

Region <u>SCR</u>	County <u>Deane</u>	Report Date <u>1/2005</u>	Classification <u>CW-A</u> <small>(from default)</small>
Water Body: <u>Lodi Creek, unnamed trib</u>			
Discharger: _____			

If stream is classified as Limited Forage Fish (LFF) or Limited Aquatic Life (LAL), check any of the following Use Attainability Analysis factors that are identified in the classification report:

- Naturally occurring pollutant concentrations prevent the attainment of use
- Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met
- Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place
- Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or operate such modification in a way that would result in the attainment of the use
- Physical conditions related to the natural features of the water body, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of aquatic life protection uses
- Controls more stringent than those required by sections 301(b) and 306 of the Act would result in substantial and widespread economic and social impact

Supporting Evidence in the report (include comments on how complete/thorough data is)

- Biological Data (fish/invert) Bc. Trout, Mottled Sculpin, White Sucker
HBI ~ 4.5 = very good BCI scores = 40
- Chemical Data (temp, D.O., etc.) temp never exceeded 60°F
- Physical Data (flow, depth, etc.) _____
- Habitat Description _____
- Site Description/Map _____
- Other: _____

Historical Reports in file:

1/2005 - D. Marshall

Additional Comments/How to improve report:

- brown trout emphasis?
- documentation pretty good

DESIGNATED USE INFORMATION:

New Classification X , Standards Review _____, Ref. Site _____, Date field work conducted/completed 2000 - 2003

Current FAL Designated use WWSF (Default) , Date _____ (attach)

Existing FAL Use Based on current data Coldwater Communities A , Date _____

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Recommended Attainable Designated use Coldwater Communities A

Seasonal Designated use(s)/Dates _____

Other Applicable Uses: ORW , ERW , GL , GLS , Drinking Water Supply ,
 Recreation , Wild Life

Submitted By: <u> David W. Marshall </u>	Date: <u> 04-05-04 </u>
Reviewed By: <u> Greg Seal </u>	Date: <u> 1/18/05 </u>
Approved Basin Leader: <u> [Signature] </u>	Date: <u> 1/18/05 </u>
WQS Sect. Chief, or Designee:	Date:

Unnamed trib to Lodi Creek

The Lodi Creek (Spring Creek) watershed has been the focus of numerous fisheries and water quality monitoring efforts over the years. More recently, the watershed was the focus of a Rivers Planning Grant Study, trout stream habitat project and Cold Water Habitat Evaluation Project. Both Lodi Creek and the unnamed tributary are popular among the Friends of Scenic Lodi Valley and Trout Unlimited. These groups are planning to officially name the tributary.

The histograms below reveal typical cold water fisheries in the unnamed tributary including brown trout, mottled sculpin and white sucker. Benthic macroinvertebrate samples indicate "very good" water quality. Five flow measurements collected near the mouth in 2002 ranged from 6.64 to 9.8 cfs (mean 8.1). Onset temperature data loggers were deployed near the mouth of the unnamed tributary in 2002 and 2003. Summer maximum temperatures never exceeded 68 degrees F. Chemical sampling suggested a relatively fertile stream and probably reflect both agricultural and wetland drainage. Minimum dissolved oxygen levels exceeded 8 mg/l in 2002.

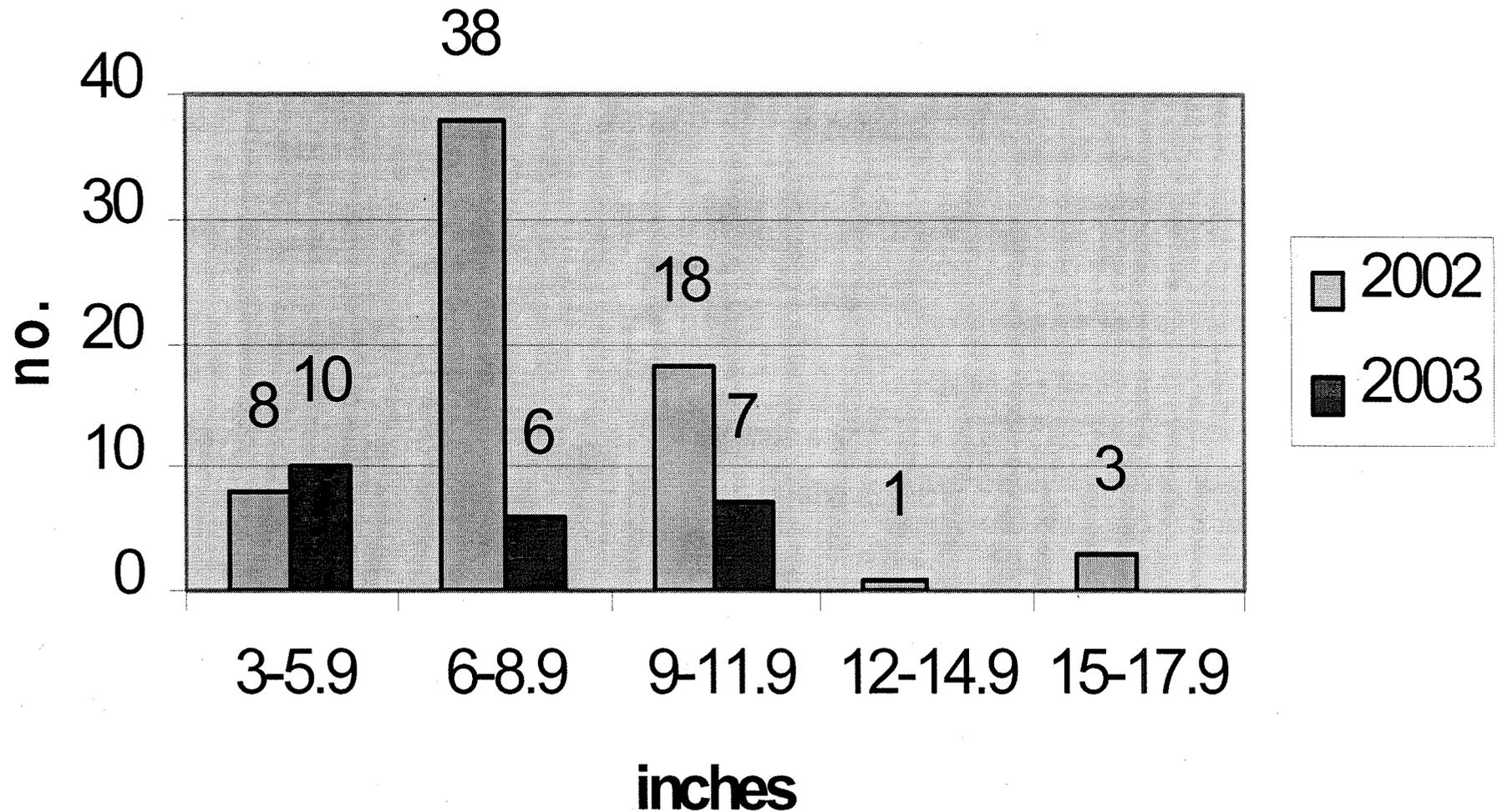
While the unnamed tributary displays all of the characteristics of a cold water stream, both the water quality and temperatures are important attributes for sustaining the healthy trout fishery downstream in Lodi Creek.

Table 1: Unnamed trib chemical data from 2002

Parameter	5-29	6-12	6-25	7-9	7-24	8-5
Alkalinity mg/l	262	264	266	265	266	266
Conductivity umhos/cm	555	573	570	564	567	567
pH su	8.04	8.03	8.19	8.09	8.09	8.03
NH ₃ -N mg/l	.044	.057	.043	ND	.029	.045
Total phosphorus mg/l	.083	.103	.084	.075	.094	.098
Turbidity ntu	9.8	7.4	9.1	6.7	11.3	9.8
Total dissolved solids mg/l	328	318	330	310	312	432
Dissolved oxygen mg/l	9.9	10	9.3	9	8.6	9.6
Temperature C	16.2	9	14.5	14.3	16.3	14.8
Flow cfs	-	9.8	8.8	8.53	6.89	6.64

Unnamed trib to Lodi Creek- Mini stream shocking results

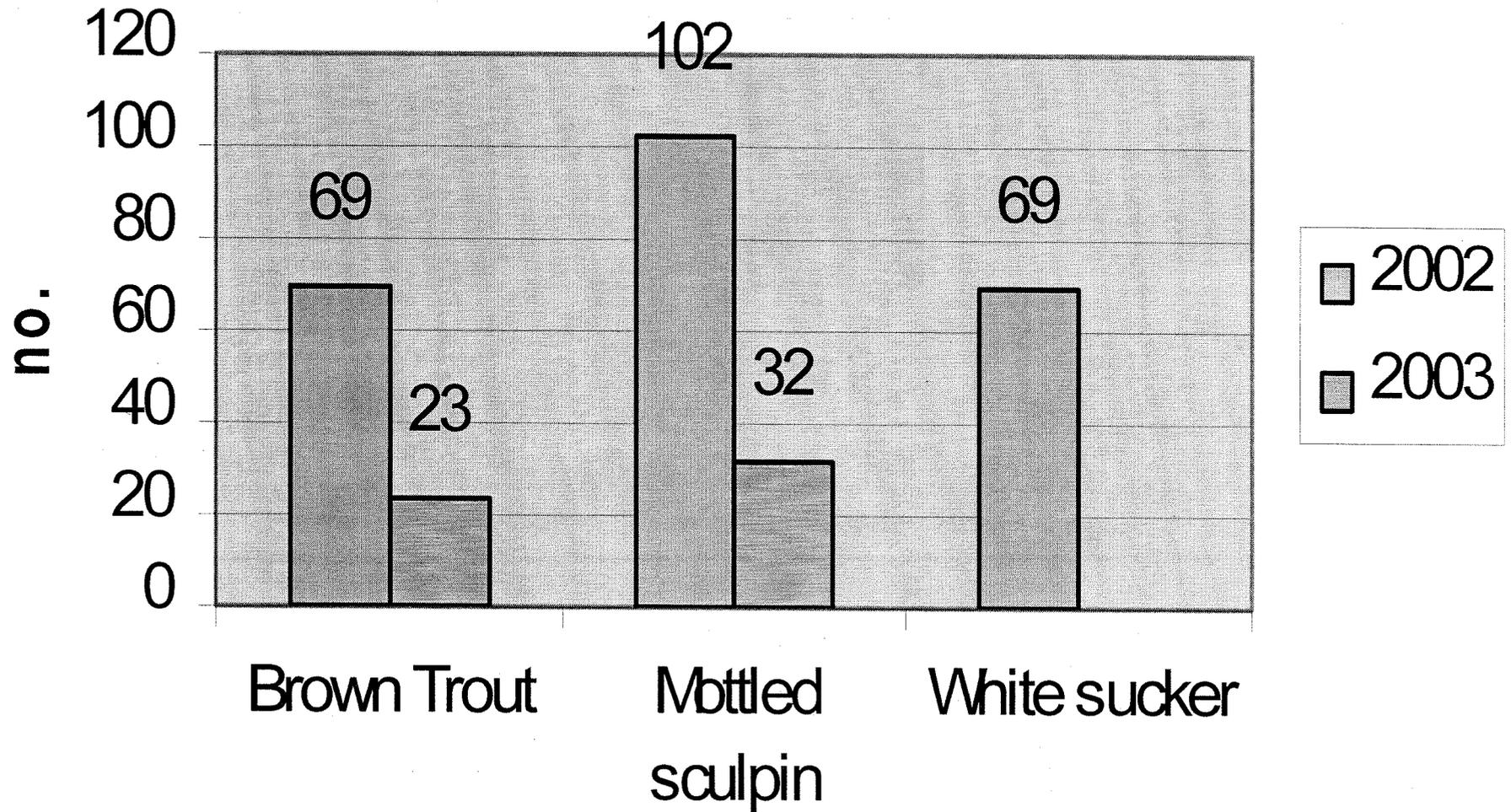
Brown trout size distribution



2002: ~ 0-600' above mouth

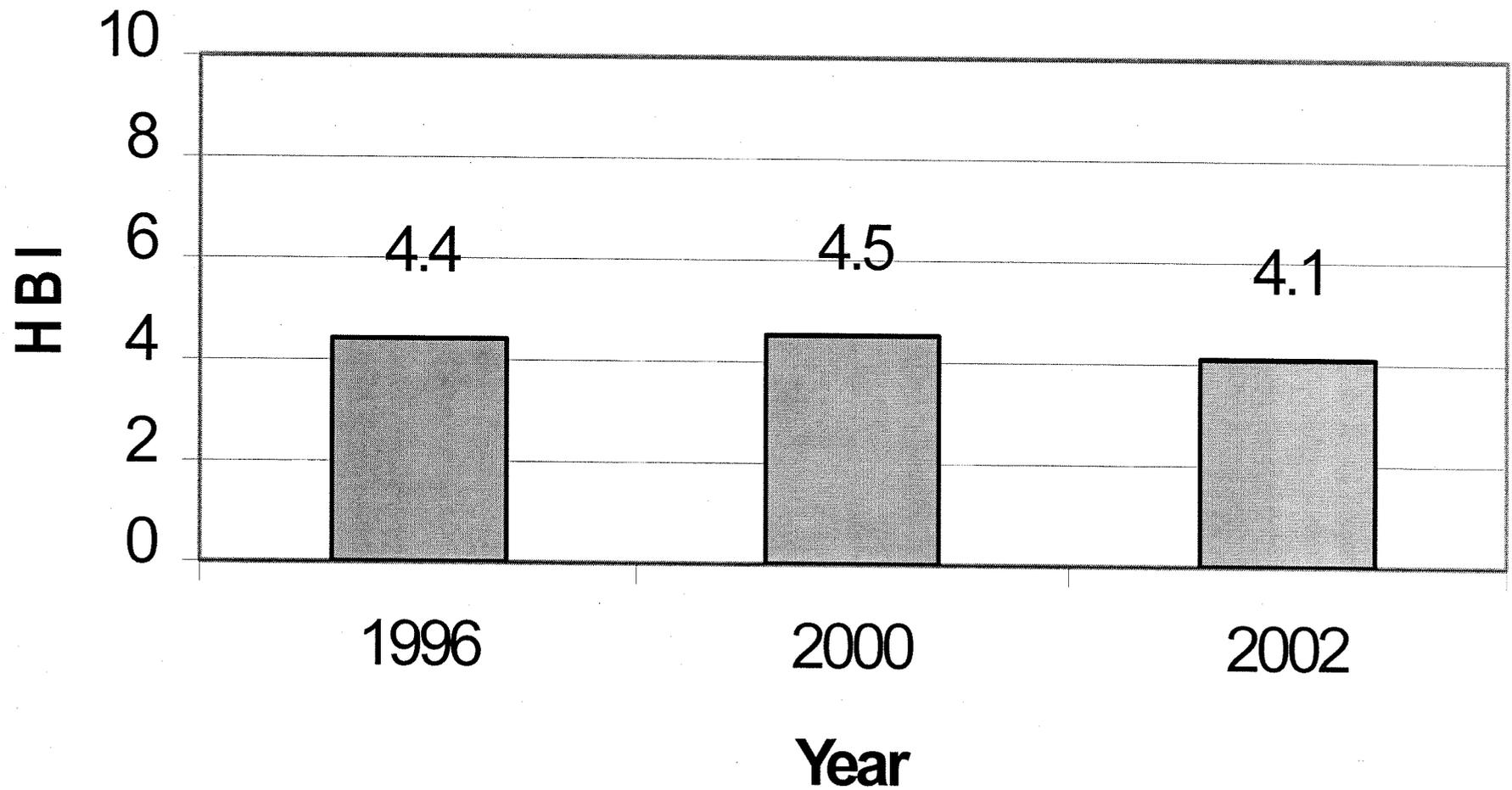
2003: ~0-800' Bowman property

Unnamed trib to Lodi Creek - Fish community data



IBI scores = 40 in 2002 and 50 in 2003

Unnamed trib to Lodi Creek Macroinvertebrate Results - Hilsenhoff Biotic Index



Values in the “very good” range

T
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t
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r
e

F

100
90
80
70
60
50
40

05/02
2002

06/01

07/01

07/31

08/30

Lodi Creek #5 East Tributary

where you & Marshall S/N 177876
wanted me to help you check

