

Total Maximum Daily Load (TMDL) for Bacterial Impairments

Project Area 2
Basins D&E

August 27, 2003

San Antonio
Testing Lab

 PARSONS

HICKS &
COMPANY
ENVIRONMENTAL
ARCHEOLOGICAL
AND PLANNING
CONSULTANTS

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Study Segment

Segment 1803C – Peach Creek

From the confluence of the Guadalupe River
southeast of the City of Gonzales in
Gonzales County to northeast of Waelder in
Gonzales County

Purpose of Today's Meeting

- Review *E. coli* Data (historical and current) for Peach Creek
- Recruit Permanent Stakeholders for the Peach Creek TMDL

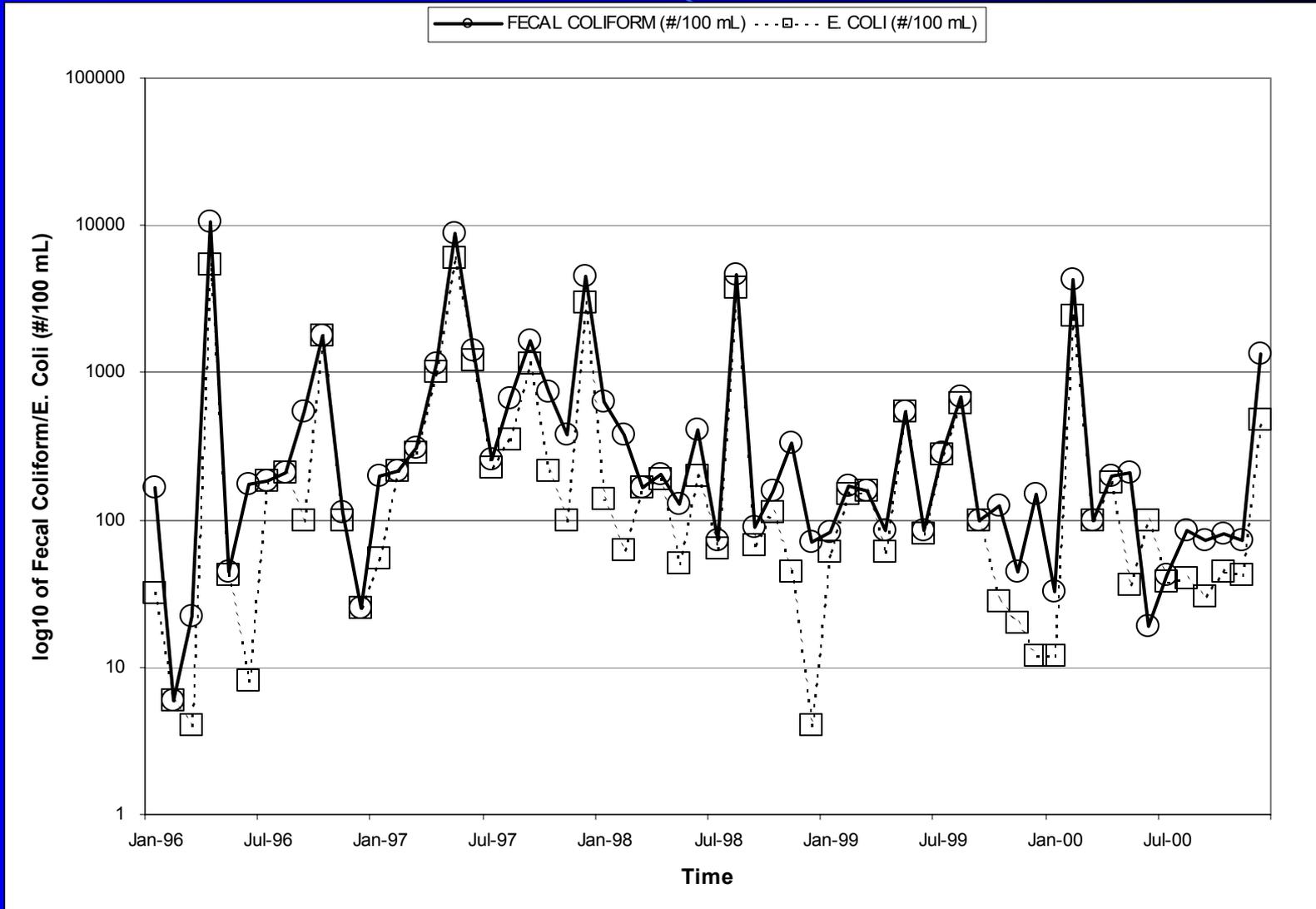
Peach Creek *E. coli* Data (1996-2001)

STATION	LOCATION	NO. OF SAMPLES	NO. OF EXCEED	GEO MEAN COL/100 ML	STATUS	COVERAGE
14937	CR 353	60	12	121	fully supporting	lower 25 mi

Peach Creek Fecal Coliform Data (1996-2001)

STATION	LOCATION	NO. OF SAMPLES	NO. OF EXCEED	GEO MEAN COL/100 ML	STATUS	COVERAGE
14937	CR 353	60	17	226	not supporting	lower 25 mi

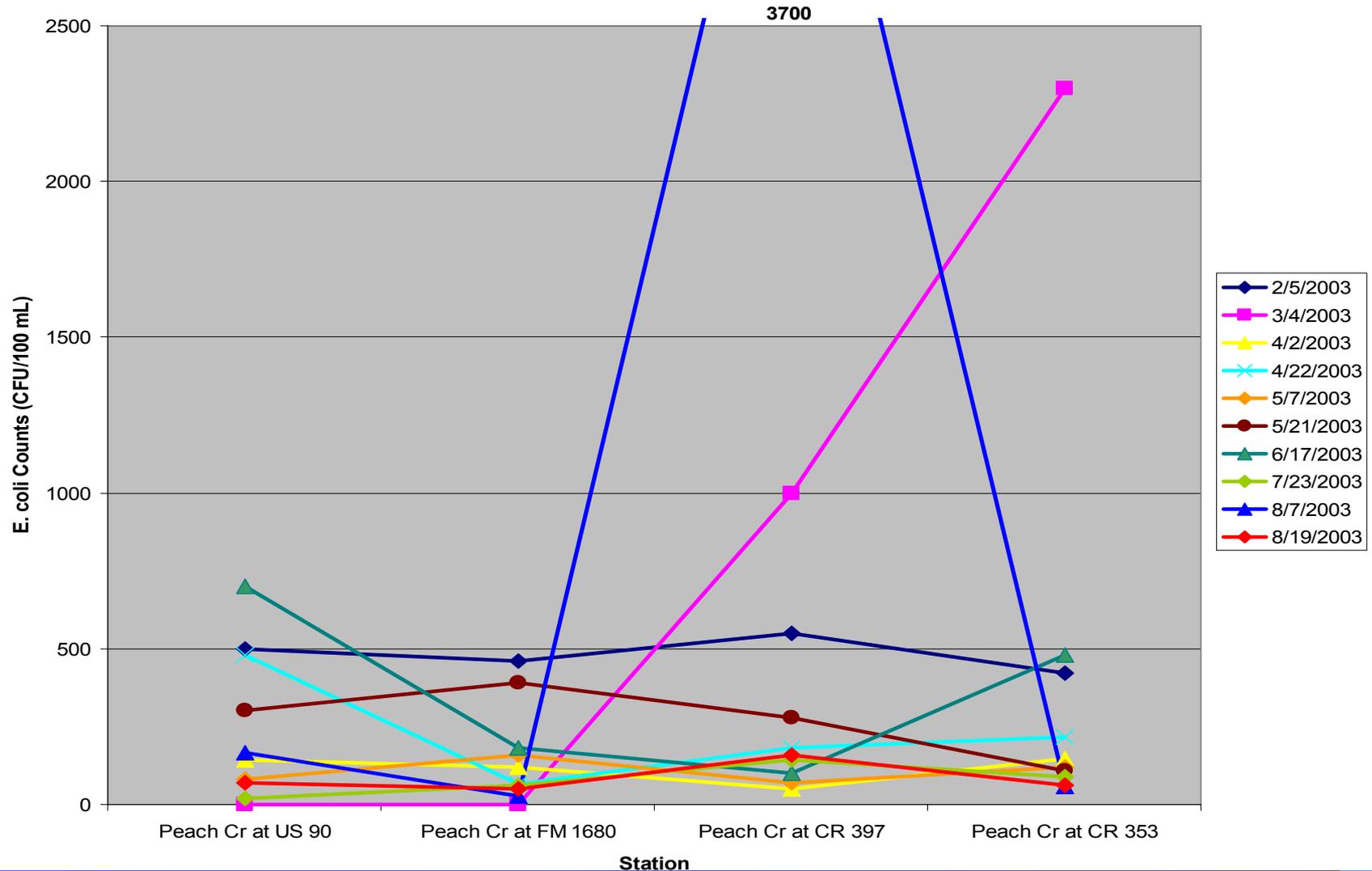
Peach Creek E. Coli/Fecal Coliform vs. Time, Station 14937, Peach Creek at CR 353



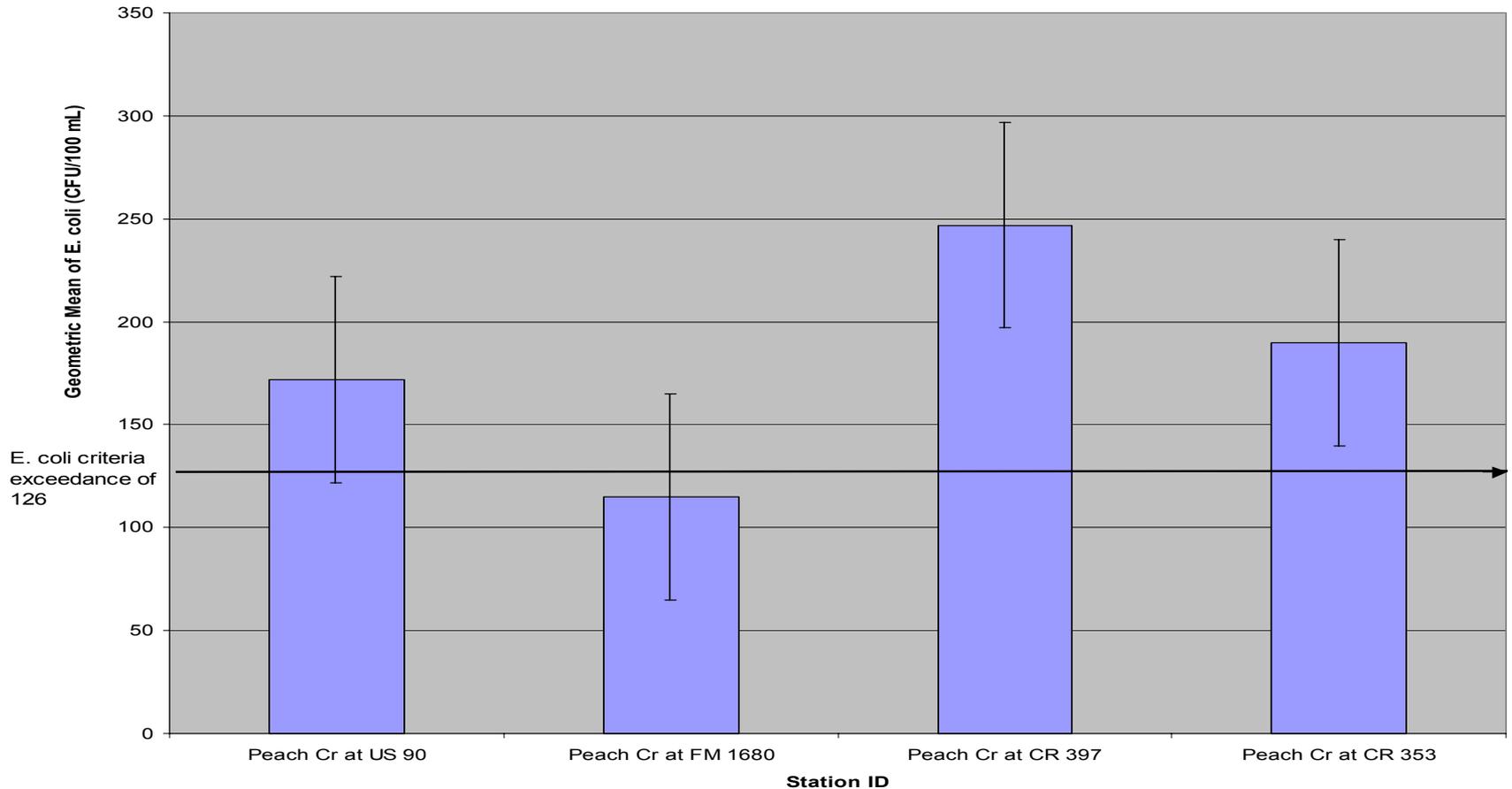
Additional Monitoring for *E. coli* Peach Creek

- Agricultural Watershed
 - 25 mile reach
- 4 monitoring stations
- 10 sampling surveys

Peach Creek E. coli Counts, February – August 2003



Peach Creek 2003 Sampling Events Geometric Mean, Bacteria Counts per Station February – August 2003



Bacterial Source Tracking (BST)

Method: Ribotyping

- Genetic fingerprints of E. coli strains
- Genes that code for ribosome RNA
- Distinguish between different bacterial strains
- Agricultural Research and Extension Center (AREC) in El Paso

Bacterial Source Tracking (BST)

Library of Known Bacteria Types (knowns)

- Salado Creek/Upper San Antonio River: 500 samples
- Lower San Antonio River: 200 Samples
- Peach Creek: 300 samples

BST



BST



BST



Water Samples for BST Testing (Unknowns)

- Salado Creek
 - St 12876 – Austin Hwy (SH368): 80 samples
 - St 15645 – Commerce St: 80 samples
 - St 12864 – Loop 13: 80 samples
 - St 12698 – Walzem Creek: 80 samples

BST Water Samples (Unknowns)

- Upper San Antonio River
 - St 12912 – Hildebrand: 80 samples
 - St 14256 – Mitchell: 80 samples
 - St 12897 – Camino Coahuilteca – 80 samples
 - St 12883 – Dietz Rd, NW Floresville: 80 samples

BST Water Samples (Unknowns)

- Lower San Antonio River
 - St 12794 – SH72: 80 samples
 - St 12790 – FM 2506: 80 samples

- Peach Creek
 - St 14937 – CR 353 – 80 samples

Next Phase

- Segment 1803C Peach Creek
 - Baseflow Sampling
 - Runoff Sampling
 - 4 Mainstem stations
 - 2 Tributary stations
 - 2 Point sources

Stakeholder Involvement

- Improve the quality and quantity of contributions to TMDL projects
- Ensure that state government considers the local perspective in its decisions
- Lead to consensus-based solutions
- Encourage open dialogue on water quality issues

Who are Stakeholders?

- Significant contributors of pollutant loadings
- Persons affected by water quality problems
- Persons required to undertake control measures because of statutory or regulatory requirements
- Persons with regulatory responsibilities linked to water quality
- Persons who can help implement actions to fix water quality problems
- Members of the general public who live in the watershed or use the water resource

Questions / Comments ?