Checklist for Field Sampling (using electronic meters and/or sampling for lab analysis)

- Multiparameter sonde and handpad (YSI/HydroLab/Hach/other)
- Turbidimeter (generally Hach 2100P)
- Bucket/container with wet towel for calibrating/transporting YSI meter or calibration cup w/ sponge
- Sampling Device and extra weight if current suspected to be fast.
  -Van Dorn or Kemmerer if over 3-4 feet deep
  -waders to do grab sample if less than 1-3 feet (and general purpose for other measurements & retrievals)
- Weighted tape measure for stage readings, stream distance, and/or site profiling
- Transparency tube—60 and/or 100 cm tube depending on conditions expected—bring both if available
- Wash bottle w/ distilled/DI water for rinsing turbidity vial
- Distilled water for equipment (field) blank, filling wash bottle to rinse turbidity vial, and for equipment rinse
- Kim wipes (mostly for wiping turbidity vials)
- Clipboard
- Pencil or Pen for filling in field data sheet and chain of custody record
- Field data sheets
- YSI/other calibration data sheets
- Watch or car clock for recording time of sampling (handpad may also have time stamp)
- Safety items: vests, cones, flashers—USE THEM!
- Sampling site directions and map
- Digital/35 mm camera for recording site and watershed conditions (communication/education)
- Container (ice cream bucket or jug with portion of top cut off) for sonde if depth exceeds cable length
- Sharpie permanent markers (extra fine tip for marking sample bottles; broad tip for marking gage reference mark and/or spray paint for this purpose)
- GPS unit to record site coordinates or sites of interest (use for ArcView mapping, modeling, data analysis)
- Sample bottles from lab—variable depending on parameters being monitored.
- Sulfuric Acid or other preservative for preserving selected sample bottles
- Disposable gloves for general purpose use. Neoprene gloves for cold water sample handling.
- Cooler(s) and ice/frozen ice packs for sample transport and storage
- Chain of Custody forms for shipping samples at end of day
- Shipping labels for shipping samples to certified lab (made out ahead of time)
- Packing tape for sealing coolers for shipment
- Towels for drying hands, bottles, etc.
- Jug of tap water and antibacterial soap for general hand cleaning and equipment as needed
- Log books: shipping and sample log books
- Manuals: Standard Operating Procedures; Calibration Instructions; QAPP; Volunteer Manual
- Meter stick or other measuring device if taking stream depth cross-section profiles
- Sunscreen, bug repellent, hand lotion, hat, rain gear, warm clothing, dry change of clothes

Calibration Needs:

- PH buffer standards for meter calibration (generally pH 7 and 10 for Red River Basin)
- Conductivity standard for meter calibration (generally 1000 uS/cm for Red River Basin)
- Turbidity standard for meter calibration (as needed)
- YSI DO probe KCL solution and extra DO membranes, O-rings, etc. as per equipment being used
- Means of determining barometric pressure for calibrating DO meter if not part of meter

Prior to sampling:

- Freeze ice packs/cubes as needed for packing coolers with samples
- Calibrate meters

After sampling:

- Fill out Chain of Custody record for coolers with samples to be turned over to lab
- Ship or deliver cooler(s) with samples and chain of custody forms to lab
- Clean and store all sampling equipment: Van Dorn sampler, T-tubes, meters, etc.
- Make sure field notes are legible or transfer to new sheet in legible manner
- Enter results into Excel spreadsheet and upload to website.
- News releases to local papers with digital photos of sampling.