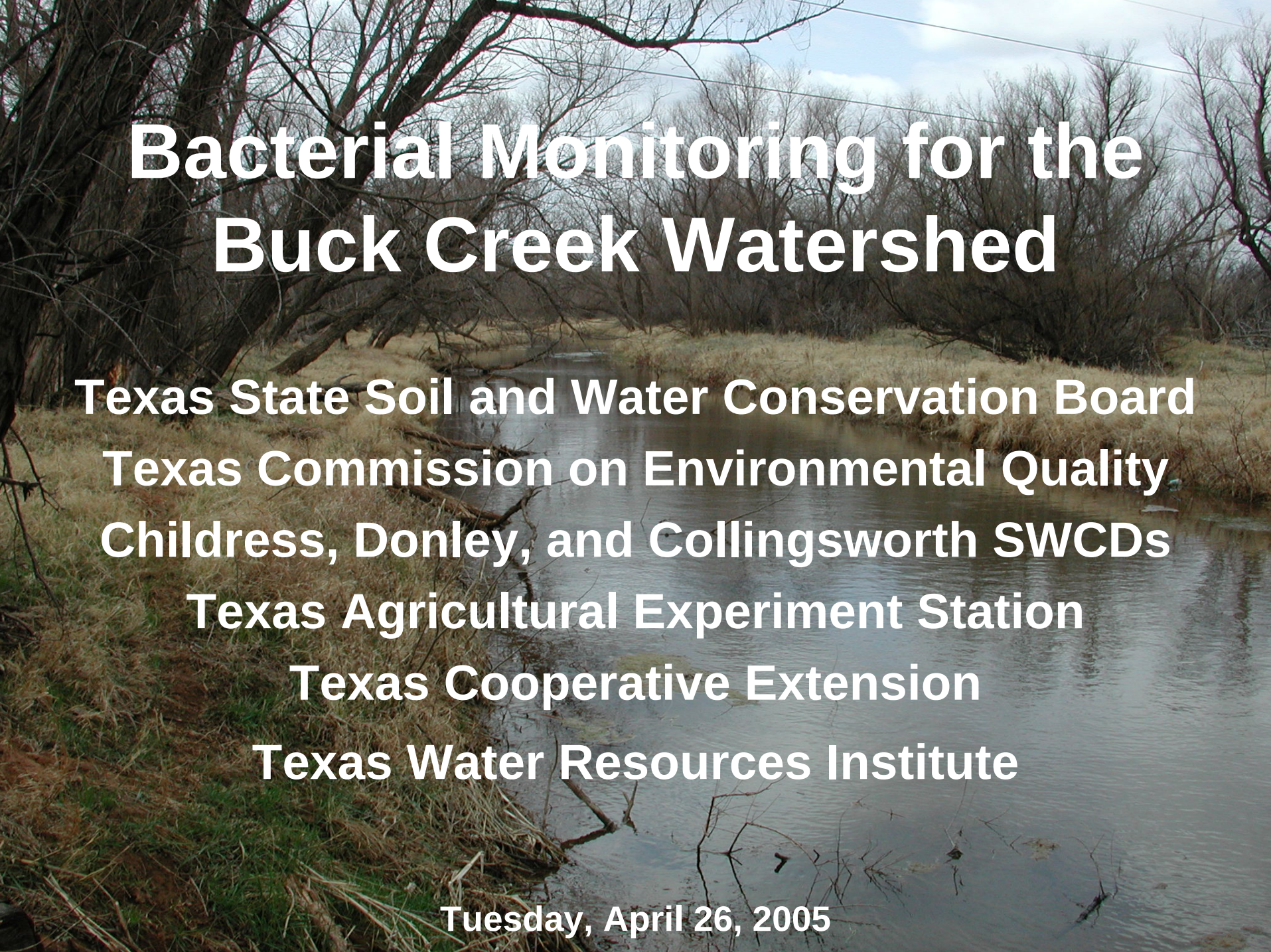


Bacterial Monitoring for the Buck Creek Watershed

Texas State Soil and Water Conservation Board

Texas Commission on Environmental Quality

Childress, Donley, and Collingsworth SWCDs

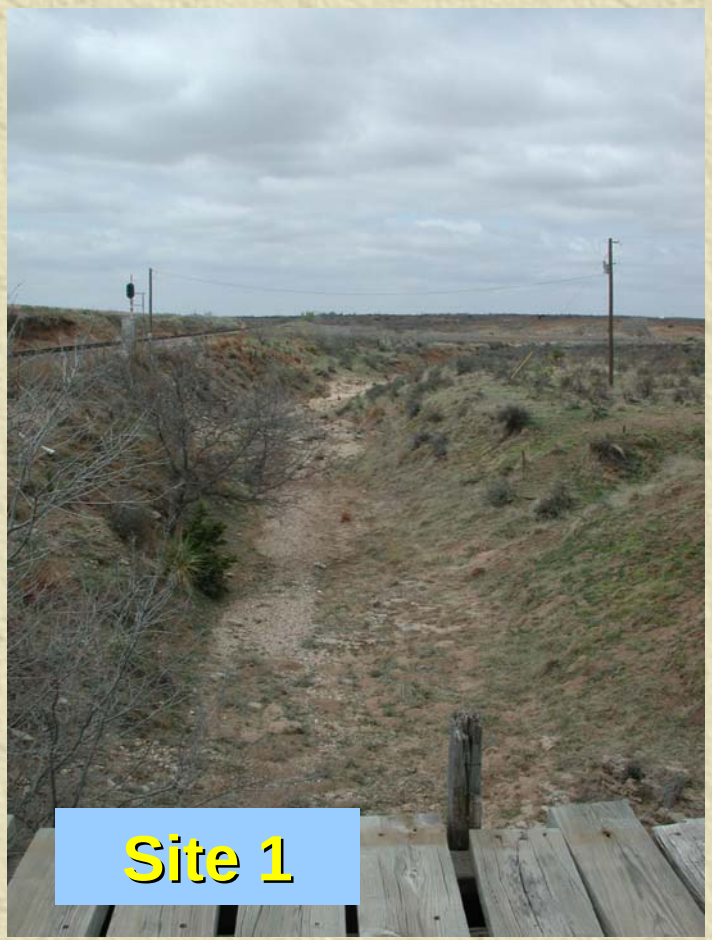
Texas Agricultural Experiment Station

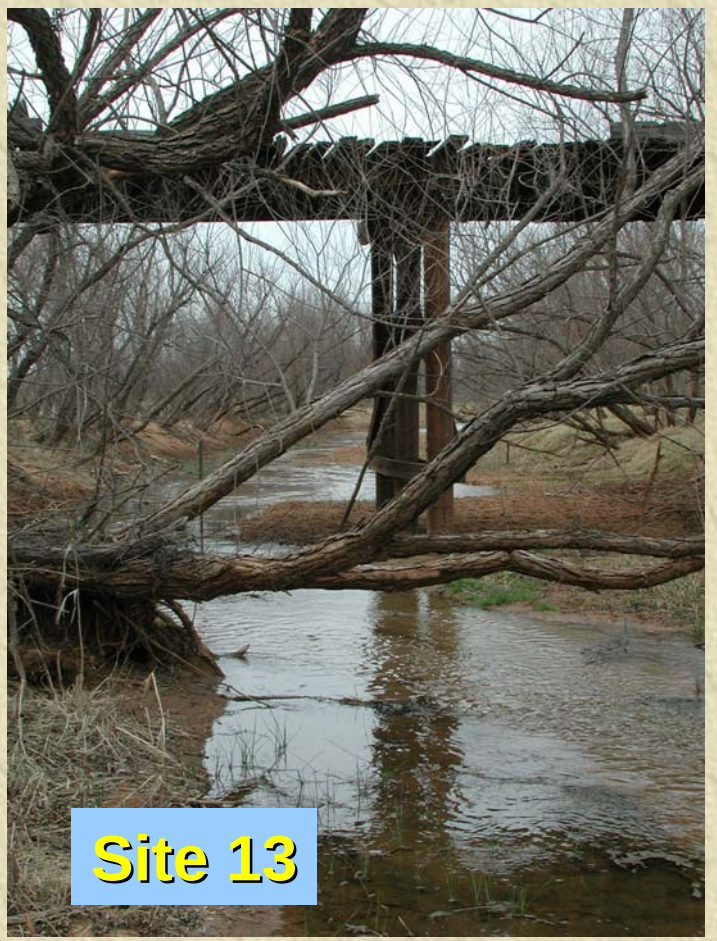
Texas Cooperative Extension

Texas Water Resources Institute

Tuesday, April 26, 2005

Buck Creek Watershed





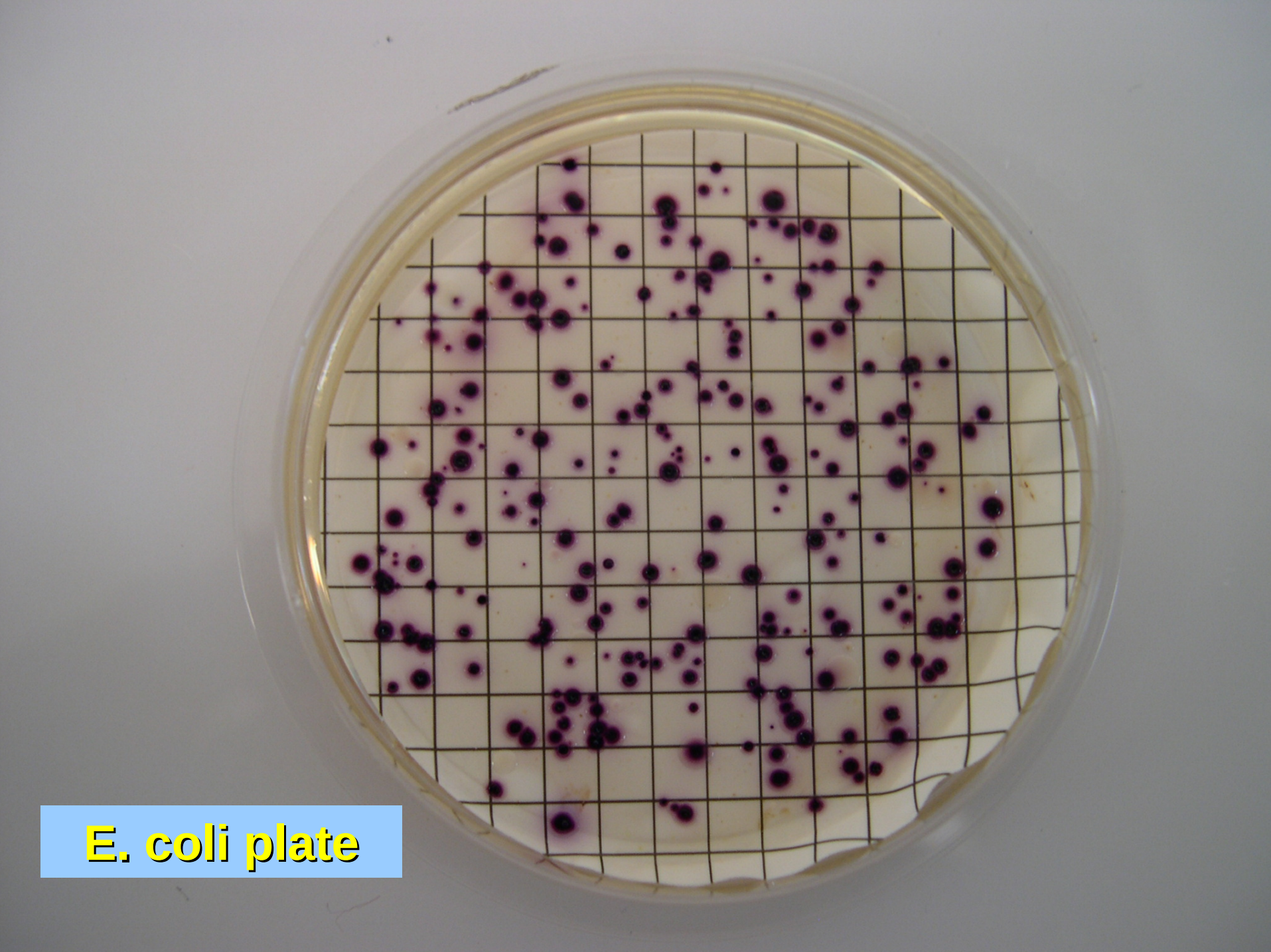
Filtering samples

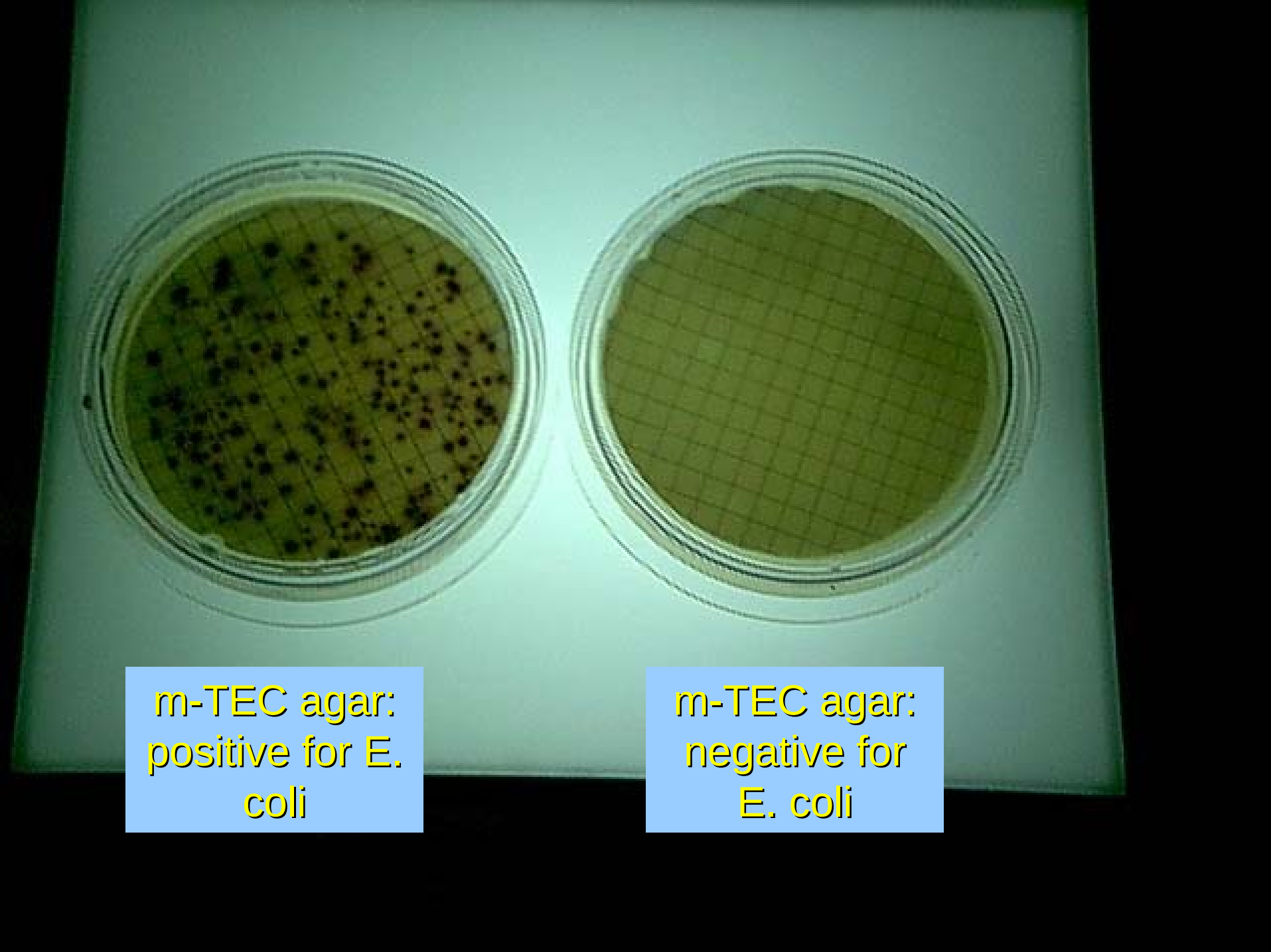
Taking aliquot on
high count samples

Incubators

Counting Bacteria

Marking colonies


E. coli plate


m-TEC agar: positive for E. coli
m-TEC agar: negative for E. coli

Fecal coliform plate

Buck Creek Project
Site Sampling

***E.coli* Count per 100 ml:**										8-Jul-04	
Site Number		**2**	**3**	**4**	**5**	**6**	**7**	**10**	**11**	**12**	**13**	
10-May		140	211	467	144	90	1896					
17-May								218	199	113	244	
24-May			44	442	324	668						
1-Jun								315	186	21		
5-Jun	RE		414									
8-Jun			32	435	279							
15-Jun								491	502	151	TNTC	
20-Jun	RE		n/a	186	230				89	38	124	
27-Jun	RE		n/a	80	365				198	85	TNTC	**Grand**
7-Jul			63	460	544							**Mean:**
Mean:			153	345	314	379		341	235	82	184	254

TNTC: **T**oo **N**umerous **T**o **C**ount; these were over 1000 colonies per 100 ml.

RE: **R**ainfall **E**vent (yellow)

n/a: not **a**vailable (can't reach in rainfall event due to poor road conditions).

Single samples of E.coli should not exceed 394 colonies (green exceeds limit).

Geometric mean of E. coli samples should not exceed 126 (at present 254).

Many factors may contribute
to Buck Creek's impairment

Site 2 Upstream
3-20-03

Site 2 Downstream
3-20-03

Site 3 Upstream
3-20-03

Site 3 Downstream
3-20-03

Site 4 Downstream
3-20-03

Site 6 Upstream
3-20-03

Site 6 Downstream
3-20-03

Site 7 Swallow nests
3-20-03

Site 8 Upstream
3-20-03

Site 8 Upstream
Now Dry

Site 8 Downstream
3-20-03

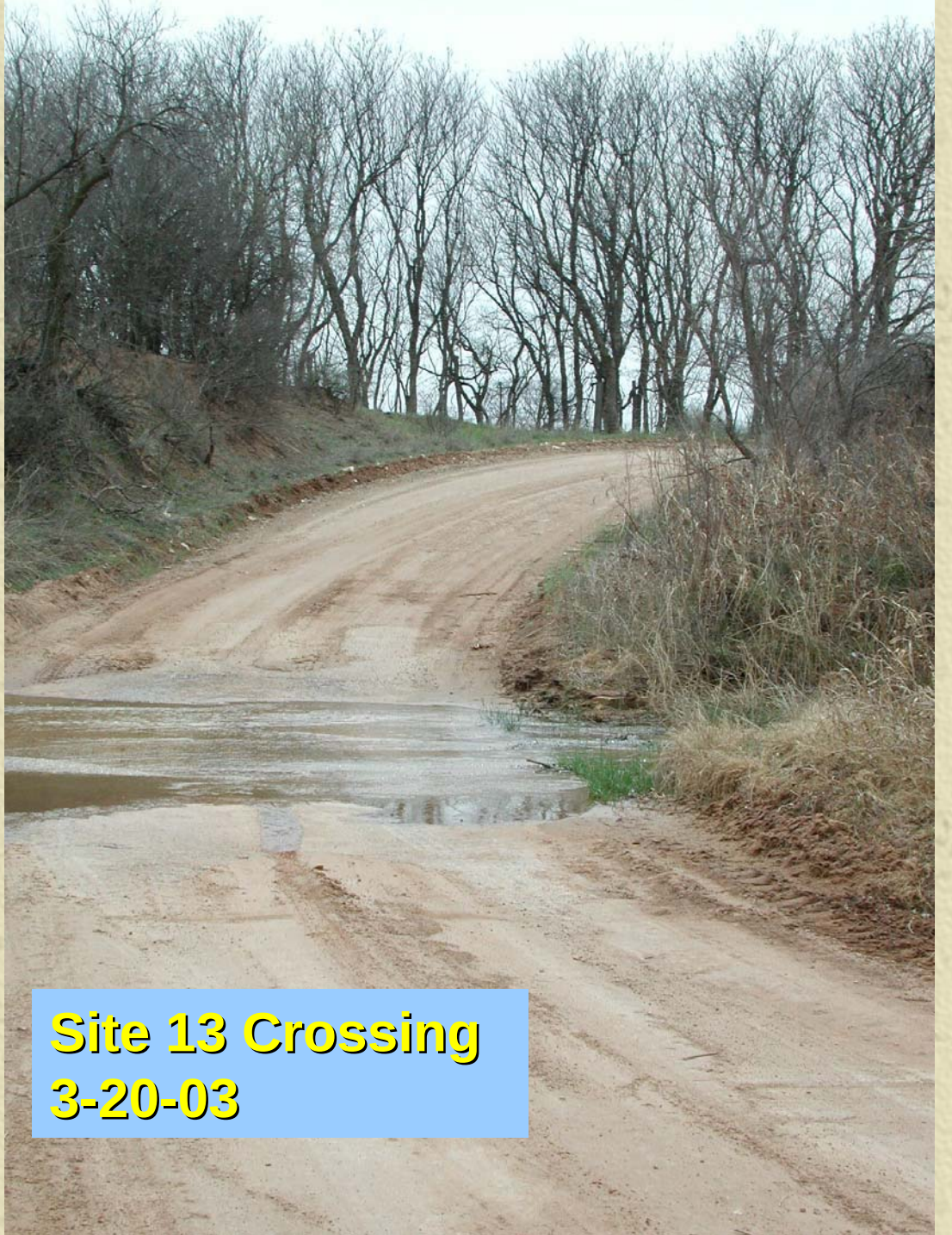
Site 8 Downstream

Site 13 Upstream
3-20-03

Site 13 Upstream
During construction

Site 13 Upstream
May 2004

Site 13 Downstream
3-20-03


Site 13 Crossing
3-20-03