

Streambank Erosion: Monitoring, Modeling and Management

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Message from the Guest Editors

The purpose of this Special Issue is to compile recent progress and new research directions on streambank monitoring, modeling, and management. Streambank erosion is recognized as a significant contributor to total watershed sediment and nutrient loading. Nowadays, technologies such as terrestrial and airborne LIDAR, unmanned aerial systems, and drones are opening new avenues for a more detailed streambank erosion monitoring. In-stream sediment concentration remains one of the more poorly quantified water quality parameters due to the difficulty in obtaining accurate estimates of sediment transport. Currently, a standardized approach that relies on channel classification is applied to stream restoration and stabilization projects. This method often relies on creating a certain channel form from a reference reach that is considered “good”; however, this channel form may not be suitable for the amount of sediment or the valley slope. Therefore, there is a need to assess the performance and suitability of these standardized approaches, as well as to better understand the contribution of process-based models in evaluating stabilization and restoration efforts.





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Message from the Editor-in-Chief

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