

73-48,50,52,2150

ESTIMATING CONVEYANCE LOSS

Formula: $S = (W)(i)(0.0667)$ where: S is loss in cfs per mile
 W is the top width of the high water mark in feet
 i is 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
medium soils	1.0
somewhat pervious soils	1.5 to 2.0
gravel	2.5 to 5.0

Worksheet: $S = (\underline{2.5^*} \text{ ft}) (\underline{3.0} \text{ ft/day}) (0.0667)$
 $S = \underline{0.5} \text{ cfs/mi}$
 Conveyance loss = $(S)(\text{length of ditch in miles})$
 Conveyance loss = $(\underline{0.5} \text{ cfs/mi}) (\underline{6.8^+} \text{ mi})$
 Conveyance loss = $\underline{3.4} \text{ cfs}$

* approximation
 + from GIS

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