

Guadalupe River Basin Clean Rivers Program

2004

Steering
Committee Meeting



Guadalupe River Basin Clean Rivers Program

2004 Activities and Deliverables

Project Administration:

Progress Reports and Invoicing

Management of Sub-Agreements with

UGRA and PBS&J

Attendance on CRP meetings

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2004 Activities and Deliverables

Quality Assurance:

Develop and maintain Quality Assurance Project Plan

Develop QAPP for special studies

Coordinated Monitoring Meetings

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2004 Activities and Deliverables

Water Quality Monitoring:

- 19 Monitoring Sites – Monthly (GBRA)
- 7 Monitoring Sites – Quarterly (GBRA)
- 1 Special monitoring – Bimonthly (GBRA)
- 10 Monitoring Sites – Quarterly (UGRA)
- 8 Sites Biological/Habitat Assessments (GBRA and UGRA) – Semi-annually (7); Annual (1)
- 8 Sites Metals – Annually (GBRA and UGRA)
- 19 Sites E. coli – May thru August (UGRA) weekly
- 2 Diurnal sites – Quarterly (GBRA and Wimberley Valley)
- 6 Monitoring sites – Monthly (Wimberley Valley)

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Water Quality Monitoring (cont.):

Systematic site now a monthly routine site:

Plum Creek at Plum Creek Road

Bimonthly monitoring on Peach Creek

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Water Quality Monitoring (cont.):

Special monitoring study:

Nutrient study on Lakes Dunlap and McQueeney

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Data Management and Watershed Inventories:

Submit data files to TCEQ monthly

Data available on website in Excel or PDF

Events Inventory

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Data Analysis and Reporting:

Basin Highlights Report

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Public Participation and Outreach:

Website

Texas Watch

Middle School Curriculum

Presentations

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Special Studies:

None planned for 2004

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- 2002-03 Budget
 - \$276,911 (original budget, \$282,236, reduced by \$5,325 in March '03)
- 2004-05 Budget
 - \$271,046 + \$41,500 = \$312,546

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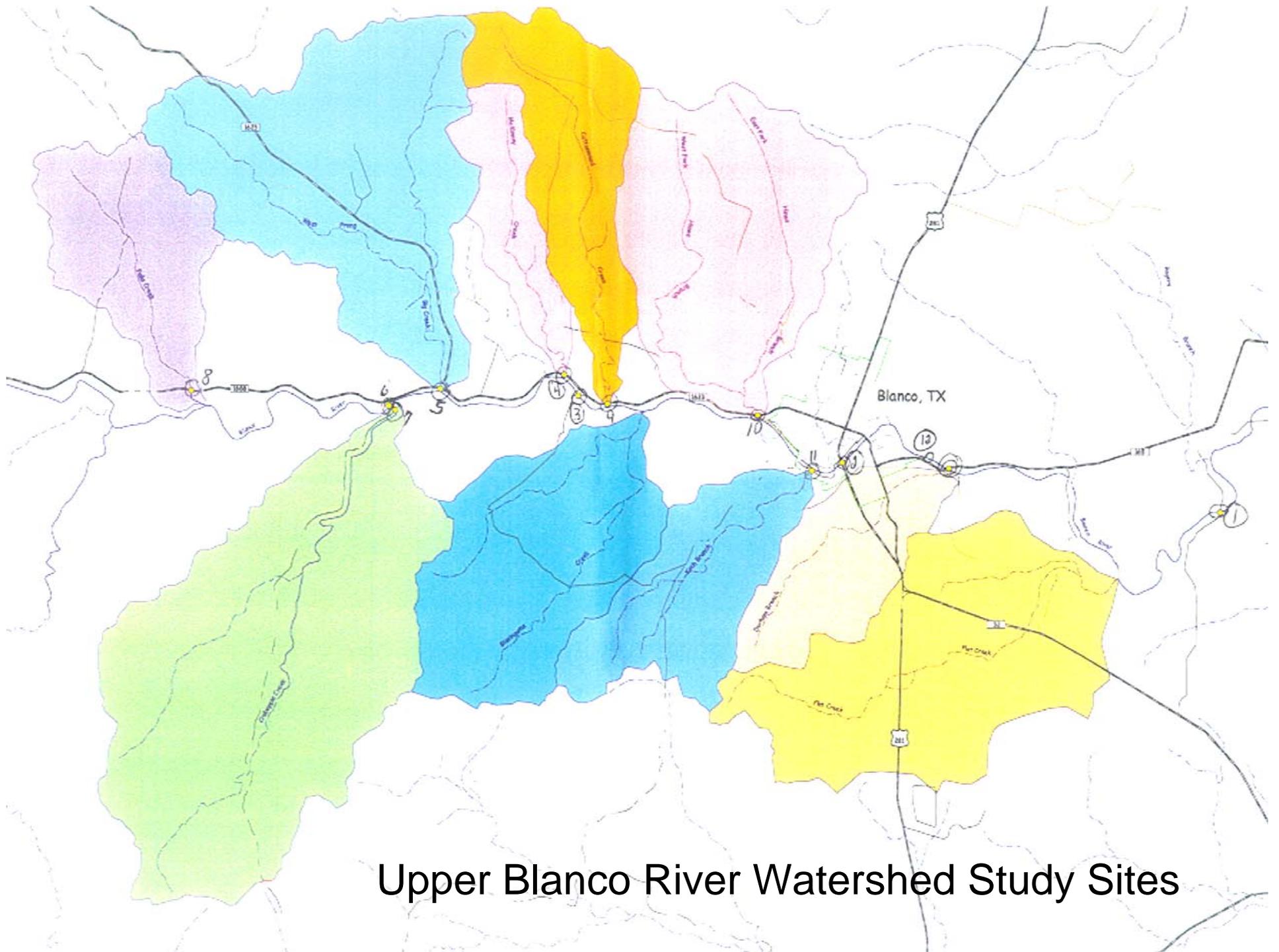
- Highlights of 2004-05 Work Plan:
 - Monitoring:
 - Systematic site on Plum Creek in Hays County has become routine monthly monitoring site
 - Systematic site added to Peach Creek due to potential water quality impacts from a hog farm (bimonthly)
 - Continue to work with participants in program – Village of Wimberley, UGRA
 - Diurnal monitoring on Lake McQueeney
 - Special data collection/nutrient study of upper lakes
 - Coordinate with other monitoring projects if possible

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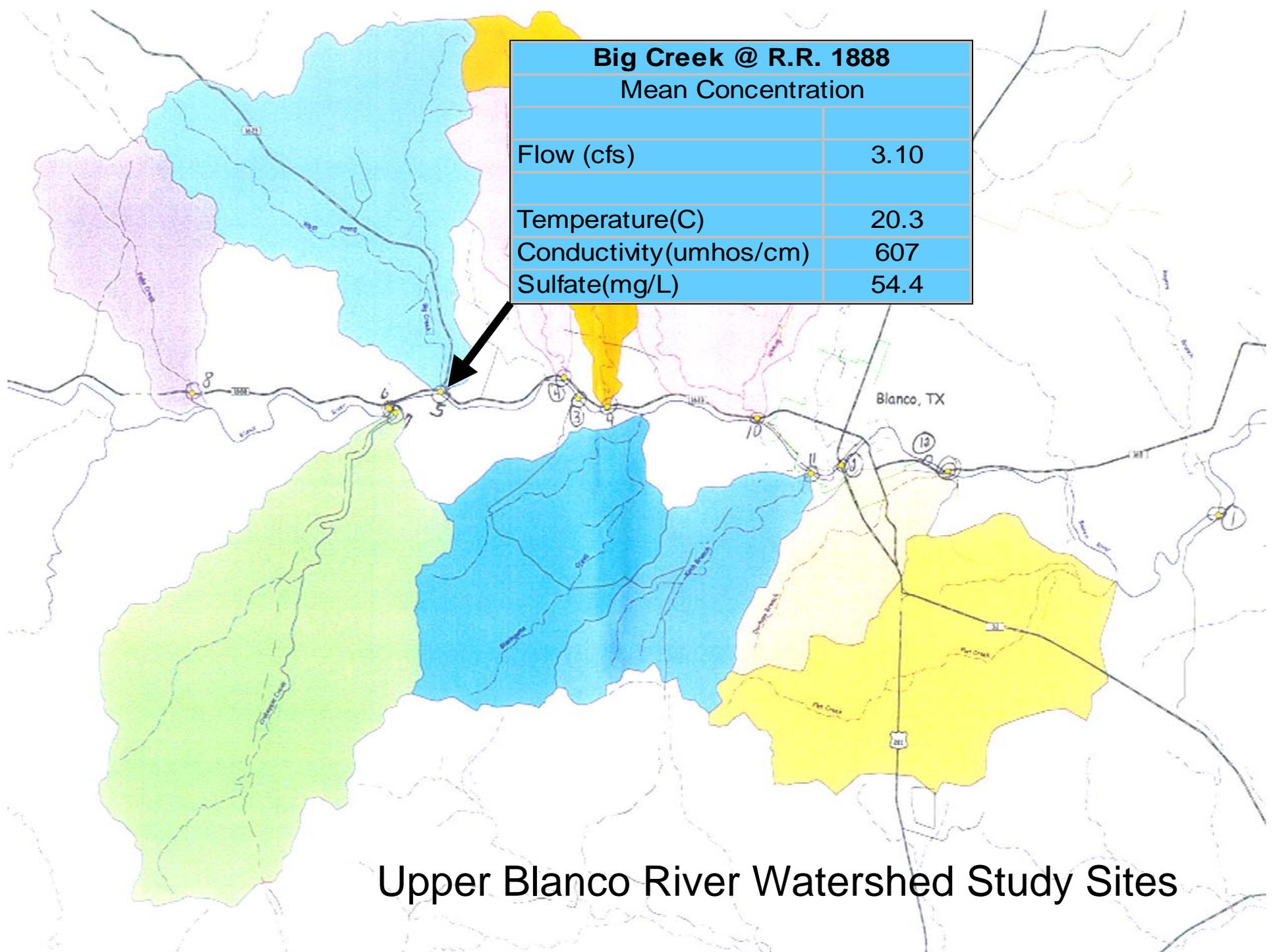
2003 Special Studies

Sulfate Study on the Upper Blanco Watershed

- Two phases
- 12 locations – main-stem and tributaries
- Phase 1 – monthly monitoring for sulfate, temp,
conductivity and flow
- Phase 2 – monitoring in Big Creek watershed

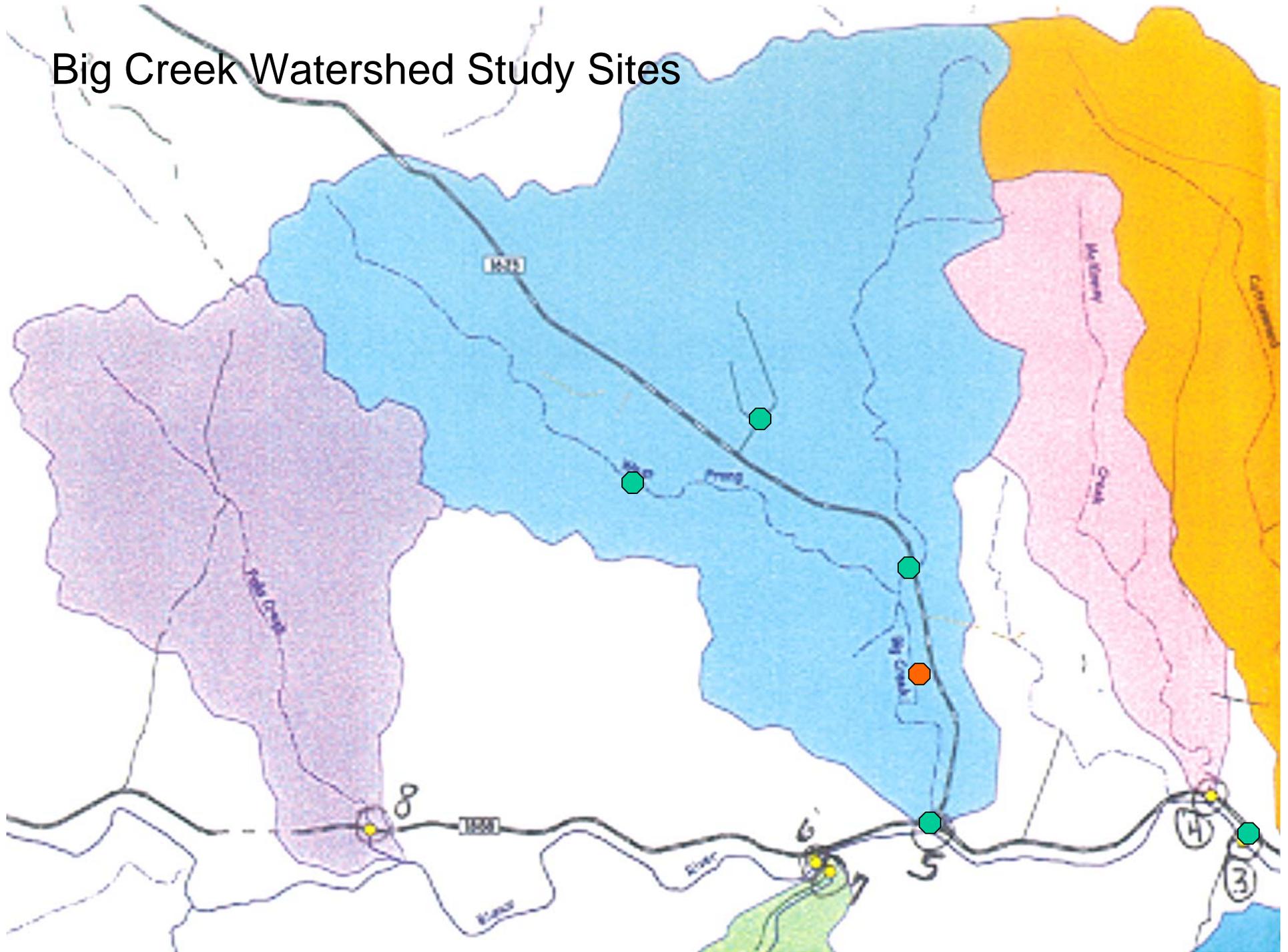


Upper Blanco River Watershed Study Sites



Upper Blanco River Watershed Study Sites

Big Creek Watershed Study Sites



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- Results of Blanco River Sulfate Study:
 - Isolated elevated sulfate concentrations to East Prong of Big Creek watershed
 - There was no discharge from the City of Blanco during the time of the study
 - At main stem sites, inverse relationship between flow and sulfate
 - On 5 of 6 tributaries, flow did not affect sulfate concentration
 - In Big Creek watershed, during low flow saw elevated sulfates
 - TWDB well logs show elevated sulfate in ground water in the East Prong area; well sample taken during study confirmed

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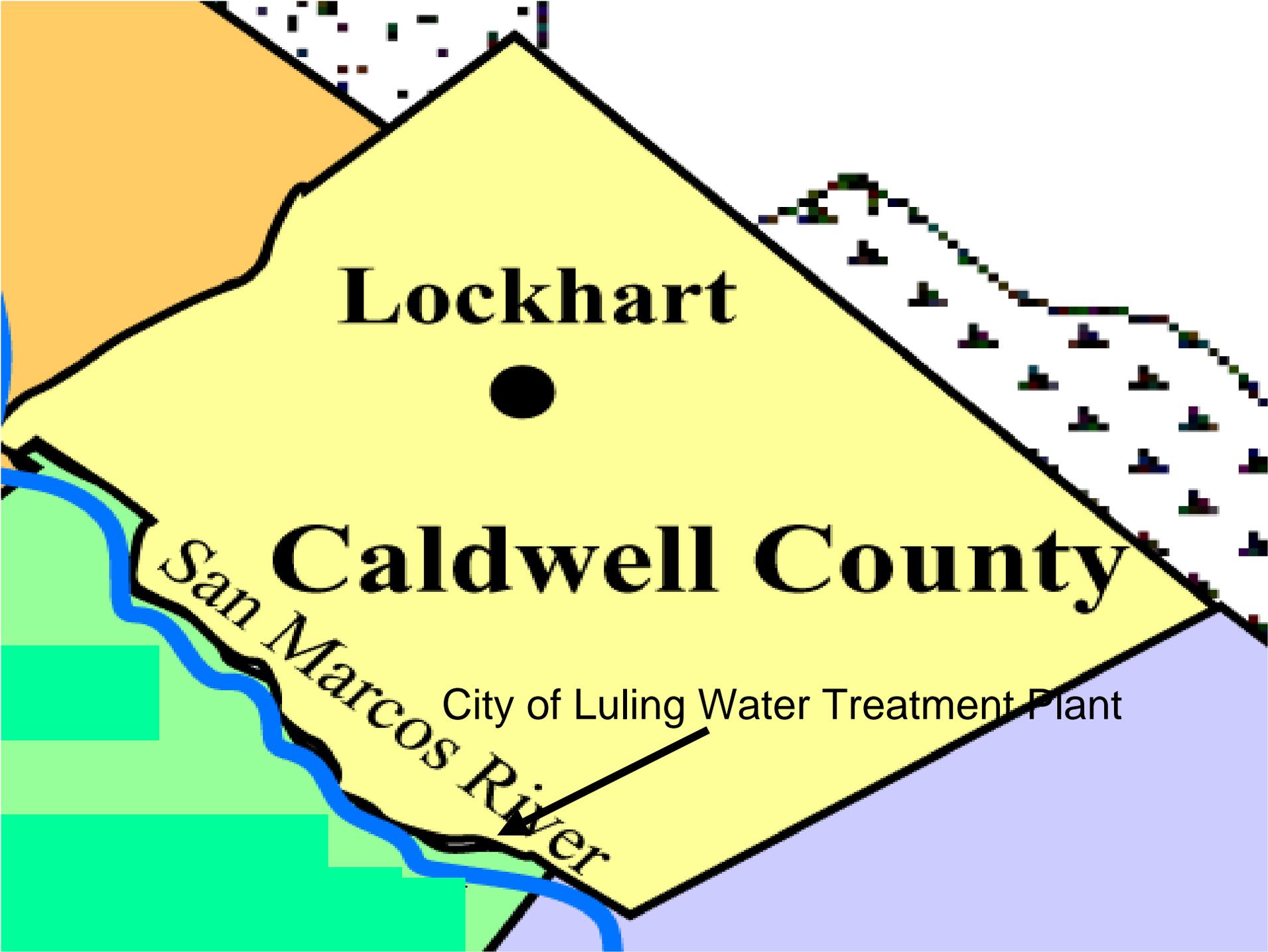
- Recommendations:
 - Investigate land use activities such as groundwater usage and discharge during low flow conditions in Big Creek

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2003 Special Study

Investigation of Impact of Oil Field Activities on the San Marcos River and Plum Creek in Caldwell County

- Began monitoring in September 2002
- Two sampling locations on San Marcos River and Plum Creek
- Routine quarterly and after rainfall events for one year (seven events)
- Monitoring for total petroleum hydrocarbons (TPH), BTEX and polynuclear aromatic hydrocarbons (PAH)



Lockhart

Caldwell County

San Marcos River

City of Luling Water Treatment Plant

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2003 Special Study

Investigation of Impact of Oil Field Activities

- **4450 wells in Caldwell County in 2001, producing just under a million barrels of crude oil**
- **Study area – 996 permitted wells**
- **Area dissected by pipelines carrying crude and gas**
- **Compounds tested – BTEX, TPH**

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BTEX – volatile, monoaromatic hydrocarbons

Benzene, Toluene, Ethylbenzene, Xylene

Total Petroleum Hydrocarbons – large group of organic compounds that originate in crude oil

These compounds are considered one of the major causes of environmental pollution due to widespread leakage from underground petroleum storage tanks and spills.

Adverse health effects - affect nervous system, blood, lungs, skin, eyes and immune system.

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- No detects in routine or stormwater monitoring
- Suggest annual monitoring for organic compounds at these two sites.

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Special Nutrient Monitoring Study on Lakes
Dunlap and McQueeney

- 2 sites added to Lake Dunlap
- 4 sites added to Lake McQueeney
- All current parameters plus Total Kjeldahl Nitrogen
- Monitoring monthly April through October, bimonthly November through March

