INTERIM REPORT

Project Title:

Physical Habitat Assessment of Hinkson Creek

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Field work began on the Hinkson Creek Physical Habitat Assessment on July 18, 2013. Based on seasonal flow conditions and other considerations (i.e. student workers engaged in fall semester classes), the initial phase of the project was narrowed in scope to University of Missouri frontage. Habitat assessment protocols were completed from Missouri Resource Assessment Partnership reference point 190 (just upstream of where Forum Boulevard crosses over Hinkson Creek) through reference point 384 (near Clyde Wilson Memorial Park at the east end of Rollins Road), covering a continuous 9.8 kilometers of stream length. The initial phase of the project was completed October 10, 2013.

Interim results indicate channel widths ranging from a maximum of 62m to a minimum of 14.7m, with a mean width of 23.08m and standard deviation (SD) of 6.63m (Figure 1). Bankfull width ranged from a maximum of 64m to a minimum of 16.9m, with a mean width of 30.17m and SD = 6.82. Bank height varied, with a maximum of 4.4m, minimum of 1.0m and mean of 2.71m (SD = 0.83m) (Figure 2).

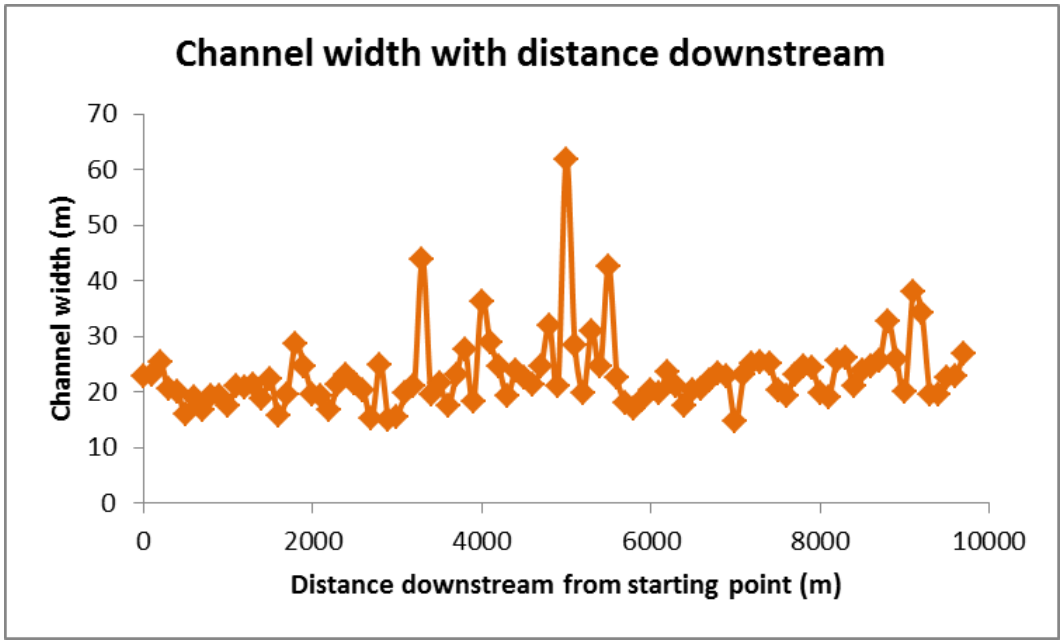

Figure 1. Channel width with distance downstream from starting point of initial phase of the physical habitat assessment.

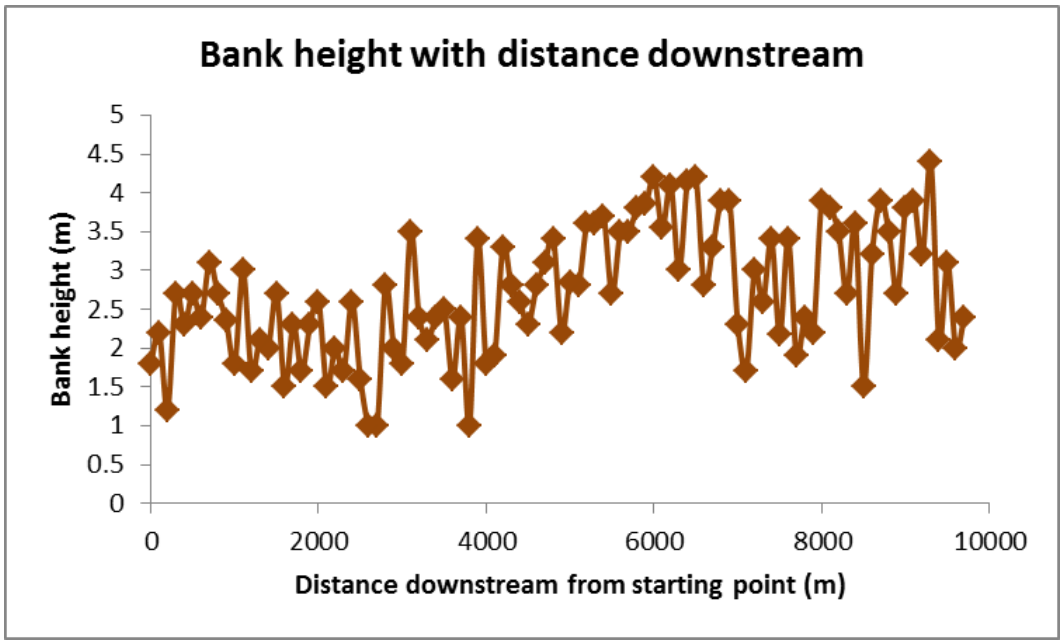

Figure 2. Bank height with distance downstream from starting point of initial phase of the physical habitat assessment.

Stream depth was variable with depth and flow characteristics of the stream, i.e. riffle, pool or glide (also called a channel unit). The dominant channel unit in the initial surveyed portion of Hinkson Creek was trench pool. The deepest pool to date was 2.3m deep. Many of the deeper pools occurred at bends in the creek. There were hundreds of meters of eroded banks observed, and some clear indications of ongoing mass wasting. A photographic journal has been maintained, documenting habitat conditions at survey points, and every ten meters thereafter throughout the 9.8 kilometers.

Life is abundant in Hinkson Creek. There are many riparian areas which appear to be healthy at first glance. There are many tree species in these areas including sycamore, maple, walnut, and elm. There are a many long-lived trees due to the reduced development on University property. The sand along the banks and in sand bars held tracks of numerous mammals, including raccoon, muskrat, weasel, deer, fox and coyote. The creek provides habitat for many fish species. At least three different species of frogs were observed, in various

morphological stages. The streambed supports periphyton growth where the substrate is rocky, but the substrate is buried in some areas due to sedimentation.

Field work will continue upstream from the University frontage. The 2013 field season will end with the fall semester, and will recommence when the spring semester begins. In January, if the stream banks are sufficiently frozen, the habitat assessment will shift to the mouth of Hinkson Creek. The streambed (mostly mud) in that area is especially treacherous, so an effort will be made to complete the lowermost survey points during winter seasonal low flows. Barring complications (e.g. weather, etc.) the project is on track for completion by the beginning of fall semester, 2014.