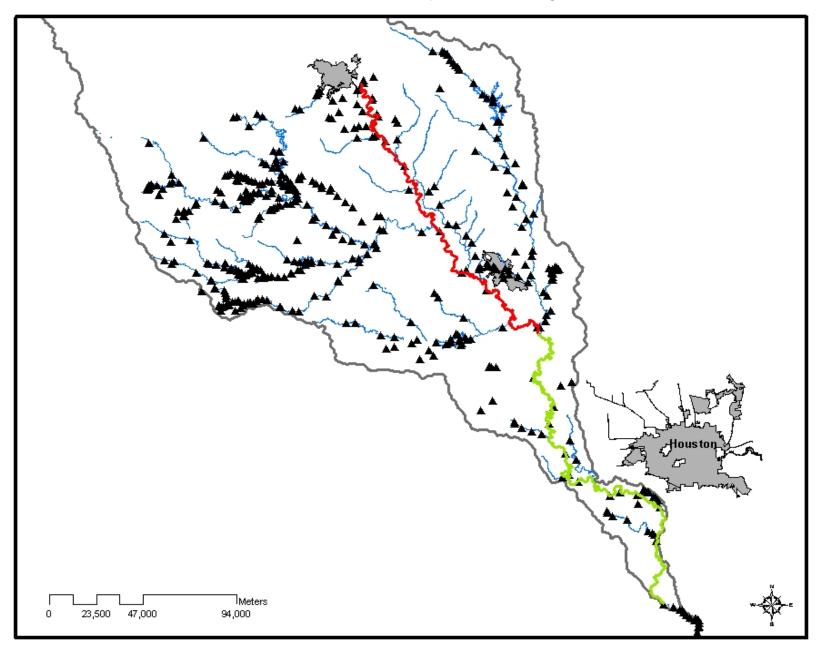
Identification of nonpoint sources

Modification to a storm water program

Classified Segments



TCEQ Surface Water Quality Monitoring Stations



## Clean Rivers Program

- The Texas Clean Rivers Program incorporates water quality monitoring, assessment, and public outreach.
- The program is a collaboration of 15 partner agencies (ex. SARA, BRA, etc.) and the TCEQ.
- The CRP works as a hub for participating collaborators to provide data as well as coordinated watershed protection.

## Goal and Objectives

- A Middle and Lower Brazos River that provides for sustainable environmental, economic, and social uses.
- Manage flow-related water quality to sustain ecological, economic, and social processes and productive capacity.

#### Web Resources

Water Quality Standards
http://www.tceq.state.tx.us/nav/eq/eq\_swqs.html

**TMDL** 

http://www.tceq.state.tx.us/implementation/water/tmdl/index .html

Clean Rivers Program http://www.tceq.state.tx.us/nav/eq/texcleanriver.html

BRA Basin Report http://www.brazos.org/BasinSummary\_2007.asp