

Steward Community Woodland Management Plan

August 2007 - July 2012
(updated March 2009)

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Community Mission Statement

We are a co-operative of people living and working together at Steward Community Woodland by Dartmoor. We aim to foster environmental awareness and solutions by providing examples of sustainable land use.

Our community is based on the ethics of love, earth care, people care, and resources for need not greed.

We aim to practice a positive impact lifestyle by:

- Managing the woods and our lives using permaculture principles, and limiting use of fossil fuels;
- Growing much of our own food (organically);
- Generating enough income predominantly from the project's sustainable activities and additionally from other ethically based work to meet our basic needs;
- Building our own homes with materials from the wood and reused/recycled materials;
- Reducing vehicle use, sharing vehicles and using biofuels (when available);
- Home educating our children with the aim of fostering wholeness, balance and empowerment;
- Living together in community, respecting all life;
- Generating renewable energy and exploring alternatives to the use of fossil fueled woodland machinery;
- Connecting with the wider community with honesty and clarity;
- Learning from all around us and passing on our knowledge, skills and experience.

Management Objectives

Primary Objectives

- A-1 Increase biodiversity and habitat for wildlife, especially threatened species.
- A-2 Produce firewood for ourselves and others.
- A-3 Grow food.
- A-4 Maintain and enhance the visual screening of our structures from the A382 and our neighbours.
- A-5 Create spaces for the community to play in.
- A-6 Supply building materials for ourselves and others.

Secondary Objectives

- B-1 Carbon sequestration.
- B-2 Create and maintain shelter and sunshine for our structures and food crops.
- B-3 Earn some income from the woodland's resources.
- B-4 Increase our ability to run courses and events here.

Strategies to meet our Primary Objectives

Objective A-1: Increase biodiversity and habitat for wildlife, especially threatened species.

There are 3 types of strategies to meet this objective - specific action plans to help threatened species (dormice and bats), policies to control non-native species that reduce biodiversity (laurel, sycamore, rhododendron and sitka spruce) and general working/management policies that increase the potential for wildlife and biodiversity at Steward Wood.

A-1.1 Dormouse Action Plan

- A-1.1a Put up nest boxes in the Larch and Wildlife areas, in the new Edible Woodland in Growing Area, in Rain Forest and Railway Track.
- A-1.1b Plant oaks, hazel and other nut bearing trees in the new Edible Woodland area.
- A-1.1c Continue to thin Rain Forest to create a fruiting under story
- A-1.1d Thin the Pine areas to create a fruiting under story
- A-1.1e Continuous coppicing of hazel stools throughout the woodland to provide shelter, pathways and food.
- A-1.1f Drill holes into Larch tree stumps to provide nesting spaces.

A-1.2 Bat Action Plan

- A-1.2a Leave Ivy on felled trees for 24 hours before limbing and cleaning the tree.
- A-1.2b Create more ponds to provide bats with insect food- in the Growing Area, in the Lower Larch and at the bottom of the Inner Larch Area.
- A-1.2c Put up bat boxes and create sunny clearings (esp. by felling/ring barking sitka spruce) near the new ponds.
- A-1.2d Register these areas as bat zones, and fell trees in these areas between September and November to avoid unnecessary disturbance.
- A-1.2e Leave/ring bark old holey trees in these areas to provide resting and summer sleeping spaces.

A-1.3 Laurel Action Plan

- A-1.3a Cut down Laurel below glade and above walled path, and cut it back every year.
- A-1.3b Cut down Laurel above Glade up to a certain point, then sculpt it into a swoosh.
- A-1.3c Pull up/elimination mulch laurel found growing outside the Laurel Area.

A-1.4 Sycamore Action Plan

A-1.4a Coppice the young Sycamore in the Inner Larch Area for personal and communal firewood before it is mature enough to set seed.

A-1.5 Sitka Spruce Action Plan

A-1.5a Ring bark trees not close to paths to create wildlife habitat, unless they are providing visual screening for the Settlement..

A-1.5b Fell trees close to paths and then leave them to rot to create wildlife habitat unless they are providing screening..

A-1.5c Pull up any observed Sitka regeneration.

A-1.6 Rhododendron Action Plan

A-1.6a Cut down bushes in the Growing Area, pull out roots and cover with black plastic and tyres to kill it off completely.

A-1.7 Larch Action Plan

A-1.7a Gradually fell Larch in Lower Larch and Inner Larch for firewood, building materials and for sale.

A-1.7b Gradually fell Larch in the Wildlife Area and either leave it to rot or collect it for firewood/building materials.

A-1.8 General Wildlife-Friendly Policies

A-1.8a Take care when working in boggy areas.

A-1.8b Where possible leave dead trees standing and leave dead wood on the ground.

A-1.8c Thin conifers over streams.

A-1.8d Use Continuous Cover Forestry techniques to guide thinning and restocking planning.

A-1.8e Restock the Wildlife Area with a broad leaf mix that includes a lot of Oak.

A-1.8f Default restocking is with broad leaf trees, preferably native species of local provenance.

A-1.8g Set up an on site tree nursery to provide local provenance Oak, Ash, Sweet Chestnut, Hazel and other nut trees.

A-1.8h Design the woodland to be stable and resilient in the face of predicted changes in the climate - plant for diversity, flood/drought/storm tolerance and an ability to cope with a rise in temperature, diseases and pests. Do not restock with Scot's Pine or any monoculture plantations. Choose trees to fell with an awareness of wind throw effects.

A-1.8i Kill ivy on veteran trees that are at risk of wind throw, particularly along the top border of the woods.

Objective A-2: Produce firewood for ourselves and others.

A-2.1 Firewood for ourselves

A-2.1a Thin Rain Forest further, watch for signs of deer browsing on Ash stool regeneration, and fence if necessary.

A-2.1b Fell conifers, Sycamore and some Ash in Inner Larch, especially directly above paths to create sunny rides and spaces to grow perennial foods.

A-2.1c If we have animal or vehicular assistance, fell trees further away from the settlement, then split and transport them in.

A-2.1d If we have no assistance, fell trees closer to the settlement, especially uphill from dwellings.

A-2.1e If assistance is possible the following year, fell, cross cut and split trees further away and leave until assistance arrives, preferably raised off the ground or in a dry area.

A-2.1f Coppice all young Sycamore in Inner Larch.

A-2.1g Single out some Ash stools in Inner Larch and Rain Forest, to harvest firewood and create canopy/future building material trees.

A-2.1h Use off cuts from thinning Pine areas if transport assistance is available.

A-2.1i Use Laurel stems in enclosed stoves if it is definite they contain no cyanide.

A-2.1j Restock Larch and Pine areas with a deer proof broadleaf mix that includes ash and chestnut trees for future firewood harvest.

A-2.2 Firewood for others

A-2.2a Fell wonky trees in Lower Larch, Growing Area and Norway Spruce if the market for softwood firewood picks up when fossil fuels start to run out.

A-2.2b Fell wonky trees in Pine and Larch areas as well if there is demand and we have assisted extraction.

Objective A-3: Grow more food.

A-3a Plant an Edible Woodland in the further half of the Growing Area, consisting of fruit trees, bushes and climbers, nut trees, perennial vegetables, a pond and ground cover fruiting plants.

A-3b Plant food producing trees and perennial vegetables around the glade area to try and replace the Laurel, and to create a destination for compost from the new compost toilet below the glade.

A-3c Fell trees uphill of paths in the Inner Larch area, and replant with fruit trees, bushes and perennial vegetables.

A-3d Plant food next to the path from the Railway Track to the Settlement.

A-3e Plant edible evergreens in the visual screening belt below the Settlement.

A-3f Restock the Pine areas with a broad leaf mix including sweet chestnut and fruit trees.

A-3g Plant fruit trees in espalier formation along the paths in the Settlement.

Objective A-4: Maintain and enhance the visual screening of our structures from the A382 and our neighbours.

A-4a Plant an evergreen visual screening belt below the Settlement, to maintain visual screening when the present ivy clad Larch trees no longer screen our dwellings. The belt will consist of Holly and edible/useful evergreen trees, or broadleaved trees with ivy trained up them.

A-4b Do not fell any trees in the visual screening area below the Settlement until the new screening belt has taken over.

A-4c Fit light blockers onto any lights that shine directly towards the road or neighbouring houses.

Objective A-5: Create spaces for the community to play in.

A-5a Clear/use the rocky debris in the glade, and flatten the ground there.

A-5b Build a playground adjacent to the fire pit in the Settlement.

Objective A-6: Supply building materials for ourselves and others.

A-6a Leave some straight Larch and Fir trees in Inner Larch, especially thin ones, until we need them to build with.

A-6b Identify places where a mobile saw mill could be towed to and operated and do not fell trees for firewood above those places.

A-6c Plant some Douglas Fir in the visual screening belt to provide future pole wood.

A-6d Experiment with chainsaw planking tools.

A-6e Create a wood gasification unit and run a mobile sawmill with it.

Strategies to meet our Secondary Objectives

Objective B-1: Carbon sequestration.

B-1a Maintain and increase the area of land covered by trees, by restocking felled areas and planting the new Edible Woodland.

B-1b Kill ivy on veteran trees at risk from wind throw

B-1c Continue to heat our dwellings and cook without using fossil fuels, maintaining our current carbon positive lives.

Objective B-2: Create and maintain shelter and sunshine for our structures and food crops.

B-2a Fell trees to make South-facing hemispherical clearings around dwellings and food growing areas, to create sheltered sun traps.

B-2b Clear/top conifers in the Growing Area when they excessively shade our broad scale vegetable beds.

B-2c Clear strips above the paths in Settlement Area to create long growing areas for fruit and perennial vegetables.

Objective B-3: Earn some income from the woodland's resources.

B-3a Fell and plank/mill/chip/split/chop/extract Larch, Ash, Fir and Norway Spruce in Lower Larch, and Norway Spruce areas when there is demand for these products.

B-3b Also fell and plank/mill/chip/split/chop/extract Larch, Ash, Pine, and Fir in Pine and Inner Larch areas when there is demand for these products and we have extraction assistance.

Objective B-4: Increase our ability to run courses and events here.

B-4a Level out the ground and clear or use the rocks (to make raised beds or terraces, or in sweat lodges) in the Glade to improve camping facilities.

Management Plan by Compartments



1. Railway Track

Put up nest boxes for dormice in the trees and shrub adjoining Railway Track.

2. Norway Spruce

Thin and plank/mill/chip/split/chop/extract Spruce trees as and when there is a market for products and the right machinery on site.

3. Growing Area

Create a new deer fenced Edible Woodland in the further half of the Growing Area, consisting of fruit and nut trees, bushes and climbers ground cover fruiting plants and perennial plants, and incorporating a large pond, sunny clearings and bat and dormouse boxes. Leave/ring bark old holey trees near the Edible Woodland to provide habitat for bats.

Cut down the Rhododendron, pull out roots and cover it with black plastic and tyres to kill it off completely. Clear/top conifers in the Growing Area when they excessively shade our broad scale vegetable beds. Set up a tree nursery.

4. Lower Pines

Thin out the Pine and Fir, replanting with Sweet Chestnut, and other commercially interesting broad leaves, with tree tube protection from deer browsing. Protect any natural broad leaf regeneration, especially Ash, from deer with tree tubes also. Clear and eliminate any invading Laurel stools.

5. Higher Pines.

Thin out the Pine, replanting with Sweet Chestnut, other food producing trees and other broadleaved trees, with tree tube protection from deer browsing. Protect any natural broad leaf regeneration, especially Ash, from deer with tree tubes also. Thin around existing broad leaf trees. Clear and eliminate any invading Laurel stools.

6. Fir.

Thin these stands as and when there is demand for pole wood for building materials. Protect fir and other regeneration with tree tubes.

7. Laurel.

Cut back all the Laurel every year, except for a graded swoosh above the Glade where it joins Rain Forest and Lower Pines. Plant fruit trees and bushes above and below the glade in place of the laurel, experimentally in a small area at first to see how toxified the soil is.

8. Rain Forest.

Put up Dormouse nest boxes. Thin Ash and Sycamore for firewood and to increase light levels for better dormouse habitat. Single out some of the ash stools to create future canopy, protect ash stools/stumps from deer if necessary.

9. Inner Larch.

Put up Dormouse nest boxes. Drill holes into larch stumps to provide Dormouse nests. Create more ponds to provide bats with insect food. Put up bat boxes and create sunny clearings (esp. by felling/ring barking sitka spruce) near the new ponds. Register these areas as bat zones, and fell trees in these areas between September and November to avoid unnecessary disturbance. Leave/ring bark old holey trees in these areas to provide resting and summer sleeping spaces.

Coppice the young Sycamore for personal and communal firewood before it is mature enough to set seed. Gradually fell Larch for firewood, building materials and for sale. Single out some Ash stools in to harvest firewood and create canopy/future building material trees. Restock/regenerate with a deer proof broadleaf mix that includes Ash and Sweet Chestnut trees for future firewood harvest, and fruit trees for future food. Fell bendy trees for firewood/kindling if the market picks up and we have extraction assistance.

Plant fruit trees in espalier formation along the paths in the Settlement. Fell conifers, Sycamore and some Ash in the Settlement directly above paths to create sunny rides and spaces to grow perennial foods.

Build a playground adjacent to the fire pit in the Settlement. Leave some straight Larch and Fir trees in Inner Larch, especially thin ones, until we need them to build with. Identify places where a mobile saw mill could be towed to

and operated and do not fell trees for firewood above those places.

Fell and plank/mill/chip/split/chop/extract Larch, Ash and Fir when there is demand for these products and we have extraction assistance. Fell trees to make South-facing hemispherical clearings around dwellings and food growing areas, to create sheltered sun traps.

10. Wildlife Area.

Put up Dormouse nest boxes. Drill holes into larch stumps to provide Dormouse nests. Gradually fell the Larch and either leave it to rot or collect it for firewood/building materials. Restock after any felling with a broad leaf mix that includes a lot of Oak. Monitor area for natural broad leaf regeneration, and protect new stems with tree tubes.

Identify places where a mobile saw mill could be towed to and operated and keep nice straight trees above these locations for possible future milling. Kill ivy on veteran trees at risk from wind throw

11. Hydro.

Protect any interesting regeneration with deer proof tubes.

12. Lower Larch.

Put up Dormouse nest boxes. Drill holes into Larch stumps to provide Dormouse nests. Create more ponds to provide bats with insect food. Put up bat boxes and create sunny clearings (esp. by felling/ring barking sitka spruce) near the new ponds. Register these areas as bat zones, and fell trees in these areas between September and November to avoid unnecessary disturbance. Leave/ring bark old holey trees in these areas to provide resting and summer sleeping spaces.

Gradually fell Larch for firewood, building materials and for sale. Restock/regenerate areas with a deer proof broadleaf mix that includes fruit trees and Ash and Sweet Chestnut for future firewood and food production. Fell bendy trees for firewood/kindling if the market picks up.

Plant an evergreen visual screening belt below the Settlement, to maintain visual screening when the present ivy clad Larch trees no longer screen our dwellings. The belt will consist of Holly, Douglas Fir and other edible/useful evergreen trees, or broad leaved trees with ivy trained up them. Do not fell any trees in the visual screening area below the Settlement until the new screening belt has taken over.

Identify places where a mobile saw mill could be towed to and operated and do not fell trees for firewood above those places.

General Management Policies

Use Continuous Cover Forestry techniques to guide all felling and restocking decisions.

Design the woodland to be stable and resilient in the face of predicted changes in the climate – plant for diversity, flood/drought/storm tolerance and an ability to cope with rises in temperature, diseases and pests. Do not restock with Scot's Pine or any monoculture plantations. Choose trees to fell with an awareness of wind throw effects.

Where possible leave dead trees standing and leave dead wood on the ground for wildlife habitat.

Review the Plan next in 2011 and every 2 years after that.

Default restocking is with broad leaved trees, preferably native species of local provenance.

Minimise the use of fossil fueled machinery in the woods.

Hazel stem harvesting is to be done by continuous coppicing, not by total stool clearance in one chosen area, as was done in the past.

Leave Ivy on felled trees for 24 hours before limbing and cleaning the tree.

Do not fell any trees in the visual screening area below the Settlement until the new screening belt has taken over.

Leave some straight Larch and Fir trees in Inner Larch for

building with, especially thin ones.

Identify places where a mobile saw mill could be towed to and operated at, and keep nice straight trees above these locations for possible future milling, rather than felling them for firewood.

Experiment with chainsaw planking tools.

Create a wood gasification unit and run a mobile sawmill with it.

Implementation Plan

(Last updated March 2009)

Date of Operations	Planned operations
On going	Putting Dormice boxes into Inner and Lower Larch, Wildlife Area, Rain Forest and Railway Track.
On going	Drilling holes into felled Larch stumps to create dormice nests in Larch areas.
Autumn 2009 onwards	Creating an on site tree nursery of fruit, oak, ash, sweet chestnut, hazel and other edible and useful trees in the Growing Area.
October and November 2009	Thinning Pine areas.
Winter 2009/10	Felling/ring barking Sitka Spruce to create wildlife habitat (unless they are providing visual screening for Settlement).
Winter 2009/10	Organising on site Pine planking with mobile mill.
Winter 2009/10	Organising extraction and sale of Pine saw logs from Pine areas.
Winter/Spring 2009/10	Tree felling above paths in the Settlement and replanting with linear Forest Gardens.
Winter/Spring 2009/10	Planting fruit trees and bushes in the cleared Laurel area.
Autumn/Winter 2009/10	Restocking Pine areas with Sweet Chestnut and fruit trees.
Winter 2008/9	Making pond(s) for bat food chain in Lower Larch.
Ongoing	Checking for Laurel outside Laurel area, and pulling it up or elimination mulching it.
Ongoing	Put up owl boxes around the Settlement.
Ongoing	Put up bat boxes around the glade, Growing Area and any new ponds.
2010 or 2011	New pond in Settlement (for grey water treatment and bats).
Ongoing	Fell above and beside the Settlement for communal and personal firewood.
Ongoing	Sycamore, ash and hazel coppicing for firewood in Inner Larch.
Ongoing	Thinning Rain Forest for firewood.
2010 or 2011	Planting Evergreen visual screening belt below Settlement.

2009 or 2010	Leveling and clearing glade to improve camping facilities.
Summer/Autumn 2009	Deer fencing Edible Woodland area.
2009 onwards	Restock cleared area in Lower Larch with Sweet Chestnut, Ash, Wild Cherry, Beech, Willow and Douglas Fir once future pond locations have been decided.
Ongoing	Monitoring regeneration in Wildlife Area, protecting desirable regen with tree tubes and planting more Oak if necessary.

Glossary of unusual terms and techniques

Continuous Cover Forestry: A system of forestry that aims to create stands of mixed age and height, encouraging natural regeneration by subtle manipulation of light levels through selective felling. It is a system where trees are continually harvested, and the soil is continually covered by a tree canopy, saving it from the erosion common with clear fell practices.

Continuous Coppicing: Removing one or a few stems from a stool, rather than cutting down the whole stool. This prevents any subsequent deer browsing from killing off the whole stool. It is carried out throughout the woodland rather than in one area, so deer browsing is also less likely to happen. It can reinvigorate the stool if large stems are removed, and is much less work than cutting down the whole stool and then protecting it from deer

Elimination Mulching: Covering a stool with black opaque material to prevent light from reaching it, so it stops growing and maybe eventually dies off.

Edible Woodland: A stand consisting of trees and shrubs that are predominantly fruit and nut bearing, interspersed with fruit vines and perennial food plants. It is based on the Permaculture technique known as Forest Gardening.