

Upper Hangman Creek TMDL

Presented to Upper Hangman Creek WAG

October 17, 2006

Tensed City Hall, Tensed, Idaho

AGENDA

Upper Hangman Creek Watershed Advisory Group

Wednesday October 17, 2006

9:00 am – 12:00 pm

Tensed City Hall

311.C Street, Tensed ID

9:00 - 9:15

1. Introductions and Meeting Agenda

9:15 – 10:30

2. Upper Hangman Creek TMDL Draft findings review

- A. Temperature
- B. Sediment

Break 10:30 – 10:45

10:45 – 11:15

3. Bacteria TMDL Development

11:15 – 11:45

4. TMDL section 4, Past and Current Pollution Control Efforts

- A. Timber
- B. Agriculture

11:45 - 11:55

5. Update Upper Hangman Creek TMDL Draft Timelines and Milestones

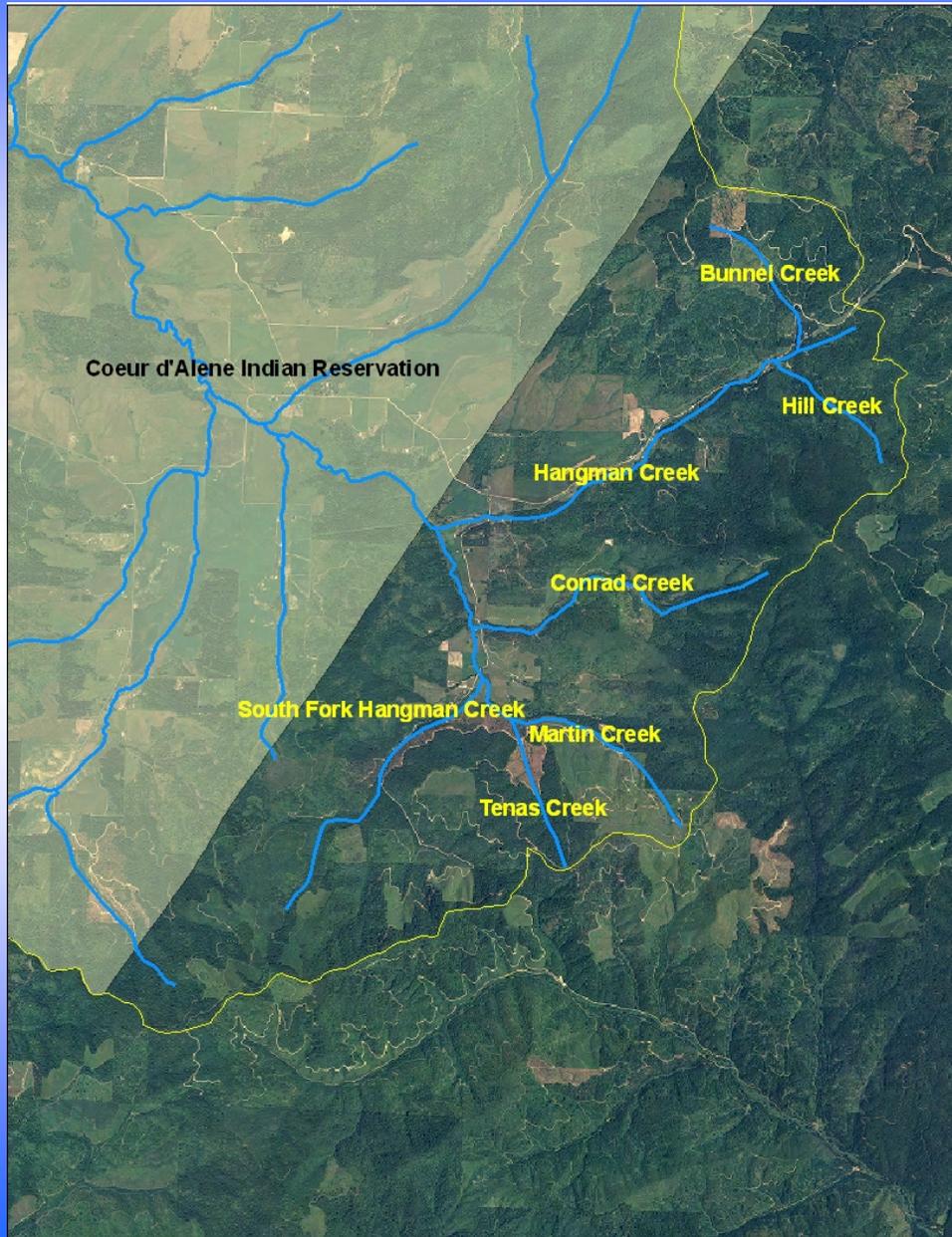
11:55 - 12:00

6. Future WAG meetings

Upper Hangman Creek TMDL draft findings

- Temperature
 - All streams assessed were determined to be exceeding Idaho's numeric Water Quality Standard
 - Solar load reductions ranged from 0-74%
 - Temperature modeled using PNV approach

Solar Load Reductions

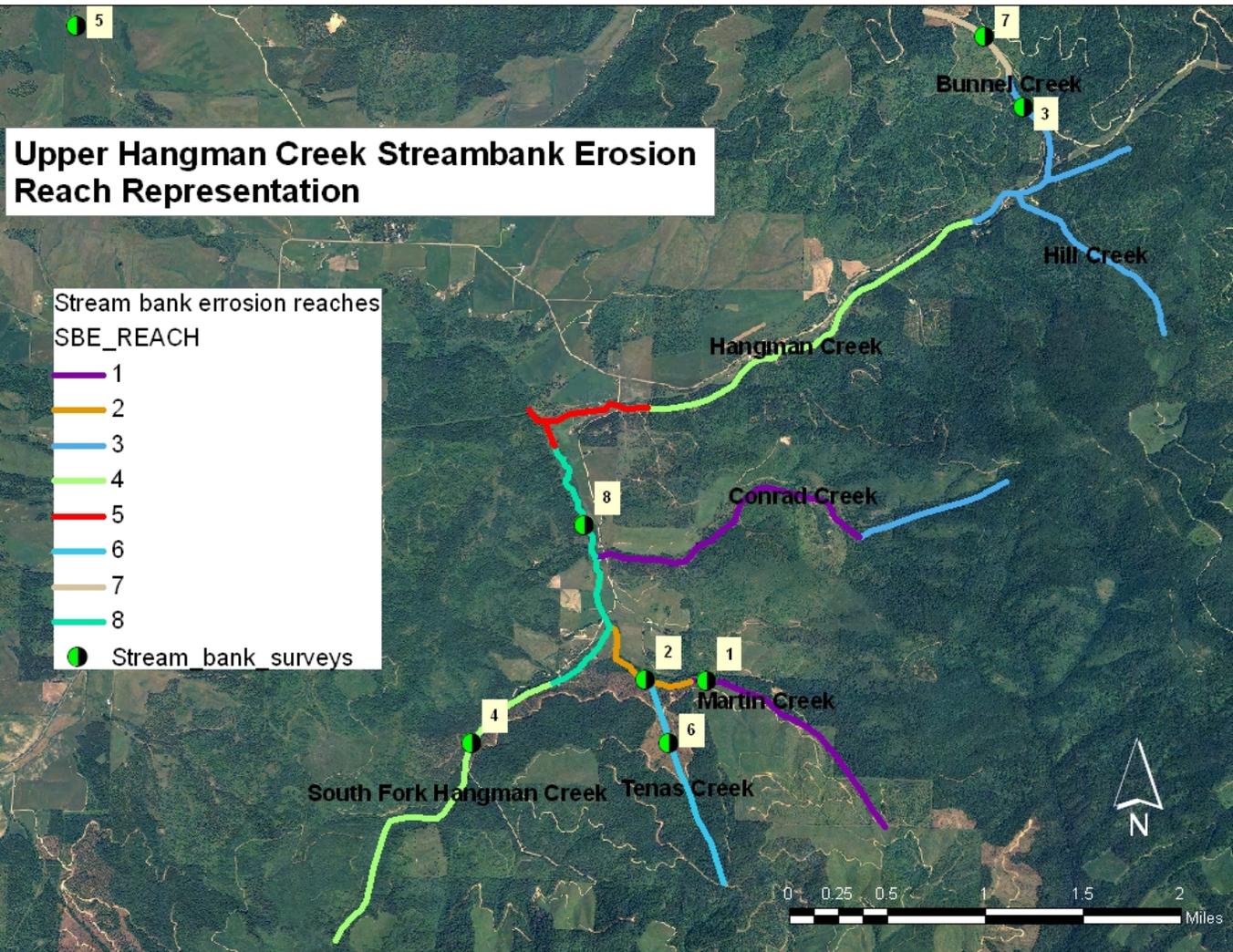


- Bunnel Creek 15%
- Hill Creek 25%
- Conrad Creek 52%
- Hangman Creek 63%
- Martin Creek 69%
- SF Hangman Creek 70%
- Tenas Creek 74%

Upper Hangman Creek TMDL draft findings

- Sediment
 - Sediment reductions ranged from 0-73%
 - 80% stream bank stability and 50% over natural background used as targets
 - Forest roads, mass failures and stream bank allocated sediment load reductions

Stream bank sediment reductions by reach



1. Mid to Up Martin and Mid to Low Conrad 22%
2. Low Martin 51%
3. Low Bunnel, Hill, Up Conrad, Up Hangman 0%
4. Up SF Hang, Mid Hangman 9%
5. Low Hang, Low SF Hangman 73%
6. Low Texas 23%
7. Up Bunnel 0%
8. Low SF Hangman 41%

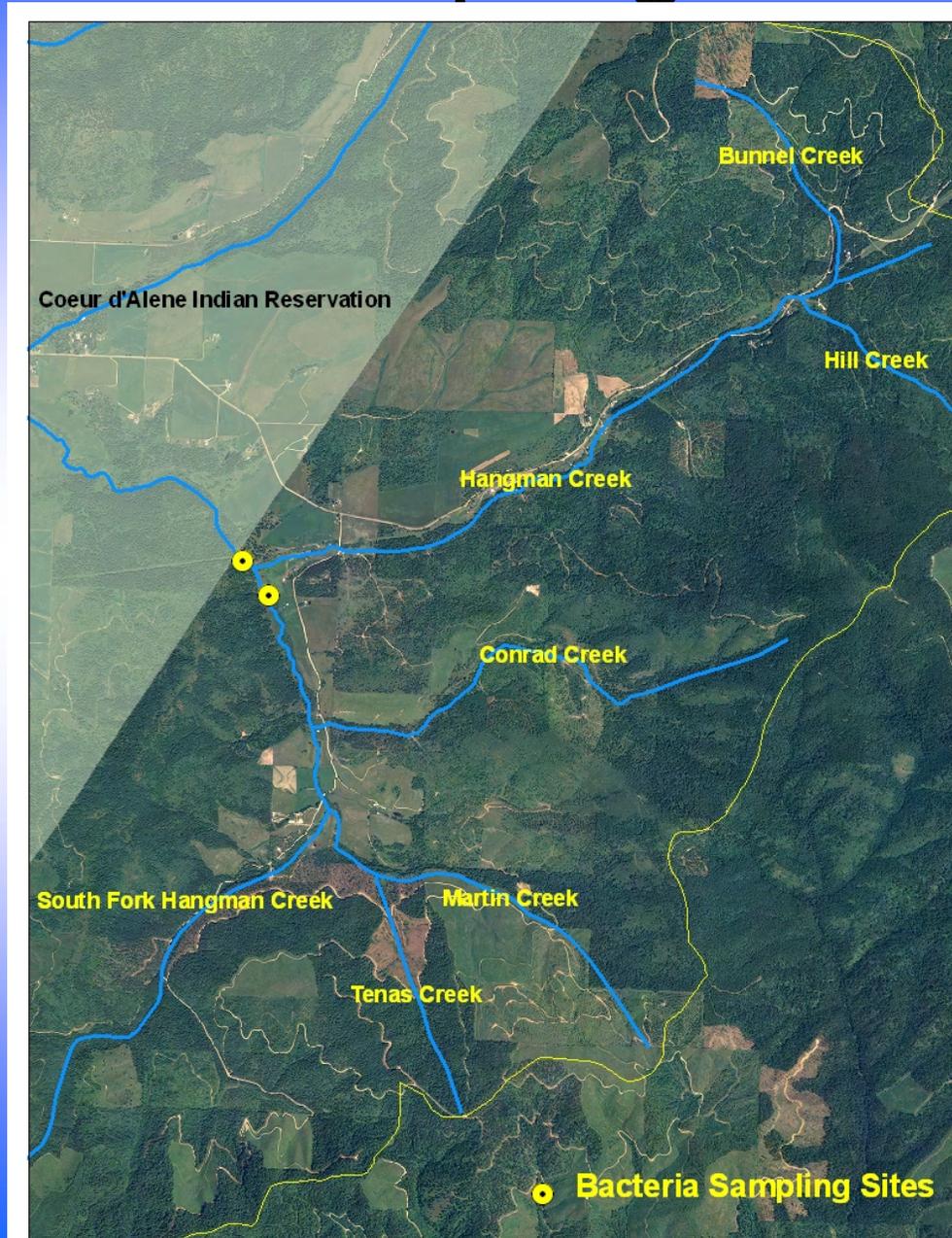
A reduction of 55% in sediment loading from stream banks above Tribal boundaries is required to meet TMDL

Sediment Allocation and Reductions by Source

Source	Existing Load (t/yr)	Load Capacity (t/yr)	Reduction (%)
Stream banks	753	339	55
Roads	270	135	50
Mass failure	7	3.5	50
Total	1030	477.5	54

Break

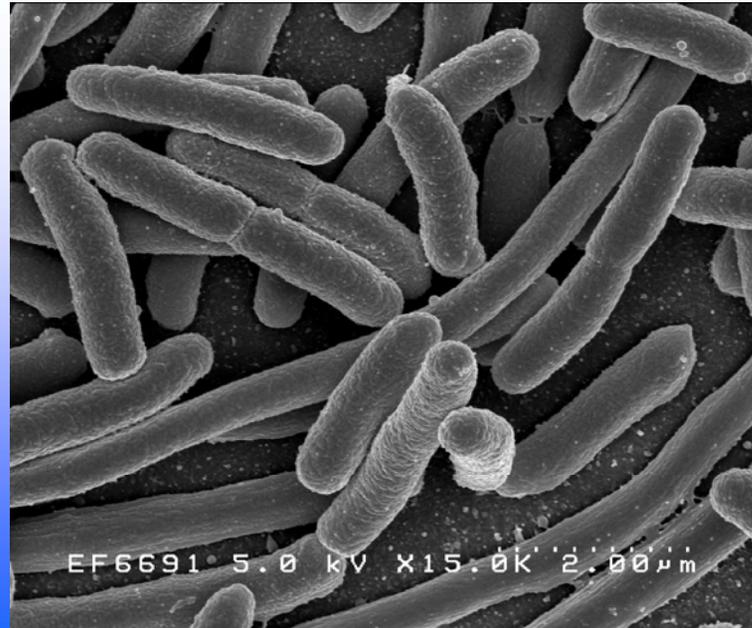
Bacteria Sampling Locations



Bacteria TMDL

E. Coli (*Escherichia coli*)

- What is *E. coli*?
- Why is *E. coli* bad?
- Why do we test for *E. coli*?
- Where does *E. coli* come from?



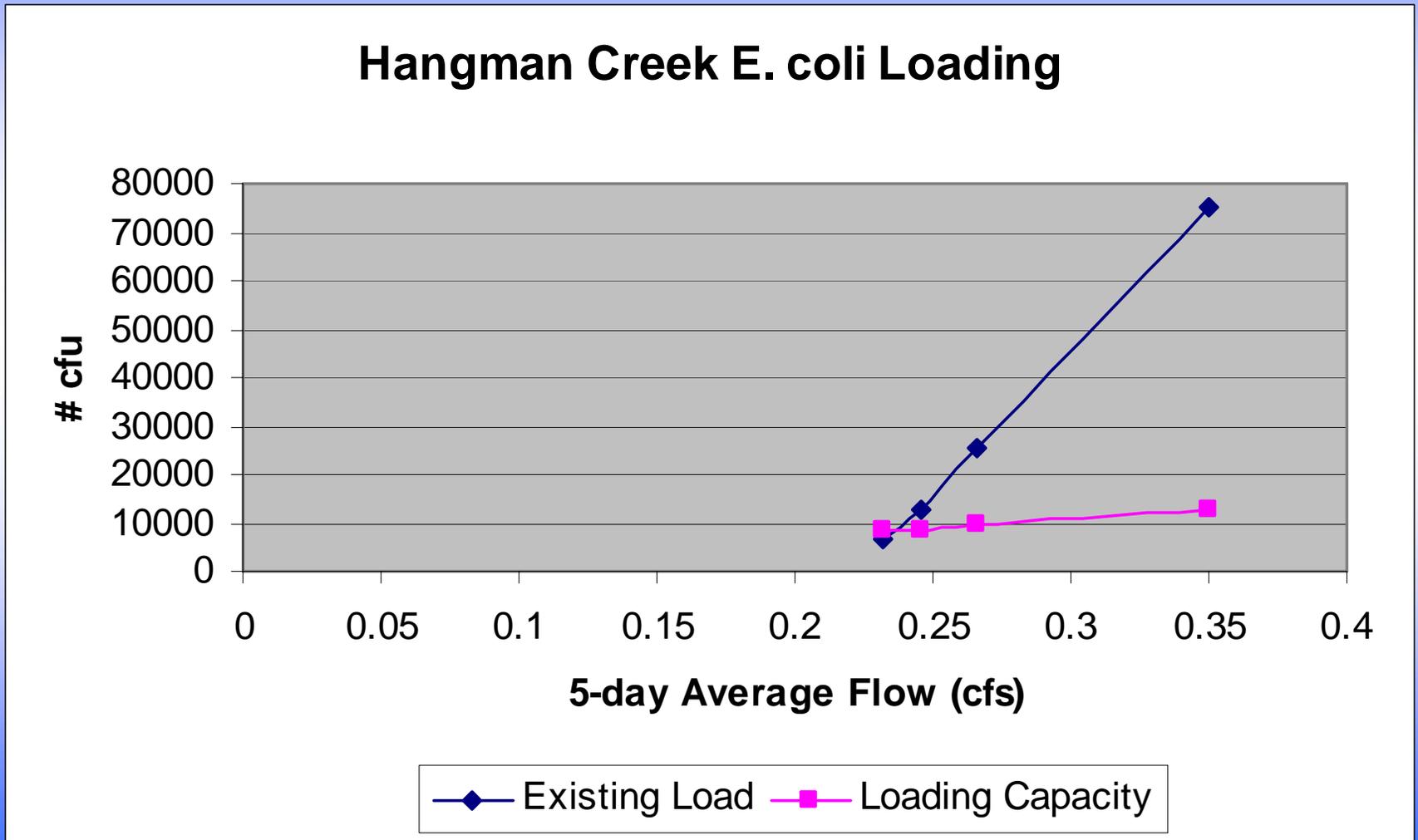
Bacteria TMDL Development

- Water Quality Standard = 126 cfu/100 ml *E. coli*
 - cfu = colony forming units
- Flow based calculation
 - A flow of 1 cfs can contain 35,679 cfu of *E. coli* at loading capacity

1 cubic foot	28,316.85 milliliters	126 cfu
	1 cubic foot	100 milliliters

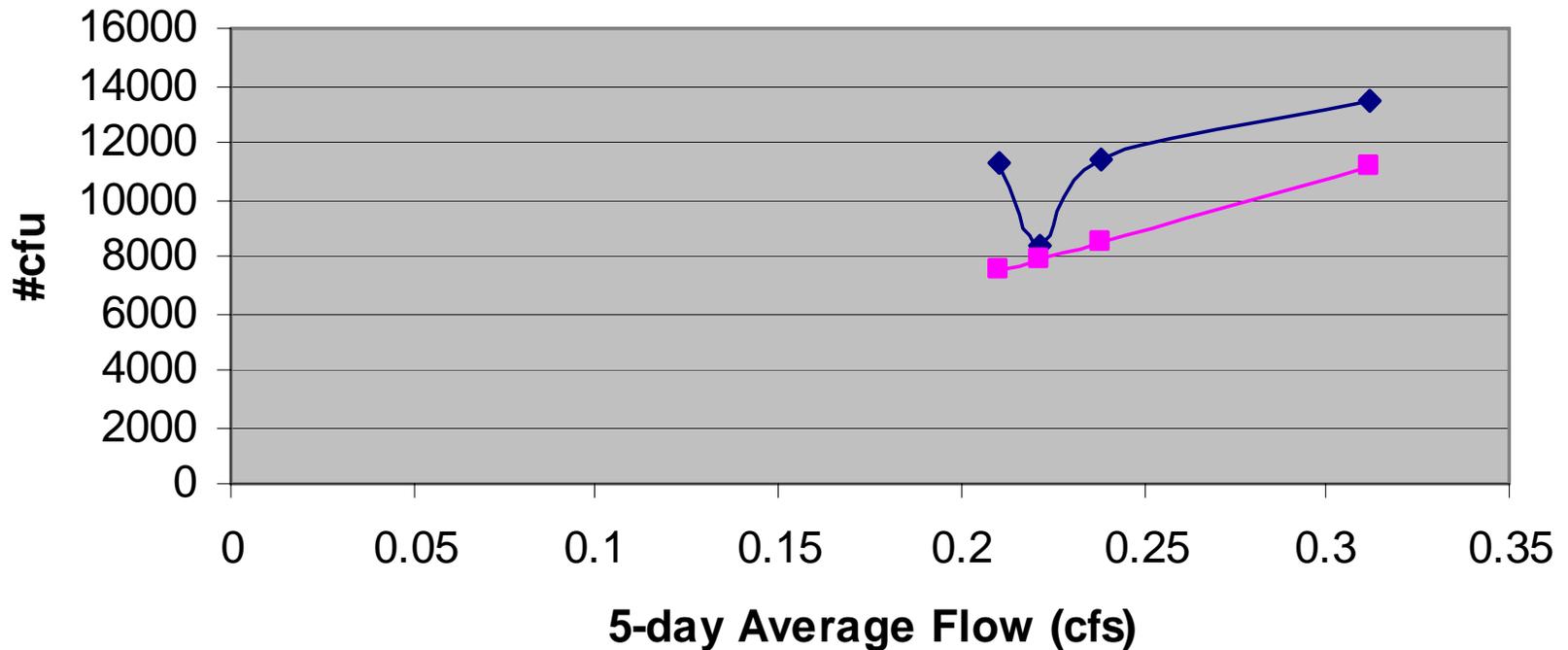
= 35,679 cfu of *E. coli* per 1 cfs at loading capacity

Hangman Creek *E. Coli* Loading



South Fork Hangman Creek *E. Coli* Loading

SF Hangman Creek *E. coli* Loading



Existing Load Loading Capacity

Bacteria Reductions

Stream	Flow (cfs)	Load Capacity	Geo-means	% Reduction
Hangman Creek	0.35	11,203	74,992	85
	0.266	8,542	25,571	67
	0.246	7,899	12,741	38
	0.232	7,450	6,388	0
South Fork Hangman Creek	0.312	10,019	13,477	26
	0.238	7,643	11,355	33
	0.222	7,129	8,374	15
	0.21	6,744	11,251	40

Load Capacity is the maximum amount of a pollutant within a stream and still meet water quality standards.

TMDL Section 4, *Past and Current Pollution Control Efforts*

- Forestry
- Agriculture
- 319 Funding

WAG and TMDL Milestones

- Draft TMDL out for Public Comment by November 2006, 30 day review
- Final WAG meeting at end of comment period, January 2006
- TMDL to DEQ state office with comments incorporated, March 2006

Future WAG Meeting if Needed

November 2006

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

December 2006

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24/31	25	26	27	28	29	30

January 2007

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			