

Manning Equation - Data Collection

A GENERAL INFORMATION

1. Person conducting measurement: CSCC //
2. Purpose of measurement: RM
3. Water Right or Claim No. (if known): 69-4103A
4. Name of stream: (CROOKED) RIVER
5. Location of diversion:
 - i) Twp _____, Rng _____, Sec _____, $\frac{1}{4}$ _____ $\frac{1}{4}$
 - ii) POD name (if known): ~~CROOKED RIVER~~
 - iii) GPS file name: _____
 - iv) GPS site tag number: A00 10807

B CROSS SECTION DATA

1. Basis: ☐ high water mark ☒ ditch capacity
2. Location Notes: _____

No.	Reading	Distance	No.	Reading	Distance	No.	Reading	Distance
1	<u>0</u>	<u>0</u>	8	<u>0</u>	<u>2.5</u>	15	_____	_____
2	<u>0.5</u>	<u>1.5</u>	9	_____	_____	16	_____	_____
3	<u>0.65</u>	<u>1</u>	10	_____	_____	17	_____	_____
4	<u>0.95</u>	<u>1.5</u>	11	_____	_____	18	_____	_____
5	<u>0.9</u>	<u>2</u>	12	_____	_____	19	_____	_____
6	<u>0.7</u>	<u>2.5</u>	13	_____	_____	20	_____	_____
7	<u>0.7</u>	<u>2</u>	14	_____	_____			

C SLOPE DATA

1. Basis: ☐ high water mark ☒ channel bottom ☐ land surface
2. Level Readings:

Upper stadia	<u>90'</u>	
Center	<u>4.07</u>	<u>7.87</u> <u>65'</u>
Lower stadia	_____	_____
Stadia difference	(_____ + _____) x 100 = _____	

Date

Signature of person conducting measurement

10-19-05

BASIC "n" CHANNEL MATERIAL				CHANNEL OBSTRUCTIONS			
earth	.020	/	(1)	negligible	.000		(1)
rock	.025		(2)	minor	.010	/	(2)
fine gravel	.024		(3)		.015		(3)
coarse gravel	.028		(4)	appreciable	.020		(4)
					.030		(5)
				severe	.040		(6)
					.050		(7)
					.060		(8)
SURFACE IRREGULARITY				VEGETATION			
smooth	.000		(1)	low	.005		(1)
minor	.005	/	(2)		.010	/	(2)
moderate	.010		(3)	medium	.015		(3)
severe	.020		(4)		.020		(4)
					.025		(5)
				high	.030		(6)
					.040		(7)
					.050		(8)
				very high	.060		(9)
					.075		(10)
					.100		(11)
VARIATIONS IN SIZE AND SHAPE OF CROSS-SECTION				DEGREE OF MEANDERING			
gradual	.000		(1)	minor	1.00	/	(1)
occasional	.005	/	(2)	appreciable	1.15		(2)
frequent	.010		(3)	severe	1.30		(3)
	.015		(4)				

CROSS SECTION NUMBER 1

For File Number 69-4103A for the CROOKED RIVER DITCH

Number	Rod Reading	Water Depth	Distance
1	0.00	0.00	0.00
2	0.50	0.50	0.50
3	0.65	0.65	1.00
4	0.95	0.95	1.50
5	0.90	0.90	2.00
6	0.70	0.70	2.50
7	0.70	0.70	3.00
8	0.00	0.00	3.50

The area for this cross section is 2.20 square feet
and the wetted perimeter is 4.21 feet.

MANNING EQUATION CHANNEL CAPACITY RESULTS

12-07-2005

File Number: 69-4103A

Claimant:

Channel measured: CROOKED RIVER DITCH

Date of measurement: 10/19/05

Measurement location:

Calculation prepared by: MIKE CISCELL

Comments about the measurement:

The results of the calculation are:

The length of the channel measured is 155 feet.

The upstream and downstream rod readings are 4.07 and 7.87 feet.

The channel cross section is 2.20 ft-sq.

The wetted perimeter is 4.21 feet.

The hydraulic radius is 0.52 feet.

The slope is 0.0245

The roughness coefficient is 0.0500

The flow velocity is 3.026 ft/sec.

The rate of flow is 6.66 cfs.