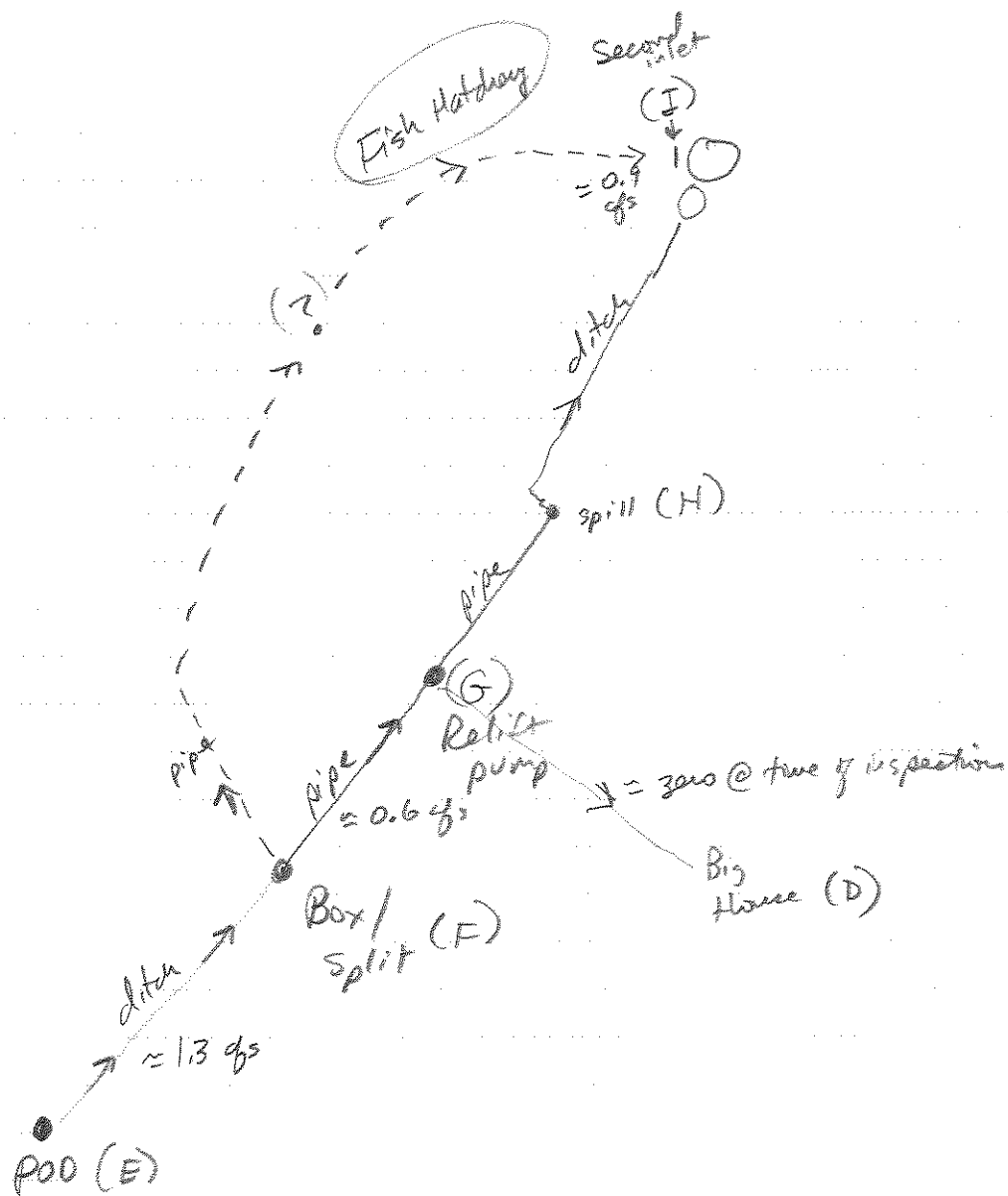


A24- 02026
measurements.

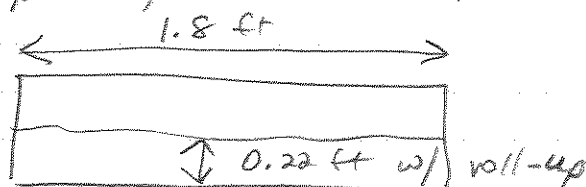
Schematic sketch of flow



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A24-02026 Measurement Calculations.

- 1) Flow into east-side pipe measured using rectangular weir formula on slot in culvert illustrated in photo 8. Location is Waypoint 25 corresponding to letter 'F' on layout.

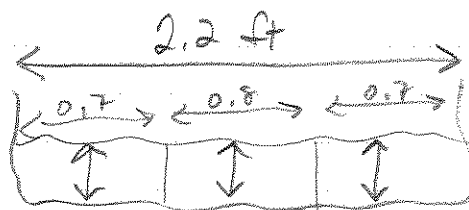


$$Q = 3.33 (L - 0.2 H) H^{3/2} \quad (\text{contracted rectangular})$$

$$= 3.33 (1.8 - (0.2)(0.22)) 0.22^{3/2} = 0.60 \text{ ft}^3/\text{s}$$

Note Nappe doesn't spray, free $\therefore$ actual flow $> 0.60 \text{ ft}^3/\text{s}$.

- 2) Flow out of headgate measured by roll-up on stick at location of photo 10, marked 'E' on map. Waypoint 26

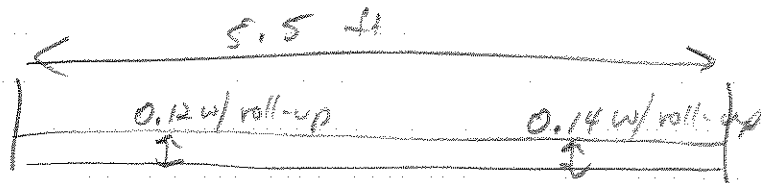


Depth	0.41	0.35	0.26
Velocity	1.7	1.7	1.8

$$\begin{aligned}
 Q &= AV = (0.7)(0.41)(1.7) + (0.8)(0.35)(1.7) + (0.7)(0.26)(1.8) \\
 &= 0.49 + 0.49 + 0.33 \\
 &= 1.3 \text{ ft}^3/\text{s}
 \end{aligned}$$

A24-02026 measurement calculations p.2

- 3) Flow into west side of lower pond at point "I"
(Waypoint 27) as shown in photo 11



Suppressed weir formula $Q = 3.33 LH^{3/2}$
 $= (3.33)(5.5)(0.13)^{3/2} = 0.86 \text{ ft}^3/\text{s}$

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