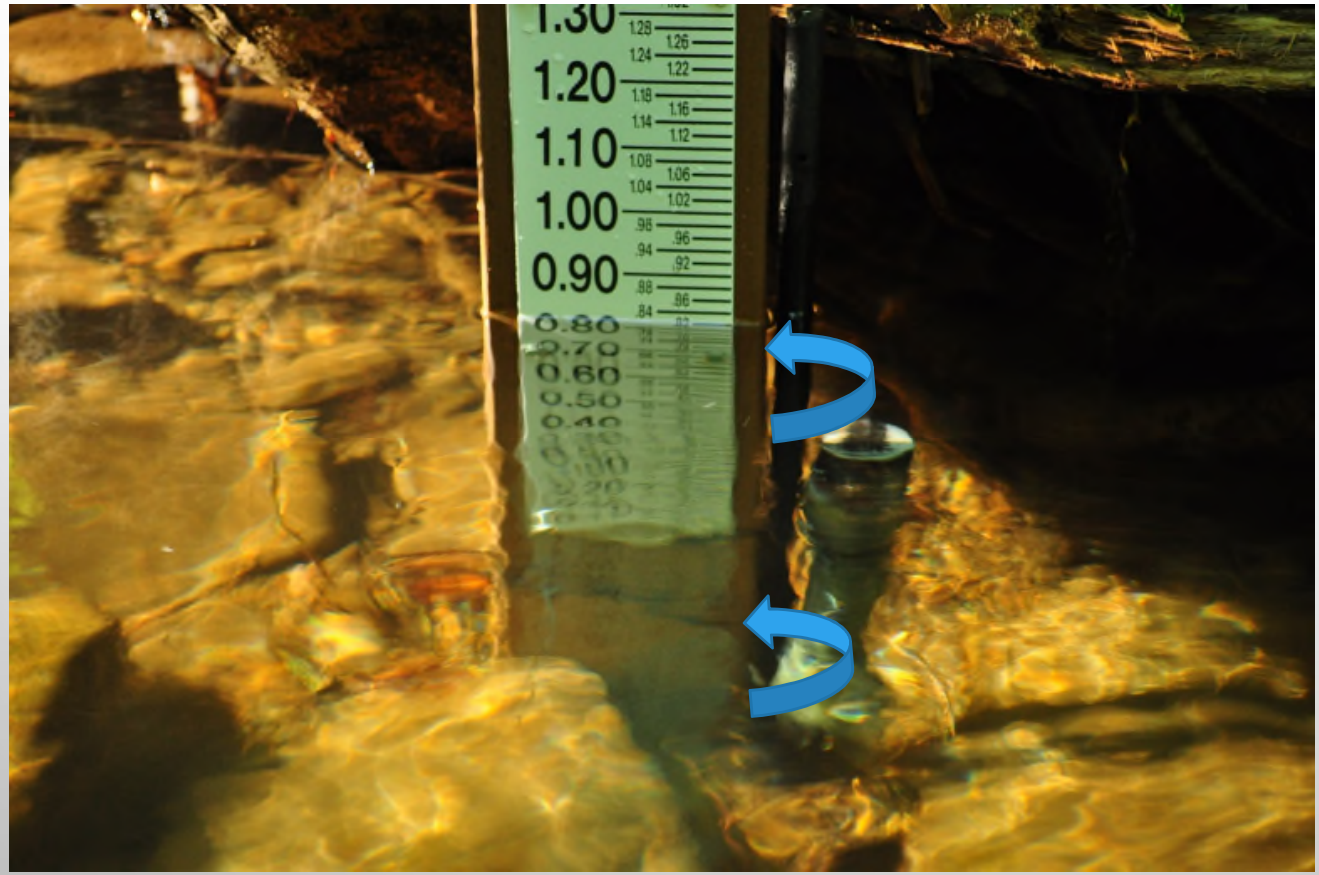
ATTACHING LEVEL LOGGER TO REBAR ☹

- Rebar rod driven into stream bed but PVC case could not be firmly secured with steel cable.
- To prevent most movement, hose clamps were attached around case and rod.
- Initially thought PVC case would only “wiggle” under high flows.
- Also assumed the site would not accumulate gravel, sediment, or debris.

CLOSER VIEW OF SET-UP



- Upon return visit we discovered that high flows would actually push the PVC case around to back side of rebar rod.
- Also bottom of case that during installation was above stream bed had been buried in approximately 1 inch of sand/gravel.
- Sensor end of unit on bottom, so change of location & technique was made.

TIME TO GIVE UP ON REBAR!!!

- **We thought we were driving rod down into substrate, but only bending the rod itself.**
- **Bedrock and boulder dominant stream only allowed rod to follow the groove between immovable substrates.**
- **Rod never was truly stable nor driven deep enough into stream to use as desired in above slides.**

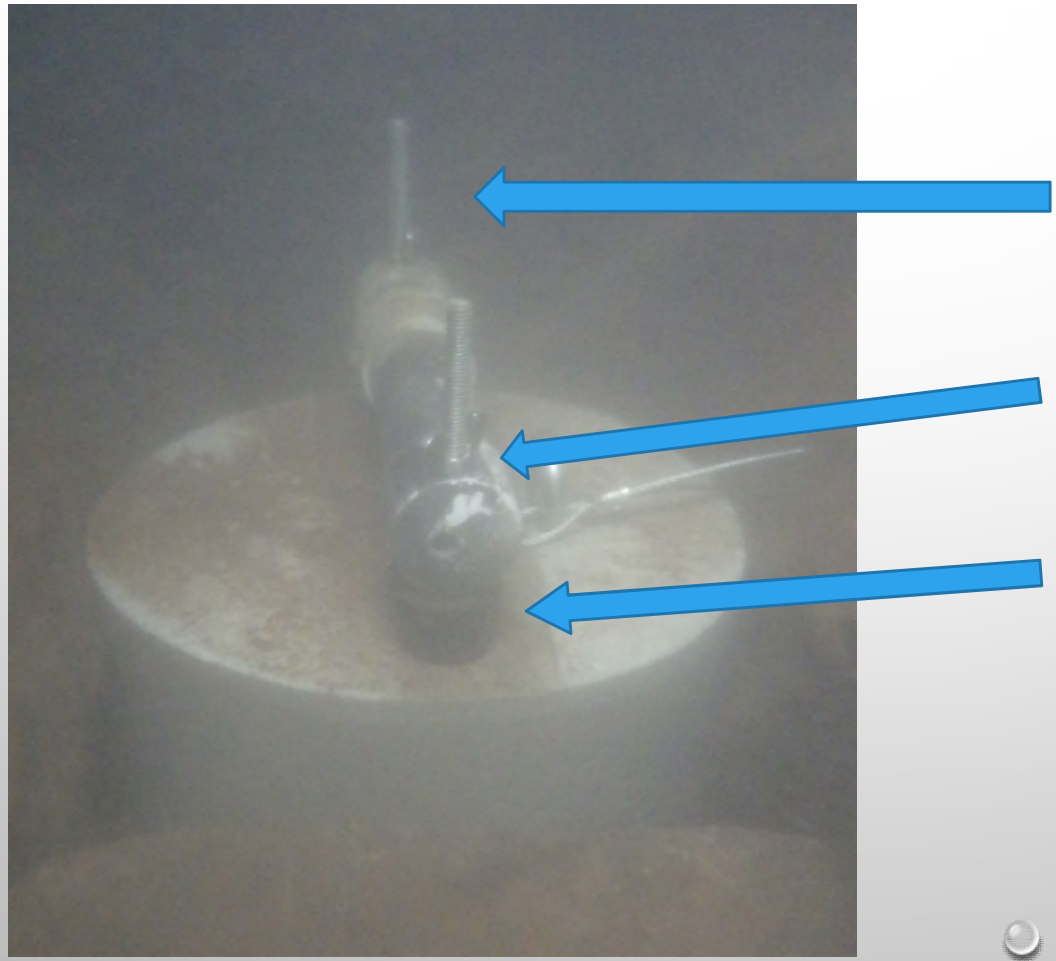
50+ POUND LEVEL LOGGER ANCHOR ☹

- Installed in deep protected pool.
- Idea was that such a heavy object could not be moved by high flows.
- Inquisitive fishermen got the best of us and tampered with unit.
- Entire set-up was picked up by someone and dropped back far out of place. Considering that the stream is fished often and such a thing would likely occur again; a change of mounting technique was made.

CLOSER VIEW

- Cement poured into bucket as mold with threaded rods sunk in to serve as mounting point of PVC case.
- Placed on stream bottom and surrounded by boulders to secure unit/anchor.
- Eye bolt also installed to serve as attachment point for reserve steel cable to prevent anchor from being easily removed from pool habitat.

CLOSER VIEW OF SET-UP



- Holes drilled through PVC case to fit snugly/exactly down along threaded stainless steel rods.
- Stainless steel wing nuts attach and hold case in place to prevent sliding/shifting.
- Rubber stopper rings (lab supply) installed down rods to serve as base and cushioning for case to prevent rattling against cement during high water events.