



Mire restoration using vegetation clearance

Costs

Machine/ Equipment Hire

ATV	26 days	£1,300
360 Excavator	14 days	£4,480
Excavator transport	Drop/Collect	£228
5 tonne digger	8 days	£675
Digger transport	Drop/Collect	£160
6 tonne dumper x 2	10 days	£595
Dumper transport	Drop/Collect	£200
2000L fuel bowser		£228

Materials

Clay	20.92t	£157
Gravel/Hoggin	165.74t	£1,260
Chestnut posts	60	£90
Heather Bales (cut, baled & hauled by local contractor)	5520	£12,695

Labour

Contract (9 hr day)	50 days	£6,000
Partner	28.5	£2923

Sundries

Archaeological Site Marking	£50
Hire Barriers	£96
Movement of clay from Holmsley Inclosure to Stoney Moors	£272

Scrub management & vegetation clearance

Scrub management	£5,300
Scots Pine & Invasive Scrub Clearance (2.64ha)	£3155
Extraction of felled broadleaves	£2,300

TOTAL **£42,164**

CASE STUDY 3: HOLMSLEY INCLOSURE STREAM RESTORATION

Background

Holmsley Inclosure is located approximately 2 km south of Burley (SU 224 004). It is a diverse Inclosure supporting a range of woodland types and open habitats giving rise to a wealth of botanical and invertebrate interest. Historically, the forked valley through Holmsley Inclosure was a large, continuous mire from Holmsley Bog in the east upstream to Cardinal Hat in the north and Stony Moors in the west. Since the creation of the Inclosure there has been extensive drainage works carried out in the 1930's & 1940's. Subsequently some of these drains have become very incised, eroding substantial volumes of gravel from the banks and beds which has been washed downstream. In addition to plantations there has also been encroachment by willow, birch and alder as the water table has lowered in response to drainage.



Deeply incised channel

The works

- ◆ 8.8 hectares of scrub management and vegetation clearance
- ◆ Raising of bed levels for approximately 500m in the existing Stony Moors stream between the Inclosure boundary and the fords on the public road. Levels were raised to within 0.4m of the surrounding floodplain to restore winter flooding on the flood plain. This was achieved using clay plugs and backfilling with imported hoggin and available bank spoil. Due to the steep gradient additional support was given to the infill in the form of log weirs, oak boards and live willow.
- ◆ Side drains were blocked with spoil except those that supported prime butterfly habitat.



Bed level raising in progress

Use of log weirs
to support bed material

Costs

Machine/ Equipment Hire

360 Excavator (13T)	153 hours	£3,595
Excavator transport	Drop/Collect	£228
Case 130 Excavator (13T)	178.5hours	£4,195
Transport	Drop/Collect	£180
8 tonne tracked dumper	15 days	£3,030
Dumper transport	Drop/Collect	£180
2000L fuel bowser		£228
Pump & hoses	13 days	£964
Pumps & hose transport	Drop/Collect	£80

Materials

Clay	463.47t	£3,476
Gravel/Hoggin	1157t	£8793
Oversize rejects	62.7t	£891
Chestnut posts	60	£90

Heather Bales (cut, baled & hauled by local contractor)	5520	£12,695
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Labour

Contract (9 hr day)	14 days	£1,400
Dumper driver	95 hours	£1,259
Chainsaw operator	42 days	£3,360

Sundries		
Archaeological Site Marking		£50

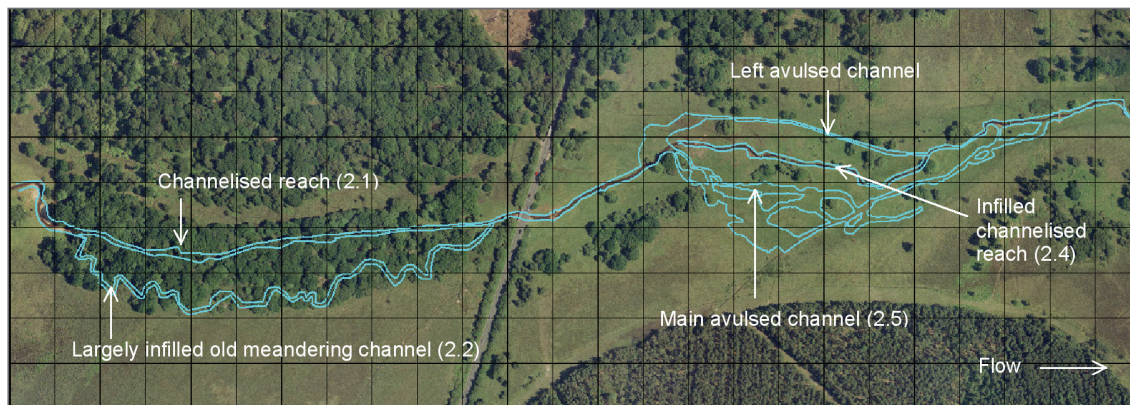
TOTAL		£44,694
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CASE STUDY 4: MARKWAY STREAM RESTORATION

Background

Markway Stream restoration focused on a 1300m section of the Ober Water upstream and downstream of the A35 Markway Bridge. This section of river has been channelised for land drainage since at least 1870. Since the move away from maintenance of a rigorous drainage regime the engineered channel downstream of the A35 has infilled with gravels, silts and woody debris causing the river to migrate from the main engineered channel into a series of multi-thread channels. These channels are poorly defined and have a limited flow capacity resulting in poor drainage of the floodplain lawn and a perceived reduction in drainage quality.

The aim of the project was to develop a restoration scheme for the river that would balance the Commoner's aspirations for floodplain grazing with the conservation objections of the New Forest SAC.



Above L - Former channelised channel upstream of A35

Above R - Infilled channelised reach downstream of A35

Left - Diffuse flow downstream of Markway bridge where river is migrating from former engineered channel