

MG4 Grassland Translocation - Outline Methodology

Best Practice Guidelines:

Alaska have approximately 30 years experience in habitat translocation, in 2003 Will Bond (Alaska MD) was part of a steering group that produced the best practice guide for habitat translocation with English Nature (now Natural England) and the Highways Agency. The methods we employ are in accordance with this guidance. "Habitat Translocation - a best practice guide" CIRIA Publications.

1. Donor Site Preparation:

1.1 The existing vegetation on the MG4 grassland areas will be cut using a tractor mounted flail collector. The flail will cut the vegetation and remove the arisings. This will reduce the stress on the flora during translocation and maximise the quality of the translocation of turves.

1.2 The arisings will be removed from the donor sites.

2. Receptor Site Preparation:

2.1 A suitable receptor site with a substrate and hydrology that will support the translocated turves should be selected. The conditions of the receptor site should match those of the donor site.

2.2 The existing vegetation and topsoil will be removed down to the subsoil to make the ground suitable to receive the translocated turves. The depth of this layer is likely to vary but is expected to be around 150-200mm. The ground profile will retain the variation in micro topography which is ecologically beneficial.

2.3 This layer will be removed concurrently with the progression of the translocation starting from the furthest point of the receptor site, this way the prepared ground will not be driven on by the translocation machinery. In most cases, the striped litter layer will be moved a short distance in a tractor and trailer or dumper to a sacrificial area where it will be formed into low landscaped bunds.

3. MG4 grassland translocation as turves

3.1 Turves will be lifted at the donor site by a hydraulically operated turf cutting fork mounted in face shovel direction on a 14-18 tonne tracked excavator. The excavator is fitted with a tilt rotator head to maximise the turf handling capability.

3.2 In use the turf cutter is inserted squarely under the turf to be lifted until the backplate is against the cut edge. The cutter bar is lowered to give a clean, square edge and a turf of uniform dimensions.

3.3 The turves will normally measure 2.4 metres x 1.2 metres although occasional turves at changes of directions and at corners obviously have to be cut to fit. Odd sizes and wastage would not be expected to exceed 1% of the total translocated area.

3.4 Turf depth is determined by root structure and to a lesser extent soil characteristics. Turf depth will follow the maximum rooting depth, and while we haven't visited the site or carried out a site assessment would expect the turf depth to be around 150-200 mm deep. Attempts to cut turves deeper than the root zone in to subsoil are counter-productive as subsoil poorly connected to the topsoil and rootmass crumble away unevenly leaving voids beneath the laid turf.

3.5 The cut turf is lifted directly from the ground and placed on a flatbed trailer or dumper for transport to the receptor site. Turves are placed in a single layer for transport, turves are not covered, rolled or stacked.

3.6 An appropriate number of flatbed trailers / dumpers will be used to maximise efficiency and designated access routes will be followed between the various donor and receptor sites.

3.7 At the receptor site another excavator fitted with a tilt rotator head and a turf laying fork will lift turves off the trailer individually and place them in their final positions on the prepared subsoil.

3.8 The placement of the the turves will commence at the furthest point of the receptor site working back from that point to avoid machinery traveling on the prepared subsoil or translocated habitat. As previously mentioned the receptor site will be soil-stripped concurrently with the progression of the translocation.

3.9 The turves will be placed tightly to the previous one and firmed into place using the turf laying fork, any small gaps between turves will be filled in by hand using turf fragments or soils from the donor site. Some small gaps can be retained to provide habitat opportunities for reptiles as desired.

3.10 At the receptor site some prepared areas can be left as bare ground rather than receiving translocated soil to increase the diversity of the habitat.

3.11 Turves will normally be translocated from donor site to receptor site within the same day, and usually within one hour.

3.12 The translocation will be temporarily suspended if extreme weather conditions such as snow, very hard frost or saturated ground conditions occur.

3.13 Once a translocated area of turf has been completed and if ground conditions are suitable the turves will be rolled using a low ground pressure tracked excavator, this will only be carried out under the direct supervision on the Alaska translocation manager.