## Contents

## Summary of Proposals

#### 1.0 Introduction:

- 1.1 Setting and context
- 1.2 History of the forest

## 2.0 Analysis of previous plan

## 3.0 Background information

- 3.1 Physical site factors (egs of sub headings below)
  - 3.1.1 Geology Soils and landform
  - 3.1.2 Water
  - 3.1.3 Climate
- 3.2 Biodiversity and environmental designations
- 3.3 The existing forest:
  - 3.3.1 Age structure, species and yield class
  - 3.3.2 Access
  - 3.3.3 LISS potential
  - 3.3.4 Current and potential markets
- 3.4 Landscape and landuse
  - 3.4.1 Landscape character and value
  - 3.4.2 Visibility
  - 3.4.3 Neighbouring landuse
- 3.5 Social factors
  - 3.5.1 Recreation
  - 3.5.2 Community
  - 3.5.3 Heritage
- 3.6 Statutory requirements and key external policies

## 4.0 Analysis and Concept

- 4.1 Analysis
- 4.2 Concepts of the plan

## 5.0 Forest Design Plan Proposals

- 5.1 Management
- 5.2 Future habitats and species
- 5.3 Future management
- 5.4 Species tables
- 5.5 Age structure
- 5.6 PAWS restoration
- 5.7 Management of open land
- 5.8 Deer management
- 5.9 Access
- 5.10 Critical success factors

## Support documents: Maps

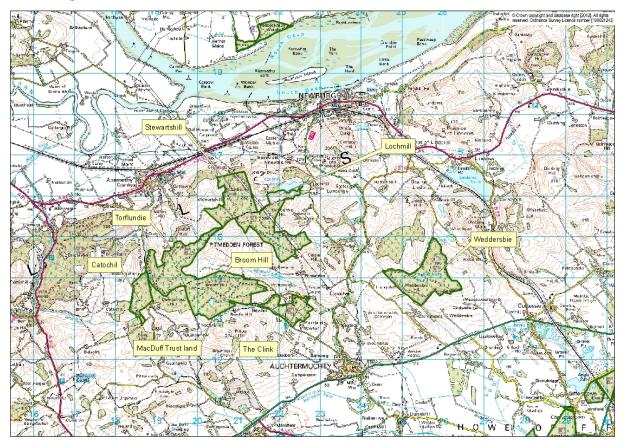
•	Location map	(Map 1)
•	Key Features maps	(Map 2)
•	Concept map Analysis and concept maps	(Map 3)
•	Management maps	(Map 4)
•	Future habitats and management map(s)	(Map 5)
•	Thinning map	(Map 6)

## Appendices:

- i) Consultation record
- ii) Tolerance table
- iii) FDP brief
- iv) Continuous Cover Prescriptions

## 1.0 Introduction:

## 1.1 Setting and context



Pitmedden Forest lies on the ridge tops of the hills between Abernethy and Auchtermuchty. It straddles the boundary between Perth and Kinross and Fife Council areas and can be divided into four areas. The areas to the south west known as Torflundie, Clamieduff and the Clink are the most popular for recreation, as the older, well-thinned stands create attractive open forest. An extensive informal trail network has developed in many of these areas helped by good access and available space for parking along the un-gated forest road linking Auchtermuchty with Abernethy.

Stewartshill to the north-east is made up of much younger stands and attracts less visiting public. A key feature of this area is two transmission power lines bisecting the forest at the eastern side. Catochill Forest on the western side of Abernethy Glen is split from the main part of Pitmedden by a public road and its young plantations have few visitors.

Weddersbie Forest lies in the hills between Auchtermuchty and Lindores in Fife and is remote from any centres of population and as such is infrequently used by the public. It has a mix of unthinned stands and well thinned mature areas, which were extensively damaged during storms in 2012.

In recent years, work carried out in the core block of Pitmedden to better understand and encourage newt populations has resulted in an area of the main block being designated a Special Area of Conservation (SAC) for the great crested newt.

## 1.2 History of the forest

These forests of Pitmedden and Weddersbie were purchased by the Forestry Commission in separate acquisitions from 1937 to 1979. Generally the most easterly blocks were bought earlier than those to the west. The area of Auchtermuchty Common was acquired in 1961 on a long term lease from the MacDuff Trust.

## 2.0 Analysis of previous plan

### 2.1 Aims of previous plan and achievements

The primary aim of the previous plan had been to slow down the rate of felling proposed in its predecessor. Where possible, areas of the forest have been identified for management under Continuous Cover Forestry (CCF), where a new generation of trees is encouraged to regenerate under the older trees rather than clear fell and replant. These areas have a history of being regularly thinned, are on fertile deep rooting soils and have the potential to become more attractive and diverse woodland. If appropriate some intervention may be required to improve the species diversity by planting. Elevated areas of Weddersbie have proved to be more vulnerable and have suffered from recent storm damage with significant areas now requiring clearfell.

In Weddersbie, most of the proposed felling was linked to areas of windblow and these have all now been removed.

The success of broadleaved planting in both forests blocks has been varied. It is thought that lack of weed control and selective browsing by rabbits and deer may have been the cause. Open space has been successfully increased as per the plan although some of these areas are now filling in with conifer regeneration.

## 2.2 How previous plan relates to today's objectives

The previous plan relates well to today's objectives. Further increases in the area managed under CCF continue to fit objectives for past and future improvements to designated sites, European protected species, and recreation interests. A small proportion of these areas have proved to be poor candidates and, as a result, have been given future felling dates so that a more suitable species choice is made in the next rotation. The thinning programme will continue in most areas and more consideration must be given to encouraging regeneration in mature CCF stands.

## 3.0 Background information

## 3.1 Physical site factors

### 3.1.1 Geology Soils and landform

The landforms on which Pitmedden Forest is situated are part of the Devonian lava extrusions and subsequent faulting has resulted in the formation of an escarpment on the northern edge. The resulting soils in higher areas are primarily basic brown earths (1b) (occasionally podsolised) and ranging in depth - these are extremely thin in some areas, with brown rankers (13b) evident. In sloping valleys where water movement is prevalent, brown surface water gleys (7b) can be found. Moving south the landform slopes away gently and takes on the undulating character common to northern Fife. Weddersbie Forest has similar geology to Pitmedden with more typical brown earths (1) varying in depth across the site as the topography changes.

#### 3.1.2 Water

With Pitmedden Forest being located on a hard ridge top there are no major watercourses within the forest. There are a small number of minor burns originating from springs, mires and bogs. The Ballo Burn and Stewarts Hill Burn flow north to the River Tay and the upper reaches of the Glassert Burn flow south east into the River Eden catchment. An unnamed burn flows into Lochmill Loch Site of Special Scientific Interest (SSSI) from Lumbennie Hill plantation.

Weddersbie's main export of water comes from Red Mire in the centre of the forest, which drains to the Weddersbie Den along the south west boundary of the forest. Both these watercourses flow into the Eden towards St Andrews.

When felling and restocking are carried out the Forest and Water Guidelines (5<sup>th</sup> Edition) will be strictly adhered to.

#### 3.1.3 Climate

Due to its ridgeline situation the majority of Pitmedden is exposed to winds from all directions, but outwith this zone more protection is offered by neighbouring landforms. The higher areas of Weddersbie have proved their vulnerability with the damaging winds of 1995 and 2012. This is due in part to exposed ridges protruding further into the Eden Valley and catching the full force of westerly winds. The average rainfall in these blocks is in excess of 741-807mm per annum.

Based on accumulated temperature and moisture deficit maps produced by *Pyatt et al.*, in Pitmedden Forest climatic conditions are described as cool, moist and in most of Weddersbie warm, moist.

DAM's scores range from 10-12 in the lower and more sheltered areas of the forest and up to 13-15 along the high ridges. At the top of the highest hills the score generally does not exceed 18.

## 3.2 Biodiversity and environmental designations

There are a number of designated sites within Pitmedden and Weddersbie Forests and the largest of these is a Special Area of Conservation (SAC) for the great crested newt. Within this there is a small area known as Torflundie Mire previously designated a Site of Special Scientific Interest (SSSI) but now superseded by the SAC.

The Lochmill Loch and surrounding area is a SSSI; important for aquatic flora, otters and scrub heathland, the latter of which falls within FCS ownership.

There is an SWT listed site at the Red Myre in Weddersbie.

The mature areas of Norway spruce, larch and Scots pine are important for resident red squirrels.

Pitmedden and Weddersbie hold locally significant populations of red squirrels which are being monitored in partnership with Fife Red Squirrel Group.

## 3.3 The existing forest:

### 3.3.1 Age structure

The most predominant species across the whole design plan area is Sitka spruce. Older stands are now scattered and often remain as fragmentary elements in mixed stands. However, Sitka spruce planted in the late 80's and 90's (pure or in mixture with Norway spruce) is found extensively in large stands across the whole design area. In some areas yield classes in Sitka spruce can reach 20, but the average across the whole block is perhaps nearer 16.

Scots pine was planted during the 1940's and 1950's in the more sheltered core areas of the forest and much of these have been retained under a Continuous Cover Forestry system (CCF) which now forms the centre of the Special Area of Conservation (SAC). About 40% of Weddesbie's Scots pine in this age class was windblown in the storms of 2012. Japanese larch was also used extensively with early pine planting, but also planted as a pure crop across the main block of Pitmedden.

#### 3.3.2 Access

Both forests are well roaded and many roads are built on bedrock so surfaces tend to be robust with little maintenance required.

Pitmedden Forest is characterised by a central haulage route connecting access points on public roads leading from Abernethy in Perth and Kinross, and Auchtermuchty in Fife. A central section of this road is not owned by FCS but has been maintained as part of the network in recent times. Due to a poor history of gating, Fife council has designated the south side of this road an asserted vehicular right of way and it is used regularly by the public as a shortcut to and from Perth. An additional main haulage route branches off to the north east to access the Stewartshill areas of the forest.

The main access to Weddersbie is via a shared access track through Lumquhat Farm and roads give good access to most parts of the forest.

#### 3.3.3 LISS potential

Many of the older mixed conifer or pure pine stands have had a 'recent' history of thinning and late conversion to CCF has been relatively successfully. Given the recent winds of early 2012, the limiting factor for late conversion lies in the degree of exposure and/or poor rooting depth the higher regions of these forest experience. There are still many stands of Norway spruce and larch located in more sheltered areas, which have responded well to thinning and have potential to be recruited to LISS. Much of the planting carried out in the late 1980's and 1990's contains a high proportion of Sitka spruce and the possibility of future conversion in these stands will be more limited.

#### 3.3.4 Current and potential markets

The current markets for logs from Tay Forest District include James Jones Ltd (Aboyne and Kirriemuir), Windymains (Humbie, East Lothian), James Callander & Son (Falkirk), BSW (Kilmallie, Boat of Garten, Petersmuir) and Ridings (Dumbarton).

Smaller size material serves the palletwood market for James Jones Ltd at Lockerbie and Perthshire Timber Company at Dunkeld.

Small roundwood goes to Norbord (Cowie and Inverness), Iggesund (Workington) and for export. Future markets for small roundwood include Tullis Russell's new Biomass plant at Markinch.

Non-timber products are mostly venison from deer management operations.

### 3.4 Landscape and landuse

#### 3.4.1 Landscape character and value

Both Forests lie in the deeply undulating terrain characteristic of northern Fife. There is a mixture of productive arable lands in the deep soils of the valley floor primarily used for growing wheat and barley (Macaulay capability 3.2-4.2). These give way in the mid to upper slopes to a matrix of improved grazing of varying quality. Only the tops of the rolling hills with their thin soils and poorer upland brown earths are occupied by productive conifer or where greater shelter and soil depth is afforded, broadleaves are more prevalent.

#### 3.4.2 Visibility

Neither Pitmedden nor Weddersbie Forests are prominent in the landscape with local landforms shielding them from population centres of Auchtermuchty and Abernethy. Pitmedden is most visible on its northern edge – however, much of existing plantation was landscaped in the last rotation and despite significant growth it is not obvious in views from the Tay valley. Weddersbie forest is most visible from its southern edge when travelling along the A91.

Internal views are much more important - particularly at main access points, through roads and associated visitor zones. These are generally good given that the well thinned stands of CCF cover the most popular areas.

#### 3.4.3 Neighbouring land use

Much of the land surrounding these forests is semi-improved grass land or rough pasture used for the grazing of sheep and cattle. At Pitmedden two small areas of private forestry at Dunbarrow Hill and Beins Law in Abernethy Glen directly march with FCS boundaries. A small Community woodland has been planted on the south east side of the Clink in Glassarts Glen. There is also a deer farm located at Newhill on the Auchtermuchty side of the forest.

#### 3.5 Social factors

#### 3.5.1 Recreation

Pitmedden Forest is used by a full range of visitors and for many years the Clink, with its attractive well thinned mature stands of mixed conifer, has been popular with local walkers and dog walkers from Auchtermuchty and surrounding area. There is a formal car park provided at the main barrier to the Clink where the main informal trails lead from. There is equestrian interest in the forest with a number of small private stables located around the perimeter of the forest, with most riders arriving on horseback rather than trailer. Every year a long distance endurance ride makes use of forest roads and trails, which form good links to different areas of the region. In recent times the forest has become particularly well known to mountain bikers for its extensive network of 'natural' trails.

Two informal car parks popular with bikers are located along the main forest road, one at the Glen Foot entrance and one at the forest barrier leading to the Stewartshill part of the forest.

There is an extensive network of Rights of Way throughout the forest.

#### 3.5.2 Community

There are a number of residences located within the forest who use the FCS road network for vehicle access. A community group was set up after thinning operations in 2009, when there were concerns that popular informal trails had been damaged. This group has since lapsed and no longer meets.

Pitmedden main block has suffered from antisocial issues such as fly tipping and illegal motorcycle use. This tends to come in bursts rather than being a sustained problem.

### 3.5.3 Heritage

Three unscheduled ancient monuments are present in Pitmedden. These include a burial mound, the Thirlstane and an old ruinous Toll House/inn at Broomhill of which the wall footings survive. FCS will continue to manage these in line with FCS 'Forests and Archeology Guidelines'.

## 3.6 Statutory requirements and key external policies

The Turflundie Wood area of Pitmedden Forest is designated as a Special Area of Conservation (SAC). Part of the Lochmill Loch area is designated a Site of Special Scientific Interest (SSSI).

## 4.0 Analysis and Concept

### 4.1 Analysis

The design concept has been graphically presented in the site analysis and design concept maps (Map 3 and Map 4).

The intention with this plan is to produce a woodland that meets the demands of timber production, landscaping, biodiversity and recreation in a sustainable manner while retaining flexibility to adapt to priority changes in both the short and long term as well as any opportunities that present themselves.

## 4.2 Concepts of the plan

The concept encompasses 5 core areas, each of which is briefly outlined below and graphically presented in Map 3 and Map 4.

#### <u>Timber production</u>

Pitmedden is a true multi-purpose forest with substantial areas of highly productive young Sitka and Norway spruce but also significant areas of mature well thinned larch and pine.

The Scots pine in some areas is of poor quality and in this design plan revision opportunities to diversify with other species such as European larch have been taken.

There are many stands with a good thinning history which were earmarked for clearfell in the previous plan. These have now been considered for conversion to a CCF system of forestry to create a more sustainable and steady production of timber whilst fitting well with biodiversity and recreation objectives. In some areas, notably the Clink, well thinned mature areas are showing few signs of regeneration and intervention may be required to encourage the development of an understorey.

Weddersbie has a history of suffering from windblow and the winds of January 2012 have removed large areas of high quality pine. These areas are to be clear felled and restocked with appropriate species whilst take all opportunities to retain wind firm forest edges to protect young crops within.

Some of the Mac Duff Trust area is difficult to access for machinery and wet ground and a poor thinning history has led to instability in some areas of crop. This combination of factors has led to the proposal to convert a significant area to broadleaved woodland.

#### Landscaping

The majority of Pitmedden Block is not visible from any major population centres or road networks. The region of forest around Pitcairlie Hill is the only prominent path of the forest and is visible from the Abernethy – Newburgh road seen in Map 7 (view shed analysis). Although the landscaping has been much improved over the course of the last plan a further review has been undertaken to fine tune the forest edge in this area.

In Weddersbie a similar review has been undertaken of areas visible from the A91 and this is reflected in future management proposals.

#### Recreation

Many areas of Pitmedden Forest are particularly popular with walkers, mountain bikers and horse riders. There is an extensive network of informal trails throughout the wooded area - however mountain bikers use the well thinned Turflundie Wood area most intensively. During forest thinning operations opportunities could be taken to improve the visual amenity along roadsides and popular trails whilst minimising damage from harvesting machinery. Particular emphasis on visual improvements to woodland at the main forest entrances and access roads will provide a more welcoming first impression to visitors.

Opportunities to increase the CCF area within the wood as a whole will make more areas of the forest attractive to visitors and potentially take pressure off heavily used areas. The Clink, which is particularly popular with local walkers and dog walkers, is already managed under CCF principals and has a varied mix of species. Opportunities exist to further improve this are by reducing the amount of invasive Western hemlock and Sitka spruce and increasing the species variety.

#### Conservation

The significance of Pitmedden as a site with a nationally important amphibian population is recognised by the designation of a large part of this forest as SAC. Sylivicultural management, that will include more CCF along with establishment of more broadleaved species near watercourses and on wet ground, will help to maintain and hopefully expand this interest.

There will be a programme of pond management and creation of hibernacula to benefit amphibians, particularly great crested newts. This work will be focused on the SAC but opportunities to improve same environmental characteristics throughout these woodlands will be taken.

Some areas are locally significant as open habitat, most notably the heath at Lochmill Loch SSSI. These areas will be managed to maintain and protect their habitat structure and the favourable condition of notified features.

Maintaining the high proportion of mixed conifer in CCF throughout Pitmedden and Weddersbie will also be of considerable benefit to providing suitable habitat for red squirrels. Plant selection of broadleaved species will consider the impact that these may have on red squirrel conservation (avoiding planting large seed producing species where these could create new areas of habitat more suitable to grey squirrels).

#### **Broadleaved planting**

In Pitmedden there has been extensive broadleaf planting carried out over the course of the last plan. Many areas have been unsuccessful and a review is necessary to decide a course of action for their improvement and where possible expansion. In Weddersbie broadleaf planting along forest edges and riparian zones require similar treatment but here opportunities exist to improve habitat links by expanding these plantings along riparian zones.

### <u>Heritage</u>

Any existing unscheduled monuments within the forest will be managed in line with the FCS Archaeology guidelines.

## 5.0 Forest Design Plan Proposals

## 5.1 Management

Within the next 10 year approval period all clearfells will deal with crops that require urgent attention. This makes up areas already windblown or liable to suffer from windblow in the next two periods. Within the Pitmedden SAC the preference is to avoid clearfell. However, a small area has demonstrated instability due to a poor thinning history and will be removed in the second half of the approval period.

In Weddersbie a large clearfell of windblown trees from the 2012 January gales is the biggest single intervention planned in this block.

The proportion of CCF in Pitmedden has increased in part to allow sensitive management of areas where great crested newt ponds are located and to fit with the theme of encouraging recreational access to the wider woodland. Thinning will continue in these areas on a standard cycle and opportunities taken to remove isolated pockets of Sitka spruce to prevent further seeding.

Commercial areas of the forest will be marketed and harvested in such a way as to maximise return on the initial investment whilst maintaining a district-wide steady rate of production.

Management prescriptions for areas of continuous cover forestry are outlined in Appendix III, but detailed prescriptions form part of the Coupe Work Plans produced for internal approval two years before an operation is to take place.

## 5.2 Future habitats and species

With much of the forests under a CCF prescription or still too young to clearfell, there are only a small number of areas where restocking will take place within the plan period.

Over both forests there are general increases in the amounts of Norway spruce and European larch throughout the course of the approval period and subsequent years. This fits well with red squirrel conservation objectives.

The isolated area at Auchtermuchty Common will be restocked with broadleaves better fitting the poor access this area experiences.

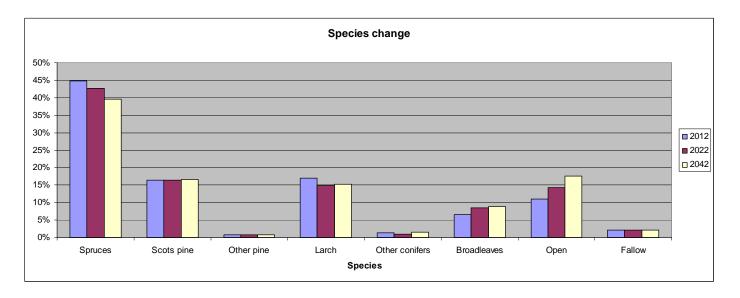
Areas of long term retention and CCF will continue to be thinned and under-planting and regeneration used to blur the sharper edges between dominant species.

Restocking will be done by selecting the species that best suit the ground conditions and the objectives of management. These are assessed after felling using a combination of plant indicator species and soil pits to gauge soil moisture and fertility.

## 5.3 Future management

Successive felling periods are geared towards poorer crops which are unlikely to produce quality timber or younger crop still undergoing thinning but may not result in a stable crop. A significant portion of Pitmedden is second rotation plantation some of which is reaching first thinning age. Maintenance of boundary fences to exclude stock will continue.

## 5.4 Species tables



The change of species is not dramatic over the period of the plan. There will a slight increase in open space and at the expense of spruce and an increase in broadleaved planting although we envisage this percentage will be increased by natural regeneration, which we will encourage.

### 5.5 Age structure



Similarly the changes to age structure are not unexpected, particularly felling much of the spruce planted in the 1940s.

## 5.6 Plantations on Ancient Woodland sites (PAWS) restoration

There are no areas of PAWS in Pitmedden or Weddersbie.

## 5.7 Management of open land

There is very little open ground in Pitmedden or Weddersbie. The most significant areas are those found within the Lochmill SSSI which is managed as open heath under an SNH management plan. Significant areas of open ground can also be found beneath Scottish and Southern Electric and Scottish Power transmission lines and these are kept free of trees and scrub for safety reasons.

Red Myre and the mire at Reediehill, as well as several small wet flushes, will be managed as open land.

Patches of open ground can be found at failed areas of broadleaved planting - however, these will be replanted or enriched over the course of this plan.

## 5.8 Deer management

The forests of Pitmedden and Weddersbie cover nearly 670ha. The predominant species is roe deer. The forests are enclosed by stock fences of various ages. Both woods are surrounded by rolling arable land and mixed woods. Much of this land is also used for mixed sporting interests and with only stock fences, there is medium to high migration of deer across boundaries. The current annual cull is around 60 roe deer.

The overall plan will be to continue to monitor deer populations and trends by dung counts and culls to reduce densities to less than 8/100ha. In addition, we will monitor impact of deer on young restocking, areas of natural regeneration and important habitats.

The Forest District maintains a Forest Deer Management Strategy for all its forest blocks as a mechanism for identifying deer management issues at both strategic and operational level. Feeding into the strategy is captured data from cull records, boundary fence condition, browsing impacts, and estimated deer population figures within forest blocks and on neighbouring land. This information is collected by local staff and external bodies to give a holistic view of deer dynamics effecting individual forest blocks.

#### 5.9 Access

Both Pitmedden and Weddresbie are serviced by a good road network and there is no requirement to construct additional roads. Access roads to private dwellings within the forest at Turflundie and Stewartshill will be maintained in accordance with local agreements with residents. Public access taken along the asserted right of way between Auchtermuchty and Glen foot will continue to be at the users' risk. However, the road will continue to be maintained as required for forestry purposes.

#### 5.10 Critical success factors

Production: Failure to carry out the thinning and felling proposed within the period of the plan would compromise the conversion to CCF.

Recreation: Poor management of the proposed thinning and felling could compromise the current recreational interest and quality.

Biodiversity: Biodiversity could be reduced if agreed management is not effectively achieved. This might result in notified features on designated sites moving into less favourable condition.

## Appendix I: Forest Design Plan Consultation Record

A wide range of consultees were approached formally by letter and this list is available by contacting the Tay Forest District Office Dunkeld. A Community drop in day was held in Newburgh Institute on the 8<sup>th</sup> March 2012 2pm- 8.30pm which was well attended and a summary of responses has been included at the bottom of the following table.

Statutory Consultee	Date contacted	Date response recieved	Issue raised	Forest District Response
RSPB	15 <sup>th</sup> February 2012	8 <sup>th</sup> March 2012	Consideration should be given to rare and protected raptors.	This forest design plan revision does not outline any changes that will affect woodlands where these birds are found.
Fife Council	15 <sup>th</sup> February 2012	No reply		
Perth and Kinross Council	15 <sup>th</sup> February 2012	No reply		
Scottish Natural Heritage	15 <sup>th</sup> February 2012	7 March 2012	Additional protection should be given to newt ponds suffering from disturbance in popular recreation areas. Also consideration given to protected species which may be affected by forest operations.	The Great Crested Newt management plan written by David Bell outlines management proposals for all the newt ponds within Pitmedden Forest.
SEPA	15 <sup>th</sup> February 2012	No reply		
Scottish & Southern Electricity	15 <sup>th</sup> February 2012	No reply		
Scottish power	15 <sup>th</sup> February 2012	No reply		
Fife Coast and Countryside Trust			Would like to see some more open water in Claimieduff and Red Myre. Pedestrian access gate required to Weddersbie from Lumquhat.	There is an approved plan for pond and wetland management, primarily relating to the amphibian assemblage. This plan will involve some increase in open water.  FCS will survey the gate area with a view to installing a pedestrian access gate.

Perth & Kinross Red Squirrel Group	Community drop in	Would like to see grey squirrel control as this is the only 'stronghold' forest in the area without such measures.	Although FCS will not rule out grey squirrel control, we will endeavour to use habitat condition as our primary process in red squirrel conservation; maintaining this as an important site for the species in this part of Scotland. The tree species balance and move towards CCF will help to maintain habitat more suited to red squirrels.  "Stronghold" may be a misleading term, as it is used to designate national sites within the Saving Scotland's Red Squirrels strategy and these woodlands are not part of that designation.
Mountain Bikers	Community drop in	Would like some ongoing development /maintenance of	FCS will work with local mountain bikers to ensure
		bike trails and co-existence of	damage from harvesting
		all forest users.	operations is minimised.
MacDuff Trust		Would like to assert the	FCS will survey the boundary
		boundary between FCS owned	with a view to maintain clear
		ground and Mac Duff Trust	delineation between the two
		land by fixing the fence.	ownerships.

# Appendix II: Tolerance Table

	Adjustment to felling coupe boundaries	Timing of restocking	Change to species	Windthrow response
FC Approval not normally required	0.5 ha or 5% of coupe – whichever is less.	Variation of less than 2 planting seasons from standard restock year, 4 years post-felling.	Up to 5% species exchange	Up to 1.0 ha.
Approval by exchange of letters and map	0.5 ha to 2.0 ha or 10% of coupe – whichever is less.		>15% species change	1.0 ha to 5.0 ha  – if mainly windblown trees. Between 5.0 ha to 10.0 ha in areas of low sensitivity.
Approval by formal plan amendment	Greater than 2.0 ha or 10% of coupe.	Variation of greater than 2 planting seasons from standard restock year, 4 years post-felling.	Change from broadleaf to Conifer	Greater than 5.0 ha in areas of medium to high sensitivity.
			Reduction in native broadleaves by >5% Reduction of >10% of productive net area	

## Appendix III. Design Plan Brief

The management of the Forestry Commission Scotland's national forest estate is guided by Scottish Forestry Strategy (SFS) 2006, which sets out seven key themes:-

- Climate change
- Timber
- Business development
- Community development
- Access & Health
- Environmental quality
- Biodiversity

#### Table 1. Relevant issues under the SFS and Tay Forest District Key Themes

#### Climate Change

- 1) Significant areas of Pitmedden and Weddesbie are currently managed under Continuous Cover Forestry (CCF). Opportunities exist to increase the area of CCF as younger crops mature where exposure is not the limiting factor.
- 2) Some areas of existing CCF forest areas are showing poor regeneration. Further intervention may be required to encourage the establishment of the second rotation.

#### Timber

- 3) Weddersbie and Pitmedden grow high quality Norway and Sitka Spruce. In Weddesbie Scots Pine is generally displays better form than in Pitmedden.

  Opportunities exits to increase the amount of European Larch in place of Scots pine in some areas.
- 4) Some parts of Pitmedden Forest in the Auchtermuchty Common area, have poor access and resulting thinning history.
  - Look for opportunities to improve access for clearfell and where this is not possible, suggest more suitable species choice for the next rotation.
- 5) The success of broadleaf plantings has been poor in some areas of Pitmedden. Carry out a review of these areas to decide options for restocking.

#### Access and Health

- 6) The Clink is the most heavily used part of the forest by walkers although informal trails can be found throughout Pitmedden and Weddesbie.
  - Continue to manage these woodlands with recreation as the primary objective.
- 7) Formal waymarked trails installed by other agencies exist in Pitmedden and are now in a poor state of repair.
  - Consult with agencies over the removal or renewal of these markers
- 8) Mountain biking has become increasingly popular in all areas of the forest with a focus in the Broom Hill and Turflundie areas. The forests continue to be popular with horse riders. Continue to maintain current visitor provision and identify visitor zones to further improve the appearance of internal views from popular trails, forest roads and public roadsides during thinning operations.

#### **Business Development**

• 9) The forest is popular as an event base for horse endurance rides and Mountain Bike racing.

Continue to support events in the forest and increase the potential for local tourist economy by improving the visual amenity along forest roads and trails.

#### **Community Development**

Local community views on the draft Forest Design Plan will be sort through a public drop in event and direct consultation with local community councils.

#### Biodiversity.

- 11) A series of ponds created over 10 years ago have since become internationally important
  for Great Crested Newts (GCN). The area has recently been designated as a Special area of
  Conservation (the highest level of protection for designated sites).
   Combine the Forest Design Plan with a CGN management plan for the SAC (and other non
  designated areas), the aim of this will be to maintain and enhance the amphibian assemblage
  with particular reference to Great Crested Newts within the design plan area.
- 12) There is an SWT listed site at the Red Myre in Weddersbie. The Lochmill area of Pitmedden is important for aquatic flora, and heathland and is designated as a Site of Special Scientific Interest. Other wetlands and mires, such as Claimieduff, are locally important.

FCS will work with outside agencies to maintain and improve these habitats in order to maintain and enhance their designated features and wildlife value.

#### Landscape

• 13) Generally Pitmedden is not prominent in the landscape. The surrounding landforms shield views from population centres in the south. Viewed from the north the forest is most visible along the middle regions of Pitcairlie Hill. A double set of High voltage pylons bisect the forest at this point.

Review this area during the plan revision to ensure existing proposals do not compromise external views.

# Appendix IV. Continuous Cover Prescriptions

Compt range	Reason for selection	Long-term structure* or objective** and expected species	Silvicultural system	CCF: Rotation – Conversion - Return period (years)	BLVD: Target tree cover (%) - Timescale (years)	Observations (e.g. likely barriers to achieving objective)	Next Treat- ment	Proposed monitoring
8208 e,h,I,I,m	High visibility recreation welcome zone	Simple SP, NS, Be	Single tree selection	150 - 20 - 10	40% current	8208h light thinning when clearfelling adjacent coupe, favour SP and BLs. Elsewhere thin to favour deepest NS/Be crowns, clean all deadwood and suppressed tress to give >4m spacing, remove roadside SS & suppressed NS/LC, select & retain specimen roadside trees.	2014	FDP revision
8209 8210	Well thinned SP, SS , NS, JL & BLs	Complex SP, NS, JL, BLs	Irregular shelterwood	150 – 100 - 5	20%	Thin to 20 - 25m2 /ha over 1 thinning or by selective chemical thinning to favour pine and	2015	FDP revision

			larch regeneration.	
			Remove isolated SS	
			from the Be.	
			Consider Birch	
			Rowan under	
			planting in SP.	
			Remove SS	
			windblow in 8210.	

8211 8214a,i 8215c	Variably thinned, older SP/JL and SS some thinning, younger SS unthinned, but ready	Complex SP, SS, JL, BLs	Irregular shelterwood	150 – 100 - 5	20%	Thin to 20 - 25 m2 /ha over 2-3 thinnings in older SP and Larch and 30-35 for the shade bearing spruce, remove poor form trees. Some older spruce areas at the SE end may be vulnerable to windblow and should be thinned more cautiously or group felled. Thin younger SS to maximise logs and potentially clearfell normal rotation. Fell 8214f – the unthinned SS/SP edge belt between the forest road and field as too late to rescue. Plant with	2013	FDP revision
						field as too late to		

Clink 8201	Mostly well thinned	Complex Larch,	Irregular	150 – 50 - 7	30%	Maintain/ add to	FDP revision
8202	and on good soils	Be, CP, SP, NS,	shelterwood			the current species	
	with good species	SS, BLs				range by under-	
	mix. High profile					planting the Larch	
	visitor zone.					and the mature SS	
						in the central	
						hollow with some	
						DF, NS, EL and	
						WRC.	
						Thin the WH in	
						favour of AH. Much	
						of the area is	
						already at a BA low	
						enough to allow	
						regeneration or	
						under-planting and	
						so future thinning	
						should only target	
						the areas with a BA	
						higher than	
						required for	
						regeneration.	
						The Beech on the	
						steep NW edge is	
						going to be difficult	
						to manage for	
						anything other than	
						Beech and so	
						thinning should aim	

					to create large enough holes to plant mixed broadleaves.	
Weddersbie	Slightly under- thinned, predominantly SP. Fairly exposed and some potential stability issues.	Simple SP with some SS/NS which may not be an appropriate CCF crop.	Irregular shelterwood	150 – 30 - 7	Thin the SP over 2-3 thinnings to a BA of 20-25m2 and thin the spruce to 30-35 m2.	FDP revision