Stream Functions Pyramid

A Guide for Assessing & Restoring Stream Functions » FUNCTIONS & PARAMETERS



BIOLOGY »

FUNCTION: Biodiversity and the life histories of aquatic and riparian life **PARAMETERS**: Microbial Communities, Macrophyte Communities, Benthic Macroinvertebrate Communities, Fish Communities, Landscape Connectivity

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PHYSIOCHEMICAL »

FUNCTION: Temperature and oxygen regulation; processing of organic matter and nutrients PARAMETERS: Water Quality, Nutrients, Organic Carbon

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GEOMORPHOLOGY »

FUNCTION: Transport of wood and sediment to create diverse bed forms and dynamic equilibrium

PARAMETERS: Sediment Transport Competency, Sediment Transport Capacity, Large Woody Debris Transport and Storage, Channel Evolution, Bank Migration/Lateral Stability, Riparian Vegetation, Bed Form Diversity, Bed Material Characterization

HYDRAULIC »

FUNCTION: Transport of water in the channel, on the floodplain, and through sediments

PARAMETERS: Floodplain Connectivity, Flow Dynamics, Groundwater/Surface Water Exchange



HYDROLOGY »

FUNCTION: Transport of water from the watershed to the channel

PARAMETERS: Channel-Forming Discharge, Precipitation/Runoff Relationship, Flood Frequency, Flow Duration