

Table 4. Habitat variables that were collected by MassDEP and Tetra Tech field crews at the time of the biological sampling events.

Habitat variables	Description
Number of jabs from each major habitat group (10 jabs total)	Four major habitat groups: submerged wood, submerged vegetation, vegetated margins/undercut banks, and hard bottom, sampled in proportion to their occurrence*.
Rapid Habitat Assessment (Barbour et al. 1999)	Visual assessment of the sampling reach. Ten input metrics: epifaunal substrate/available cover, pool substrate characterization, pool variability, degree and type(s) of channel alteration, sediment deposition, channel sinuosity, channel flow status, bank vegetative protection, bank stability, and riparian vegetation zone width.
Substrate composition (%)	A visual estimate of the percentage of inorganic substrates (clay, silt, sand, gravel, cobble, boulder, bedrock) (should sum to 100%) and organic substrates (detritus, muck-mud, marl) (does not need to sum to 100%) throughout the sampling reach.
Canopy cover (%)	A visual estimate of the percent of the wetted area of the sampling reach that is shaded by overhanging vegetation or other structures.
Width (m)	Wetted distance from bank to bank, either based on a single measurement from the portion of the reach that is the most representative of the natural channel, or, if width varies throughout the reach, based on the average from three locations (upstream end, downstream end, and mid-point).
Maximum Depth (m)	Maximum depth in the sampling reach.
High water mark (m)	The vertical distance from bankfull (at base flow) to the high water level indicator (e.g., debris hanging in riparian or floodplain vegetation, deposition of silt or soil).

*MassDEP enters slightly different habitat categories into their database than the ones used by Tetra Tech. Appendix C contains the crosswalk table that was used to align the categories.



Figure 2. A diverse group of low gradient sites are represented in the IBI calibration dataset, ranging from slow winding, soft bottom streams to slow-moving streams with gravel or cobble substrate.