



Fire Hose “Kelp” Forest

With permission, adapted from instructions by
Kelli Araujo – Senior Animal Care Specialist, SeaWorld San Diego

A fire hose “kelp” forest has a PVC base filled with sand; fire hose is then wrapped around the base and tied to its self. This is a great way to create a new pathway in a pool for animals. It can be used to break up pattern swims when placed and secured in different locations. It may also elicit natural behaviors. For example, seals may try to wrap themselves and sleep in it.



Safety Concerns

- † Keep depth of pools and length of hose used in mind so that it is not an entanglement issue for animals.
- † The item may be buoyant; this item works best if secured to a tether or metal ring embedded in the pool bottom or wall with a hose clamp or chain and D ring.
- † As always, check with the veterinarians, curators, and superiors to be sure that this EED is approved and appropriate for the species of animal and individual animals that you intend to have access to it.
- † Check that this item's fire hose lengths and location are secured to ensure that it is kept away from water filtration systems.

Items needed

Fire hose
PVC pipes
4 PVC end caps
2 PVC three-way connectors
PVC cleaner and glue
Sand or concrete



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STEP 1 Cut PVC to desired lengths and check the fit of all pieces before gluing.



STEP 2 Form the two “sides” of frame by gluing shorter PVC pipes to three-way connectors as shown below. Glue end caps on ONE end of each “side” tube.





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STEP 3 Fill each “side” PVC tubes (the ones with the end caps on one end) with sand, shaking it down into place, until it reaches the bottom and into the middle. Use wet sand or fill tube with water after filling with sand to remove air from the tube. Any amount of trapped air can make the PVC very buoyant.



STEP 4 Fill and glue on the top caps. Let glue dry. The tubes could also be filled with concrete. Be sure that all PVC pieces are securely glued so that concrete or sand will not leach or seep out into your pools.

STEP 5 Measure the depth of your pool so you can plan for lengths of needed hose.

STEP 6 Find a stand or lean the frame up against a wall. Start tying on hose to frame by tying it back onto itself as shown below. This item is made from United States Forest Service 1” pea hose. Attach as much hose as wanted or until frame is full.





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STEP 7 Cut hose to length needed for depth of pools. Tie multiple knots down the length of the hose and at the ends, making sure that the hose has a little air in it. This will ensure that each piece of hose will float. Heat gun ends of tied off hose to melt any loose fire hose fibers. Set item in place underwater secured with a hose clamp or as facility prefers.

