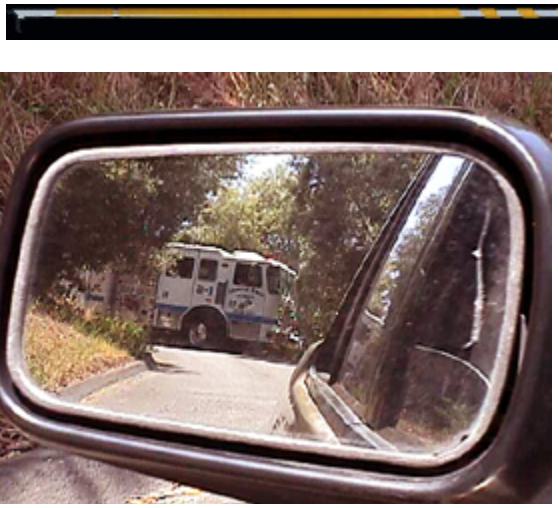
"Failure to prepare is preparing for failure. Be prepared."

Swimming Pools and Water Eductors

Another option for providing a water supply in the wildland/urban interface.

The problem with fire trucks and the wildland/urban interface is that in order to get water out of a pool, an engine company would have to either have close access to the pull to facilitate hooking up sections of hard suction hose (20-foot maximum distance) to be used to draft water from the pool to the engine. Generally speaking, this is an impractical approach due to most residential swimming pools being located a distance away from the road or driveway. Another option includes the use of a floto-pump. Flotopumps can charge a single 1 3/4-inch hose line and nozzle and has been used quite effectively in the past as a method for gaining access to stored swimming pool water. Swimming pools commonly store as much as 40,000 gallons of water. The pictures shown below illustrate firefighters using a portable water eductor as another method for gaining access to stored swimming pool water. Mission Canyon alone has over one-half million gallons of water in swimming pools which is quite a resource for providing fire protection water for engine companies.



Access to homes in the wildland/urban interface includes narrow roadways, lots of fuel and steep terrain.

Firefighters back their engine into position in front of the structure.



The firefighter removes one of the 200-foot transverse beds and advances the 1 3/4-inch hose line to the pool.

Additional hose is removed or added as needed.



The engineer connects both the intake (1 3/4-inch) and discharge (2 1/2-inch) hose lines and prepares to charge the lines. Hose lines are not charged until confirmation that the water eductor has been placed onto the hose lines and into the swimming pool. Once the orders are given to charge the lines, the engineer slowly charges the lines and slowly raises the RPM. The more RPM = more GPM. However, high RPM's are not needed if you are not flowing water or filling your engines tank.

Engine company personnel connect intake and discharge lines to the water eductor.



Once the hose lines have been placed onto the water eductor, the eductor can be lowered into the pool.


Once the water eductor is in the pool and has been purged of air trapped in the hose, the RPM's can be increased. Engineers will have to determine the balance between the amount of hose line between the engine and pool (friction loss), whether or not your filling your tank or another engines tank, how many lines your flowing off your engine, etc. There's a delicate balance that is somewhat subjective. Kind of like stepping on a hoseline and knowing whether or not your giving firefighters at the end of the nozzle the right amount of pressure...

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