

## Appendix 3

### **Aqua-View Scope construction directions**

- 1 - 3 foot section of 4" diameter plastic pipe. We use ABS pipe because it is black and because it is lighter than PVC pipe. If you are unable to find ABS pipe, PVC pipe will work just fine. Your hardware store may have a short piece of pipe they will sell you. We bought a 10-foot piece of pipe and cut it.
- 1 or 2 - 5 ½" pull handles (we used one, it was easier to hold and guide)
- Screws if not supplied with handle
- 1 - 4" ABS coupler
- 1 - 4 3/8" diameter lexan disk – Lexan is non-breakable plexiglass that we had cut at our local glass repair shop. You can use plexiglass for the disk but it is difficult to cut the plexiglass in a circle.
- Clear silicone rubber sealant
- Drill and screw driver
  - Weatherstripping for around the top of the viewscope. Marine and automotive weatherstrip tape works well.

### How to Make a Viewscope (picture on next page)

Cut a 3 foot section of 4" diameter ABS or PVC pipe. The cut must be straight and square to the pipe. If you can't find pipe with a black interior, you can paint the inside a flat black. If the pipe is shiny on the inside, rough it up using sandpaper or steel wool so that there won't be any glare inside the tube. **If you are going to rough it up on the inside, make sure to do that before you attach the screws so you don't scratch your hand!**

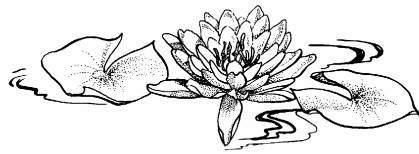
Attach one or two handles on either side of the pipe about four inches from one end. ABS pipe is fairly soft, you can use a screw driver to put the screws in or you can drill pilot holes and put the screws in. If you are using a drill, make sure to make the hole smaller than the screw so the screw will hold. If using PVC pipe, you will need to drill the holes.

Run a bead of clear silicone rubber sealant on the bottom of the squared off end of pipe. Place the lexan disk on the bead of sealant.

Smear a small amount of silicon sealant on the outside of the pipe one half inch from the end of the pipe with the lexan. Slide the coupling over the end and give it a slight twist to distribute the sealant evenly. Slide the coupling on as far as it will go. The collar will extend out beyond the lexan disk protecting it from scratching.

Drill two small (1/4") holes in the side of the collar close to the lexan so that air won't be trapped in the open end of the coupler when you put the view scope into the water. The holes should be drilled on opposite sides of the pipe.

Weatherstripping is placed around the top of the open end of the scope (the side you look into). Weatherstripping has a sticky side that sticks to the plastic and the foam makes it a little more comfortable for your face to rest against.



Viewscope instructions adapted from those designed by Jeff Schloss, coordinator of New Hampshire Lakes Lay Monitoring Program; (603) 862-3848

Auscope drawing.

