

Affinity Woodland Workers Co-operative Limited

Steward Community Woodland Management Plan

February 2016 – January 2026

5 Year Review: February 2021

Grid Ref: SX 76744 85304

Size of Management Plan area: 32 acres / 12.9 hectares

Current Felling Licence expires: 1st December 2019

Table of Contents

- Description of Steward Wood.....4
 - Brief History of Steward Wood and its Management.....4
 - Steward Community Woodland ('SCW').....4
- Vision Statement of SCW.....5
- Aims of SCW relating to Woodland Management.....5
 - Core Values of SCW relating to Land Management.....5
 - Definitions.....6
- Achievements.....7
- Management Objectives.....8
- Strategies to meet our Objectives.....8
 - Objective 1: Continue to increase biodiversity and habitat for wildlife, especially threatened species.....8
 - 1.1 Dormouse Action Plan.....8
 - 1.2 Bat Action Plan.....9
 - 1.3 Hedgehog Action Plan.....9
 - 1.4 Laurel Action Plan.....9
 - 1.5 Sycamore Action Plan.....9
 - 1.6 Larch Action Plan.....10
 - 1.7 General Wildlife-Friendly Policies.....10
 - 1.8 Considerations when undertaking groundworks etc.....10
 - Objective 2: Produce sustainable firewood for ourselves.....10
 - Objective 3: Increase yield of produce from growing area, forest gardens and fruit and nut trees.....11
 - Objective 4: Maintain and enhance the visual screening of our structures from the A382 and our neighbours and other vantage points.....12
 - Objective 5: Animal Husbandry.....12
 - Objective 6: Supply building materials for ourselves.....12
 - Objective 7: Conduct wildlife and habitat surveys and record data for the general public to access.....12
 - Objective 8: Maintain the permissive path and actively encourage its use.....13
 - Objective 9: Education.....13
 - Objective 10: Carbon sequestration and Carbon Capture.....13
 - Objective 11: Create and maintain shelter and sunshine for our structures and food crops..13
 - Objective 12: Earn income from the woodland's resources.14
 - Objective 13: Actively seek funding and grants to continue meeting management objectives.14
 - Objective 14: Regulate noise pollution.....14
 - Objective 15: Beekeeping.....14
 - Objective 16: Use exclusively Aspen and vegetable oil in our chainsaws.....14
 - Objective 17: Disease Control.....14

Objective 18: Management of Ivy.....	15
Objective 19: Management of Grey Squirrels.....	15
Management Plan by Compartments.....	16
1. Railway Track.....	16
2. Norway Spruce.....	16
3. Growing Area.....	16
4. Lower Pines.....	16
5. Upper Pines.....	17
6. Fir.....	17
7. Laurel.....	17
8. Rainforest.....	17
9. Inner Larch.....	17
10. Wildlife Area.....	17
11. Hydro.....	18
12. Lower Larch.	18
Map of Steward Wood management compartments.....	19
Implementation Plan 2016-21.....	20
Surveys.....	24
Continuous Cover Forestry Survey 2019.....	24
Disease.....	24
Chalara Dieback of Ash.....	24
Phytophthora Ramorum.....	24
Deer at Steward Wood - Observations and Management.....	26
Damage Assessment.....	26
CONTACTS.....	27
Appendix 1 – Data from flora and fauna surveys at SCW.....	28
Appendix 2 – Dormouse box locations.....	32
Appendix 3 – SCW Continuous Cover Forestry - Data Analyses 2014.....	33
Method.....	34
Results.....	34
Appendix 4 – Chainsaw use Risk Assessment.....	37

Description of Steward Wood

1. Steward Wood is a 32 acre former conifer plantation on the edge of Dartmoor one mile south of Moretonhampstead on the A382. When purchased by Affinity Woodland Workers Co-op in 2000, it was a conifer plantation of predominantly mature Larch (mainly Japanese Larch) with large stands of Scots Pine, Ash, and Norway Spruce which had been thinned by the previous owners, with an understorey of mainly ash, hazel, holly, sycamore, and oak. The conifer stands were planted in the 1960's and the ash stand in the 1940's.
2. The woodland has forestry tracks, springs and streams, and is South West facing. There are the remains of old field boundaries, gateposts and other features within the wood from the time that it was a farm (see below).
3. The top north east corner of Steward Wood (which contains predominantly plantation Larch) is classified as ancient and semi-natural woodland.

Brief History of Steward Wood and its Management

4. What is now the part of Steward Wood owned by Affinity Woodland Workers Co-op was a farm until the early 20th century. It was bought by the Dartington Estate and managed by Fountain Forestry as a conifer plantation for much of the 20th century. There was a tree nursery on site up until at least the 1950's producing conifers for plantations in the area. Fountain Forestry eventually acquired it and then sold it to Affinity Woodland Workers Co-op in 2000 having thinned the conifers without any obligation to replant.

Steward Community Woodland ('SCW')

5. We are a co-operative of people that has been living and working together on 32 acres of land at Steward Community Woodland since 2000. We are managing the woodland using traditional woodland management techniques, together with the principles of permaculture, conservation, forest gardening, and continuous cover forestry.
6. When the community purchased the land in 2000, it was a plantation woodland of predominantly Larch with areas of Scots Pine, Ash, and Norway Spruce.
7. We have restored areas of the woodland from conifers to native broadleaf species through a combination of planting and natural regeneration. Forest garden and food growing areas have also been created and cultivated. To ensure long-term sustainability of the project, we are using a combination of woodland management, conservation and subsistence living to enable us to live long term on the land whilst protecting and improving it.
8. For the community members the woodland provides: a spring for water, fuel for heating, building materials, food, medicine, recreation, education, and crafts materials which are essential for our subsistence lifestyle.

9. For the wider community and general public we provide: access to the woodland, events, volunteering opportunities, education, and courses. For the wider community and general public we provide: access to the woodland, events, volunteering opportunities, education, and courses. We have also been linking using social media as well as our website to open up the educational benefit to a global audience.

Vision Statement of SCW

10. We are a community of people living and working together on the land. We value open, honest communication, wisdom and group cohesion. We are committed to environmental awareness, sustainable and innovative solutions. We enjoy sharing our skills and knowledge and value learning from others.

Aims of SCW relating to Woodland Management

11.
 - To manage the land using traditional woodland management techniques together with the principles of permaculture, conservation, forest gardening, and continuous cover forestry.
 - To manage the woodland primarily for the creation and protection of wildlife habitat, whilst also providing fuel and timber for ourselves and producing some materials for sale.

Core Values of SCW relating to Land Management

12. (1) Subsistence
With the woodland providing most of our basic needs - food, medicine, building materials, fuel to heat homes and cook food, recreation, and a venue to hold a range of educational events - our subsistence lifestyle means we have more time to put into the project instead of working off site to earn money to pay for these benefits.
13. (2) Conservation
Conservation is at the heart of what SCW is all about. We aim to protect and increase the biodiversity of the woodland through our management techniques.
14. (3) Sustainability
Sustainability can be defined as an ability or capacity of something to be maintained or to sustain itself. It's about taking what we need to live now, without jeopardising the potential for people in the future to meet their needs. If an activity is said to be sustainable, it should be able to continue forever.

Also, it can be defined as "Conserving an ecological balance by avoiding depletion of natural resources" (OED) and "causing little or no damage to the environment and therefore able to continue for a long time" (Cambridge Dictionary).

As a sustainable settlement, we are able to provide all or most of our own water, shelter, food, heating, and electricity.

15. (4) Education

The project runs courses, hosts volunteers and group visits, and holds open days, thus allowing the ongoing use of the woodland as an educational resource. With the project being one of very few low impact woodland communities in the UK, it provides a basis for learning for many people.

Definitions

16. **(A) Traditional Woodland Management Techniques**

These techniques include felling, thinning, hedgelaying, coppicing, layering, planting, managing for protected species (eg. dormice & bats), controlling pests (eg. deer & squirrels), invasive species (eg. laurel) and diseases (eg. Canker).

17. **(B) Permaculture**

“Consciously designed landscapes which mimic the patterns and relationships found in nature, while yielding an abundance of food, fibre and energy for provision of local needs. People, their buildings and the ways in which they organise themselves are central to permaculture. Thus the permaculture vision of permanent or sustainable agriculture has evolved to one of permanent or sustainable culture.

18. “More precisely permaculture is a design system based on ecological principles which provides the organising framework for implementing the above vision. In this more limited but important sense, it draws together the diverse skills and ways of living which need to be rediscovered and developed to empower us to move from being dependant consumers to becoming responsible producers. In this sense, permaculture is not the landscape, or even the skills of organic gardening, sustainable farming, energy efficient building or eco-village development as such, but can be used to design, establish, manage and improve these and all other efforts made by individuals, households and communities towards a sustainable future.”

- David Holmgren, author of 'Permaculture - Principles & Pathways Beyond Sustainability'

19. **(C) Forest Gardening**

Forest gardening is a low-maintenance sustainable plant-based food production and agroforestry system based on woodland ecosystems, incorporating fruit and nut trees, shrubs, herbs, vines and perennial vegetables which have yields directly useful to humans.

20. **(D) Continuous Cover Forestry**

Continuous Cover Forestry ('CCF') is an approach to the sustainable management of forests whereby forest stands are maintained in a permanently irregular structure, which is created and sustained through the selection and harvesting of individual trees. The term "continuous cover forestry" does not equate exactly to any one particular silvicultural system, but is typified by selection systems. Different existing forest stands may require different silvicultural interventions to achieve a continuously productive irregular structure.

Achievements

21. Here is a non-exhaustive list of woodland management tasks we have undertaken during our time here:
1. Observation and species identification.
 2. Drawing up and updating our Management Plan.
 3. Felling and processing larch, ash & sycamore for firewood and building needs, and for sale.
 4. Replanting with oak in the Settlement Area and restocking where required.
 5. Restocking wildlife area with a broadleaf mix including a lot of oak.
 6. Clearing around newly planted oaks.
 7. Coppicing of ash, hazel and sycamore and protection of coppiced stools from deer browsing.
 8. Killing ivy on veteran trees at risk from wind throw.
 9. Planting areas of standard and dwarfing fruit trees and fruit bushes to create Forest Gardens.
 10. Pruning and maintenance of Forest Garden trees.
 11. Clear the growing area of scrub (mostly bramble) and erecting a deer fence around the vegetable garden.
 12. Eradicate rhododendron in the growing area.
 13. Maintenance of forestry tracks and paths, including marking out permissive paths for walkers.
 14. Clearing windblown trees and dangerous trees/branches.
 15. Clearing invasive species (such as laurel and rhododendron).
 16. Creating habitat piles from brush.
 17. Attending woodland management courses and events (including Continuous Cover Forestry training) and attending chainsaw courses.
 18. Carrying out Continuous Cover Forestry monitoring of the woodland and analysing the results.
 19. Marking of trees for felling.
 20. Making and putting up bird, bat, and mammal boxes and bird feeders.
 21. Monitoring for any signs of disease such as canker, *Phytophthora ramorum* and ash dieback.
 22. Ecological monitoring (for example, dormice, bat and bird nest monitoring).
 23. Protecting area's of diverse flora and fauna.
 24. Experiment with chainsaw planking tools.
 25. Thinning of visual screening belt from to accelerate natural regeneration and improve screening from A382.
 26. Thinning of Rainforest Area.
 27. Planting of willow bed.

Management Objectives

1. Continue to increase biodiversity and create habitat for wildlife, especially threatened species.
2. Produce sustainable firewood for ourselves.
3. Increase yield of produce from growing area, forest gardens and fruit and nut trees.
4. Maintain and enhance the visual screening of our structures from the A382 and our neighbours.
5. Animal Husbandry.
6. Supply building materials for ourselves.
7. Conduct wildlife and habitat surveys and record data for sharing with local organisations and make available for the general public.
8. Maintain the permissive path and actively encourage its use.
9. Education.
10. Carbon sequestration.
11. Create and maintain shelter and sunshine for our structures and food crops.
12. Earn some income from the woodland's resources, either directly or through value added products.
13. Actively seeking funding and grants to continue achieving management objectives.
14. Regulate noise pollution.
15. Beekeeping.
16. Minimise environmental pollution by, for example, exclusively using Aspen and vegetable oil for our chainsaws.
17. Disease control.
18. Management of Ivy
19. Management of Grey Squirrels

Strategies to meet our Objectives

Objective 1: Continue to increase biodiversity and habitat for wildlife, especially threatened species.

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

1.1 Dormouse Action Plan

- (a) Maintain existing nest boxes and put up additional boxes in the Larch and Wildlife areas, in the Growing Area, in Rainforest and Railway Track (all boxes to be GPS tagged).
- (b) Monitor boxes (with the help of qualified professionals) and contribute data to the Devon Biodiversity Records Centre (DBRC).
- (c) Plant more oaks, hazel and other nut bearing trees.
- (d) Continue to thin Rainforest to create a fruiting understory.

- (e) Continue to thin the Pine areas to create a fruiting understory.
- (f) Continuous coppicing of hazel stools throughout the woodland to provide shelter, pathways and food.
- (g) Drill holes into conifer tree stumps to provide nesting spaces.
- (h) Avoid cutting hazel etc out of season.
- (i) Leave corridors throughout woodland for dormice to use.

1.2 Bat Action Plan

- (a) Fell ivy clad trees out of bat roosting season (in Jan/Feb).
- (b) Leave ivy on felled trees for 24 hours before snedding and cleaning the tree.
- (c) 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.
- (d) Continue to put up bat boxes and create sunny clearings (esp. by felling/ring barking sitka spruce) near the new ponds. All boxes to be GPS tagged.
- (e) Designate areas as bat zones, and fell trees in these areas between September and November to avoid unnecessary disturbance.
- (f) Leave/ring bark old holey trees in these areas to provide resting and summer sleeping spaces.
- (g) Compile or commission a bat survey.
- (h) Monitor boxes (with the help of trained persons) and contribute data to the Devon Biodiversity Records Centre (DBRC).

1.3 Hedgehog Action Plan

- (a) Create log piles throughout the woodland as habitat.
- (b) Build hedgehog houses around the woodland (GPS tagged) and monitor for signs of use.
- (c) Create living and dead hedges for possible hibernation sites.
- (d) Ensure any ponds or water systems do not have steep edges to prevent drowning.

1.4 Laurel Action Plan

- (a) Continue to control the Laurel in the Laurel Area by cutting regrowth annually.
- (b) Pull up/elimination mulch laurel found growing outside the Laurel Area.
- (c) Encourage natural regeneration of native plants and trees to shade remaining laurel stumps.
- (d) Plant trees and shrubs in the cleared laurel area.
- (e) Recondition the soil in the cleared laurel area by adding mulch and manure. Test the soil quality to monitor improvement.
- (f) Create habitat piles in the cleared Laurel area to encourage insect species into the area.

1.5 Sycamore Action Plan

- (a) Coppice Sycamore for firewood helping to accelerate the natural regeneration of oaks etc. ensuring that the sycamore does not grow to an age where it would begin setting seed.
- (b) Don't protect regrowth and leave some sycamore as sacrificial trees for squirrels as they tend to prefer sycamore over other species and for deer.

1.6 Larch Action Plan

- (a) Continue to fell Larch in Lower Larch and Inner Larch for firewood, building materials and accelerate regeneration.
- (b) Gradually fell Larch in the Wildlife Area and either leave it to rot or collect it for firewood/building materials.

1.7 General Wildlife-Friendly Policies

- (a) When carrying out forestry work in the woodland be sensitive to the surrounding wildlife.
- (b) Continue to leave dead trees standing and leave dead wood on the ground. Create standing dead and carry out dead wood surveys of the woodland as necessary.
- (c) Use Continuous Cover Forestry techniques to guide thinning and restocking planning. Continue to restock the Wildlife Area with a broadleaf mix.
- (d) Default restocking is with preferably native species of local provenance.
- (e) Maintain tree nursery on site to provide local provenance trees of various species for replanting and sale.
- (f) 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.
- (g) Choose trees to fell with an awareness of windthrow effects.
- (h) Kill ivy on veteran trees that are at risk of windthrow, particularly along borders.
- (i) Fell large trees only outside of nesting season (October to February).
- (j) Maintain our grey water systems to prevent pollution of any water courses.

1.8 Considerations when undertaking groundworks etc

- (a) Prior to any groundworks taking place, a survey of the flora and fauna is undertaken to ensure that no precious species are threatened by the work. Such groundworks are also undertaken at appropriate times of the year to be sensitive to wildlife, for example, outside of dormouse breeding (Jun-Aug) and hibernation (Nov-Mar) seasons.
- (b) All works are carried out in accordance with the Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora.

Objective 2: Produce sustainable firewood for ourselves.

23. At the moment we are predominantly felling plantation conifer, converting the woodland to mainly native broadleaf. Over the next few years we will start measuring the yield class of our native species. We also plan to measure our annual firewood consumption by stacking and using a conversion factor. By doing this we can work out an annual average of firewood used and apply this to the growth rate of our broadleaves ensuring the sustainability of our firewood consumption when the conifer is cleared.
- (a) Continue to thin woodland further, protect coppiced stools and monitor for signs of deer browsing on coppiced stool regeneration.
 - (b) Fell conifers, Sycamore and some Ash in Inner Larch, especially directly above paths to create sunny rides and spaces to grow perennial foods, fruit trees and encourage natural regeneration.

- (c) In areas with low seed stock for favoured natural regeneration, restocking will be undertaken with a broadleaf mix.
- (d) When we have volunteer, animal or vehicle assistance, fell trees further away from the settlement, then split and transport them in.
- (e) If we have no assistance, fell trees closer to the settlement, especially uphill from dwellings.
- (f) 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.
- (g) Continue to coppice Sycamore to meet our firewood needs whilst maintaining dormice corridors (see Objective 1.5).
- (h) Single out some Ash stools to harvest firewood and create canopy/future building material trees.
- (i) Use offcuts from thinning Pine areas if transport assistance is available.
- (j) Restock Larch and Pine areas with a deer proof broadleaf mix that includes ash, hazel and chestnut trees for future firewood harvest.
- (k) Measuring the yield growth rate to ensure our supply of firewood is sustainable.
- (l) A small managed coppice near each dwelling will be managed for firewood.
- (m) Ring bark trees (away from paths and public areas) and fell 3 years later (using colour coding).
- (n) Lay hedges.
- (o) Install solar water heating panels on communal bathhouse and longhouse, and experiment with rocket stove, ceramic stove and similar technologies as a means of conserving firewood.

Objective 3: Increase yield of produce from growing area, forest gardens and fruit and nut trees.

- (a) Maintain the Forest Garden in the Growing Area consisting of fruit trees, bushes and climbers, nut trees, perennial vegetables, a pond and ground cover fruiting plants.
- (b) Continue to plant food producing trees and perennial vegetables.
- (c) After felling replant with fruit trees, bushes and perennial vegetables in suitable areas in and around the Settlement Area.
- (d) Restock the Pine areas with a broadleaf mix including sweet chestnut and fruit trees.
- (e) Plant fruit trees in espalier formation along the paths in the Settlement.
- (f) Annually prune the fruit trees and bushes.
- (g) Maintain and extend fencing in the Growing Area.
- (h) Continue to increase the yield of the Growing Area by utilising the space using intensive gardening techniques.
- (i) Keep using our Growing Area as an educational resource by continuing to host volunteer work days.
- (j) Continue to create compost on site using food waste and locally sourced manure. Use comfrey to make comfrey liquid for fertiliser. Put compost from compost toilet at base of fruit and nut trees.
- (k) Erect a polytunnel to expand the growing season and the variety of food we can grow.

Objective 4: Maintain and enhance the visual screening of our structures from the A382 and our neighbours and other vantage points.

- (a) 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.
- (b) Do not fell any trees in the visual screening area below the Settlement until the new screening belt is established.
- (c) Fit light blockers onto any lights inside structures that shine directly towards the road or neighbouring houses.
- (d) From time to time conduct visual impact assessments from various vantage points. Use the results of these assessments to aid planning in minimising visual impact of the community.

Objective 5: Animal Husbandry.

- (a) Keep chickens/ducks for eggs and meat. Chickens/ducks will also be used to clear and fertilize growing spaces.
- (b) Keep sheep for meat and wool/skins.
- (c) Keep goats for dairy, meat and skins.
- (d) Use horses for logging.
- (e) Animal husbandry to be used as an educational tool for visitors and children on site.

Objective 6: Supply building materials for ourselves.

- (a) Leave some straight Larch and Fir trees in Inner Larch, especially thin ones, until we need them to build with.
- (b) Plant some Douglas Fir in the visual screening belt to provide future pole wood.
- (c) Create a wood gasification unit. This could be used for running vehicles, machinery such as a sawmill, or to generate electricity.

Objective 7: Conduct wildlife and habitat surveys and record data for the general public to access.

- (a) Continue to conduct a variety of annual wildlife surveys, including habitat, breeding bird, butterfly and moth, dormouse populations and record data. Also carry out additional surveys eg: bat, fungi and dead wood.
- (b) Continue to create a photo database of species at Steward Wood and make accessible to the general public as a learning resource.
- (c) Continue communication with the Devon Wildlife Trust and other relevant organisations regarding our surveying and record keeping.

Objective 8: Maintain the permissive path and actively encourage its use.

- (a) Maintain signs showing route of permissive path and encourage the public to make use of it.
- (b) Monitor paths for potentially dangerous overhanging branches and remove as necessary.
- (c) Monitor paths for windthrow and clear paths as soon as possible.
- (d) Ensure paths are well slashed so they are passable and reduce walkers' contact with ticks (with potential for Lyme Disease).
- (e) Make and place benches along permissive path route for walkers to rest and enjoy the woodland.
- (f) Place educational signs along route to inform the public of the species and wildlife in the woodland.

Objective 9: Education

- (a) Increase our ability to run courses and events and increase access to the woodland for the general public for educational purposes.
- (b) Continue to run our volunteer Growing Days providing local people the opportunity to learn organic gardening, permaculture techniques, self reliance, composting and forest gardening.
- (c) Continue to run our volunteer Conservation days providing local people with the opportunity to get involved with our efforts to increase biodiversity while learning about wildlife, ecology and woodland management.
- (d) Maximise event (courses, volunteers, wwoofers etc) capacity by increasing camping space in the Glade.
- (e) Where possible apply for funding/grants to enable us to run more courses in the woods.
- (f) Continue to work with organisations such as 'Of Oak, Ash and Thorn' to increase connections to the wider community and promote skill sharing.
- (g) Continue to use online resources, social media, website, blogging and mixed media to increase the awareness of the project and share the findings of the project.

Objective 10: Carbon sequestration and Carbon Capture

- (a) Maintain and increase the area of land covered by trees by encouraging natural regen, restocking felled areas and planting saplings.
- (b) Protect veteran trees by removing or killing ivy as necessary.
- (c) Continue to heat our dwellings without using fossil fuels to reduce our carbon footprint.
- (d) Experiment with biochar technology.
- (e) Experiment with methane productions for fuel using anaerobic digestion.

Objective 11: Create and maintain shelter and sunshine for our structures and food crops.

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

- (b) Clear/top conifers in the Growing Area when they excessively shade our broad scale vegetable beds.
- (c) Clear strips above the paths in Settlement Area to create long growing areas for fruit and perennial vegetables.

Objective 12: Earn income from the woodland's resources.

- (a) Continue to run courses in the woodland. These courses include Woodcraft, Nature Awareness, Fire by Friction, Wild Food, Healing Hedgerow, Bird Language, Permaculture and Off Grid Technology.
- (b) 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.
- (c) Also fell and plank/mill/chip/split/chop/extract Larch, Ash, Pine, and Fir in Pine in Inner Larch areas when there is demand for these products and we have extraction assistance.
- (d) Make value added products (spoons, bowls, chairs, stools, etc) from woodland resources.

Objective 13: Actively seek funding and grants to continue meeting management objectives.

Contact organisations and private donors to request funding for conservation work, eg. Natural England, DEFRA, Forestry Commission, Rural Payments Agency and NELMS.

Objective 14: Regulate noise pollution.

- (a) Keep the use of chainsaws to a minimum using crosscut saws where possible.
- (b) Use electric chainsaws when possible.

Objective 15: Beekeeping

- (a) Keeping bees on the land to aid pollination.
- (b) Harvest honey, pollen and propolis for food and medicine.

Objective 16: Use exclusively Aspen and vegetable oil in our chainsaws.

The community is committed to using only Vegetable oil for lubricant and Aspen for fuel in chainsaws to help reduce our carbon footprint and reduce local pollution. Aspen is free of Benzene, olefins and solvents. It is non-toxic and reduces the acidification of waterways. It also has 99% cleaner emissions than regular petrol.

Objective 17: Disease Control

- (a) Annually survey Ash trees for signs of Chalara Dieback and contact the Forestry commission if we have any concerns.

(b) Annually survey the relevant trees for Phytophthora Ramorum and contact the Forestry Commission if we have any concerns.

Objective 18: Management of Ivy

Ivy on trees will generally be tolerated because of its value for wildlife and screening. However, to maintain the health of the trees, when ivy is getting into the canopy of a tree and advancing out along the branches in lateral growth, it is to be cut.

Objective 19: Management of Grey Squirrels

The grey squirrel population is to be actively managed through hunting with air rifles and the use of Kania traps.

Management Plan by Compartments

1. Railway Track

As part of an agreement with Devon County Council, we will maintain our section of the Wray Valley Trail by cutting back vegetation and ensuring it is usable for the general public as well as continuing to protect and use medicinal and edible plants growing along the track for educational events and personal use. We will maintain signs for the permissive path to increase public awareness of path and local wildlife. Monitor nest boxes for dormice in the trees and shrub adjoining Railway Track. [yellow ants?]

2. Norway Spruce

Assess quotes received (Spring 2016) for the felling and extraction of the Norway Spruce (170 stems). Funds generated from this sale of timber could pay for replanting and improving access to the permissive path. We may also fell some Western Red Cedar for cladding and shingles for our structures. Otherwise, the area will be managed using CCF, slowly thinning to encourage natural regeneration. Having already removed much of the fly tipped rubbish from the pond by Budleigh Farm, the next stage is to improve the water and habitat quality of the pond and seek funding to help regenerate this area.

3. Growing Area

Increase our yield of produce from the fenced growing area. Increase yield of the forest garden by clearing weeds, pruning trees and bushes and planting. Bee hives have been established at the top of the forest garden producing honey and encouraging pollinators/pollination. Chickens/ducks will be housed adjacent to the veg beds (in a fenced area 235 square metres in size) which will gradually allow the fenced area for the veg beds to be extended. We will continue to maintain and weed the pond. Annually test the soil's PH levels. Clear or top conifers in the Growing Area when they excessively shade our broad scale vegetable beds. Continue collecting various broadleaf seeds from woods for storage, stratification and planting for the tree nursery. This ensures local provenance of trees we plant. Grow edible fungi in woodchip pathways. Continue with our educational 'Growing Days' hosted in the Growing Area. If planning permission is granted, we will erect a polytunnel, roundhouse interpretation centre, and disabled accessible compost toilet in the Growing Area (as per the 'Morefood project').

4. Lower Pines

The South Eastern tip of the Lower Pines was felled and is regenerating well. We will continue to thin Pines area of Douglas Fir and Scots Pine to accelerate natural regeneration. Also Sycamore, Hazel and Ash will be coppiced for firewood and Ash/Hazel protected from deer. Tree guards will be placed around any viable saplings to protect them for future natural regen in that area. Layering Hazel to increase area of coppice for firewood. Eliminate any invading laurel stools. Survey annually and record results.

5. Upper Pines.

The South Eastern tip will be fully thinned by 2017. We are currently overseeing the natural regeneration of the area and there will be future replanting and all saplings will be deer protected. The area around the Yew tree has been cleared to encourage growth and reproduction eventually leading to an area with Yew understory. Eliminate any invading Laurel stools. Survey annually and record results.

6. Fir.

Thin these trees as and when necessary, leaving the lower belt for screening. Protect regenerating fir and other regeneration with tree tubes. Create a wildlife pond.

7. Laurel.

The Laurel above the Glade was cleared in winter 2015-6 and we will continue to suppress regrowth with annual cutting and pulling up, thus accelerating natural regeneration of tree species. Brash hedging has been put around most of the perimeter to discourage Deer, the movement and presence of people through the Glade protects the remainder of the perimeter. The brash hedging will also create habitat and corridors for wildlife to thrive in (as advised by DWT). Numerous habitat piles have been created to help improve the ecology. The Laurel running along the bottom edge of the wood, adjacent to the field will be maintained as it is valuable screening from the neighbours and A382. It will be contained and not allowed to spread. The laurel directly below the Walled Driveway will be removed over time and used for firewood and brash hedging.

8. Rainforest.

The Rainforest Area is regenerating well and we will continue to oversee the area and protect from Deer. Continue to thin Ash and protect coppice. Keep our notable Douglas Fir for their amenity value.

9. Inner Larch.

We will put up more Dormice boxes and drill holes into newly felled Larch stumps to provide Dormice nests. We will continue to coppice the young Sycamore for personal and communal firewood before it is mature enough to set seed. Continue to thin the Larch for firewood and building materials. Single out Ash stools to harvest firewood and deer protect. 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 and coppice around dwellings and food growing areas to maintain sun traps. Survey annually and record results.

10. Wildlife Area.

This area has until recently been designated by us to be a low intervention zone due to its distance from the Settlement Area. However, on the advice of the Devon Wildlife Trust, we are now aiming to gradually fell the Larch for firewood from 2021 to allow the natural regeneration of the area. We will deer protect any new stems. We are coppicing and felling Sycamore for firewood before it reaches an age where it could set seed. The area will be surveyed annually and results recorded. We aim to create a scalloped edge along the top border of the woods.

11. Hydro.

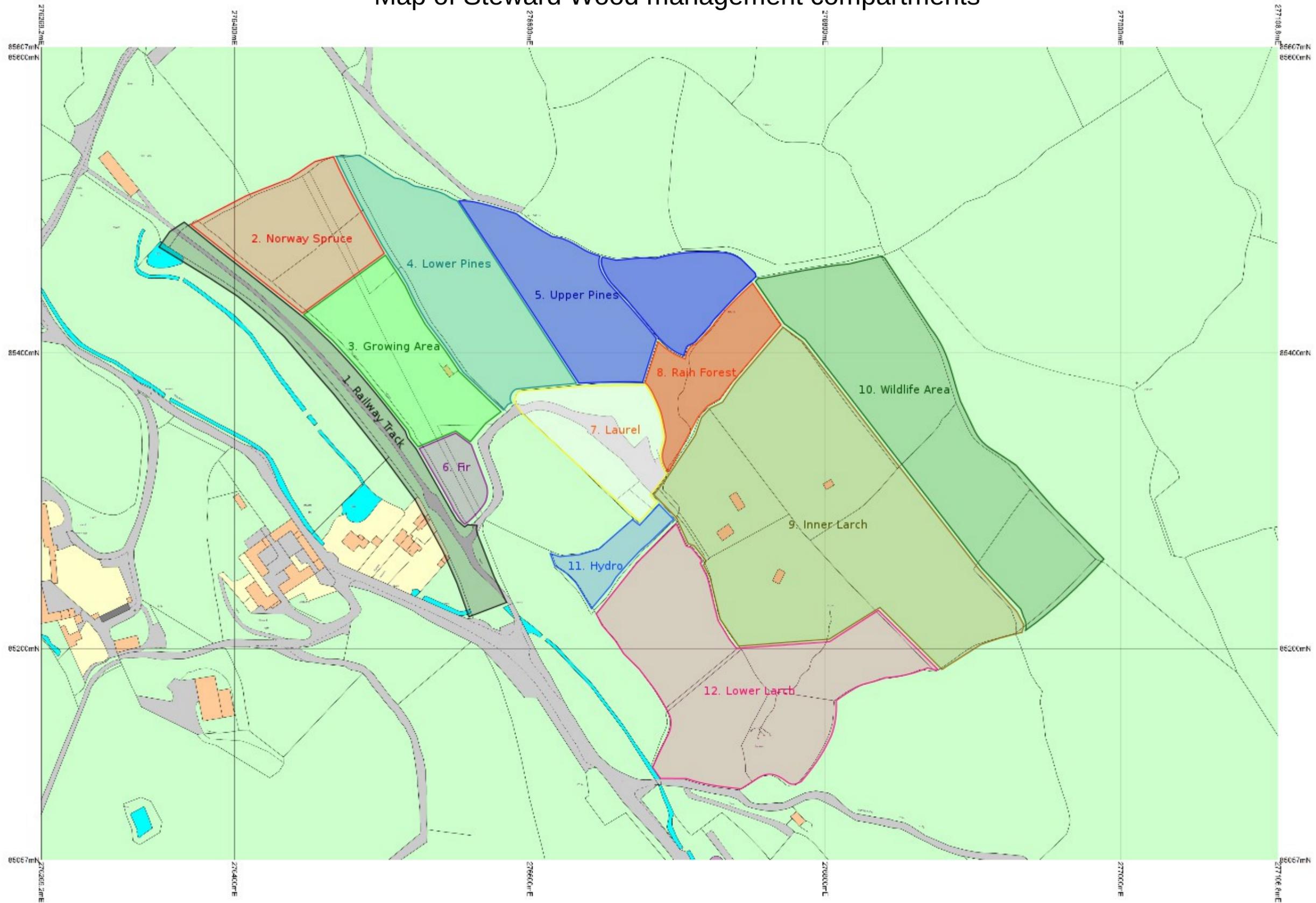
Protect any interesting regeneration with deer proof tubes.

12. Lower Larch.

A large area of larch has been cleared in this area for firewood and now we are allowing the natural regeneration of this area for future screening from the A382. Most of the remaining Larch is to be left as it is our current screening and will be felled when the natural regen is large enough to screen our structures. Plant Douglas Fir and Western Red Cedar for future screening. Maintain and extend the ride network in this area. Create a hazel hedge along one of the rides next to the willow patch. Put up Dormice boxes. Create a pond. Survey annually and record results.



Map of Steward Wood management compartments



Implementation Plan 2016-21

DATE OF OPERATIONS	PLANNED OPERATIONS
<p>1. RAILWAY TRACK</p> <ul style="list-style-type: none"> • Every July - October • Ongoing through Spring/Summer/Autumn • Ongoing • Every Autumn • Ongoing • Ongoing • Every Spring 	<p>Cut back vegetation.</p> <p>Harvest edible and medicinal herbs.</p> <p>Maintain signs for permissive path.</p> <p>Check and replace dormice boxes as necessary. Drill holes into conifer stumps.</p> <p>Eliminate any laurel.</p> <p>Remove dangerous trees.</p> <p>Survey for breeding birds and bats and record results.</p>
<p>2. NORWAY SPRUCE</p> <ul style="list-style-type: none"> • Autumn/Winter 2016-7 • Feb/March 2017 <p>Otherwise:</p> <ul style="list-style-type: none"> • Ongoing • Ongoing • Ongoing <p>Also:</p> <ul style="list-style-type: none"> • Every Spring 2018 • Every Autumn 	<p>Possibly contract with forester to fell and extract all trees in this area (170 stems).</p> <p>Replant this area with mixed broadleaf except under power lines.</p> <p>Manage area using CCF, slowly thinning to encourage natural regeneration (10 trees per year). Trees will be extracted and dragged to Railway Track for sale or milling.</p> <p>Remove dangerous trees.</p> <p>Eliminate any laurel.</p> <p>Survey for breeding birds and bats and record results.</p> <p>Seek funding to regenerate pond.</p> <p>Check and replace dormice boxes as necessary. Drill holes into conifer stumps.</p>
<p>3. GROWING AREA</p> <ul style="list-style-type: none"> • May 2016 • 2017 • Nov 2017 • Every February • Ongoing • Ongoing • Ongoing 	<p>Fence off area for chickens (235 square metres) using western side of existing veg bed fencing.</p> <p>Apply for funding for Polytunnel, Roundhouse Interpretation Centre, and Disabled Accessible Compost Toilet (as per 'MoreFood' project).</p> <p>Extend growing space into chicken run and creating new fenced off chicken run to the west.</p> <p>Prune fruit trees and bushes in the Forest Garden.</p> <p>Clear weeds in veg beds and Forest Garden.</p> <p>Manage the apiary.</p> <p>Grow edible fungi in woodchip pathways.</p>

<ul style="list-style-type: none"> • Every Feb/Mar • When needed 	<p>Test soils pH levels. Clear or top conifers when they excessively shade our veg beds. Maintain tree nursery. Maintain and weed the pond among the veg beds. Eliminate any laurel/rhododendron. Survey for breeding birds and bats and record results. Check and replace dormice boxes as necessary. Drill holes into conifer stumps.</p>
<p>4. LOWER PINES</p> <ul style="list-style-type: none"> • Every felling season (Oct-Feb) • Ongoing • Ongoing • Ongoing • Every felling season • Every felling season • Ongoing • Every Spring • Every Autumn 	<p>Thin Scots Pine (5 stems) creating a scalloped edge. Protect natural regeneration. Maintain permissive path and its signs. Remove dangerous trees. Coppice sycamore, ash & hazel, protecting ash/hazel stools. Layering of hazel as and when there is sufficient light. Eliminate any laurel. Survey for breeding birds and bats and record results. Check and replace dormice boxes as necessary. Drill holes into conifer stumps.</p>
<p>5. UPPER PINES</p> <ul style="list-style-type: none"> • Felling Seasons 2016-7 & 2017-8 • Felling Seasons 2018-9, 2019-20, 2020-1 • Ongoing • Ongoing • Ongoing • Every felling season • Every felling season • Ongoing • Every Spring • Every Autumn • Felling Season 2019-20 	<p>Fell 8 and ring bark 3 Scots Pine. Fell 5 Scots Pine. Protect natural regeneration. Maintain permissive path and its signs. Remove dangerous trees. Coppice sycamore, ash & hazel, protecting ash/hazel stools. Layering of hazel as and when there is sufficient light. Eliminate any laurel. Survey for breeding birds and bats and record results. Check and replace dormice boxes as necessary. Drill holes into conifer stumps. Replant with mixed broadleaf and protect from deer.</p>
<p>6. FIR</p> <ul style="list-style-type: none"> • Sept 2018 • When necessary • Ongoing • Ongoing • Every Spring • Every Autumn 	<p>Create wildlife pond. Thin fir trees. Protect natural regeneration. Remove dangerous trees. Eliminate any laurel. Survey for breeding birds and bats and record results. Check and replace dormice boxes as necessary. Drill holes into</p>

<p>7. LAUREL</p> <ul style="list-style-type: none"> • Every Felling Season • Ongoing • Felling Season 2016-7 <ul style="list-style-type: none"> • Felling Season 2016-7 • Ongoing • Ongoing • Every Spring • Every Autumn <p>8. RAINFOREST</p> <ul style="list-style-type: none"> • Every Felling Season • Ongoing • Ongoing • Ongoing • Ongoing • Every Spring • Every Autumn <p>9. INNER LARCH</p> <ul style="list-style-type: none"> • Every Felling Season • Ongoing • Ongoing • Ongoing • Every Spring • Every Autumn <ul style="list-style-type: none"> • Ongoing • Ongoing • Felling Season 2016-17 • Felling Season 2016-17 <p>10. WILDLIFE AREA</p> <ul style="list-style-type: none"> • Ongoing • Ongoing • Ongoing • Every Spring • Every Autumn <ul style="list-style-type: none"> • Every Winter 	<p>conifer stumps.</p> <p>Cut back laurel and pull up any new shoots. Protect natural regeneration and place fertiliser round base. Plant birch & cherry adding fertiliser round base and protect from deer. Remove laurel below walled driveway. Maintain permissive path and its signs. Remove dangerous trees. Survey for breeding birds and bats and record results. Check and replace dormice boxes as necessary. Drill holes into conifer stumps.</p> <p>Fell 5 ash/sycamore trees and protect ash stools. Protect natural regeneration. Eliminate any laurel. Maintain permissive path and its signs. Remove dangerous trees. Survey for breeding birds and bats and record results. Check and replace dormice boxes as necessary.</p> <p>Fell 11 larch. Protect natural regeneration. Eliminate any laurel. Remove dangerous trees. Survey for breeding birds and bats and record results. Check and replace dormice boxes as necessary. Drill holes into conifer stumps. Coppice ash, hazel, sycamore, protecting ash/hazel stools. Replant with mixed broadleaf (including fruit & nut trees). Along bottom edge, plant willow and hedge lay the hazel. Create wildlife pond.</p> <p>Protect natural regeneration. Eliminate any laurel. Remove dangerous trees. Survey for breeding birds and bats and record results. Check and replace dormice boxes as necessary. Drill holes into conifer stumps. Coppice/Fell Sycamore for firewood</p>
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<p>11. HYDRO</p> <ul style="list-style-type: none"> • Ongoing • Ongoing • Ongoing • Every Spring • Every Autumn <p>• Felling Season 2016-7</p> <p>12. LOWER LARCH</p> <ul style="list-style-type: none"> • Felling Season 2016-7 • Felling Seasons 2017-8, 2018-9, 2019-20, & 2020-1 • Ongoing • Felling Season 2019-20 • Ongoing • Ongoing • Ongoing • Every Spring • Every Autumn 	<p>Protect natural regeneration. Eliminate any laurel. Remove dangerous trees. Survey for breeding birds and bats and record results. Check and replace dormice boxes as necessary. Drill holes into conifer stumps. Plant willow for visual screening.</p> <p>Fell 6 larch.</p> <p>Fell 3 larch. Replant with mixed broadleaf (including fruit & nut trees). Plant Douglas Fir & Western Red Cedar for visual screening. Protect natural regeneration. Eliminate any laurel. Remove dangerous trees. Survey for breeding birds and bats and record results. Check and replace dormice boxes as necessary. Drill holes into conifer stumps.</p>
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Surveys

24. Appendix 1 sets out the flora and fauna compiled from surveys undertaken over the years by members of the coop, listing trees, birds, mammals, plants, fungi, reptiles/amphibians, and notable insects/invertebrates observed on site.
25. We have carried out surveys on various areas of the woodland using the DAFOR scale. We are committed to doing this annually to record any changes in biodiversity and the results will be put into a data base that can be accessed through our website <www.stewardwood.org>
26. We will introduce fixed point photographic monitoring to ensure regeneration is happening at the desired rate.
27. We will liase with The Woodland Trust concerning their management of Fingal Woods in the nearby Teign Valley. Their approach is similar but on a larger scale.

Continuous Cover Forestry Survey 2019

28. As part of the Continuous Cover Forestry we practice, every 5 years we perform a survey of the tree species and sizes growing throughout the woodland along with notes about the flora and fauna. The next survey will take place in 2019.

Disease

29. The two main causes for concern in terms of disease at Steward Wood are Chalara Dieback of Ash and Phytophthera Ramorum.

Chalara Dieback of Ash

30. This is caused by the fungus *Hymenoscyphus Fraxinus*. It causes leaf loss, crown dieback and bark lesions in affected trees. It is usually fatal though some evidence suggests older, mature trees can survive infections. Surveys should be carried out in the late summer while trees are still in full leaf.
31. There has been no evidence of Chalara Dieback in Steward Wood.

Phytophthera Ramorum

32. Susceptible trees to *Phytophthera Ramorum* are Larch, Beech, Sweet Chestnut, Horse Chestnut, Douglas Fir and Sitka Spruce. Symptoms include wilted shoot tips/foliage, blackened needles, needle shedding and bleeding cankers.
33. In 2014 the Forestry Commission carried out an aerial survey and contacted SCW with concerns of *Phytophthera Ramorum* in the woodland. After a site visit, we were given the all clear.

34. We are aware that there could be major implications if we get Phytophthora, eg losing some firewood stock, creating access for machinery and the impact of machinery in the woodland on our daily lives.
35. Should there be an outbreak of Phytophthora here, we will under take the following steps:
 - (1) Contact the Forestry Commission ('FC') and seek their advice.
 - (2) If the infection is in a small area and it is agreeable with the FC, we would fell susceptible trees within a 100m radius of the infected site. Previous discussions with the FC have indicated that this may be possible in such a scenario.
 - (3) If all the Larch on site were to be felled, we would engage a recognised contractor.
 - (4) We may also process the heartwood for sale using a mobile sawmill on site.
 - (5) In felled areas, we may allow sycamore to grow up to create a canopy (as a stepping stone for regenerating the area).
36. Larch near the top of the land may prove difficult to extract due to access issues. We may employ a horse logger to extract timber in hard to access areas such as these.
37. Felled timber would be stored adjacent to rides accessible to a mobile sawmill or accessible by tractor for removal to an on-site mobile sawmill for processing.
38. In the meantime, we will research possible funding for improving access, etc.

Deer at Steward Wood - Observations and Management

39. A definition of 'deer management' is "the rational adjustment of the size and structure of the deer population and environment in the area over which the herd ranges to achieve one or a combination of objectives".
40. The first key requirement with deer management is to clearly define the objectives towards which the deer and its environment is being managed.
41. Some objectives in most situations includes:
 1. To reduce deer damage;
 2. To maximise venison production;
 3. To maximise sporting returns;
 4. To conserve a small deer population.

Damage Assessment

42. There are methodical ways of assessing deer impact/damage to trees. Damage to woodland is usually recognised by observing fraying damage (the rubbing off of bark from trees and shrubs with antlers), and browsing damage (deer feeding on leaves and buds). When individual tree protection by tree guards or tubes is required, we ensure that the correct height of guard is used for protection from specific deer species (1.2 metres to protect against Roe and 1.6 metres to protect against Fallow).
43. At Steward Wood, we can tolerate the few resident Roe deer and the occasional Fallow which use the wood as a route to and from areas of farm land for grazing. With an understanding of where deer "impact" turns in to deer "damage", we have observed over time that certain trees/habitats/crops may only be vulnerable at certain stages of growth.
44. Even at low deer density, these vulnerable trees/habitats/crops need physical protection.
45. To this end, we have erected a deer proof fence around our main food growing area, use deer netting around young hazel and ash coppice, and brash fences around forest garden areas to deter deer.
46. We remain alert to the effect of slow changes in woodland structure over time as well as the short term effects of felling/planting and any new food crops/forest gardens. We are aware that these changes may vary the potential for deer damage and the ecology of the local deer population. By being aware of these changes we are able to predict what will occur rather than react to the effect of these changes.
47. This section of the Plan was written by community member Sharif Adams who holds a deer management qualification from The British Deer Society.

CONTACTS

People/Organisations we are working with:

- Lynne Kenderdine - Devon Wildlife Trust
- Devon Bat Group
- Beth Hamer - 'Of Oak Ash and Thorn'
- Dr Christian Taylor, mycologist & scientist
- Anthony MacKarel, Bicton College
- Jim White, White Wood Management
- Green Hill Arts, Moretonhampstead
- Carol Harvey - Home Ed instructor
- Universities - Plymouth and Exeter
- Wild Woods 'n Willow
- Forestry Commission
- Dave Wood, forester
- Mike Gardner, forester
- Adam Rasmussen, tree surgeon
- Tristan Miles, forester
- Bill Hardiman, Paul Moody & others – Fingal Woods (Woodland Trust)

Appendix 1 – Data from flora and fauna surveys at SCW

Common Name	Latin Name	Common Name	Latin Name
Birds		Mammals cont.	
Barn Owl		Grey Squirrel	Ciurus Carolinenis
Blackbird		Hedgehog	
Blackcap		Mink	
Blue tit		Mole	
Bullfinch		Rabbit	Oryctolagus
Buzzard		Rat	
Carriion Crow		Roe Deer	Capreolus Capreolus
Chaffinch		Stoat	
Chiffchaff		Weasel	
Coal tit		Wood Mouse	
Collared Dove			
Cuckoo		Amphibians/Reptiles	
Dunnock		Adder	
Garden Warbler		Common Frog	
Goldcrest		Common Lizard	
Goldfinch		Common Toad	
Great tit		Grass Snake	
Greater Spotted Woodpecker		Newt	
Green Woodpecker		Slow Worm	
Herring Gull			
House Martin		Invertebrates	
Jackdaw		Aphid	
Jay		Ash Bark Beetle	Leperisinus Varius
Long tailed tit		Beautiful Damselfly	Coenagriidea
Magpie		Bee (various)	
Marsh or Willow tit		Black Ant	Lasius Niger
Mistle Thrush		Black Fly	
Nuthatch		Bloody-nosed Beetle	Timarcha Tenebricosa
Pheasant		Brimstone Butterfly	Gonepteryx Rhamni
Raven		Bumble Bee	
Redpoll		Burying Beetle	Nicrophorus
Redwing		Vespilloides	
Robin		Caddis Fly	
Rook		Caterpillars	
Siskin		Centipede	Haplophilus
Song Thrush		Subterranean	
Sparrow		Common Earwig	Forticula auricularia
Sparrowhawk		Common Pond Skater	Gerris Lacustris
Starling		Crane-Fly	Tipula Maxima
Swallow		Cricket	
Tawny Owl		Damselfly (various)	
Treecreeper		Dor Beetle	Carabus Violaceus
Willow Warbler		Dragonfly (various)	
Wood Pigeon		Earthworm	
Woodcock		Frog hopper	Aphrophoridae
Wren		Gail Wasp	Biorhiza Pallida
		Glow Worm	Lampyris Nocticula
		Grasshopper	
Mammals		Greater Horntail	Waspsirx Gigas
Badger	Meles Meles	Green Fly	
Bank Vole		Hornets	
Bats		Horse Fly	
Common Shrew	Sorex Araneus	Hoverfly	
Dormouse		Imitation Larch Wasp	
Fallow Deer		Ladybird	
Fox	Vulpes Vulpes		

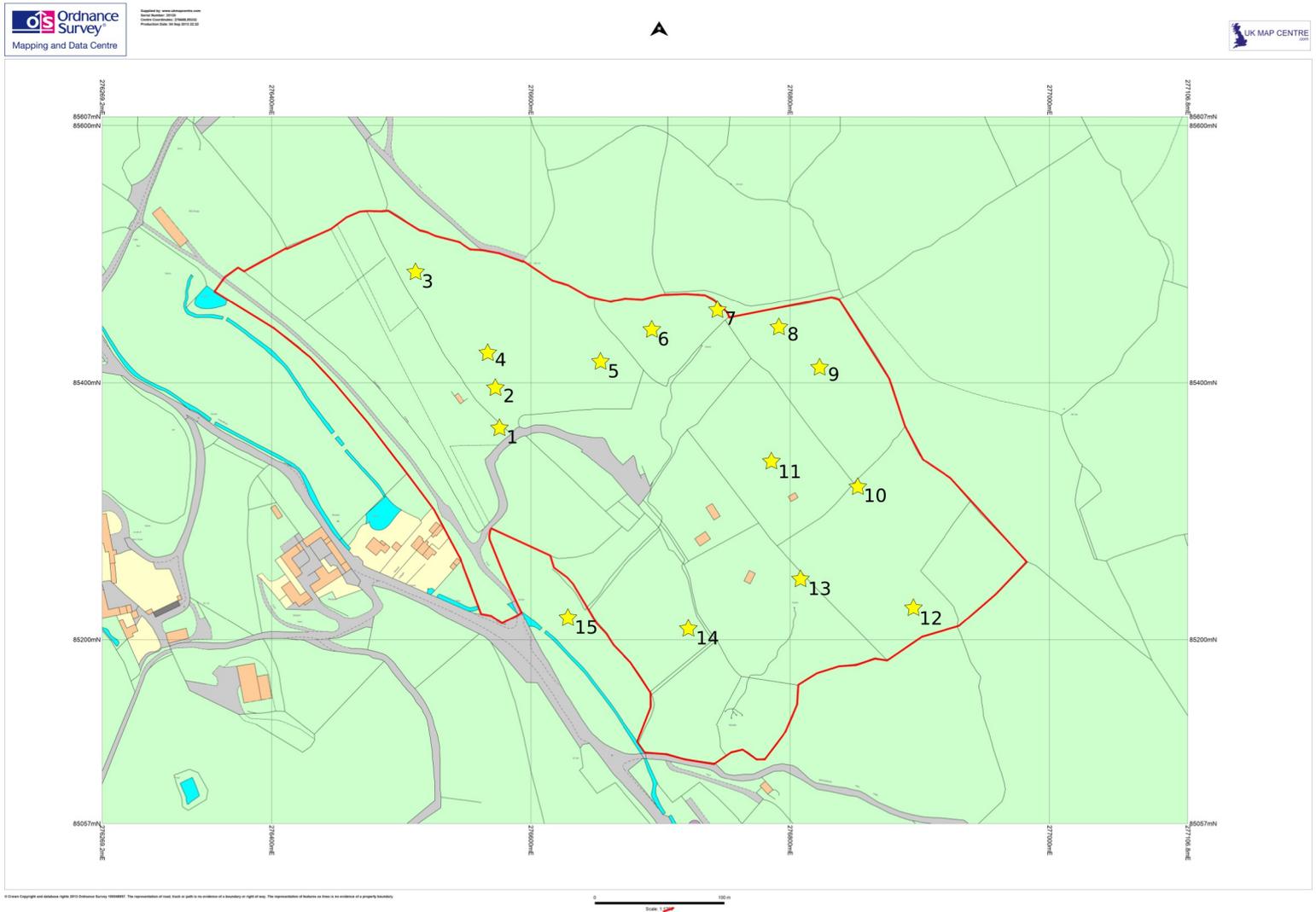
Common Name	Latin Name	Common Name	Latin Name
Invertebrates cont.		Trees cont.	
Larch Wasp		Hazel	Corylus Avellana
Large White Butterfly		Holly	Llex Aquifolium
Long Horned Moth		Hornbeam	
Maybug		Horse Chestnut	Aesculus
Meadow Brown Butterfly		Hippocastanum	
Midge	Chironomous	Japanese Larch	Larix Kaempferi
Annularis		Japanese Red Cedar	
Millipede	Achypodiulus Niger	Lime/Linden	
Mosquito	Mulex Pipiens	Monkey Puzzle	
Oil Beetle		North American Oak	Quecus Palustris
Orange tip Butterfly		Norway Spruce	Picea Abies
Painted Lady Butterfly		Pear	
Privet Hawk Moth		Pedunculate Oak	Querces Robur
Red Admiral Butterfly		Plum	
Red Ant	Myrmica	Poplar	Populus Canescens
Rubra/Ruginodis		Red Oak	Rubra
Scarlet Tiger	Panaxia Dominula	Rhododendron	Rhododendron
Shield Bug		Rhododendron	
Ticks		Ponticum	
Wasp (various)		Rowan	Sorbus Aucuparis
White-tailed Bumble Bee	Beebumbus Lucorum	Scots Pine	Pinus Sylvestris
Wolf Spider	Lycosa Amentata	Silver Birch	Betula Pendula
Wood Ant	Formica Rufa	Sweet Chestnut	Castanea Sativa
Woodlice		Sycamore	Acer Pseudoplatanus
Yellow Meadow Ant	Lasius Flavus	Walnut	
Fungi		Western Hemlock Spruce	Tsuga Heteaophylla
Bracket		Western Red Cedar	
Cauliflower Fungus		Wild Cherry	Prunus Avium
Cramp Ball	Ballsdaleinia	Wych Elm	Ulmus Glabra
Concentrica		Yew	
Druids Saddle	Daldinia Concentrica	Plants	
Earth Ball		Agrimony	
Honey Fungus		Alexanders	Smyrnum Olusatrum
Jews Ear		Alkanet	Pentaglottis
Orange peel	Spotnectria	Sempervirens	
Cinnabarina		Arum Lily	Arum Maculatum
Parasol	Lepiota Procea	Barren Strawberry	Potentilla Sterilis
Puffball		Bitter Cress	Caudamine Hirsuta
Red cups		Bitter sweet	Solanum Duicamara
Stinkhorn	Phallus Impudicus	Black Horehound	Ballota Nigra
Turkey Tail		Bladder Campion	Silena Vulgaris
Witches Butter	Tremella Mesenterica	Bluebell	Endymion Non
Wood Mushroom	Magaricus Silvicola	Scriptus	
Trees		Bracken	Pteridium Aquilinum
Almond		Bramble	Rubus Fruticosus
Apple	Malus Sylvestris	Broad leaf Dock	Rumex Obtusifolrus
Ash	Fraxinus Excelsior	Broadleaved Willow Herb	Epilubium Montanum
Autumn Olive		Brooklime	Veronica Beddabunga
Beech	Fagus Sylvatica	Buddleia	Buddleia Davidii
Blackthorn		Bugel	Ajuga Reptans
Cherry Laurel	Prunus Auorcerasus	Bush Vetch	Vicia Sepium
Douglas Fir	Pseudotsuga	Chickweed	
Menziesii		Cleavers	Grassgaliun Saxatile
Downy Birch	Betula Pendula	Commom Ragwort	Senecio Jacobaea
Elder	Sambucus Nigra	Common Birdsfoot Trefoil	Lotus Corniculatus
Grey Willow	Salix Sinerea	Common Dog Violet	Viola Riviniana
Hawthorn	Crataegus Monogyna	Common Figwort	Scrophulania Nodosa
		Common Fumitory	Fumania Officinalis
		Common Gorse	Ulex Europaeus

Common Name	Latin Name	Common Name	Latin Name
Plants cont.		Plants cont.	
Common Horsetail	Equisetum Arvense	Honeysuckle	Lonicera Xylosteum
Common Knapweed	Centaurea Nigra	Horsetail	
Common Mouse Ear	Cerastium Fontanum	Ivy	Hedera Helix
Common Ragwort	Senecia Jacobaea	Ivy leaved Speedwell	Veronica Hederifolia
Common Sorrel	Rumex Acetosa	Knapweed	Centaurea Nigra
Common Vetch	Vicia Sativa	Ladys Bedstraw	Galium Verum
Corn Mint	Mentha Avvensis	Lesser Burdock	Arctium Minus
Couch Grass	Agropyron Rpens	Lesser Celandine	Raunculus Ficaria
Cow Parsley	Anthriscus Sylvestris	Lesser Stitchwort	
Creeping Buttercup	Ranunculus Repens	Lilac	Syringa Vulgaris
Creeping Cinquefoil	Potentilla Reptans	Lords and Ladies	Arum Maculatum
Creeping Jenny	Lysimachia	Lungwort	
Nummularia		Lungwort	Pulmonaria Officinalis
Creeping Thistle	Cirsium Arvense	Marsh Thistle	Cirsium Palustre
Crosswort	Cruciata Laevipes	Marsh Willow Herb	Epilobium Palustre
Curly Dock		Meadow Buttercup	Ranunculus Acris
Dandelion	Tarraxacum Officinale	Meadow Vetchling	Lathyrus Pratensis
Doves Foot Cranesbill	Geranium Molle	Milkweed	
Duckweed	Lemna Minor	Mugwort	Artemisia Vulgaris
Eggs and Bacon	Lotus Uliginosus	Mullein	
Enchanters Nightshade	Cirsium Arvense	Nepeta	Polygonatum
Fat Hen	Chenopodium Album	Multiflorum	
Feverfew		Nipplewort	Lapsana Communis
Field Bindweed	Convolvulus Arvensis	Opposite leaved Saxifrage	Saxifraga Oppositifolia
Field Forget-me-not	Myosotis Arvensis	Ox-eye Daisy	Leucanthemum Vulgare
Field Pennycress	Chenopodium Album	Perforate St Johns Wort	Hypericum Perforatum
Field Sabious	Knautia Arvensis	Periwinkle	
Flowering Currant		Pignut	Conopodium Majus
Fools Parsley		Pink Purslane	
Foxglove	Digitalis Purpurea	Pink Purslane	Claytonia Sibirica
Fumitory		Primrose	Primula Purpurea
Garlic Mustard	Alliaria Petiolata	Purple Toadflax	Linaria Purpurea
Germander Speedwell	Versonica	Raspberry	Rubus Idaeus
Chamadaedrys		Red Campion	Silena Dioica
Good King Henry		Red Clover	Trifolium Preteuse
Greater Birdsfoot	Trefoillotus Uliginosus	Red Dead Nettle	
Greater Burdock	Archium Lappa	Ribwort Plantain	Plantago Lanceolata
Greater Knapweed	Centaurea Scabiosa	Rosebay Willow Herb	Epilobium Hirsutum
Greater Periwinkle	Virca Major	Rough Chervil	
Greater Plantain	Plantago Major	Rough Hawkbit	
Greater Plantain	Plantago Major	Sanicle	Sanicula Europaea
Greater Stitchwort	Stellaria Holostea	Self Heal	Prunella Vulgaris
Ground Elder	Aegopodium	Sheeps Sorrel	
Podogaria		Shepherds Purse	Caprella Bursa
Ground Ivy	Glechoma Hederacea	Slender Birds-foot trefoil	Lotus Angustissimus
Hairy Bittercress	Cardemine Hirsuta	Slender Tare	Vicia Tenussima
Harts Tongue	Phyllitis	Snowdrop	Galanthus Nivalis
Scolopendrium		Solomons Seal	
Hedge Bedstraw	Galium Molluga	Spanish Bluebell	Hyacinthoides
Hedge Woundwort	Stchys Sywatica	Hispanica	
Hemlock		Spear Thistle	Cirsium Vulgare
Hemlock Water Dropwort		Square stalked St Johns Wort	Hypericum Tetrapterum
Hemp Agrimony	Euputorium	Square stalked Willowherb	
Cannabium		St Johns Wort	
Herb Robert	Geranium Robertiana	Stinging Nettle	Urtica Diocia
Herd Bennet	Geum Urbanum	Stone/Penny wort	
Hogweed	Heraculum	Sweet Cicely	
Sphondylium		Sweet Violet	Viola Odorata
Honesty		Tansy	Tanacetum Vulgare

Common Name	Latin Name
Plants cont.	
Three cornered Leek	
Tutsan	Hypericum Androsaemum
Violet	
White Campion	Silena Pratense
White Clover	Trifolium Repens
White Clover	Trifolia Repens
White Dead Nettle	Lamium Album
White Strawberry	Fragaria Vesca
White Violet	
Wild Angelica	Angelica Sylvestris
Wild Carrot	Daucuc Carota
Wild Daffodil	Narcissus Pseudo
Narcissus	
Wild Pansy	Viola Tricolor
Wild Strawberry	
Wild Teasel	Dipsacus Fullonum
Wild/Dog Rose	

Common Name	Latin Name
Plants cont.	
Willowherb	
Wood Forget-me-not	
Wood Sage	Teucrium Scorodium
Wood Sorrel	
Wood Speedwell	
Yarrow	Achillea Millefolium
Yellow Archangel	
Ferns	
Bracken	Pteridium Aquilinum
Common Polypody	Polypodium Vulgare
Dickies Bladder Fern	Cystopteris Dickieana
Harts Tongue	Phyllitis
Scolopendrium	
Grasses	
Common Horsetail	Equisetum Arvense
Couch Grass	Agropyron Repens
Spleenwort	

Appendix 2 – Dormouse box locations



GPS coordinates and written descriptions have been recorded in order to pinpoint locations

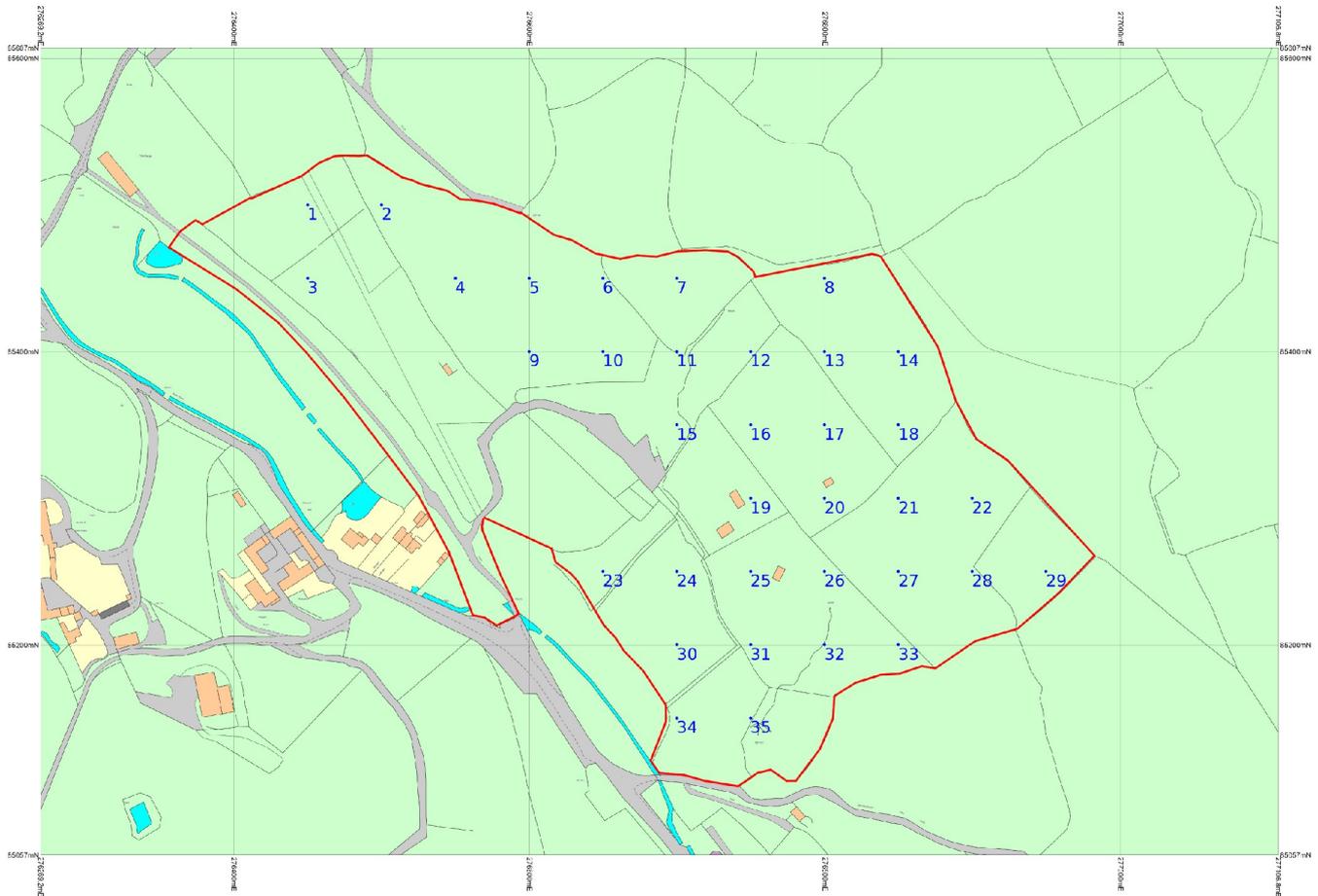
Appendix 3 – SCW Continuous Cover Forestry - Data Analyses 2014

As part of the Continuous Cover Forestry we practice, we take occasional surveys of the tree species and sizes growing throughout the woodland along with notes about the flora and fauna.



OS OpenMap - The National Grid Reference System
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Production Date: 11 May 2014

A



The ideal Continuous Cover Forest graph would be a smooth, long curve down from a high stocking of seedlings and saplings, to a long tail of relatively few, larger trees. This disposition provides a vibrant diversity of both habitat and sawlog size, which when combined with slow and steady piecemeal felling will provide timber and firewood indefinitely whilst protecting the soil, saplings and trees from exposure to wind, erosion and bramble swamping.

Method

Evenly spaced plots are marked on a map. These are then located using GPS positioning.

Once a plot is found it is marked out as a circular plot 8m in diameter from the centre using a stake and a piece of string. The tree species and sizes found within the plot are then recorded on paper. Notes are also made about ground cover and any other interesting flora and fauna.

Once all the plots have been monitored the data is input into a spreadsheet where it can be analysed and assessed.

Plot	row	col	OSGB E+N		GPS (decimal)	
1	1	1	276450	85500	50.65603	-3.74922
2	1	2	276500	85500	50.65604	-3.74852
3	2	1	276450	85450	50.65558	-3.74921
4	2	3	276550	85450	50.65560	-3.74779
5	2	4	276600	85450	50.65561	-3.74709
6	2	5	276650	85450	50.65562	-3.74638
7	2	6	276700	85450	50.65563	-3.74567
8	2	8	276800	85450	50.65565	-3.74426
9	3	4	276600	85400	50.65516	-3.74707
10	3	5	276650	85400	50.65517	-3.74636
11	3	6	276700	85400	50.65518	-3.74566
12	3	7	276750	85400	50.65519	-3.74495
13	3	8	276800	85400	50.65520	-3.74424
14	3	9	276850	85400	50.65521	-3.74354
15	4	6	276700	85350	50.65473	-3.74564
16	4	7	276750	85350	50.65474	-3.74493
17	4	8	276800	85350	50.65475	-3.74423
18	4	9	276850	85350	50.65476	-3.74352
19	5	7	276750	85300	50.65429	-3.74492
20	5	8	276800	85300	50.65430	-3.74421
21	5	9	276850	85300	50.65431	-3.74350
22	5	10	276900	85300	50.65432	-3.74279
23	6	5	276650	85250	50.65382	-3.74631
24	6	6	276700	85250	50.65383	-3.74561
25	6	7	276750	85250	50.65384	-3.74490
26	6	8	276800	85250	50.65385	-3.74419
27	6	9	276850	85250	50.65386	-3.74349
28	6	10	276900	85250	50.65387	-3.74278
29	6	11	276950	85250	50.65389	-3.74207
30	7	6	276700	85200	50.65338	-3.74559
31	7	7	276750	85200	50.65339	-3.74488
32	7	8	276800	85200	50.65340	-3.74418
33	7	9	276850	85200	50.65341	-3.74347
34	8	6	276700	85150	50.65293	-3.74557
35	8	7	276750	85150	50.65294	-3.74487

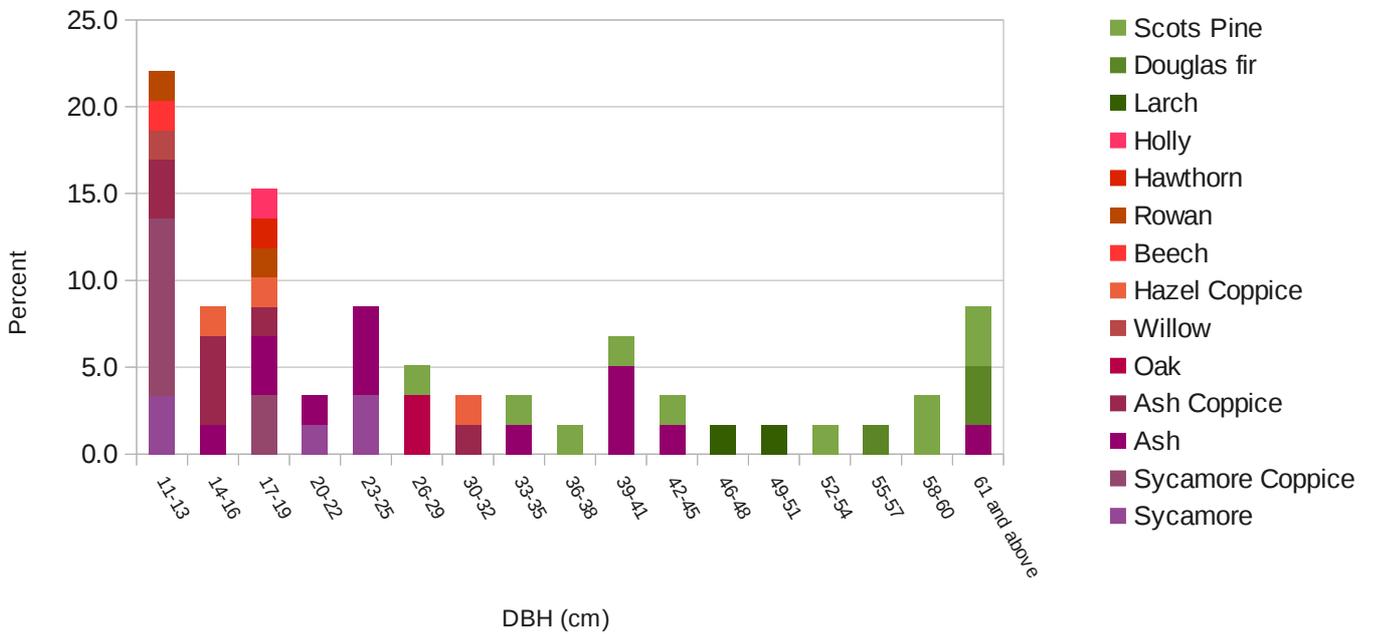
Google maps links available at: <http://www.stewardwood.org/ccfmon>

Results

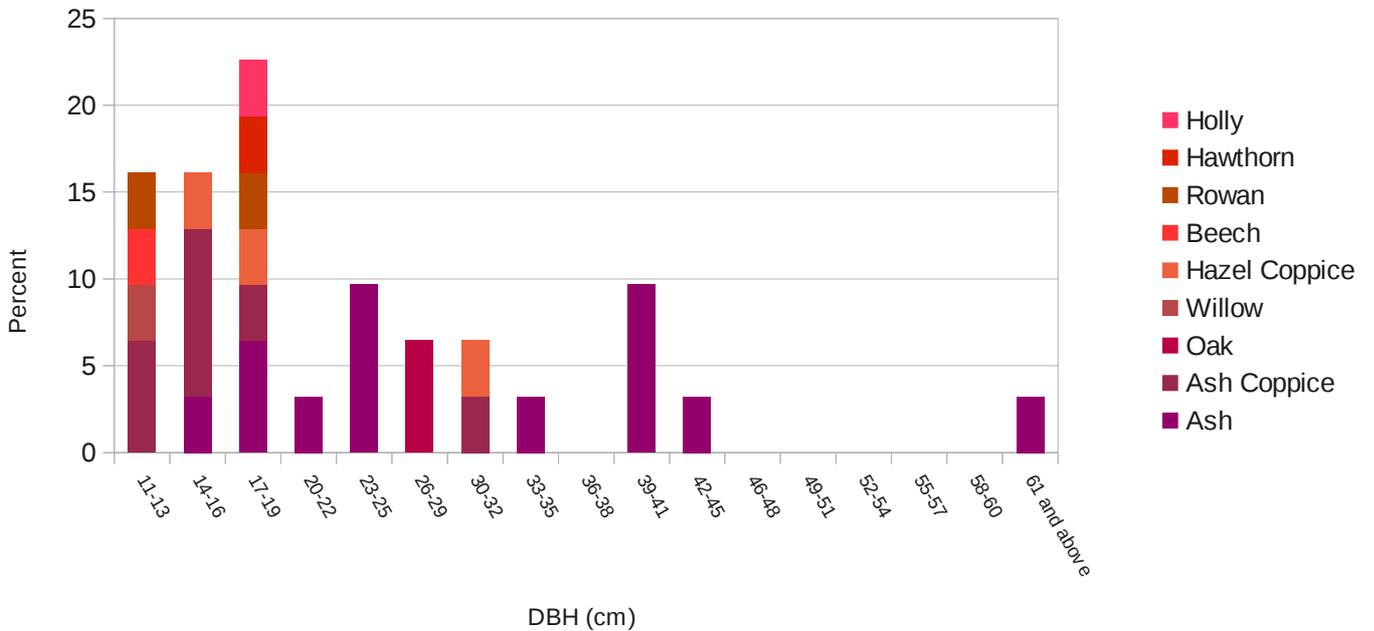
The table and charts below show the results of the analyses:

DBH	<3	7	10	13	16	19	22	25	29	32	35	38	41	45	48	51	54	57	60	60>	Total
Sycamore	31	67	6	2	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	5
Sycamore Coppice	47	128	35	6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Ash	14	13	2	0	1	2	1	3	0	0	1	0	3	1	0	0	0	0	0	1	13
Ash Coppice	1	12	2	2	3	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	7
Oak	1	10	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Blackthorn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Willow	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Cherry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hazel	16	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hazel Coppice	28	68	7	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
Elder	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beech	1	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Rowan	0	6	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Hawthorn	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Holly	4	19	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Larch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2
Douglas fir	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	2	3
Scots Pine	0	0	0	0	0	0	0	0	1	0	1	1	1	1	0	0	1	0	2	2	10
Norway Spruce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	146	330	55	13	5	9	2	5	3	2	2	1	4	2	1	1	1	1	2	5	59
Total native	68	135	14	5	5	7	1	3	2	2	1	0	3	1	0	0	0	0	0	1	31

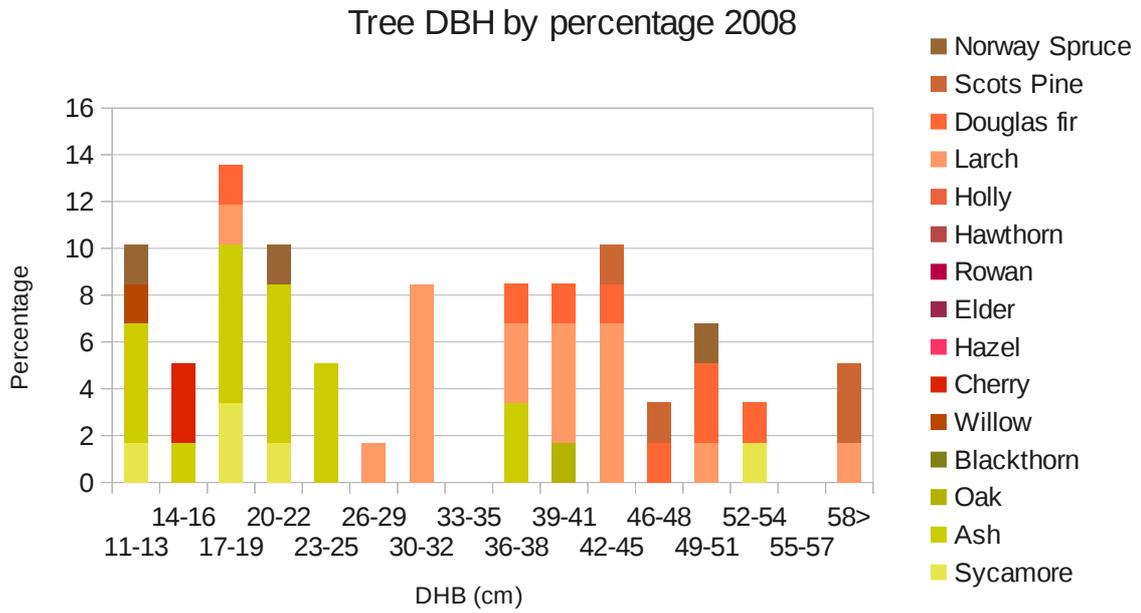
Tree DBH by percentage 2014



Native broadleaf tree DBH by percentage 2014



For a visual comparison the results of analyses done in 2008 are shown below:



Further monitoring will be carried out in 2019.

Appendix 4 – Chainsaw use Risk Assessment

Risk	Level	Precautions
Contact with chain, impact with kickback	M	Full and compliant PPE must be worn i.e chainsaw boots, trousers, gloves and combination helmet. Chain must be kept sharp and kept at correct tension. Chainsaws must be maintained to manufacturers instructions and checked before use. Records of servicing to be kept.
Ignition of fuel	L	Allow machine to cool before refuelling. Refuel site at least 30 metres away from working area and away from sources of ignition.
Exhaust fumes	L	Do not work in confined spaces.
Felling Activities	L	Use safe saw techniques as per NPTC training. Make a thorough assessment of where the weight is in the crown of a tree and the likely direction of fall and where tension or compression may occur. Clear escape routes before felling occurs. Maintain safe working distances of 2.5 times the tree being felled length or 5 metres if cross cutting. Only the operator will work within the danger areas with a spotter nearby.
Flying Debris	L	Ensure PPE worn and safe distances maintained. Clear debris well away from escape routes in all directions. Close footpaths and post lookouts when felling on or near footpaths. Erect safety signs on all public sites.
Manual Handling	L	Ensure all are aware of safe lifting procedures and aid each other lifting big logs.
Noise and Vibration	L	Ear defenders to be worn by anyone within 10 metres of the operator. Be aware of arm vibration limits
Wet, Slippery or Unstable Ground	L	Do not operate chainsaws on slopes or uneven ground where footing could be compromised or in conditions that would impede escape.
Spillage	L	Never refuel with engine running. Fuel can to be labelled. Keep container away from sources of ignition or sunlight. Fuel to be stored appropriately and a fire extinguisher nearby.