

Sec. 7.04 Channel Characteristics

The physical characteristics of existing channels, natural or man-made, can best be described by the field survey. The type of material in the bed and banks (i.e., clay, gravel, cobbles, etc.) should be noted as well as any evidence of erosion or deposition along the streambed and banks. (See Table 7.1) The type and extent of vegetal cover and classification of debris should be noted. (See Table 7.2)

Table 7-1

<i>Particle Size (Mean Diameter)</i>	<i>Standard Designation</i>
<0.0003 ft.	Silt
0.0003 ft. to 0.0015 ft.	Fine Sand
0.0015 ft. to 0.007 ft.	Course Sand
0.007 ft. to 0.20 ft.	Gravel
0.20 ft. to 0.80 ft.	Cobbles
>0.80 ft.	Boulders

Table 7-2

<i>Debris Classification</i>	<i>Description</i>
Light floating debris	Small limbs, pruning and refuse
Medium floating debris	Limbs and large sticks
Heavy floating debris	Logs and trees

Sec. 7.05 Water Level Information

The survey should identify various water levels (i.e., normal water, high water, tide levels, etc.) as described in [Section 7.09.3](#). This data is used to calibrate engineering calculations and is correlated with other sources of water data.

Normal water data should reflect the average water surface elevation the majority of the time. A line on the stream bank established by the fluctuations of the water or indicated by physical characteristics can be a good indicator of the high water mark elevation. Physical characteristics that indicate the high water mark can be a clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter and debris; or other appropriate means that consider the characteristics of the surrounding areas.

The frequency of high and low water is a "best estimate" and is not intended as a precise quantification that results from a detailed hydrologic analysis.

Reliable high water data can be invaluable information for establishing the stage and discharge of past floods, locating hydraulic controls and establishing highway profiles. Several high water marks along the traverse are required to compute the flood discharge by the slope area indirect method.