Illustration above: Water is drawn from the bottom of a pond without existing bottom plumbing through the **Aqua Art Retro-Drain** and delivers it through your pump.

Illustration above: Installation of a settling chamber (or other gravity fed filter systems such as niche skimmers) When plumbing a retro drain to a niche skimmer, it is not recommended that you use the "alternate feed pipe route" shown above, rather use the below surface water level route shown. For this application you would need two bulkhead fittings. One to pass through the pond liner wall and one to pass through the skimmer wall into the "dirty side" of the niche skimmer. You should also provide an isolation knife valve and swing check valve as shown.

When plumbing a settling chamber or a niche skimmer, always use large pipe. General sizing guidelines are:

- 2" pipe from drain into gravity feed unit for ponds up to 750 gallons
- 3" pipe for ponds up to 3000 gallons with pipe length no greater than 15'
- 4" pipe for ponds larger than 3000 gallons