



SHALE GAS VOLUNTEER MONITORING Directions for Building a Gage Stick

Gage sticks can be used to measure stage as part of the ALLARM Shale Gas Volunteer Monitoring Protocol.

Building a gage stick is relatively simple and requires few tools. Items needed include:

- 4 ft. stick
- Tape measure, yard stick, etc.
- Sharpie permanent marker

Step 1: Purchase the sticks

- ALLARM purchases the sticks directly from Lowe's. The sticks are found in the lumber department and the dimensions are labeled as 2" x 2" x 8'.



Item: 2 x 2 x 8 Treated #1 Pine
Item #: 468966
Model #: 2208T

- You can make 2 gage sticks from each stick by having the people at Lowe's cut them in half. If you need 10 gage sticks for your group, grab a lumber cart, load five sticks on it, and meet an attendant at the cutting station in the lumber department. They will cut the rods in half for you.
- When you pay for the sticks, make sure you pay for the number of 8 ft. long sticks you purchased, NOT the number of gage sticks you will make.

Step 2: Create the gage sticks

- The easiest way to create the gage sticks is to make a template and use it to create the remaining ones.
- Using a tape measure, yard stick, etc., mark off the stick with tick marks and label the following measurements: 0.5 feet, 1.0 feet, 1.5 feet, 2.0 feet, 2.5 feet, 3.0 feet, 3.5 feet. ALLARM uses a Sharpie permanent marker so the writing does not come off or bleed in the water (*you may want to make your first gage stick using a pencil until you are sure the graduations are made correctly*).
- ALLARM makes tick marks at every 0.1 ft. This is very easy to do if you have a tape measure that is divided into 0.1 ft. measurements, but most tape measures do not have this feature. This can also be done by making a tick mark approximately every $1\frac{1}{4}$ inches between the main measurements (i.e. 1.0 feet and 1.5 feet).
- Once you have one gage stick made, it is easy to line up multiple sticks to create the remaining gage sticks.

