

✓ 69-10014

Manning Equation - Date Collection

A GENERAL INFORMATION

- Person conducting measurement: C. B. C. /
- Purpose of measurement: BU
- Water Right or Claim No. (if known): 69-4021
- Name of stream: DITCH CR
- Location of diversion:
 - Twp _____, Rng _____, Sec _____, $\frac{1}{4}$ _____ $\frac{1}{4}$
 - POD name (if known): END OF DITCH CR DITCH
 - GPS file name: 100-105
 - GPS site tag number: A0016816

B CROSS SECTION DATA

- Basis: ☐ high water mark ☐ ditch capacity 4" TIDE
- Location Notes: AT GROUSE CR. ALSO GROUSE CR. DIVERSION (700' up stream)
2' wide DITCH FOR DOWNSTREAM FIELDS, GROUSE CR. TIL DITCH THEN
DITCH CR. DITCH CR. EOVES ALL OF 4020 (GROUSE CR.)

No.	Reading	Distance	No.	Reading	Distance	No.	Reading	Distance
1	~~0.3~~ .3	1'	8	.1	4'	15		
2	.7	2'	9	.1	1'	16		
3	.7	3'	10	.2	2'	17		
4	.25	4'	11	.6	3'	18		
5	.3	1'	12	.2	4'	19		
6	.6	2'	13			20		
7	.5	2'	14					

C SLOPE DATA

- Basis: ☐ high water mark ☒ channel bottom ☐ land surface
- Level Readings:

upstream	0.12 vel	downstream	
Upper stadia	5.97	10	255
Center	5.92	8.7	
Lower stadia	5.88	7.3	
Stadia difference	() + () x 100 =		

9-30

Date

Signature of person conducting measurement

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)				

MANNING EQUATION CHANNEL CAPACITY RESULTS

12-07-2005

File Number: 69-4021

Claimant:

Channel measured: DITCH CREEK DITCH; A0016816

Date of measurement: 09/30/05

Measurement location:

Calculation prepared by: MIKE CISCELL

Comments about the measurement:

The results of the calculation are:

The length of the channel measured is 255 feet.

The upstream and downstream rod readings are 5.92 and 8.70 feet.

The channel cross section is 1.06 ft-sq.

The wetted perimeter is 8.19 feet.

The hydraulic radius is 0.13 feet.

The slope is 0.0109

The roughness coefficient is 0.0550

The flow velocity is 0.723 ft/sec.

The rate of flow is 0.77 cfs.

CROSS SECTION NUMBER 1

For File Number 69-4021 for the DITCH CREEK DITCH; A0016816

Number	Rod Reading	Water Depth	Distance
1	0.00	0.00	0.00
2	0.30	0.30	1.00
3	0.70	0.70	2.00
4	0.70	0.70	3.00
5	0.25	0.25	4.00
6	0.00	0.00	0.00

The area for this cross section is 1.32 square feet
and the wetted perimeter is 8.23 feet.

CROSS SECTION NUMBER 2

For File Number 69-4021 for the DITCH CREEK DITCH; A0016816

Number	Rod Reading	Water Depth	Distance
1	0.00	0.00	0.00
2	0.30	0.30	1.00
3	0.60	0.60	2.00
4	0.50	0.50	3.00
5	0.10	0.10	4.00
6	0.00	0.00	0.00

The area for this cross section is 1.25 square feet
and the wetted perimeter is 8.17 feet.

CROSS SECTION NUMBER 3

For File Number 69-4021 for the DITCH CREEK DITCH; A0016816

Number	Rod Reading	Water Depth	Distance
1	0.00	0.00	0.00
2	0.10	0.10	1.00
3	0.20	0.20	2.00
4	0.60	0.60	3.00
5	0.20	0.20	4.00
6	0.00	0.00	0.00

>

The area for this cross section is 0.60 square feet
and the wetted perimeter is 8.17 feet.