

Best practice example:	Sustainable Solutions – Wool Tree Guards
Project:	Ancient woodland feature translocation
Client:	Fusion/HS2
Location:	Calvert, Buckinghamshire
Timescales:	2019 – 2020 (Feasibility study) 2020- 2021 (Translocation works)
Background	
<ul style="list-style-type: none"> • HS2 is a high-profile project using public money, providing many opportunities to achieve wide reaching social, environmental and economic impacts and benefits and leave a strong legacy for the UK. That legacy is expressed in HS2’s sustainability approach and themes which underpin the Government’s guiding principles for sustainable development, as well as HS2’s vision and their strategic goals. • The RSK Contract Manager became aware of a new type of tree guard manufactured from wool which is fully sustainable and bio-degradable and investigated its potential for use on the Project, given the obvious synergies with HS2’s focus on sustainability. 	
Tree and shrub protection	
<ul style="list-style-type: none"> • Tree guards/ plant shelters and ties are used to protect newly planted trees and shrubs from grazing herbivories, increase early growth rate and help establish stronger root systems as moisture builds up in the shelter helping to provide water for the tree during times of stress. These products therefore are widely used across the landscaping industry to improve the overall survival rates of planting schemes • Traditionally guards and shelters are made from non-biodegradable plastic which often becomes brittle & shatters when exposed to sunlight, therefore not remaining in place for the required length of time for protection. If shattered pieces are not removed, they can pose a risk of harm to grazing species through ingestion and contamination of soils. • Recently alternative products such as cardboard planting tubes have become available. Although these are sustainable products, they are liable to collapse at the base when they absorb moisture; the base of the plant will therefore become exposed to potential grazing by animals. 	
Use of wool tree guards	
<ul style="list-style-type: none"> • The NexGen® mission is to ‘Reduce the environmental impact of plastic in our countryside while supporting the fight against climate change’. • After research and trials, wool has been found to be an ideal material for use as a tree shelter; it provides the catalyst for the degradation process when exposed to natural elements and has a lifespan of around 5 years (the time generally required for use in planting schemes). There is no impact on the environment from decomposition processes as the product will break down into water, carbon dioxide and nitrogen which will be, in part, absorbed by the tree. ISO biodegradable certification is currently being applied for. • The tree guards have a flared rim to minimise damage to emerging trees, are resistant to both animal grazing and herbicide/pesticide use and a split line that allows the tree shelter to break away when required. They are translucent to support photosynthesis and photomorphogenesis. • All NexGen® products sold in the UK will be manufactured in the UK from British wool, making them both an environmental and economic sustainable product. • RSK are currently trialling the use of 10 No. NexGen® tree guards on the Project. They have been in place since March 2021 and so far they remain robust and suitable for purpose, with no signs of collapse. 	

