

Water Shuttle Tactical Resources Worksheet

Ohio Fire Chiefs' Association
Water Supply Technical Advisory Committee



1. Required Water Supply	2. Fill Site		3. Dump Site	4. Shuttle Route	
Water Supply Zone / Incident	Fill Site	Drafting Engine	Dump Site	Route	Travel Time (TR) _____ X _____
Minimum Water Supply	Exploitable Volume (VEx)	Engine Flow Rate (EQ)		Total Distance (miles)	Distance x (60 / mph)
Water Delivery Rate	Maximum Flow Rate (FSQ)	Fill Site Crew Handling Time (HTF)	Dump Site Crew Handling Time (HTD)	Travel Speed (mph)	= _____ minutes

5. Water Tenders							6. Fill Site Time				7. Dump Site Time			8. Travel Time	9. Flow Calculations	
No.	Unit Designator	Nominal Tank Capacity (RV) gallons	Residual Water Factor (k) Conv = 0.9 Vac = 1.0	Adjusted Tank Capacity (V) RV x k	Fill Rate (RF) gpm	Dump Rate (RD) gpm	Restricted Fill Rate (FSR) lesser of FSQ, EQ & RF	Fill Time (V/FSR)	Handling Time HTF	Total Fill Time (TF) (V/FSR)+HTF	Dump Time (V/RD)	Handling Time HTD	Total Dump Time (V/RD)+HTD	Total Travel Time TR	Total Time (T) TF+TD+TR	Continuous Flow (V/T)
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																

TOTAL SHUTTLE FLOW (GPM)

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Cannot exceed Fill Site Flow Rate (FSQ)