



Baffle boxes can be designed to capture 85 percent of the average annual flow and a 70 percent TSS removal efficiency. Sizing and other design considerations for baffle boxes is beyond the scope of this planning level analysis. Flows, topography, slopes, soils, land use and existing local drainage infrastructure should be considered in detail before implementation of this alternative. An average sized baffle box has been considered for the cost estimation. **Table 4.4.10** shows the conceptual cost estimate for this alternative.

Alternative OM7 - Grade Control (South of Gordon St to confluence with Sugar Creek)

Alternative OM7 includes construction of grade control structures (drop structures) at the location of a naturally occurring knick point on One Mile Branch, just upstream of its confluence with Sugar Creek. A total of two grade control structures will be constructed in series at this location. In addition to providing reduction in channel erosion and reduction in high velocities in the stream, this project is part of a basin-wide effort to stabilize and restore the stream. The locations for these grade control structures were identified during the geomorphologic assessment of the Sugar Creek basin. Section 3 of this report gives in detail the geomorphologic assessment of the Sugar Creek basin. The approximate location of the grade control structures is shown on **Figure 4.4.8**. **Table 4.4.11** shows the conceptual costs estimates for this alternative. CDM recommends detailed geomorphologic assessment is carried out before commencing any design or construction for a grade control project.