

Workshop Title: Reference River Ecosystems: Historical States, Best Ecological Potential and Management Challenges

Convenors: Matt Kondolf (kondolf@berkeley.edu) and **Guido Zolezzi** (guido.zolezzi@ing.unitn.it)

The workshop is intended for practitioners and researchers actively involved in the management and/or research related to management of river systems in anthropically-modified landscapes. The convenors welcome ideas for specific discussion topics prior to the meeting, and the final workshop schedule may reflect changes resulting from such exchanges. Interested participants can contact the convenors to propose a contribution.

Programme:

Introduction/Overview: Setting Restoration Goals – What Role Reference River Ecosystems? (*Matt Kondolf, 15min*)

Realistic Restoration Targets in a Regulated River (*Pete Downs, 15min*)

Reference River Corridors: Pristine or Artifacts of Land-Use Change? (*Hervé Piégay, 15min, Angela Gurnell, 15min*)

Invited Discussions *TBA*

Open Discussion (*30min*)

Background Document

To be developed into proposal towards establishing a network

Reference conditions for surface water bodies are a central element in the implementation of the WFD (EU 2000/60). It is therefore crucial to identify and learn from reference river reaches that resemble the functioning and historical states of natural river bodies prior to extensive regulation of their hydro- and morpho-dynamics.

The workshop will focus on goal-setting and the concept of reference reaches in river restoration, considering the case of regulated rivers in which it is largely impossible to restore fluvial processes, and then consider the reference ecosystems of the Tagliamento River (Italy) and the Eygues River (France), the latter having developed its riparian forest since the late 19th century. These sites offer excellent opportunities to investigate relatively unconstrained biotic and abiotic processes at basin-scale scales observable in very few sites in Europe, illuminating functional roles of riverine attributes important for conservation, and also highlighting the importance of understanding historical land-use changes in creating such 'natural' habitats.

It is crucial to consider how these systems should be managed and studied in the future, to preserve their functions both for societal needs and to preserve biodiversity and ecosystem services, taking their special ecological character into account.

The expected outcome of this workshop is to promote the debate on the managing of reference river systems in Europe, to focus on shared guidelines, and to make a first step towards the establishment of a European network of "reference fluvial systems".