Appendix A
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Field Data Forms and Sample Labels

Number per site	Item	
1	Verification Form	
1	Sample Collection Form	
1	Field Measurement Form	
11 + extras	Channel/Riparian Transect Form	
11 + extras	Thalweg Profile Form	
1	PHAB Commentes Form	
10 + extras	Vertebrate Collection Form	
1 + extras	Vergebrate Length Recording Form	
1	Assessment Form for visual river assessment	
1	Field Sample Shipment Tracking Form	
3	Water chemistry labels (same ID number)	
1	Microbial label	
4	Periphyton labels (same ID number)	
5	Sediment metabolism labels (different ID numbers)	
2	Composite Benthic sample labels, with preprinted ID numbers (barcodes)	
4	Composite Benthic sample labels without preprinted ID numbers	
1	Sheet of preprinted aquatic vertebrate jar labels (4) and voucher bag tags (36), all with same preprinted sample ID number (barcode)	
2 sets	Fish tissue sample labels (2 labels per set; each set with a different sample ID number [barcode])	
2 copies	Field operations and methods manual	
2 sets	Laminated sheets of procedure tables and/or quick reference guides	

Office Supplies And Tools

Number per site	Item	
1	Dossier of access and general information for scheduled river site	
1	Topographic map with "X-site," reach boundaries, and launch points marked	
1	Site information sheet with map coordinates, bank to be sampled, elevation of X-site, and other general information	
1	Portable file folder used to organize field and administrative forms	
1 ea.	Map wheel, calculator, metric ruler, shoulder bag, and field notebook	
1	Sampling itinerary notebook	
1	Safety log and/or personal safety information for each team member	
4	Covered clipboards or forms holders	
12	Soft (#2) lead pencils	
6	Fine-tip indelible markers	
1 pr	Scissors for cutting labels	
1	Pocket knife or multipurpose tool	
1	Toolbox with basic tools needed to maintain/repair sampling gear (other than electrofishing equipment)	

Personal Equipment and Supplies

Number per site	Item	
2	14 ft. inflatable rafts with custom frames	
6	Oars	
2	Extra oar locks	
2	Raft pump - AIR	
1	Raft pump - ELECTRIC	
3	Raft patch kits	
1 pr/person	Felt-soled wading boots + neoprene booties.	
1 per person	PFD's with pockets	
2 pair	Polarized sunglasses and leather gloves	
1	First aid kit, eye wash unit, sunscreen, whistle, antibacterial hand wash	
1 per person	Rain gear	
1	Water purifier	
2	Throw bags and dry bags	
2	Pruning saws	
1	5 gal. water jug	
2	Pulaski's and shovels	
2	Booster cables	
	Tie-down straps, ropes, bungee cords	

Chemicals

Number per site	Item	
1 pr	Safety glasses	
2 pr	Chemical-resistant gloves	
1	Laboratory apron, resistant to ethanol and formalin	
1	Cooler or large tote for transporting ethanol and samples	
2 gal	95% ethanol	
1	Cooler or large tote for transporting formaldehyde/formalin	
2 gal	10% (buffered) formalin solution	
1 gal	Gasoline for electrofishing generator in approved container	
2 jars	Methyl Ethyl Ketone (MEK) for patching rafts	

Packing and Shipping Supples

Number per site	Item	
2 bags	Ice	
1 box	1-gal heavy-duty self-sealingn (e.g., with a zipper-type closure) plastic bags	
1 box	30-gal plastic garbage bags	
1 roll	Clear tape for sealing tissue sample bags and shipping containers	
2 pkg	Clear tape strips for covering labels	
4 rolls	Plastic electrical tape	
3	Insulated shipping containers for samples (heavy plastic coolers)	
1	Plastic container with snap-on lide	
1	Cooler with bags of ice to store frozen samples	
2	Containers suitable to transport and/or ship samples preserved in formalin or ethanol (coolers)	
6	Shipping airbills and adhesive plastic sleeves	

Site Verification and Sampling Reach Layout

Number per site	Item	
1	GPS receiver and operating manual	
	Extra batteries for GPS receiver	
1	Laser rangefinder (400 yard range) and clear waterproof bag (dry bag)	
1	50 m fiberglass measuring tape with reel	
1	Dossier of site and access information	
1	Waterproof camera and film	
1	Topographic map and gazetteer	
1 ea	Map wheel, calculator, metric ruler	

Water Chemistry and Microbiology

Number per site	Item	
1	Dissolved oxygen/Temperature meter with probe, manual, & storage case	
1	DO repair kit containing additional membranesand probe filling solution	
1	Conductivity meter with probe, operating manual, and padded storage case	
	Extra batteries for dissolved oxygen and conductivity meters	
1	500-mL plastic bottle of conductivity QCCS labeled "Rinse" (in plastic bag)	
1	500-mL plastic bottle of conductivity QCCS labeled 'Test" (in plastic bag)	
1	500-mL plastic bottle of deionized water to store conductivity probe	
1	Field thermometer	
1	500 mL plastic beaker with handle (in clean plastic bag)	
1	4-L cubitainer	
2	60-mL plastic syringes	
1	200 mL square glass microbial bottle	
1	Plastic container with snap-on lid to hold filled syringes	
2	Syringe valves	

Physical Habitat

Number per site	Item	
1	Surveyor's telescoping rod (round profile, metric scale, 7.5 m extended) for depth measurements and substrate estimation	
1	Clinometer (or Abney level) with percent and degree scales	
1	Convex spherical canopy densiometer, modified with taped "V"	
1	Bearing compass (Backpacking type)	
1 roll	Colored surveyor's plastic flagging	
1	Meter stick for bank angle measurements	
1	SONAR depth sounder - narrow beam (16 degrees)	

Periphyton

Number per site	Item	
1	Large funnel (15-20 cm diameter)	
1	12-cm^2 area delimiter (3.8 cm diameter pipe, 3 cm tall)	
1	Stiff-bristle Toothbrush with handle bent at 90° angle	
1	1-L wash bottle for stream water	
1	1-L wash bottle containing deionized water	
2	500-mL plastic bottles for composite samples	
1	60 mL plastic syringe with a 3/8" hole bored into the end	
4	50-mL screw-top centrifuge tubes (or similar sample vials)	
1 box	Glass-fiber filters for chlorophyll and biomass samples	
1 pair	Forceps for filter handling	
1	25-mL or 50-mL graduated cylinder	
1	Filtration unit, including filter funnel, cap, filter holder, and receiving chamber	
1	Hand-operated vacuum pump with length of flexible plastic tubing	
2	Aluminum foil squares (3" x 6")	
1	Small syringe or bulb pipette for dispensing formalin	
1	Collapsible bucket	

Sediment Metabolism

Number per site	Item	
1	Small scoop sampler for sediments	
1	Wide-mouthed plastic jar labeled "COMPOSITE SEDIMENT SAMPLE". If sediment is only being collected for metabolism samples, a 250-mL jar is sufficient.	
1	YSI Model 95 Dissolved Oxygen meter	
1 set	Spare batteries for DO meter	
1	Small plastic spoon or spatula to transfer sediment from the composite sample container to respiration tubes	
5	50-mL, screw-top, centrifuge tubes	
1	50-mL screw-cap centrifuge tube labeled "BLANK"	
1	Small cooler used as incubation chamber	
1	1,000-mL plastic beaker to holding centrifuge tubes during incubation	

Benthic Macroinvertebrates

Number per site	Item	
1	Modified kick net (closed bag with 595 µm mesh) and 4-ft handle (Wildco #425-J50-595)	
	Spare net(s) for the kick net sampler or extra sampler	
2	Drift nets, 595 µm mesh, closed end	
1	Sieve bucket, 595 µm mesh openings	
2 pr	Watchmakers' forceps	
1	Wash bottle, 1-L capacity	
1	Small spatula, spoon, or scoop to transfer sample	
1	Funnel, with large bore spout	
10	Sample jars, plastic with screw caps, 500 mL and 1 L capacity, suitable for use with ethanol	
2	Buckets, plastic, eight to ten quart capacity	
1	Stopwatch	
1 pkg	Kimwipes in small self-sealing plastic bag	

Aquatic Vertebrates and Fish Tissue Contaminants

Number per site	Item	
1 set	Electrofishing equipment - cathode and anode droppers, other frame mounted electrical boxes and connections	
1	Electrofishing control box with all connectors	
2	Anodes and cathodes (SPARE)	
1	Generator and filled gas can + rag	
2	Dip nets, Long handled	
1	Dip net, Short handled	
1	Live well cooler	
1 pr	Heavy-duty rubber gloves for electrofishing	
2	Fish measuring board and rulers	
2	Portable scale, precision ±5g to weigh tissue samples	
2	Buckets (5 gallon)	
	Tools for electrofishing assembly	
1	Fire extinguisher	
1 set	Taxonomic reference books and keys for fishes and amphibians of the region	
1	List of vertebrate species codes and common names	
1	List of external anomaly codes	
15-20	Small nylon mesh bags for holding voucher specimens (bags can also be constructed from sections of nylon stockings or panty hose)	
1	Small fillet knife or scalpel for preparing larger voucher speciments for preservation	
2 ea	1, 2 or 4 L screw-top plastic jars for voucher samples	
1	Plastic bucket for anesthetization	
2 gal	10% (buffered) formalin solution	
4	carbon dioxide tablets (Alka-Seltzer® or equivalent)	
1 roll	Aluminum foil	