



TRAINING PLAN

Subject

Alternate Water Supply – Water Shuttle

Instructors

A

B

C

Logistics

Time Required

2 hrs.

Equipment Needed

2 Engine Companies
Water Tender
Portable Water Tank (If Available)
Fill Site (Hydrant or Static Source)

DESCRIPTION

Objectives:

1. Review & discuss alternative water supply methods that may be applied in a rural setting.
2. Discuss the operational considerations for establishing and sustaining a water shuttle operation.
3. Demonstrate the ability to establish / initiate a water shuttle operation.

Description / Outline:

1. WATER SUPPLY CHALLENGES:

- Absence or extended spacing of Municipal Hydrants in Rural Settings
- A dependable water supply, sufficient to achieve the necessary fire flow, is crucial for operations

2. WATER SHUTTLE OPERATIONAL METHODS (See attached Worksheets)

- DIRECT PUMPING
- "NURSE" TENDER
- PORTABLE TANK

Water Shuttle Operations may be selected based on the apparatus, equipment, or personnel available.

GENERAL CONSIDERATIONS

- Fill Site
 - Volume of water or GPM available at water source
 - Access and maneuverability for apparatus
- Travel Route
 - Approach & departure route to maximize efficiency (looped route if possible)
 - Safety & Speed of apparatus
- Dump Site
 - Large enough to support the incident, expandable if necessary
 - Positioned to not interfere with fireground operations
 - Positioned to not impede traffic flow

3. ESTABLISH / INITIATE WATER SHUTTLE OPERATIONS (Practical Exercise)

- Practical Exercise to be determined by available equipment and Department SOGs

Prepared By:

J. Calista

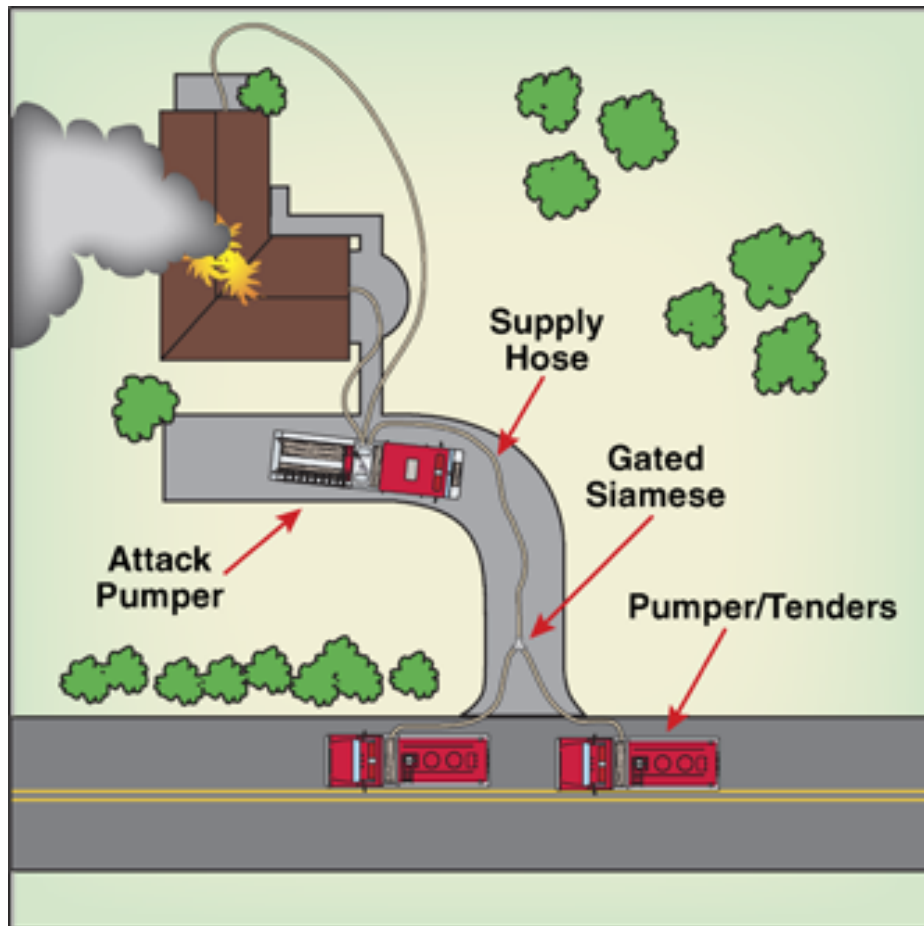
Date / Date Revised:

2020

WATER SHUTTLE OPERATIONS

DIRECT PUMPING METHOD

DIAGRAM



DESCRIPTION

ENGINES / TENDERS PUMP WATER DIRECTLY FROM THEIR TANK TO THE ATTACK PUMPER

1. The Attack Pumper (Engine 1) lays a supply line from an easily accessible location
 - A Siamese is placed at the dump site to allow two Engines / Tenders to pump into the supply line
2. Additional Pumpers connect to the supply line and discharge their tank to Engine 1
3. Supply units return to the fill site after discharging their tanks to Engine 1

ADVANTAGES

- Eliminates the need to position additional Engines / Tenders directly next to the Attack Pumper

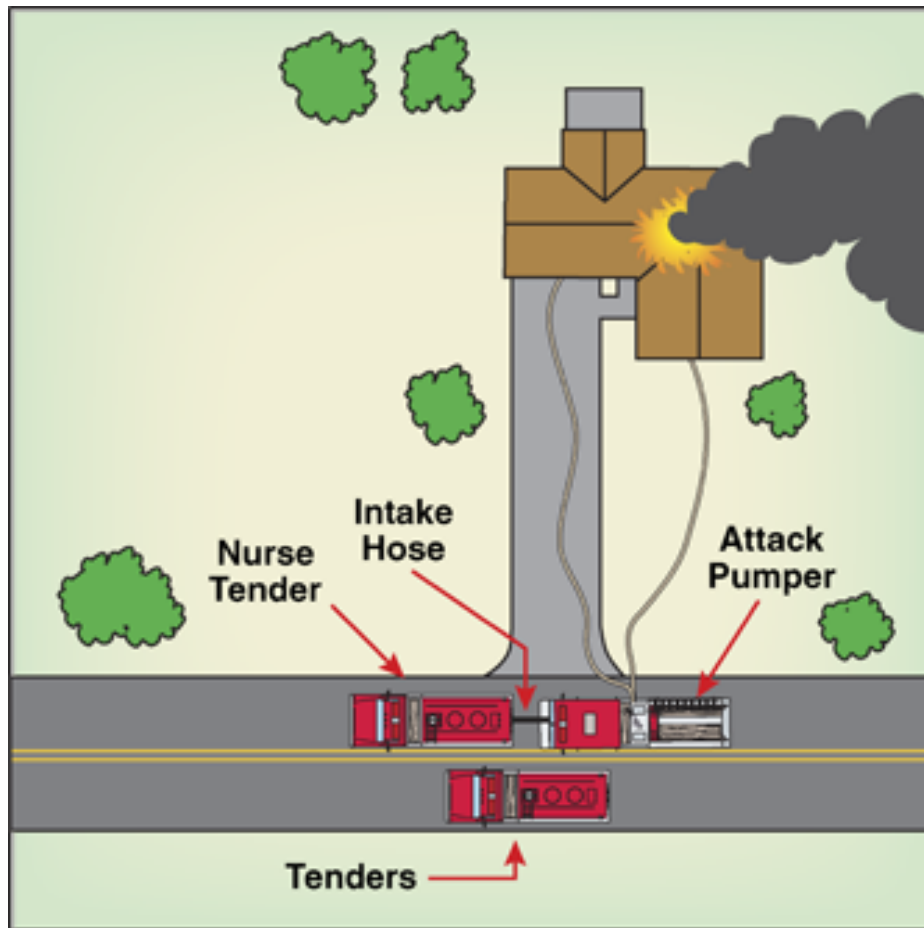
DISADVANTAGES

- Interruption of flow is possible when supply Engines disconnect & connect
- Smaller capacity tanks and/or extended turnaround times may be insufficient to sustain adequate flow

WATER SHUTTLE OPERATIONS

NURSE TENDER METHOD

DIAGRAM



DESCRIPTION

WATER TENDER POSITIONS IMMEDIATELY ADJACENT TO THE ATTACK PUMPER

1. Water Tender positions immediately adjacent to the Attack Pumper (Engine 1)
 - Water Tender connects from a discharge outlet to an intake on Engine 1
2. Additional Pumps / Tenders discharge their tank to the Nurse Tender
3. Supply units return to the fill site after discharging their tanks to the Nurse Tender

ADVANTAGES

- The capacity of the Nurse Tender may be adequate to provide fire suppression before a portable tank can be established

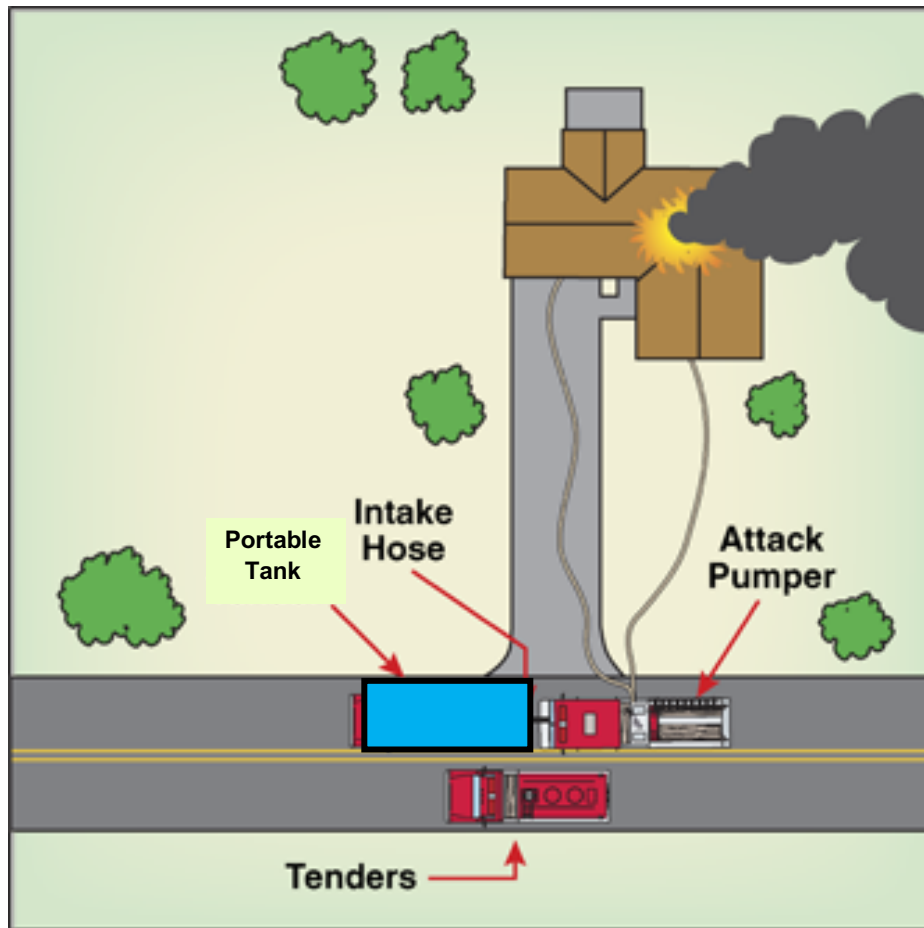
DISADVANTAGES

- Additional units must be equipped with fire pumps to offload their water to the Nurse Tender
- Dump times are increased when pumping versus dump valve discharges into a portable tank

WATER SHUTTLE OPERATIONS

PORTABLE TANK METHOD

DIAGRAM



DESCRIPTION

PORTABLE WATER TANK SET-UP TO PROVIDE WATER SUPPLY FOR ATTACK PUMPER

1. Attack Pumper (Engine 1) initiates fire attack
 - Engine 1 initiates fire attack from booster tank
 - Additional Engine Companies may augment Engine 1 until a Portable Tank is set-up
2. Additional units set a portable water tank and establish a dump site
 - Water Tenders discharge / dump their water, filling the portable tank
 - Attack Pumper (Engine 1) establishes a Draft from the portable tank for water supply
3. Supply units return to the fill site after discharging their water into the portable tank

ADVANTAGES

- Large capacity Portable Tanks reduce the likelihood of interrupted flow for prolonged operations

DISADVANTAGES

- Requires availability of specific equipment and additional staffing

