RIVER & FLOODPLAIN RESTORATION

Restoration of in-channel and riparian habitat for the benefit of native chalk stream and wetland communities.

BACKGROUND

Chalk streams have been historically modified to suit a variety of human purposes such as agriculture, fisheries, flood risk management and the development of watercress beds and mills. The various modifications have altered the natural character of the river and led to systems being potentially over-widened, over deepened, impounded and disconnected with the floodplain. In addition, continued insensitive management of in-channel and riparian habitats and the increasing pressures of invasive non-native species (INNS) and climate change are negatively impacting upon the health of our chalk streams and the unique ecological communities they support.

OBJECTIVES

There is a great opportunity for the TICP and partners to capitalise on the existing river and floodplain restoration projects delivered within the catchment. The following objectives have been identified as priorities:

Addressing on-line lakes within the tributaries and headwaters. The presence of historic on-line impoundments has multiple negative effects upon the riverine environment, including prevention of fish passage, disruption of natural erosion and deposition processes, storage of high nutrient silt with serious risk of mobilisation, and disruption of natural flow variation downstream of structures. A number of priority sites have been identified by the partnership, including Grange Lakes (Candover Stream), Old Arlesford Pond (River Arle), and multiple impoundments on Bow Lake.

Removal or modification of historic in-channel structures. A legacy of the past intensive management of the Test and Itchen is the abundance of in-channel structures (weirs, sluices, etc). In addition to the impounding effects, these structures prevent passage of fish including salmonids, coarse fish and eels. Continuation of structure removal as delivered by the EA/NE under the TIRR scheme at Bossington on the Test and WCSRT on the Dun and modification of structures to facilitate eel passage as undertaken on the Test, Itchen and Meon is identified as a priority for the TICP and partners.

Restoration of in-channel/riparian habitats and floodplain wetlands. The continued delivery of river restoration and enhancement projects to benefit in-stream and riparian habitat, and associated species is a priority of the TICP. Building upon the successes of the TIRR scheme and major projects such as the HIWWT restoration of Winnal Moors and Itchen Navigation, it is hoped that the partners and stakeholders will continue to deliver projects of all scales across the catchment.

Encouraging sensitive riparian and in-channel management. Whilst there has been a move away from insensitive historic management approaches for the benefit angling on the Test and Itchen, the Test and Itchen River Restoration (TIRR) scheme has identified many reaches in which changes to management regimes (i.e. management of riparian vegetation and in-channel weed) would result in improvements to habitat and associated aquatic communities. Engagement with landowners and communities e.g. continued delivery of 'Habitat Workshops' by the T&I / WCSRT / WTT and further partner engagement is required.

CROSS-PROJECT WORKING

There is an opportunity for cross-project working with a number of other partnership projects:

Watercress and Winterbournes – development and delivery phase includes design and delivery of in-channel and wetland restoration works, with an emphasis upon community decision making.

Mitigating Consented Discharges – the design and delivery of in-channel habitat improvement works is a key aspect of mitigating against consented discharges; increasing oxygenation, reducing channel width, and creating improved flow dynamics for the benefit of aquatic species.

Multifunctional wetlands/natural flood management – reconnection of river channels to the floodplain through delivery of in-channel works directly complements NFM objectives.