

## Transport Scotland, the Crianlarich by-pass and the ecology of plastic tree shelters

### Description



The western edge of the roundabout on the southside of Crianlarich, showing the exit to the by-pass

left. Self-seeded conifers have all but obscured the plastic tree tubes behind the lamp posts but have established in the area in the foreground..

On Friday, while travelling north up the A82, I stopped by the first roundabout at the start of the Crianlarich bypass to take a look at the landscaping. It provides a lesson in ecology and current forestry practices right next to the road.

The A82 Crianlarich by-pass, was completed in December 2014, almost seven years ago – time for trees to get established. It circumvents the village on its western side and through a cutting which has left some areas of bare rock and thin soils.

The Environmental Statement, completed in 2009 ([see here](#)), documented the habitat that would be lost (2 hectares) or affected (8 hectares) by the creation of the bypass. To mitigate these impacts, the Environmental Statement recommended some ornamental landscaping, a hectare of native tree planting to replace the native woodland that be lost, but that most of the surrounding ground (6.3 hectares) should be left to regenerate naturally.

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Table 9.6: Indicative Scheme Habitat Loss and Gain (ha)<sup>146</sup>

| HABITAT TYPE   | LOSS |
|--|------|
|  |      |
| <b>Native Woodland</b><br>scrub woodland required to be removed for construction of the scheme, replacement planting | 1ha  |
| <b>Coniferous plantation</b><br>Plantation woodland required to be removed for construction of the scheme            | 2ha  |
| <b>Mixed native and ornamental landscape planting</b>  |      |
| <b>Wet heath/acid grassland</b>  | 7ha  |
| <b>Single trees</b>  |      |
| <b>Detention Basin (two)</b>   |      |
| <b>Area of land left to naturally regenerate</b>   |      |
| <b>TOTAL<sup>148</sup></b>   | 10ha |

Summary of habitat loss and restoration proposal from the Environmental Assessment

The Environmental Statement further specified that the planting should be “native trees typical to the local area”:

## 9.9 Mitigation Measures

EC1 Habitat loss would be restricted to that required for safe c

EC2 New habitats created as part of the landscaping works fo  
designed to enhance the biodiversity of the road corridor.

EC3 New tree planting (other than where specimen tree plant  
outline landscape design) would be with native species typica  
obtained from local sources wherever possible.

There was no mention in the Environmental Statement of HOW those trees should be planted, including the use of plastic tree tubes, why they might be needed, how they would be managed or their impact on the natural environment. That is a pretty significant omission given what was known even back in 2009 about the damaging impacts of plastic on the natural environment.

What should be clear to anyone who spends five minutes looking at the site now, however, is that the plastic tree tubes weren't needed AND that unless there are other management interventions they are not going to deliver the promised native trees "typical" of the area. (The range/diversity of such trees has been reduced considerably because of the impacts of overgrazing and plantation forestry in this part of the National Park).



Red arrow points to birch sapling. To the right there are several naturally regenerating spruce.

I am no expert but it didn't take me more than a couple of minutes to spot several self-seeded deciduous trees growing up between the tree shelters, evidence that native trees could have regenerated here without any planting or "protection" from plastics tree tubes. Transport Scotland should have known this because along much of the A82 between Balloch and Bridge of Orchy a belt of native scrub has developed alongside the road without any help from humans other than fencing to keep sheep out. The problem is that landscaping consultants nowadays automatically recommend planting and the use of plastic tree shelters has now become their default position.

Part of the role of the Loch Lomond and Trossachs National Park Authority should be to challenge such thinking. But instead their planners also recommend tree planting as a matter of course, without taking any account of the power of natural regeneration or what will happen to all the plastic. As a result plastic tree tubes are now a common sight in landscaped areas around developments in the the National Park.

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The area around the bypass is fenced and I could see no signs of grazing, whether by sheep or voles, and the luxuriant vegetation tells its own tale. In such situations, plastic tree shelters – which let in light

– can help deciduous trees get up above the surrounding plants (as above). But not always:

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The view just a few yards to the left of the photo above. Rosebay willowherb, a renowned coloniser above the tree shelter and has hidden others from view. (The shadow shows me trying to photograph

At Crianlarich, many of the tree shelters are being swamped by other regenerating plants. While some deciduous trees, whether protected by tree tubes or not, may eventually outcompete and success the rosebay willowherb, whether they have any chance against the self seeding spruce tree is another matter. Despite the planted trees having a season or two's head start over the self-seeded conifers, the photos show few now project above them and many are being shaded out. Given the number of the spruce, it is difficult to see many of the native deciduous trees surviving and delivering Transport Scotland's objective of replacing native trees with native trees.

The tree tube plan was probably never going to work given the proximity of the conifer plantation and its massive seed source so close to the bypass. To achieve its stated objective, rather than spending money on harmful plastic tree shelters, Transport Scotland would have been better employing local people to remove spruce saplings until the native woodland had become established. But that would require a commitment to ongoing woodland management and that is not how forestry or landscape "improvement" currently operates in Scotland. Our modus operandi is on contractors coming in to plant trees and then leaving them. Plastic tree tubes are now integral to that practice and provision is rarely made for removing them.

It's time that Transport Scotland and both our National Parks adopted a policy presumption against the use of plastic tree shelters and introduced measures to start removing them before it is too late. The long-term consequences of tree tubes for the biology of organisms – ourselves included – as they break down and particles of plastic enter the food chain is being disregarded to the point of recklessness. What the Crianlarich bypass illustrates is that their alleged benefits are generally exaggerated – woodland has been expanding perfectly naturally for millions of years given the right conditions – and should always be viewed from a wider ecological perspective.

## Category

1. Loch Lomond and Trossachs

## Tags

1. conservation
2. forestry
3. LLTNPA
4. planning
5. Transport Scotland

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