

ESTIMATING CONVEYANCE LOSS



FIELD EXAMINER: Craig Sexton

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FOR CLAIM(S) 29-00297B

FORMULA: $S = (W)(i)(0.667)$

Where: S_2 = Loss in CFS per Mile
 W = The top width of the high water mark in feet
 i = The loss rate in feet per day (see table)
0.0667 is a factor used to convert to CFS per mile

TABLE:	Type of Soil	Loss Rate i (Ft/Day)
	Medium clay loam.....	0.5 to 1.5
	Impervious clay.....	0.5
i	Medium soils.....	<u>1.0</u>
	Somewhat pervious soils....	1.5 to 2.0
	Gravel.....	2.5 to 5.0

WORK SHEET

$$S_1 = (\underline{4} \text{ FT}) \quad i = (\underline{1.0} \text{ FT/DAY}) (0.0667) = \underline{0.2668} \frac{\text{Ft}^2}{\text{day}} \\ S_2 = \underline{0.2668} \text{ CFS/MILE} \quad \quad \quad = S_2$$

CONVEYANCE LOSS = (S_2) (LENGTH OF DITCH IN MILES)

CONVEYANCE LOSS = (0.2668 CFS/MILE) (0.2017 MILE)

CONVEYANCE LOSS = 0.05 CFS

TOP OF DITCH = W

MAP MEASUREMENT

Section 1 = 4' upstream
Section 2 = 4' midstream
Section 3 = 4' End stream

Length in Inches = _____ = A

Map Scale: _____ In. = 1 Mile = B

Total.... = _____

$A/X : B/5,280 = \text{Ft.}/5,280 = \text{Mile}$

/2or 3... = _____ = S_1