



PROVIDING PUBLIC, PRIVATE AND LIVESTOCK ACCESS

8.1 Fords and stock watering point

RIVER COLE

LOCATION – Coleshill, Oxon/Wilts border, SU 234935

DATE OF CONSTRUCTION – Autumn 1995

LENGTH – 4 fords and 1 watering point

COSTS – Fords £1k each. Watering point £1k



Stock watering point
at ch. 100m

DESCRIPTION

Two new fords and a stock watering point were created in the restored reach of the river downstream of Coleshill mill. Upstream of the mill two new fords were created (see Part 1, figs. 1.1.1 – 1.1.2). Each ford enables livestock to cross the river easily as well as doubling as a drinking place. Those upstream of the mill are also used by farm vehicles and the downstream ford part of an equestrian trail. Although similar in principle, the configuration of each is significantly different to take advantage of local topography.

DESIGN

Downstream of mill

All three features were created at locations where the old, straight river course was crossed by the newly excavated meandering course. Each is formed within the old backfilled river course where the soils are loose and susceptible to erosion. Rather than protecting the banks with revetments, each was set back from the true line of the new river by incorporating stoned access ramps (1:6 or flatter) to form either a ford or a stock watering point. As the new river bed at each point is filled to c. 1m above the old bed this too needed to be protected with stone surfacing.

Stock watering point at ch. 100m (fig. 8.1.1)

Located at ch. 100m just downstream of a sharp bend in the new river course, there was a low flow of gravel expected to form. In this hydraulic condition, combined with the careful contouring of the adjacent river banks, helped to avoid the risk of siltation that all too often renders watering points useless. The most ancient fencing around the ramp is added into a link top fencing on either side, as well as across the river, to form a secure field boundary point.

The river fencing comprises a single heavy wire cable strained tightly across on a diagonal line (see photograph). The extra length of the diagonal renders the cable less likely to form a complete blockage of the river if floating debris becomes snagged on it. The angle of the diagonal is aligned to direct turbulence caused by its presence towards the mouth of the watering point, further reducing the risk of siltation.

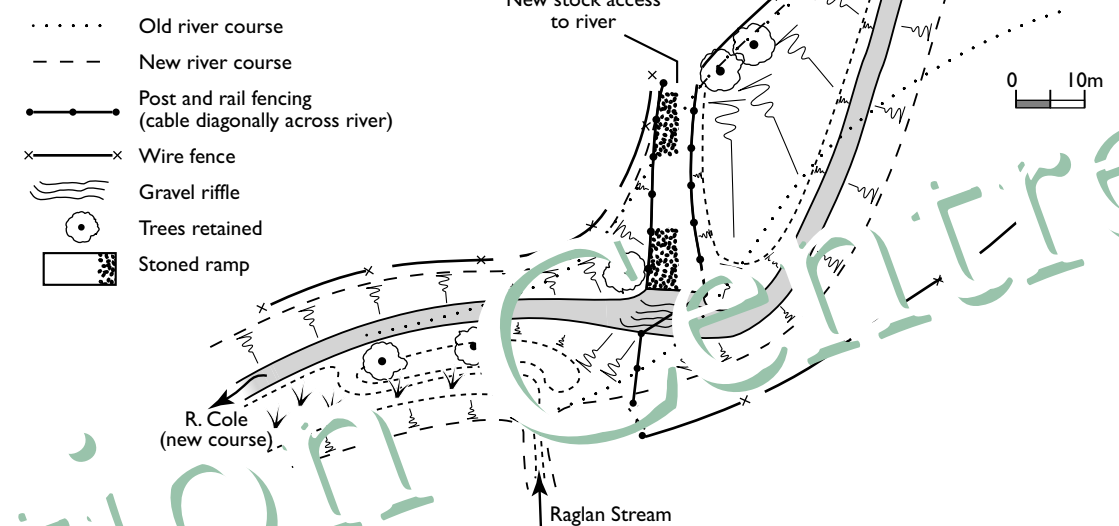
The ramp, its upstream flank, and the river bed are all formed over compacted fill, and flat surfaces are covered with stone over a filter fabric.

The ford at ch. 280m (fig. 8.1.2)

Aligned between three mature trees on the old river bank to create an 'S' shaped feature, it crosses the new river bed on a long diagonal (c. 15m compared

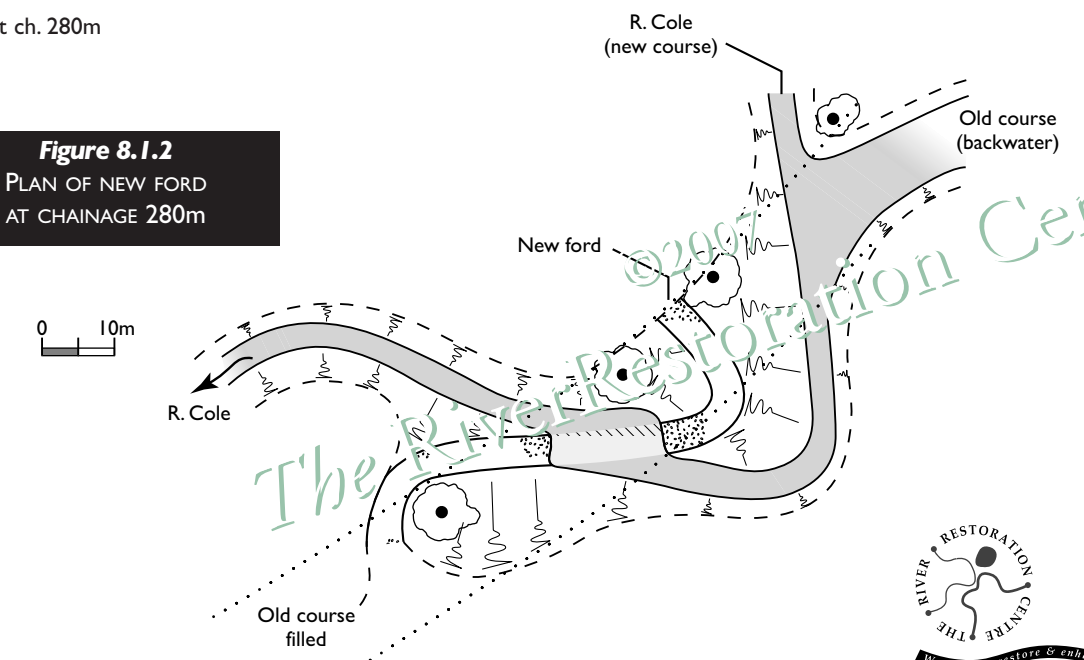
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Figure 8.1.1
PLAN OF NEW STOCK WATERING POINT
AT CHAINAGE 100m



Ford at ch. 280m

Figure 8.1.2
PLAN OF NEW FORD
AT CHAINAGE 280m



with the typical bed width of c. 3m). The position of this diagonal approximates to the likely position at which a self-sustainable point bar of gravel would form, because of the sharp bend just upstream.

Most of the ford is formed within the old backfilled river channel, which is carefully contoured to create smooth transitions with undisturbed ground on both sides of the river, as well as with the root levels of the three trees and with the newly excavated channel. The river bed and ramps are surfaced with stone over a filter fabric to suit livestock rather than heavy vehicles.