Flume Field Inspection (parshall, ramp, cutthroat, Montana)

- Check level lengthwise and cross-wise.
- Check for free flow (outflow not influencing the elevation of inflow), an obvious drop in water level should appear downstream of the crest and a standing wave may be present.
- Make sure approach flow straight and relatively tranquil.
- Clean out sediment or debris that may be causing turbulence through inlet, throat, or outlet.

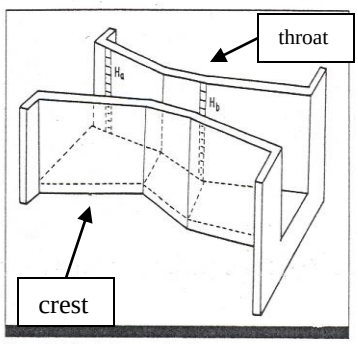
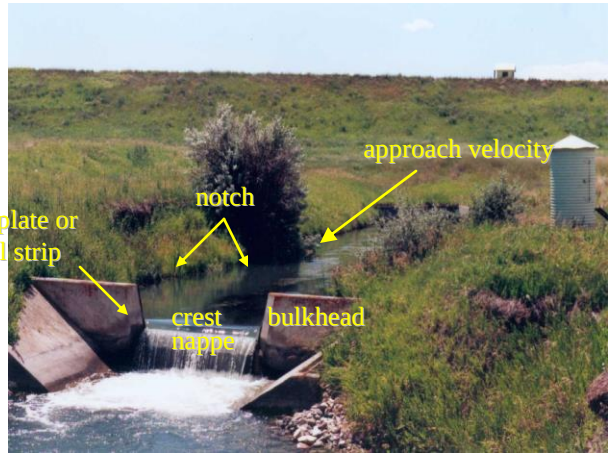


Figure 1. A Parshall measuring flume.

- Make sure water does not flow around flume.
- Staff gage must be set on floor of converging section and 2/3 upstream of throat.
- Stage must be greater than 0.2 feet to function properly.

Contracted Weir Field Inspection (rectangular, cipoletti, V-notch)

- Check level on bulkhead and crest.
- Must have ventilated nappe for free flow conditions.
- Check for flow obstructions such as debris and sediment build-up and remove if necessary.
- Check for seepage around weir.
- Approach velocity should appear relatively still (<0.5 feet per second).



- Notch plate should be plumb, smooth, and perpendicular to flow.
- Measuring point (bottom of staff gage) should be level with crest.
- H = maximum head expected. Crest must be 2H from sides, 3H from bottom, and 4H from measuring point (staff gage).
- Head measurement should be greater than 0.2 feet but less than 1/3 crest length. For example, if the maximum head expected is 0.5 feet, then the crest length should be at least 1.5 feet.