Presenter	Will Harman Michael Baker Engineering, Inc.
Type	oral presentation
Category	**Benefits of Stream Restoration**
Title	*The Functional Lift Pyramid: A Conceptual Model for Evaluating the Benefits of Stream Restoration*
Abstract	Projects that are completed for mitigation purposes must show an improvement to existing functions. This is often called "functional lift." This presentation will provide an overview of a functional lift pyramid, which is based on work completed by the US Army Corps of Engineers and a broad-based committee of scientists, engineers, and practitioners. The functional lift pyramid builds on these findings by illustrating that functional improvement goals must be completed in a specific order. This helps the practitioner match the project goal with functional design elements. The functional categories include hydrology, hydraulics, geomorphologic, biologic, and water chemistry. Through monitoring, these functions can then be used to determine the overall benefit of stream restoration by comparing the baseline functional value to the post restoration value, i.e., the functional lift. The pyramid also highlights which functions are most directly affected by stream restoration activities and which are more dependent on upstream conditions. The presentation will provide a graphic representation of the functional lift pyramid along with case studies to illustrate how stream restoration projects can provide functional lift. These case studies will also illustrate why hydrologic and geomorphic functions are most important for design purposes.