

# REVISED PROPOSAL & BUSINESS PLAN



A Phased Approach: Bringing Taymount Wood into Community Ownership
Investing in our Future



Proposal prepared by WSWG SCIO Board of Trustees for its

Revised CATS Application

September 2023

Scottish Charitable Incorporated Organisation (SCIO) SCO51682

#### **WSWG Position Statement**

This revised Proposal and Business Plan has been produced to reconcile the aspirations of the WSWG CATS Project as submitted in December 2022 and the concerns and recommendations of the CATS Panel and Forestry and Land Scotland in their response in March 2023.

The contextual information presented in the comprehensive suite of documents included in the original CATS Application in 2022 is still largely relevant and as such still contributes to the overall WSWG position even in now seeking only to bring Taymount Wood into community ownership initially.

Due to the scaling down in this revised proposition, much is changed from what was in the original Proposal, Business Plan and CATS Application Form documents. Apart from some minor rescheduling of felling operations and timber income in relation to the roadside compartment previously designated for (and still potentially needed for) the Taymount Hub, the Woodland Management Plan for Taymount Wood remains unchanged. A great deal has changed in respect of the portfolio of additional income generating community enterprises.

Other than where they refer to Five Mile Wood or infrastructure which has been altered in the Revised Proposal as set out below, most of the original Appendices to the Proposal 2022, Woodland Management Plan and Business Plan 2022 are still valid and may provide useful reference. Specific exceptions to this are Appendices BP5, BP8, BP9a and BP9b, updated versions of which are appended to the Revised Proposal and Business Plan.

In preparing this Revised Proposal, the WSWG Board has sought and used advice and support from:

Third Sector Interface
Evaluation Support Scotland
Social Value Lab
P&K Business Gateway
FirstPort
PKC Community Asset Transfer Officer
P&K Health and Social Care Partnership
Growbiz
Scottish Water
SSEN
COSS
Numerous professionals in our membership and local community

"In a week where our screens and front pages have shared with us the State of Nature Report 2023 and the sad betrayal of the iconic Sycamore Gap tree, we have seen the full spectrum of what Nature means to us from the highest scientific perspective to the keenest spiritual, aesthetic and cultural perspective in the visceral reaction of ordinary people on environmental degradation by the human hand.

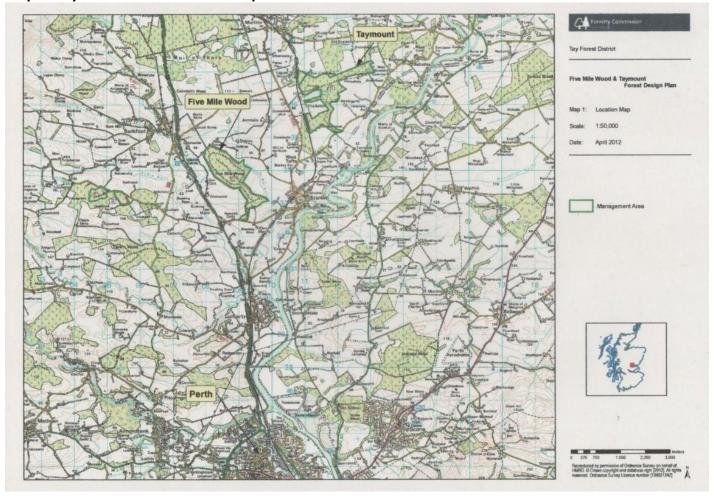
WSWG hopes that this report will ensure that the Wildwood Project will go ahead at Taymount Wood by whatever means is necessary.

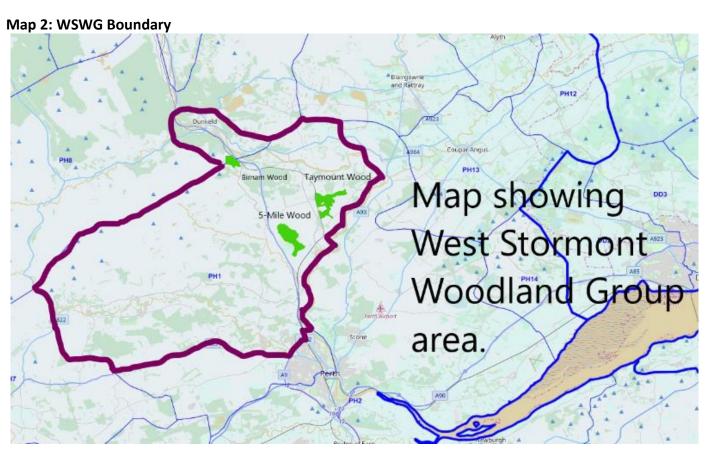
Thank you."

The WSWG Board of Trustees.

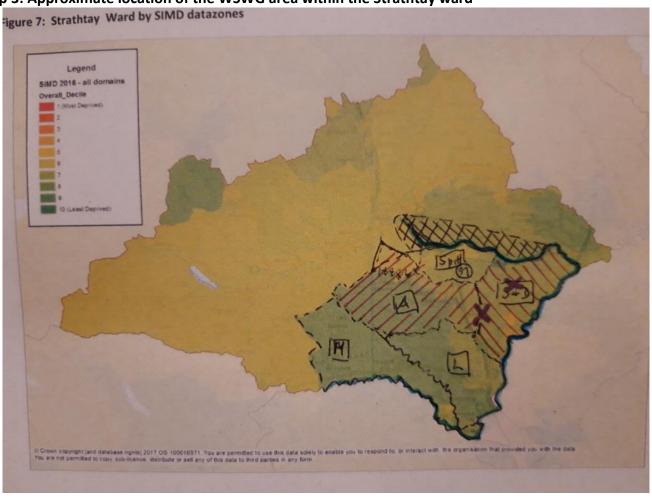
#### **Maps**

Map 1: Taymount Wood Location map

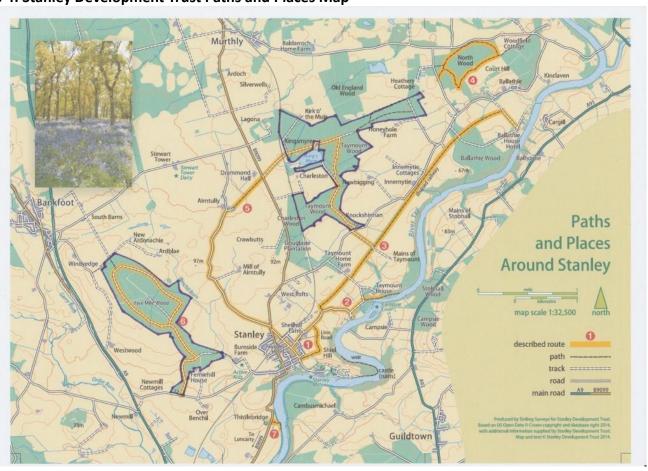




Map 3: Approximate location of the WSWG area within the Strathtay ward



Map 4: Stanley Development Trust Paths and Places Map



#### **Executive Summary**

- The WSWG Project is founded on the principles and ethos of a Wellbeing Economy. On this basis, in this Business Plan, we present the WSWG Project as two integrated components as follows, both of which are designed to deliver community benefit:
  - a. WSWG Charitable Activities and Services
  - b. WSWG Enterprises
- Transfer of forest and land ownership to local communities can make a highly positive contribution to achieving Scotland's stated goal of a cleaner, greener and healthier future. The CATS scheme has empowered and enabled communities to take responsibility for the future, bringing multiple benefits to both the woodlands and the communities concerned.
- Taymount Wood is located north of Stanley and within the circle of settlements in the more densely populated south-eastern third of the rural Strathtay Ward in lowland Perthshire. The population of Strathtay ward is 12,841 in around 5,975 households. The City of Perth with a population of some 49,500 is about 6 miles from the woodland. WSWG estimates that from half to two thirds of the Strathtay population live in the WSWG area: 7,000 people in 3,250 households.
- Based on the current valuation, the purchase cost of Taymount Wood will be £1.85m. Whilst a discount may be available in principle, WSWG is proceeding on the basis of a £0 discount at this stage, giving an anticipated cost of acquisition of 1.85m, plus conveyancing and legal costs. This equates to £310 investment per household in the Strathtay ward for acquisition of the woods.

#### > Community support

Two community consultations were conducted (February-March 2021) and (October 2022), the results of which showed overwhelming support for the project from those that responded. Over the two combined consultations, over 90% showed strong or very strong support for WSWG proposals for Ecoforestry, Climate and Biodiversity and Access and Accessibility.

#### Action on Climate and Biodiversity

To address the interlocked climate and ecological emergency with the urgency it warrants and, with a community mandate from the afore-mentioned consultations, we have set nature recovery and carbon sequestration as the top priority in our social-environmental economic strategy. This is reflected in the early stage of forest restructuring for nature recovery and with the introduction of Living Forest enterprises. The intention is for a low climate and ecological footprint across all WSWG's operations and activities.

#### > Financial viability

WSWG's mission for nature recovery and climate mitigation sees a diminishing reliance on timber sales over time, more than compensated by developing a spectrum of Living Forest income streams which contribute to the woodland ecosystem and diversify community benefit from the woods. The financial projections in the revised Wildwood Project demonstrate economic viability and sustainability, predicting self-sufficiency for this baseline programme after an initial injection of start-up funding for the first two years.

#### Community Wellbeing and Resilience

Diversification of how the woods are used for community benefit will improve community and individual wellbeing and resilience. Given the still deteriorating climate and biodiversity emergencies, as reiterated in the recently published IPCC Report 2023 and State of Nature Report 2023, for WSWG, managing Taymount Wood for Nature Recovery is the primary Community Benefit of its Proposal.

#### In conclusion

We believe that with the proposed governance and operational structures, careful management and innovative programmes of fundraising and income generation that the long-term future of Taymount Wood as a sustainable community owned and professionally staffed enterprise can be assured.



#### **Wildwood Project**

- Woodland Management Plan for Nature Recovery:
  - Living Forest 80% of woodland area
  - Sustainable timber under LISS 20% of woodland area
- Year-Round Activities Programmes and budgets
  - themed around 6 categories of the WSWG Window on the Woods Vision
  - developed through staff-supported Community Working Groups, rising from one or two groups (Paths and Nature Group and Community Wellbeing Group) to potentially a group for each theme.
- Access and information improvements
- Employment: 3 paid roles
  - Forestry, Ecology and Site Manager
  - Living Forest Enterprise Developer
  - Office Manager/Fundraiser
- Income generation:

#### **Woodland Enterprises**

- Living Forest enterprises
- Sustainable timber enterprise

(3 days per week)

(1 day per week)

(1 day per week)

#### **Community Enterprises**

- CWG Pop-up enterprises
- Ecotourism enterprise: Burmieston in the Trees

#### **Wildwood Project Benefits**

#### **Benefits Programme**

Woodland Management Programme

# Environmental Wellbeing and Resilience benefits

Ecosystem benefits from Ecoforestry for the Planet:

- rapid Nature Recovery incorporated with
- increasing Carbon storage and sequestration
- Community Wellbeing Programme

#### **Human Wellbeing and Resilience benefits**

Community Benefits through wide-ranging Forest Diversification for People:

- staff-supported, Year-Round Activities programmes
- improving access and information
- ecotourism tree tents (local business investor)
- 1 full time job equivalent (WSWG)
- additional employment in ecotourism business
- project income /self-sufficient baseline programme

Community benefits in 100 and 200 years' time:

- a thriving woodland of veteran trees, rich wildlife and a much appreciated, deep rooted sense of place and wellbeing.

#### **Acknowledgements**

WSWG would like to thank all those who have contributed funding to the development of the WSWG Project to date.

#### **Public funding:**

Scottish Land Fund Stage 1 Development Funding

Perth and Kinross Council Community Investment Fund (two awards)

Community Learning Exchange Exchange visits to Aigas Community Woodland and Borders Forest Trust Community

Woodlands at Carrifran and Eshiels

#### **Private funding:**

Highland Community Energy Society (Littleton Burn Hydro Scheme) via Energy4All (2021, 2022 and 2023) WSWG Website donations
Stanley Store Plastic Bag Fund
WSWG Volunteers and other Donors

WSWG would also like to thank, individually and collectively, all core and other WSWG Volunteers, Members, Associates and the many other people who have invested so much time, individually and collectively, in the development of the WSWG Project so far.

WSWG also thanks the many agencies and other organisations which have supported and advised on the revision of the WSWG Proposal during 2023.

<u>www.weststormontwoodlandgroup.scot</u> www.facebook.com/West-Stormont-Woodland-Group-250205992353688/

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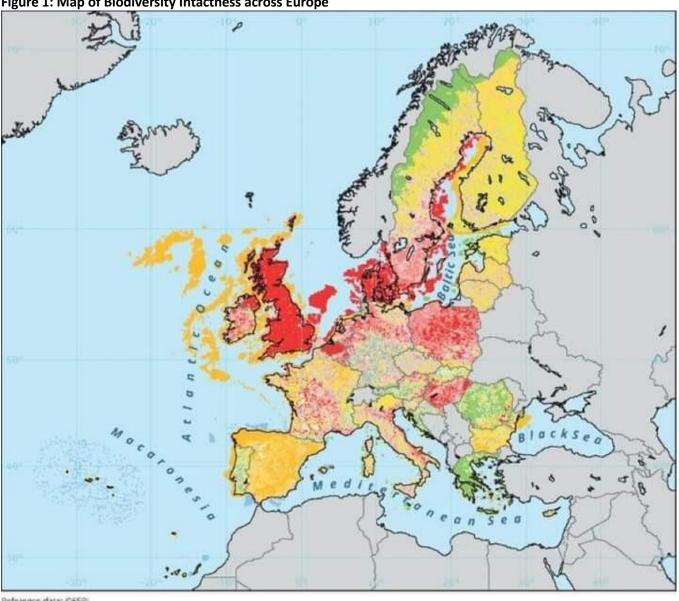
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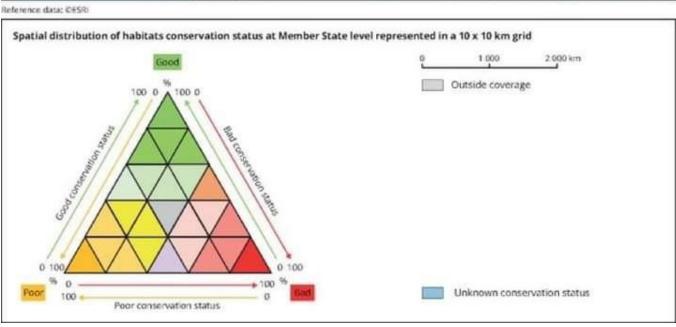


## **Community Benefit and the Ecological Emergencies:**

## 189<sup>th</sup> in the World and Summer 2023 the hottest on record – No better Motivation for Action

Figure 1: Map of Biodiversity Intactness across Europe

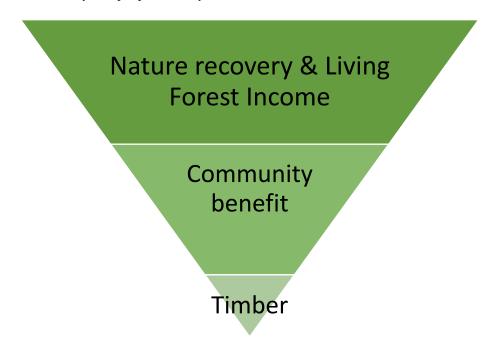




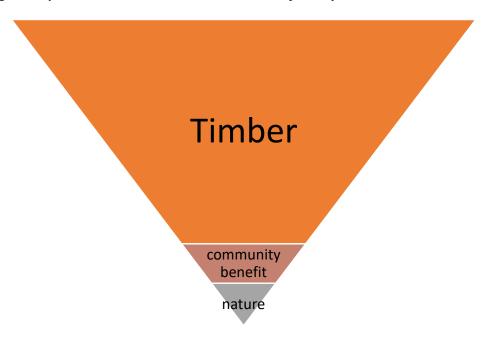
So urgent is the need for massive collective action on the dual climate and biodiversity emergencies that we just have to take our perspectives out of their comfort zones and grasp the need to break free of the conventions and norms that have held back meaningful action on these crises for literally decades. That urgency is eloquently summed up by the UN secretary general, António Guterres, speaking on the IPCC report 2023: "This report is a clarion call to massively fast-track climate efforts by every country and every sector and on every timeframe. Our world needs climate action on all fronts: everything, everywhere, all at once." WSWG since its inception in 2018 has been putting these words into practice as evidenced by its actions and writings to date in relation to this asset transfer from FLS. WSWG aims for Taymount Wood to be an exemplar in what can be done to help stem and turn around the biodiversity emergency in woodlands.

Figure 2:

a. WSWG vision and plans for forest outputs:



b. Management priorities under commercial investment forestry interests



For WSWG, managing Taymount Wood for Nature Recovery is the primary Community Benefit of its Proposal.

#### **Climate and Ecological Statement**

The dual Ecological and Climate Emergency is an existential threat to humanity. An emergency of such gravity demands an emergency response. The WSWG business plan addresses this at every level. We will harness the environmental and socio-economic potential of these woodlands to help drive the systemic change required to herald in a regenerative and sustainable, nature rich wellbeing economy that protects-not destroys our life support systems.

#### **Community Benefit Statement**

The WSWG Project is designed to bring community benefit through both its charitable activities and services and its enterprises, bringing direct gains to all who participate in the project. Through its wider purpose of action for the ecological and climate emergencies, the WSWG Project will bring benefit for all in our local community and beyond.

#### **Wellbeing Economy Statement**

A Wellbeing Economy is a top priority for the Scottish Government and WSWG is committed to contributing to this transition through its many themed activities, services and enterprises. The SROI Forecast presented in this Business Plan illustrates the values-system by which the community benefit delivered through the WSWG project can be measured in a Wellbeing Economy.

"We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect."

Aldo Leopold (1887-1948), renowned scientist, scholar, exceptional teacher, philosopher, and gifted writer.

"A lightly greenwashed version of the status quo will never save us from the catastrophic consequences of climate change.

There has to be a boldness and a recapturing of the utopian imagination"

Naomi Klein, renowned author and Canadian activist

#### **Background to presenting a revised CATS Proposal**

#### Addressing specific CATS recommendations

Following a meeting with Forestry and Land Scotland and Scottish Forestry on 30 May 2023, WSWG submitted its full written response to the CATS feedback of 10 March 2023 in June 2023. The following reflects issues which were left to be additionally addressed during the agreed extension period for submission of a Revised Proposal.

#### i. A phased approach to acquisition

#### **CATS Recommendation 1**

"The Panel recognises that raising the capital funding to acquire both woodlands is very challenging. The Panel recognises that FLS has stated its intention to dispose of both woodlands but believes that FLS should engage in further discussion on the options and timescales. This could allow WSWG to take a phased approach."

The goal WSWG shares with its members and local community is to bring both Taymount Wood and Five Mile Wood into community ownership, a big challenge to which WSWG is thoroughly committed.

Shortly after the CATS Application for both woods was submitted in December 2022, a revaluation of the woods saw an increase of £800,000 (33%), raising the combined value from £2.4 million to £3.2 million.

Given the enormity of the funding challenge and FLS concerns about the community taking on two woods in one go, WSWG agreed to adopt a phased approach to acquisition. WSWG will therefore be seeking to purchase Taymount Wood first, with an option to buy Five Mile Wood within the following five years during which time FLS have agreed to withhold Five Mile Wood from sale on the open market.

#### ii. A simplified core budget

#### **CATS Recommendation 2**

"That WSWG reviews the income generation and costs in the business plan to come up with a simplified core budget, which does not rely so heavily on substantial public funding on an ongoing basis."

(Note: FLS has acknowledged that the term "public funding" should have read "external and third party funding".)

For its Revised Proposal, WSWG has presented its core commitment at a reduced scale with only essential costs more aligned with the aims of a wildwood with minimal activity in the woodland, which will provide a more robust business model and lower risk operational baseline for the WSWG Project to deliver and hopefully grow from. This Wildwood Project is self-funding beyond external fundraising for 2-year start-up investment.

The Staffing Plan has been tailored accordingly to fit the phased approach and reduced core budget, as has the baseline Community Benefit Programme. This could expand depending on the level of core and other volunteer engagement which develops from this smaller operational scale. The focus will be strongly on Taymount Wood but with the prospect of bringing Five Mile Wood into community ownership, WSWG still intends to run community activities in Five Mile Wood on a similar basis as now.

WSWG would hope very much for the programme at Taymount Wood to expand once the Wildwood Project is established, up and running. As such, it presents its provisional medium and long term priorities in this Revised Proposal as a portfolio of "Fundable Projects on the Horizon" which will be progressed according to community circumstances at the time and the availability of funding and other necessary

resources. Additional staff time, either expanding the part time baseline working hours of core staff or additional posts will be addressed though Fundable Projects. With less staff time in the core budget available for fundraising, it can be expected that there will be markedly more dependence on volunteers for this activity.

#### iii. Forest management options for timber

#### **CATS Recommendation 3**

"That WSWG reviews the forest management options for timber production within a low impact silvicultural system. This would improve the financial viability of the project, is likely to increase the overall carbon benefits and achieve greater social value from the woodland from woodworking and timber products, which will complement and retain WSWG's key goal of enhancing biodiversity within the woodland."

The Revised Proposal is based on the Woodland Management Plan for Taymount Wood as included in the original WSWG CATS Proposal. WSWG disagrees that increasing timber products would increase overall carbon benefits. Apart from timber extraction ahead of restocking with native species for nature recovery or amenity, WSWG has designated a specific but consciously reduced proportion of the current timber crop area for continuing sustainable timber production within a low impact silvicultural system. There will be additional timber from thinnings in the other areas managed under Proforestation to which will apply a hierarchy of end-use from on-site community and nature benefit uses for habitat, construction, education, woodworking, etc, to off-site sale of any surplus to on-site requirements, as described in the original Proposal. The preferred income generation development route will be a) Living Forest Enterprises and b) WSWG Community Enterprises of which the originally proposed Craft Hamlet is a key element where woodworking would be a commercial component in WSWG's mission to stimulate the local green economy both directly and indirectly. In shifting the balance away from wholly or mainly extractive enterprise, it is WSWG's goal to demonstrate that more can be made from a living forest through replacing a significant proportion of timber extraction with ultimately higher earning compatible woodland and community enterprises.

The revised budget has introduced indicative income from sales lines which were hitherto included with a £0 value to acknowledge intent but allow for community development of those enterprise elements. In the Wildwood Project, the absence of the Taymount Hub has removed significant community enterprise income potential, in certain of which WSWG has been advised by the Business Gateway it was overcautious in its gross margin projections, specifically the café and creative arts space rental. In the hope that the Taymount Hub could potentially be realised at some stage as a community facility and income generating asset, WSWG has included "Taymount Hub Options" in Fundable Projects. The absence of the Taymount Hub and the scaling down of the project generally to the Wildwood Project baseline has also had ramifications for the feasibility (management practicality, scale and therefore income projection) of other previously proposed early enterprises including the Loggers' Shieling and the Artists' Bothy, as well as the later-scheduled Craft Hamlet enterprise. These have therefore also been positioned instead in the Fundable Projects portfolio. A highly successful local ecotourism business has come forward with a business investment proposition sited in Taymount Wood which is an excellent fit with the Wildwood Project and a significant income generator for WSWG. Additional small scale income generating activities which would be viable in a reduced operation have also been included in the Wildwood Project.

Nonetheless, WSWG is delighted to present the Wildwood baseline programme as a stronger and fully achievable foundation with greater business rigour for its revised CATS Application.

# PART A IMMEDIATE PRIORITIES

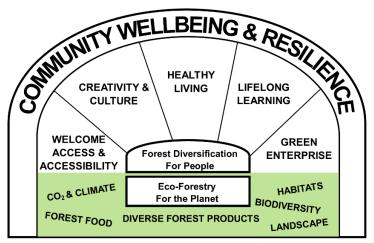
WILDWOOD PROJECT - Taymount Wood baseline programme

#### **WILDWOOD PROJECT – Taymount Wood baseline programme**

In taking forward the WSWG Project through a phased approach to acquisition, WSWG takes forward the ethos and vision of the original Proposal as the foundation of this Revised Proposal. The sources of inspiration remain the tenets and the Window on the Woods the framework on which all aspects are hung, with the two headline themes for Community Wellbeing and Resilience being:

- Eco-forestry for the Planet, and
- Forest Diversification for People.

Figure 3: WSWG Window on the Wood Vision



WSWG Vision: "Window on the Woods"

The WSWG Project will continue to present its operations under each of these headline themes, all of which are designed for community benefit, either as:

- WSWG Charitable Activities and Services, or
- WSWG Enterprises.

WSWG will set up appropriate trading arms to deliver additional enterprise activity where not part of its core charitable purpose with proceeds going to WSWG Charitable Activities and Services. These will depend on the enterprise, with CIC being a likely key model as advised by P&K Business Gateway.

The role of the WotW-themed Community Working Groups is set out in the rest of this document in the original Proposal format with a Community Working Group for each theme. However, as a developmental methodology and because of reduced staffing levels in the Wildwood baseline programme, initially and possibly on an ongoing basis, it is more likely that there will be two amalgamated CWGs, one for Ecoforestry for the Planet and one for Forest Diversification for People. In this instance, the two groups envisaged would embrace the WotW themes, YRA budgets and programmes as follows:

Ecoforestry for the Planet CWG (Paths and Nature) - Forestry, Biodiversity and Climate

- Welcome, Access and Accessibility

Forest Diversification for People CWG - Culture and Creativity

- Healthy Living

- Life-Long Learning

- Community Green Enterprise

Whilst WSWG's belief is that the goal should be green jobs to avoid overburdening community volunteers, the board and Wildwood Steering Group members will work collaboratively with staff to support the community engagement programme at each stage of its development and growth.

#### 1. Wildwood Project

#### 1.1. WSWG Charitable Activities and Services for Community Benefit

#### **Ecoforestry for the Planet:**

#### **WSWG Woodland Management Plan for Nature Recovery**

Taymount Wood is a centuries-old, 155 hectare (394 acre) mostly native woodland which was managed intensively for timber during the 20<sup>th</sup> century but with valuable fragments of its once rich biodiversity still persisting against the odds in a world which is still nowhere near adequately addressing the biodiversity emergency in any way commensurate with the scale of the challenge. WSWG's proposed woodland restructuring is focused predominantly on nature recovery with immediate effect, with insect habitats given the priority as the foundation of rebuilding the woodland and wider ecosystem, including deadwood habitat, new wildflower meadows, native woodland restoration and so on, together with Proforestation across most of the site to allow natural processes to develop over time and space.

The likely alternative to this outcome through WSWG ownership on behalf of the local and wider community is that the woodland faces the imminent threat of cyclical ecosystem degradation due to conventional rotational commercial forestry interests if WSWG is unsuccessful in acquiring the wood.

Initial survey of the wood has discovered around 40 invertebrate species, mostly solitary bee, spider, moth and beetle, which are unrecorded elsewhere in Tayside region, with 10 species classed as Nationally Scarce. Several other species were found to be recorded in less than 5 locations in Scotland. Whilst this is against a known backdrop of impending insect apocalypse as part of the 6<sup>th</sup> mass extinction which is underway across the globe, WSWG appreciates that under-recording could be at play too. A Breeding Bird Survey carried out in 2022 identified 36 breeding bird species including 3 listed on schedule 1.

Figures can nonetheless be deceiving and give a false sense of reality. In truth, this woodland refugia is highly vulnerable to exploitation and ecological collapse under typical forestry management practices. WSWG has produced a woodland management plan that ensures ecological continuity and enhancement across future decades, starting with forest restructuring to initiate rapid nature recovery at forest scale, as well as protecting thousands of maturing trees for future old-growth habitat and carbon sinks under Proforestation.

As expressed by the international movement Nature Needs Half, set up to protect 50% of the planet by 2030 (<a href="www.natureneedshalf.org">www.natureneedshalf.org</a>), we need a paradigm shift in land management at scale if we are to revive our life support system before it is too late. WSWG believes it can be done, but only by halting the war on nature and restoring the Earth's soil carbon sponge via nature recovery. It is simply not worth further risk to the prospects for stopping biodiversity decline by foregoing the opportunity of enabling the next phase of this woodland's history to pursue an optimally supportive rather than extractive one, focussed on nature recovery above all. Renowned entomologist, Professor Dave Goulson, has provided a letter of support for the WSWG Project to this end (Appendix RP1). (Dave Goulson is a Professor of Biology at the University of Sussex. He has published more than 300 scientific articles on the ecology of insects and is a bestseller author and Ambassador of the Wildlife Trusts.) This adds to the letter of support from Buglife which was submitted with the original Proposal 2022 (see Appendix BP10).

What happens in Taymount Wood in future will have direct ramifications, positive or negative for nature in the surrounding landscape. With the WSWG Woodland Management Plan for Nature, the current fragile reservoir of species will become a vigorous source for repopulating the regenerating landscape-scale recovery to be pursued through the associated local West Stormont Connect initiative. With sale into the conventional forestry market, the chances of this are slim to none.

So convinced is WSWG of this that it predicts the normally unseen value to society from the enhancement of pollinator habitat through the WSWG Woodland Management Plan in an otherwise surrounding degraded agricultural landscape at a nominal £50 per hectare per year where open mature pine, birch/broadleaved, thorny scrub, open ground, extensive road verges etc prevail instead of clear fell and restocked sitka spruce.

The rationale in this valuation of meaningful benefits to society include:

- Increased pollinator populations across the wider landscape as the woodland carrying capacity is exceeded, leading to increased dispersal of pollinators into the wider landscape. Our landscape scale connectivity of nature rich corridors linking up other woods will help facilitate this under our West Stormont Connect initiative.
- o Increased pollination rates to local food-producing gardeners and landowners.
- The woodlands will be resilient refugia for pollinators in times of landscape-scale biodiversity collapse, for example under increasing global warming influences, biocide accumulation in the landscape, EMF proliferation and so on.
- Educational resource where people from local or further afield can come and learn how to manage pollinator species and their habitats.

In addition to the widespread community benefit of looking after our life-support system, nature, and the creation of a part time staff position of Forestry, Ecology and Site Manager (the FES Manager, also taking on the staff role of overall Project Co-ordinator), the WSWG Ecoforestry Programme will deliver community benefit to groups and individuals through directly engaging with the woodland environment through its management. The Forestry, Biodiversity and Climate themed Community Working Group (FBC CWG) will be supported by the FES Manager in a programme of Year-Round Activities associated with the Woodland Management Plan programmes of work. The FES Manager will work closely with forestry contractors to deliver large scale forest operations.

Wildwood Project – Taymount Wood Baseline Operations
Ecoforestry for the Planet – Charitable Activities and Services

25 year Woodland Management Plan: (see original Proposal December 2022)

Woodland Management Plan for Nature Recovery with felling phases and prescriptions:

- 6 Nature Recovery Zones
- forest-wide Proforestation Management
- Forest Food areas and features, some commercial, some free community foraging
- Sustainable timber production under LISS

Supporting documentation:

- Deadwood Management Plan
- Forest Food Development Plan
- Birch Management Plan
- Wildlife Management Plan

Habitat Programme – baseline

Forestry, Biodiversity and Climate Community Working Group

- Year-Round Activities Programme – baseline budget

Evaluation of Community Benefit from WSWG's Ecoforestry for the Planet Programme is alluded to in Appendix RP2 SROI Report Revised 2023.

#### **Forest Diversification for People:**

#### Welcome, Access and Accessibility Programme (WAA)

This baseline programme has been substantially reduced in the Wildwood Project to essential information and infrastructure. The programme will be initiated through start-up funding and ongoing through modest self-funding and/or fundraising, with contributory and/or additional provision likely through the Community Working Group and its Year-Round Activities Programme and budget.

Further provision and improvements will be addressed through Fundable Projects as and when funding and/or other relevant resources (including additional staff) are available.

The Welcome, Access and Accessibility themed Community Working Group (WAA CWG) will be supported by the FES Manager in a programme of Year-Round Activities associated with the Welcome, Access and Accessibility Programme.

Wildwood Project – Taymount Wood Baseline Operations

Forest Diversification for People – Charitable Activities and Services

#### Welcome, Access and Accessibility Programme - baseline

Baseline Projects:	Budget share
Name boards 2	£1,000
Noticeboards 2	£1,000
Waymarkers 5	£200
Seats 2	£1,200
Picnic benches 2	£1,600
Compost toilet 1	£5,000 + £250pa
Safety fencing 1	£500
MiDAS Community Transport Project Phase 1	£10,750 (Yr 1-10)

#### WAA Community Working Group

- Year-Round Activities programme – baseline budget £1,000 pa

#### **Creativity and Culture Programme (CC)**

- (i) Creativity and the Arts;
- (ii) Heritage and History

This element will be conducted through the Year-Round Activities Programme through the staff-supported Creativity and Culture Community Working Group (CC CWG). The programme will be initiated through the Year-Round Activities budget allowed for in the start-up costings. This same nominal annual sum has been used indicatively in WSWG's financial projections as a level which in-house income generation could sustain.

Whilst the original WSWG Proposal 2022 *Going Forward* indicated the type of cultural and creative activities which research with the local community has indicated imaginative enthusiasm for, it is not possible to predict accurately the specifics or scale of creative and cultural activities which the CC CWG will wish to pursue. Anything surplus to this baseline budget will be addressed under Fundable Projects, as will additional staff provision to support any more ambitious community programme.

If WSWG is successful in securing a Community Benefit Manager, they will support the CC CWG. Otherwise, the theme will be included in the remit of the Forest Diversification CWG and supported by the Forestry, Ecology and Site Manager/Project Co-ordinator or, the less preferred option, by volunteers through the board and Wildwood Steering Group.

#### **Healthy Living Programme (HL)**

- i) Active people, active places;
- ii) Healthy Eating;
- iii) Social Wellbeing

This element will be conducted through the Year-Round Activities Programme through the staff-supported Healthy Living Community Working Group (HL CWG).

The programme will be initiated through the Year-Round Activities budget allowed for in the start-up costings. This same nominal annual sum has been used indicatively in WSWG's financial projections as a level which in-house income generation could sustain.

Whilst the original WSWG Proposal 2022 *Going Forward* indicated the type of healthy living activities which research with the local community has indicated imaginative enthusiasm for, it is not possible to predict accurately the type or scale of healthy living activities which the HL CWG will wish to pursue. Anything surplus to this baseline budget will be addressed under Fundable Projects, as will additional staff provision to support a more ambitious community programme.

If WSWG is successful in securing a Community Benefit Manager, they will support the HL CWG. Otherwise, the theme will be included in the remit of the Forest Diversification CWG and supported by the Forestry, Ecology and Site Manager/Project Co-ordinator or, the less preferred option, by volunteers through the board and Wildwood Steering Group.

#### **Life-long Learning Programme (LLL)**

This programme has been substantially reduced in the TW Wildwood Project to that achievable through Year-Round Activities programming and budgeting, as it has not been possible to include the cost of a Life-Long Learning Manager post. Likewise, the phased approach to acquisition has meant that the Five Mile Wood Flagship Woodland Observatory Project as a lead part of WSWG's development of its Life-Long Learning theme does not feature in the Revised Proposal. It is hoped very much this will rectify when Five Mile Wood is purchased.

The baseline LLL Programme will be conducted through the Year-Round Activities Programme through the staff-supported Life-Long Learning Community Working Group (LLL CWG).

The programme will be initiated through the Year-Round Activities budget allowed for in the start-up costings. This same nominal annual sum has been used indicatively in WSWG's financial projections as a level which in-house income generation could sustain.

Whilst the original WSWG Proposal 2022 *Going Forward* indicated the type of life-long learning activities which research with the local community has indicated imaginative enthusiasm for, it is not possible to predict accurately the type or scale of healthy living activities which the LLL CWG will wish to pursue. Anything surplus to this baseline budget will be addressed under Fundable Projects, as will additional staff provision to support a more ambitious community programme.

During 2023, increasing interest has been shown in the WSWG Project by the tertiary education sector, specifically land, forest and environmental course developers. WSWG has hosted a student field visit for SRUC and discussed opportunities with a retired lecturer from the James Hutton Institute. Both contacts immediately saw clear scope for undergraduate projects and PhD research as well as WSWG's potential ongoing involvement in university research programmes, such as the WrEN Project. The potential for WSWG to tap into human, funding and other resources is significant. WSWG has not developed or included this thread in the Wildwood Project or its financial projections, but the principle features under Fundable Projects where a dedicated Life-Long Learning post would be a distinct possibility.

If WSWG is successful in securing a Community Engagement Manager or Life-Long Learning Programme Manager, they will support the LLL CWG. Until then, the theme will be included in the remit of the Forest Diversification CWG and supported by the Forestry, Ecology and Site Manager/Project Co-ordinator or, the less preferred option, by volunteers through the board and Wildwood Steering Group.

#### WSWG Pilot Programme 2024: Wellbeing and Resilience Programme 2024

As indicated in the WSWG SROI Report Revised 2023 (Appendix RP2), the social value of engaging in nature for health and wellbeing is enormous. All elements of WSWG's Proposal, original and revised, have been designed with community wellbeing and resilience as their driving purpose.

With input from P&K HSCP, WSWG has put together a Wellbeing and Resilience Programme 2024. Although WSWG staff will not be in post by then, WSWG proposes to undertake as much as it can as a pilot demonstrating how all the themes of the WotW Vision will pull together through WSWG's Year-Round Activities Programmes on an ongoing basis. It will also enable WSWG to establish and test a system of measuring and monitoring its community benefit across its portfolio of charitable activities and services going forward. To help in this regard, WSWG Trustees will be attending a 6 session training course run by Just Enterprise on "Measuring Social Impact".

This Pilot programme is presented in Appendix RP3.

Wildwood Project – Taymount Wood Baseline Operations

Forest Diversification for People – Charitable Activities and Services

#### Year-Round Activities programmes – baseline

**Budget share** 

#### Creativity and Culture Programme (CC)

- (i) Creativity and the Arts;
- (ii) Heritage and History

#### **Healthy Living Programme (HL)**

- i) Active people, active places;
- ii) Healthy Eating;
- iii) Social Wellbeing

#### Life-Long Learning Programme (LLL)

#### WAA Community Working Group

- Year-Round Activities programmes – baseline budget

£2,000 pa

#### 1.2 WSWG Enterprises for Income Generation with Community Benefit

#### **Income through Ecoforestry for the Planet**

#### **Woodland Enterprises**

The main two categories of income from woodland enterprises for Taymount Wood remains the same as it was in the original WSWG Proposal:

- Living Forest Enterprises comprising:
  - Commercial Forest Food Project
  - Novel Forest Income (tree and deadwood sponsorship, memorial trees, pot-grown Christmas trees, etc)
  - Climate & Ecology Funding
- Sustainable Harvested Timber Enterprise comprising:
  - Timber
  - Novel Processed Timber Products (rustic horse jumps, garden poles and woven panels, log hives, art etc)
  - Cut Christmas Trees
  - SF Grants

The income projections in the Wildwood Project are as they were in the original Proposal bar the following minor adjustments:

- a) Rescheduling of timber income within Phase 1 period (Years 1-5)
- b) Postponement to Phase 2 period (Years 6-10) of timber income from felling of compartment designated provisionally for Taymount Hub
- c) Income of £19,125 projected for Novel Processed Timber Products over Years 2-10 through Year-Round Activities of Ecoforestry, Creativity and Culture and Community Green Enterprises CWGs.

The FES Manager will work closely with forestry contractors to deliver large scale forest operations. For the 25 year Woodland Management Plan, see original Proposal December 2022.

Table 1: Projected felling volumes and timber income from Taymount Wood over 25 Years

5-year phases	Taymount Wood Timber volumes m <sup>3</sup>	Taymount Wood Timber income £	
Phase 1	6,306.4	£367,712	
Phase2	1,638	£96,372	
Phase 3	1563	£91,881	
Phase 4	795	£44,503	
Phase 5	2,360	£145,211	
Total	12,662.4	£745,679	

Note: The financial projections presented in Section 4 Finance and Funding in this Revised Proposal are limited to Years 1-10 as all baseline activities in the Wildwood Project have plateaued by Year 10. Any variation or augmentation from that level would be dependent on the introduction of Fundable Projects.

As such, the financial projections include only Phase 1 and Phase 2 timber incomes from the above table.

#### **Income through Forest Diversification for People**

#### **Community Green Enterprise**

The scaling-down of the original Proposal has had major impacts on the practicability of the portfolio of community enterprises originally included. A new suite of Community Green Enterprises has replaced these in the Wildwood Project, as follows:

- a) Community Pop-up Enterprises (YRA Income Stream via Community Green Enterprise CWG) projected income of £24,300 over Years 2-10
- b) Tree Tents Phase 1 (Local Business Investor 'Burmieston in the trees' (BITT) projected income of £92,256 Years 1-10

The Community Pop-up Enterprises are based on very simple ideas including soup/coffee/juice stalls in the woods, car boot sales and coffee mornings and sales tables eg in Stanley Village Hall.

The business case for BITT, an exciting and compatible ecotourism facility, is set out below.

The Loggers' Shieling, Artists' Bothy, Taymount Hub Enterprises (Camp 53 Café, Shop, Meeting Room and Exhibition Space) and Craft Hamlet are excluded from the Wildwood Project and feature instead under Fundable Projects as prospective projects with 10 year gross margin potential for progressing subject to business testing against a sufficiently established WSWG Wildwood baseline programme, necessary staffing levels and required infrastructure.

# Wildwood Programme – Taymount Wood Baseline Project Forest Diversification for People – WSWG Enterprises

'Burmieston in the trees' – the business case for Tree tents in Taymount Wood by Keesje Crawford Avis

"As locals and members of WSWG we have watched with appreciation and awe in the efforts of the organising team to collate a community vision and look to make it a reality. The values of WSWG speak very much to our personal and business values as owners of Burmieston Farm and Steading and we would love to work in collaboration with WSWG for 'Burmieston in the trees' (BITT). Over the 10 years we have been creating and running Burmieston as an environmentally conscious self-catering and retreat space, we have gathered a huge amount of experience of visitors - predominantly the domestic market - as people come to us to gather and explore the magic of the Perthshire countryside. Our guests are interested in the luxuries of quiet, of opportunity to share space with nature without a marked impact, of clean water and air and great nights' sleep. They enjoy talking about birds, bugs and bats, both adult and younger, and often have a passion for great sustainable food. We see BITT as a continuation of our values and customer base with a focus on smaller groups of people - from 2 to 6, and in even more direct contact with the natural world.

Our medium term vision of BITT sees the integration of 6 tree tents on two sites within the forest canopy. Each tree tent sleeps up to two adults and one child in a sphere suspended from the trees with either stairs or stairs and a platform depending on the final placement. Two tents will be spaced close to each other, with a third a small distance away. Each tree tent will be available to rent individually but groups hiring two or three will also be encouraged.

#### **Practicalities**

There will be a two night minimum stay with one night turnover between stays.

The first tree tent camp will share composting loo and other facilities with the small compound serving as the WSWG Project base to be located by the Food Forest.

Cooking facilities will be under cover with a gas stove. There may be electricity depending on the core WSWG plans. In addition, we will provide fully charged lamps.

We will create further loo facilities with a sheltered cooking area for Camp B.

Burmieston Farm will provide water for cooking, basic washing and drinking as it is currently unlikely there will piped water to the site.

The camps will be open year-round with the tree tents fitted out with sufficient insulation, subject to local wind conditions and availability of staff (i.e probably closed over Christmas)

#### **Finances**

In the spirit of collaboration, we would like to offer WSWG a share of our earnings per stay rather than a flat rate ground rent. This means WSWG will benefit at the same rate as the business flourishes. At current market rates each 2 night stay will pay WSWG £24.

In year 1 (per tent rather than enterprise) we conservatively estimate 45% occupancy (55 stays) rising to 75% (91 stays) by year 3.

This rising plane as the business establishes itself to target occupancy will lead to an annual income for WSWG of around £13,000.

We will also provide one 2 night stay per tent per season to WSWG.

'Burmieston in the trees' (cont)

#### **Timings**

#### Camp A

We will seek to establish Camp A with two tree tents in year 1 of WSWG being operational. Tree tent 3 will be established in year 3 at a small distance from the initial two tents to allow some privacy.

#### Camp B

We will seek to establish three tree tents at Camp B in year 5 responding to demand as well as customer, WSWG and community feedback on Camp A.

#### Integration with WSWG

Burmieston currently offers a variety of experiences and opportunities for our guests - from catering to courses to games. We see the success of BITT integrated with the success of WSWG. As such the range of experiences available to our guests in BITT will be indicative of the surroundings and WSWG's expertise. We see the following as a starter list of potential offerings providing direct and indirect income to WSWG:

- WSWG ranger guided walks exploring the fauna and flora of the site. We envisage a menu of different themes with different time commitments appealing to different interests from the very general eg. an hour long walk (£10/person) with a general guide to species specific eg. Birdwatching or tree identification for 4 hours (£40/person).

Other experiences that we see local businesses with a financial contribution to WSWG (or directly provided by WSWG staff or volunteers) providing include:

- guided foraging walks
- guided tree climbing for children and adults
- bushcraft skills courses
- forest bathing
- outdoor yoga
- walking mindfulness sessions
- fire pit story telling
- wood carving
- picnics set up at various locations in the forest
- campfire cooking courses
- campfire catering
- 'ready meals' for guests to heat themselves

Burmieston Farm is not far from WSWG but at a much higher altitude so our tree cover is very sparse and wind exposure can be extreme limiting the opportunity to install tree tents on site. We have been interested in tree tents for many years now and see collaboration with WSWG as our perfect next step in developing our ecologically and economically sustainable business."

#### 2. WSWG Governance and Operations

Figure 4:



Community Working

Forestry, Biodiversity &

Climate Group

Healthy Living Group

Wildwood

Steering

Group

WSWG Governance & Operational Structure

As illustrated in the above diagram, the governance of the WSWG charity by the board of Trustees and operational structures have been assiduously designed to dovetail with community engagement in the staffed day to day operations. Designed for the scale and make-up of the original full Proposal involving both Taymount and Five Mile Woods and some full-time staff from the outset, it nonetheless applies to the reduced Wildwood baseline programme at Taymount Wood with fewer and part-time staff initially.

#### The Board

The Board of Trustees will be the authoritative body in all matters, but as a two-tier SCIO, the Trustees are elected to run the charity on behalf of the community. As such their authority will be on the basis of having engaged in a routine and meaningful process with the membership, supported by skilled staff and well informed and guided by relevant advisers and supporters.

Members of the board have attended training on Roles and Responsibilities of Charity Trustees run by SCVO and Turcan Connell law firm. WSWG will ensure an ongoing training programme for future trustees.

The Board of Trustees, whilst highly skilled across a range of relevant areas, is keen to ensure that we continue to govern the SCIO to the highest standard as it grows and develops in complexity. We have made contact with a number of third sector support agencies already, and plan to continue to engage with the free support and training available through organisations such as DTAS, Community Enterprise, Just Enterprise, Volunteer Scotland, Evaluation Scotland and our regional TSI.

#### **The Community Working Groups**

The Community Working Groups (CWG) are based on using the diverse themes in the WSWG Window on the Woods Vision as a means of engaging the community at grassroots level in topics they are interested in. Developing and servicing these groups for creative collaboration within the overall remit of the WSWG SCIO will be a key role of WSWG's relevant staff members. These groups are inherently likely to vary in size and indeed function at any point, and over time, depending on fluctuations in community interest in a particular theme. In the scaled down Wildwood baseline programme, there may only be one part time field staff member for this role in which case it is more likely fewer groups would operate, for example one Eco-forestry CWG and one Forest Diversification CWG. They would develop Year-Round Activities Programmes to deliver outcomes across the WotW themes. In Year 1, there will be a nominal start-up budget for each theme to inspire and support initial community involvement. With staff support, these groups will then develop future Year-Round Activities Programmes which will inform WSWG's ongoing fundraising activity thereafter, either through staff, Trustees or member volunteers. There will clearly be scope for joint funding applications amongst groups. Funding applications will be sanctioned by the board before submission. Groups will then have access to a level of funding for their Year Round Activities programme depending on the success of their applications.

#### The Wildwood Steering Group

The Wildwood Steering Group will be the forum in which the Trustees engage with representatives of the Community Working Groups and a range of individuals volunteering their support in an advisory or skills capacity relevant to the SCIO's activities and obligations. Staff will also participate. The Wildwood Steering Group will have creative and technical influence but no ultimate governing or specific fiscal responsibilities beyond any level allocated through relevant standing orders issued by the board through staff for practical reasons.

The staff-supported CWGs and the Wildwood Steering Group are a logical and cohesive part of operations through which the community can be heard and meaningfully involved. It is an interactive process in which the charity Trustees must have the final word to accord with their legal and other duties and responsibilities whilst they hold the position. WSWG Members, however, have an ultimate authority in who they elect as their Trustees.

The current board of trustees have extensive experience in this type of governance and operational structure over many years and have found it to be a highly successful way of running a community organisation. The biographies of the current Trustees and Wildwood Steering Group members are presented in Appendix RP4.

Growbiz is providing WSWG with access to its own Cloudroom. This is an online organisational tool which provides a range of communications options including noticeboard, chat room, document/image sharing, 2 way face-to-face meetings, etc. Growbiz has very kindly offered this service to WSWG at no cost and to provide WSWG with some basic training on how to use the system. As an easy, safe, secure, private online space, accessible on any device, we think this will be an ideal means of convening the Wildwood Steering Group.

Outwith Year-Round Activities, staff will deliver a range of other core management and infrastructure projects as part of their work which may or may not need additional expertise and fundraising and in which effort they will be supported by the Trustees or potentially relevant volunteers on the Wildwood Group.

#### Financial oversight

Regarding financial management going forward, WSWG has recently appointed Alyth-based KWG Accountancy to provide a financial system and oversight for the WSWG Project.

#### **Employment opportunities**

A fundamental part of the WSWG ethos is that the WSWG Project runs as a staffed organisation. Not only does this provide valuable green jobs for a sustainable future but also improves the participation experience for volunteers. The phased approach to acquisition and the reduced scale of the Wildwood Project has impacted significantly on staffing levels in the Wildwood Project, which will have ramifications for the support available for WSWG volunteers and participants.

The Wildwood Project will operate with three part-time staff as presented in Table 2 below.

Table 2: Wildwood Project Staffing Plan with working days per week and indicative time allocation

Year 1	Years 2-5	Years 6-10	>Year 10		
<b>Basic Staffing of WSWG W</b>	Basic Staffing of WSWG Wildwood Project – Taymount Wood baseline programme				
Forestry, Ecology and Site	Forestry, Ecology and Site	Forestry, Ecology and Site Forestry, Ecology and Site Forestry, Ecology and S			
Manager and	Manager and	Manager and	Manager and		
Project Co-ordinator:	Project Co-ordinator:	Project Co-ordinator:	Project Co-ordinator:		
(Senior post)	(Senior post)	(Senior post)	(Senior post)		
WSWG Project: 1 d	WSWG Project: 1 d	WSWG Project: 1 d	WSWG Project: 1 d		
Forestry, Biodiversity and	Forestry, Biodiversity and	Forestry, Biodiversity and	Forestry, Biodiversity and		
Access - 1 d	Access - 1 d	Access - 1 d	Access - 1 d		
Forest Food – 1 d	Forest Food – 1 d	Forest Food – 1 d	Forest Food – 1 d		
3	3	3	3		
Office Manager	Office Manager	Office Manager	Office Manager		
/Fundraiser:	/Fundraiser:	/Fundraiser:	/Fundraiser:		
Admin – 0.5 d	Admin – 0.5 d	Admin – 0.5 d	Admin – 0.5 d		
Fundraising – 0.5 d	Fundraising – 0.5 d	Fundraising – 0.5 d	Fundraising – 0.5 d		
1	1	1	1		
Living Forest Enterprise	Living Forest Enterprise	Living Forest Enterprise	Living Forest Enterprise		
Developer:	Developer:	Developer:	Developer:		
1	1	1	1		

#### Work base and transportation

With the Taymount Hub excluded from the Wildwood Project baseline programme and a less constant presence in the woods, it has been decided to relocate the project base to the Food Forest. It will comprise a small compound of portacabins, sheds and metal storage units. In the first instance the compound is unlikely to have water and power services. The Wildwood budget allows for room hire for meetings off site.

With no EV charging facility planned on-site in the Wildwood Project, WSWG has budgeted for a second hand pick-up initially for transportation for staff and materials on and off site. WSWG will use and encourage low carbon transport and travel solutions as much as possible, and transition to electric vehicles at the earliest possible stage. Sponsorship is something WSWG intends to investigate closely for this.

#### **Timescale**

With the CATS/FLS decision due by the end of October 2023, fundraising activity is being geared up to meet the needs and timescale of the acquisition and operational start-up costs. WSWG must make its formal offer for Taymount Wood within six months of a positive decision. WSWG envisages the legal process of asset transfer to community ownership will be concluded before the end of the 2024.

#### 3. Marketing

#### 3.1 Marketing Strategy

#### Introduction - Community Wellbeing and Resilience

To restate our marketing strategy, it has been, and will remain.....

#### That everything we do is for the Community, for its wellbeing, its resilience, and its future.

Features of this marketing strategy have been as follows:

- With the help of a local artist, we developed a WSWG logo, and were able, using wood from the two
  woods and help from a local sawmill and a volunteer, to create distinctive WSWG badges and fridge
  magnets.
- Seeking to create maximum awareness of our campaign and its existence and identity using all the
  means of communication at our disposal including on-line as well as involvement in local, regional,
  and national community organisations and structures.
- As well as a developed WSWG website and Facebook page with regular and informative and monthly updates we have maintained a regular monthly emailing and poster campaign across the whole community area.
- When circumstances allowed, prior to Covid, we organised a series of successful public participation
  events in the woods to both test community interest, and to market WSWG to varied sample groups
  of potential woodland users.
- Following Covid and due to a changing focus and dynamic on developing the WSWG Proposal, the events programme was lower key, but communications have been maintained and improved, including two major Community Consultations on the Draft Proposal in 2021 and the final Proposal in October 2022, as described in Section 5 Community Engagement and Volunteering above.
- During 2023, event activity has increased very pleasingly, with 10 volunteering gorse mulch raking
  sessions as part of the Wildflower and Mining Bee Rescue Mission, further tree planting and tubing
  of natural regeneration, wildflower plug planting, a student visit from SRUC, WSWG stalls at local
  community events, a community picnic with Taymount Woodland Partnerships, wildflower
  identification walk, a talk and guided walk on the history of Five Mile Wood and Taymount Wood
  with Christopher Dingwall, and a corporate volunteering day with staff from Aviva in Perth.
- In 2023, WSWG has also participated in the Stanley Community Action Plan led by Stanley
  Development Trust. WSWG participated in the Rural Focus Group. Bringing Taymount Wood and
  Five Mile Wood into community ownership was in the top ten priorities voted for by the people of
  Stanley. WSWG also participated in the PKC Big Place Conversation during 2023.
- WSWG and P&K HSCP are working on a pilot Wellbeing and Resilience Programme for 2024 using Taymount Wood and possibly Five Mile Wood as venues.

#### **Community Benefit – Forest Diversification for People**

Following acquisition of Taymount Wood we will increase the emphasis in our marketing strategy on increasing Forest Diversification to directly increase the personal wellbeing of people who visit and use the woodlands for recreation and improved mental as well as physical health. The value of the woods to the community as estimated through the lens of SROI, indicates that this aspect certainly equals and most probably exceeds the costs of acquisition and ongoing operation.

#### Woodland Management for Nature Recovery - Eco-forestry for the planet

A key feature of our marketing strategy post acquisition will be the emphasis on the benefits of managing Taymount Wood to enable nature recovery and achieve significantly enhanced levels of biodiversity within the framework of our Eco-forestry programme.

#### 3.2 Marketing Plan

To avoid dependence upon unsustainable timber resources and to meet objectives for people and planet, WSWG will embrace a holistic approach to forest management with multiple and diverse income streams.

#### **Promoting the Products and Services**

Each of the different products / services requires different marketing plans. These are summarised below.

**Table 3: Marketing Plans** 

Product / service	Markets	Promotion		
Woodland Management for Nature Recovery - Eco-forestry for the planet				
Timber	Local and regional sawmills	Forestry agent will deal with timber selling. We can also promote on our website and sell niche products such as horse jump poles, log bee-hives etc.		
Birch sap	Birch water and xylitol markets, national and international	Contact relevant companies working in the industry, website, advertising		
Hazel nuts / food forest	Local retailers, lease to individuals and groups	Website, social media, articles		
Nature based income for ecosystem services	General public and corporate	Website, direct contact, media articles, social media, advertising.		
Community Benefit – Forest Divers	sification for People			
Access and recreation	Members, visitors – local and transient	Website and social media. Leaflets in local tourist outlets. Community monthly updates and notices.		
Educational activities	Members, schools, visitors, groups	Direct contact, website and outlet promotion, partnership working with PKC and other stakeholders		
Volunteering opportunities, structured events, activities and other community benefits	Members, schools, visitors, groups	Direct contact, web site, partnership working, notice boards in woods, media articles, social media.		
Community Enterprises	General public	As above		

#### 4. Finance and Funding – Investing in our Future

#### 4.1. WSWG Development Phase – Development Funding update

#### **Funding**

Financial donations since 2018 have risen to £52,522,63. The key financial contributors are listed below.

#### Public funding:

Scottish Land Fund Stage 1 Development Funding	£18,453.00
Perth and Kinross Council Community Investment Fund (two awards)	£ 5,932.50
Community Learning Exchange	£ 740.00
	Total £25,125.50
Private funding:	
Highland Community Energy Society (Littleton Burn Hydro Scheme) via Energy4All	£ 9,551.55
WSWG Website donations	£ 597.21
Stanley Store Plastic Bag Fund	£ 200.00
WSWG Core and other Volunteers	£ 390.96
	Total £10,739.82
Private funding update at 30 September 2023:	
Highland Community Energy Society (Littleton Burn Hydro Scheme) via Energy4All	£16,593.04
Event donations	£ 64.27

#### Contributions-in-kind and Volunteer time

There have been numerous and continuous contributions-in-kind gifted to WSWG during its development phase by core and other volunteers. WSWG kept detailed records of these for the first year of operations between July 2018 and August 2019, from the Steering Group members alone, including equipment, materials (stationery, printer ink, displays, etc), facilities, IT, services, software and travel, totalling £3,351. This does not include gifts and interest-free loans from other members and supporters, small donations from other miscellaneous sources which amounted to several hundred pounds in the same time-period. Timesheets for this period for the main contributors to the WSWG process amounted to almost 6000 volunteer hours, which at minimum wage of £8.75 totalled £51,754. (Note: Updating this to current average wage in Tayside increases this figure to £94,560.)

Total £16,657.31

This gave a combined figure of £55,105 for the first year. Estimates for the next six months to the end of 2019 elevated this figure to around £80,000. During 2020, volunteer input was majorly impacted by the covid pandemic, which would have resulted in a much lower value for the subsequent 6-12 months. However, since early 2021, the rate of volunteer time input has at the very least been maintained at first year levels, and very probably increased quite substantially, although the formal timekeeping system was not sustained. However, with simple extrapolation, it is still reasonable to assume the following:

Total value of	time input by core volunteers:	£283,250	
2023:	9 months – estimated	£83,250	valued at £15.76/hour av. wage in Tayside
2022:	12 months – estimated	£50,000	all above valued at minimum wage (£8.75)
2021:	12 months – estimated	£50,000	
2020:	12 months - indicative	£20,000	
2018-2019:	18 months - calculated	£80,000	

Considering the degree of skilled and professional input, evaluating at the 2018 minimum wage can only be seen to be a considerable underestimate of the true value of the time core volunteers have given to the development of the WSWG project, hence the reason for including the 2023 update at the average Tayside wage.

#### 4.2 Financial Projections for the Wildwood Project Years 1-10

WSWG has produced detailed plans and costings for Years 1-10 (income and expenditure with P&L) and set up a framework for fundraising over that period. See Appendices RP5a and RP5b. As summarised in Table 4, apart from 2 year start-up funding, the Wildwood Project Taymount Wood baseline programme is self sustaining and requires no external funding. As all baseline activities in the Wildwood Project (other than timber sales which are scheduled to reduce) have plateaued by Year 10, and any variation or augmentation from that level after Year 10 would be dependent on the introduction of Fundable Projects, which are not part of the Wildwood baseline programme, there was no value in projecting to 25 years before specific Fundable Projects are selected for implementation once the Wildwood Project is up and running effectively.

Table 4

	SUMMARY £	NOTES
Enterprise Income		
Sales:		
Living Forest	£414,705	
Harvested timber	£488,327	
Community Enterprises	£116,556	Net or Gross Margins
Sub-total Income	£1,019,588	
Enterprise Expenditure		
Variable Costs:		
Living Forest	£85,368	
Harvested timber	£12,145	
Community Enterprises	£0	
Sub-total Enterprise Expenditure	£97,513	
Total Enterprise Gross Margin	£922,075	
Charitable Activities & Services Expenditure	£328,120	
Summary:		
Enterprise Gross Margin	£922,075	
Charitable Expenditure	£328,120	Includes Field staff costs 1 x 3 d/wk
Overheads	£400,175	Includes Support staff costs 2 x 1 d/wk
Separated additional capital costs	£0	
Target Reserve	£115,259	
Net Surplus/Deficit after reserve	£61,020	
ORDER OF FUNDRAISING REQUIREMENT	£0	Apart from 2 year start-up costs
Additional Priority Fundable Project		
Community Engagement Manager (3d/wk)	£276,000	Salary, overheads & operational budget
ORDER OF FUNDRAISING REQUIREMENT	£215,000	Breakeven minimum
2-year Start-up funding needs		
Excluding Community Engagement Manager	£220,000	Slightly rounded up
Including Community Engagement Manager	£280,000	Slightly rounded up

#### Wildwood Project Financial Summary Years 1-10

The tables below set out the overall picture of the expected income and expenditure involved in bringing Taymount Wood into community ownership and delivering the WSWG Revised Proposal 2023 for managing the woodland through **WSWG Charitable Activities and Services** with supporting income generation through **WSWG Enterprises** (Woodland and Community). It also indicates the level of start-up funding from external sources which will be required to support the WSWG Project as a whole.

The financial plans have been prepared by WSWG Trustees with business start-up and strategic consultancy, land management, project development and management and other relevant skills and experience. WSWG has also obtained advice from sector professionals and P&K Business Gateway on various aspects of the enterprise costings and responding to CATS feedback to strengthen the Business Plan going forward. WSWG has costed all the envisaged inputs empirically, both capital and revenue, and outputs for both WSWG Charitable Activities and Services and WSWG Enterprises for Years 1-10. The figures make allowance for VAT where appropriate but not inflation.

Financial costings for the first ten years of the WSWG Proposal are presented in summary form in the tables below, shown separately for WSWG Charitable Activities and Services and WSWG Enterprises, in three phases: Years 1-2; Years 3-5; and Years 6-10, with more detailed corresponding annual data presented in spreadsheet form in Appendix RP5a: Financial Projections to Years 10.

Table 5 shows the projected WSWG Charitable Activities and Services core and programme costs.

Table 6 shows the projected Capital investment, Income, Expenditure and Gross Margins for the proposed Woodland Enterprises and Community Enterprises.

#### **WSWG Financial Projections Summary Years 1-10**

Table 5: Financial Summary of WSWG Core and Programme Costs post-Acquisition

Summary costings for WSWG Charitable Activities and Services					
WILDWOOD PROJECT - TAYMOUNT	WILDWOOD PROJECT - TAYMOUNT WOOD BASELINE PROGRAMME				
PROJECT EXPENDITURE	Years 1-2	Years 3-5	Years 6-10	10-year Totals	
Field Staff	£48,000	£72,000	£120,000	£240,000	
Year-Round Activities	£8,000	£12,000	£20,000	£40,000	
Welcome, Access, Accessibility	£23,150	£4,750	£8,400	£36,300	
Habitat Restoration	£7,970	£1,700	£2,150	£11,820	
Field sub total	£87,120	£90,450	£150,550	£328,120	
Operational overheads					
Revenue (including Support Staff)	£69,110	£103,665	£172,775	£345,550	
Capital	£39,670	£6,150	£26,305	£72,125	
Overheads sub total	£108,780	£109,815	£199,080	£417,675	
TOTALS	£195,900	£200,265	£349,630	£745,795	

Table 6: Summary Financial Table for the WSWG Proposal: Forestry and Community Enterprises

	SWG Enterpris			T
	Years 1-2	Years 3-5	Years 6-10	10-year Totals
WILDWOOD PROJECT - TAYMO	UNT WOOD BASE	LINE PROGRAMM	E	
CAPITAL INVESTMENT				
Forestry Enterprises BL1:				
Timber	£0	£0	£0	£0
Living Forest	£0	£0	£0	£0
TOTAL FOREST ENT CAP £	£0	£0	£0	£0
Community Enterprises:				
Pop-up activities	£0	£0	£0	£0
Tree tents (BITT)	£0	£0	£0	£0
TOTAL COMM ENT CAP	£0	£0	£0	£0
TOTAL ENTS CAP	£0	£0	£0	£0
INCOME:				
Woodland Enterprises:				
Timber	£248,578	£123,602	£116,147	£488,327
Living Forest	£27,200	£83,200	£304,305	£414,705
TOTAL FOREST ENT INC	£27,200	£206,802	£420,452	£903,032
Community Enterprises:	12/3,//6	1200,602	1420,432	1903,032
Pop-up activities (Net)	£2,700	£8,100	£13,500	£24,300
Tree tents (BITT)	£6,000	£22,248	£64,008	£92,256
TOTAL COMM ENT	£8,700	£30,348	£77,508	£116,556
TOTAL ENT INC	£284,478	£237,150	£497,960	£1,019,588
		-		
EXPENDITURE:				
VARIABLE COSTS				
Woodland Enterprises:				
Timber	£200	£10,320	£1,625	£12,145
Living Forest	£18,165	£17,740	£49,463	£85,368
TOTAL WOODLAND ENT VC	£18,365	£28,060	£51,088	£97,513
Community Enterprises:			202,000	207,020
Pop-up activities	£0	£0	£0	£0
Tree tents (BITT)	£0	£0	£0	£0
TOTAL COMM ENT VC	£0	£0	£0	£0
TOTAL ENT V. COSTS	£18,365	£28,060	£51,088	£97,513
GROSS MARGINS:				
Woodland Enterprises:	£240.270	£112 202	£114 E22	£47£ 193
Timber	£248,378	£113,282	£114,522	£476,182
Living Forest	£9,035	£65,460	£254,842	£329,337
TOTAL Woodland ENT GM	£257,413	£178,742	£369,364	£805,519
Community Enterprises:	£2.700	£0 100	£12 E00	£34 300
Pop-up activities	£2,700	£8,100	£13,500	£24,300
Tree tents (BITT)	£6,000	£22,248	£64,008	£92,256
TOTAL COMM ENT GM	£8,700	£30,348	£77,508	£116,556
TOTAL ENT GM < CAP	£266,113	£209,090	£446,872	£922,075

#### 4.3 Funding the Wildwood Project at Taymount Wood

#### Present Funding position – Acquisition and Taymount Wood baseline programme

The following table sets out how WSWG proposes to approach funding the purchase of Taymount Wood.

Table 7: Funding proposal for acquisition of Taymount Wood

Estimated purchase costs	
Taymount Wood	£1,850,000
Discount price requested	£0
Legal expenses (estimated)	£10,000
Total cost to WSWG - acquisition	£1,860,000
Proposed finance	
Scottish Land Fund – 50% of market value	£925,000
Scottish Land Fund – 90% of legal costs	£9,000
Scottish Land Fund -Start-up costs (share of staff	£40,000
and overheads)	
Total SLF Stage 2 Funding request	£974,000
Balance for WSWG to source	£886,000

WSWG has a wide-ranging portfolio of funding sources being developed at present, with a dedicated funding drive awaiting the FLS decision in October. There are several dedicated on-line free resources to aid charities identifying funding sources. From one such platform the numbers of these funding sources offering donations and grants to:

- Small charities & community groups = 697
- Core funding for health and welfare = 233
- Environment = 252
- Disability = 973
- Funding finder list = 408

An overview of our priority fundraising sources and options are outlined below.

#### **Funding approaches for Acquisition**

#### **Provisional donations:**

• WSWG has received a solicitor's letter acting on behalf of a client who wishes to remain anonymous intimating an offer in principle of £85,000.

#### Supportive feedback received:

- Scottish Land Fund Stage 2: WSWG will be requesting funding for acquisition to the amount of £925,000.
- WSWG has identified appropriate crowdfunding platforms and spoken with professional consultants
  who specialise in crowdfunding including Stockcrowd. We have also started a crowdfunding media
  presentation which should be available for use by the end of October.

#### General responses for further action:

Funding sources we have made contact with and will be following up after a decision by FLS.

- Volant Trust: acquisition and project funding.
- Local wealthy individuals and philanthropic individuals throughout the UK. WSWG has already made contact with several of these and are presently awaiting responses.

#### Funding approaches for WSWG Charitable Activities and Services/Taymount Wood baseline programme

#### Supportive feedback received:

#### Start-up funding

- Scottish Land Fund Stage 2: £40,000
- Gannochy Trust: WSWG has been invited by the Trustees to submit a funding application towards our 2 year start-up funding.

#### **Project funding**

- Mushroom Trust: WSWG has been encouraged by a Project Assessor to submit applications for a range of practical community and woodland projects.
- Lankelly Chase: We have had promising liaison with this organisation, which is currently in a period of transformation in how it will redistribute wealth in future, and will be following this up.

#### Other funders to be approached:

Acquisition	Scottish Land	Supporting urban and rural communities to become more resilient
	Fund	and sustainable through the ownership and management of land and land assets with grants up to £1 million
	Heritage Lottery Fund	We fund projects that connect people and communities to the national, regional and local heritage of the UK.
		We strive to preserve animal habitats, oceans, and natural resources. We aim to promote eco-awareness and sustainable living practices.
	Garfield Weston Foundation	From small community groups to large national institutions, the Foundation's aim is to support organisations that have effective solutions to helping those most in need.
Education	The Nineveh Charitable Trust RCN 256025	Supports a broad range of UK-based projects and activities of benefit to the General Public, with an emphasis on promoting better understanding of the countryside.
	Ernest Cook Trust	As fund-giving educational charity, we give grants, fund Outdoor Learning and find innovative ways to work with funding partners.
Volunteering activities	Lottery	Various lottery source funding including Awards for All – up to £10,000 and Community led – funding up to £150,000 helping organisations deliver activity to improve local places and wellbeing of people that live there.
		Volunteering Futures Fund £7m fund to help organisations improve access to volunteering
	Perth and Kinross Council	Local council run grant system supporting communities and environmental related actions

Infrastructure	The Fore Trust	The Fore offers development funding and strategic support to early- stage charities and social enterprises. It makes unrestricted grants which have the potential to have a transformational impact on an organisation.
	Foundation Scotland	Provides early stage financial support for community enterprise projects that contribute to local regeneration and sustainable development and, ultimately, help create great places to live, work and visit.
Access	Paths For All	Our funding programmes support projects to increase participation in walking, active travel, and improve community paths for travel and recreation
	Rural Payments and Services	Improving public access grants
Biodiversity	Scottish Action Fund	The FCC Scottish Action Fund offers funding to projects through the Scottish Landfill Communities Fund (SLCF) The conservation or promotion of biological diversity through the provision, conservation, restoration or enhancement of a natural habitat or the maintenance or recovery of a species in its natural habitat
	NatureScot	The Nature Restoration Fund (NRF) is a competitive fund launched in July 2021, which specifically encourages applicants with projects that restore wildlife and habitats on land and sea and address the twin crises of biodiversity loss and climate change.

Table 8 shows the relationship between project expenditure and the potential proportion of in-house funding through WSWG Enterprises or from external sources through fundraising. See Notes to Table 8 at foot. It illustrates the basis on which WSWG can foresee fundraising needs.

Table 8: First 10 years of Proposal Delivery under Community Ownership

	Project costs	Enterprise activity	Indicative external
	(including Enterprise	surplus for Charitable	funding level required
	capital outlay)	Activities and Services	
WILDWOOD DROIECT TO	 XYMOUNT WOOD BASELIN	(Gross Margins)	
WSWG CHARITABLE ACTI		E PROGRAIVIIVIE	
Staff	£240,000		
Year-Round Activities	£40,000		
Welcome, Access and	£36,300		
Accessibility	,		
Nature Recovery	£11,820		
Overheads			
Revenue (inc supp staff)	£345,550		
Capital	£72,125		
WSWG ENTERPRISES			
Forestry Enterprise			
Timber	£0	£476,182	
Living Forest	£0	£329,337	
Forestry Sub total	£0	£805,519	
Community Enterprises			
Pop-up activities	£0	£24,300	
Tree tents (BITT)	£0	£92,256	
Community Sub total	£0	£116,556	
WSWG Reserve			
Allocation from	£115,260		
WSWG Enterprises			
TOTALS	£861,055	£922,075	£0
2 Year Start-up			
funding required			£235,000

#### Notes to Table 8 above:

- 1. The sums shown for Year-Round Activities are nominal, but will evolve with community-based programme development and fundraising success.
- 2. Ecological surveying and recording carried out by amateur surveyors and volunteers until resources made available for professional surveys through Fundable Projects.
- 3. Living Forest payments as a foundation for income generation is still novel but expected to increase markedly in the coming years in response to the global ecological emergency. For this reason, WSWG proposes to engage a Living Forest Enterprise Developer 1 day per week to build WSWG's diverse Living Forest income streams, with a particular emphasis on securing Biodiversity Net Gains.

#### **Funding Plan Years 1-10**

There are many different types of funding sources for the diverse aspects of the WSWG project, as well as several funding facilitating organisations whose help WSWG will be calling on, including Foundation Scotland, Charities Excellence Framework and Funding Scotland amongst others. WSWG has retained an Office Manager/Fundraiser staff post the Wildwood Project budget but at 1 day per week for the combined functions, this is only 20% of the fundraising capacity allocation in the original two woods Proposal, and 40% or less of the share Taymount Wood would have received. WSWG may follow the route of engaging fundraisers on a commission basis, but this is likely to be a more expensive approach.

The following Tables 9 and 10 indicate where WSWG expects to source funding for different parts of its activities, as illustrated in the statements above regarding the current funding position.

Table 9: Indicative Principal Types of Funding Source for Acquisition of Taymount Wood

Acquisition of Taymount Wood									
	Public	Lottery	Corporate	Charitable	Crowd-	Benefactors	Other	Loans	WSWG
					funding				Enterprises
									Surplus
Purchase of Taymount Wood	xxx		х	х	х	xx			N/A

Table 10: Indicative Principal Sources for the Wildwood Project for 2 Year Start-up Funding

Taymount Woo	od baseline	program	me Years 1-1	.0			-		
Fundable	Public	Lottery	Corporate	Charitable	Crowd-	Benefactors	Other	Loans	WSWG
Elements					funding				Enterprises
Years 1 & 2									Surplus
			WSWG C	haritable Act	tivities and	Services			
Fieldwork	х			Х	`				
Staff time									
£48,000									
Support Staff	Х			Х					
£26,000									
YRA			Х	XX					
£8,000									
WAA			Х	Х					
£23,150									
Nature			х	XX					
£7,970									
Overheads (-	Х		Х	Х					
supp. staff)									
£82,780									
				WSWG En	terprises				
Forest Food			Х	XX	Х				
Project									
£13,000									
2 Yr start-up:	£40,000		£50,000	£115,000	£25,000	£5,000	£0	£0	£0
£235,000	17%		21.3%	49%	10.6%	2.1%	0%	0%	0%
10 Yr project:									
£861,055	4.6%		5.8%	13.4%	2.9%	0.6%	0%	0%	72.7%

#### 5. Community Benefit Evaluation

For WSWG, managing Taymount Wood for Nature Recovery is the primary Community Benefit of its Proposal.

#### **WSWG SCIO Community Engagement**

WSWG intends to take forward the WSWG Wildwood Project by building on the five years of community engagement and volunteering to date and to widen and strengthen this through the grassroots foundation of the governance and operational structures described in Section 2. Governance and Operations above.

It is one of WSWG's main aims and a fundamental part of its ethos to provide a wide-ranging, inclusive and rewarding portfolio of staff-supported volunteering opportunities for as many people as possible. Volunteering must be a pleasure, not a burden or obligation to those who offer their time, energies and skills to the WSWG Project.

We will work in a variety of ways with a range of stakeholders within and outwith WSWG as follows:

- Members and Volunteers
- Landowners and Neighbours
- Staff
- Community organisations
- Schools and other educational establishments
- PKC
- Local Businesses
- Service providers/session workers
- Funders

For more information, see Appendix BP2 WSWG Stakeholder Report submitted with the previous Business Plan in 2022.

#### **Community Benefit Evaluation**

WSWG has demonstrated there is a comprehensive suite of benefits both to the local community and to the Scottish economy from community ownership under the WSWG vision for people and planet. These include direct tangible benefits including job creation, volunteer opportunities, education, improved health & wellbeing from the many themed WSWG programmes, many of which target vulnerable and less privileged groups and individuals, as well as less tangible benefits such as ecosystem services including nature recovery, climate mitigation, food resilience and air purification.

The community benefit outcomes align directly with many of the Scottish Government National Outcomes:

Children

**Communities** 

Culture

Economy

Education

**Environment** 

**Fair Work and Business** 

Health

WSWG has also produced a revised forecast on the Social Return on Investment (SROI), which shows a potential 6:1 ratio, indicating a £6 return social value for every £1 invested in the WSWG project. See Appendix RP2 WSWG SROI Report Revised 2023 for detailed information.

The revision of WSWG's investigation into the SROI of action for the planet has continued to show reputable research sources indicating the unseen massive scale of financial return when ecosystem services are integrated into government policy.

However, for the purpose of evaluating the SROI benefits within the WSWG Wildwood Project, WSWG has restricted the scope of the assessment/forecast to the most tangible benefits for our directly engaged participants. The wider benefits, although significant and varied, are included elsewhere in the SROI Report to give a more comprehensive picture of benefits in the context of the climate and biodiversity emergency we are currently failing to deal with due to economic and apathetic impediments.

#### 5.1 Wellbeing and Resilience

WSWG wishes to address here what appear to be CATS concerns as to the level of demand for WSWG's health and wellbeing services and how much of the benefits are additional and not simply displacement.

As indicated in our SROI report 2022, WSWG is filling a genuine need in society with our Window on the Woods community activities. This will have measurable health benefits to people in need and associated savings to the NHS and Scottish economy.

#### **Mental health statistics for Scotland**

£8.8 billion = the cost of mental illness to the Scottish economy

Reference: Mental Health Foundation and the London School of Economics and Political Science (LSE),

**94%** = ratio of people who visited the outdoors and stated it "helps them de-stress relax and unwind" References: Nature Scot *Scotland's outdoors, Our Natural Health Service* 

Forest walking = better for health than urban walking

References: (Mitchell, 2013) *Is physical activity in natural environments better for mental health than physical activity in other environments? Social Science and Medicine, 91, 130–134*)

**1 in 4** = number of people that will suffer mental health problems per year.

References: (MIND 2017)

**20.6%** = percentage of people having suicidal thoughts over their lifetime.

References: (MIND 2017)

#### **Green Health Prescriptions**

**Case study**: Social Prescribing in Angus and Dundee have incorporated "green health prescriptions" under the Dundee Green Health Partnership (DGHP) in a collaboration between Dundee City Council and NHS Tayside. This is a referral process for health care professionals including selected GP surgeries to sign-post patients to nature-based interventions. So successful has this initiative been with patients that it was recently extended with a £21,000 grant to fund a green health development officer post.

A 2020 report published by **NatureScot** entitled **"Scotland's Outdoors, Our Natural Health Service"** (Appendix RP6) stated that a 30 minute walk 5 days a week was found to reduce the risk of various health conditions as follows:

Heart attack and stroke	20-30%
Diabetes	30-49%
Hip fractures	36-68%
Bowel cancer	20%
Breast cancer	20%
Depression	39%

#### Sources of evidence in the NatureScot publication:

The health benefits of the great outdoors: A systematic review and meta-analysis of greenspace exposure and health outcomes, 2019 C Twohig-Bennet, A Jones – University of East Anglia

Spending at least 120 minutes a week in nature is associated with good health and wellbeing, 2019 M P White et al – University of Exeter

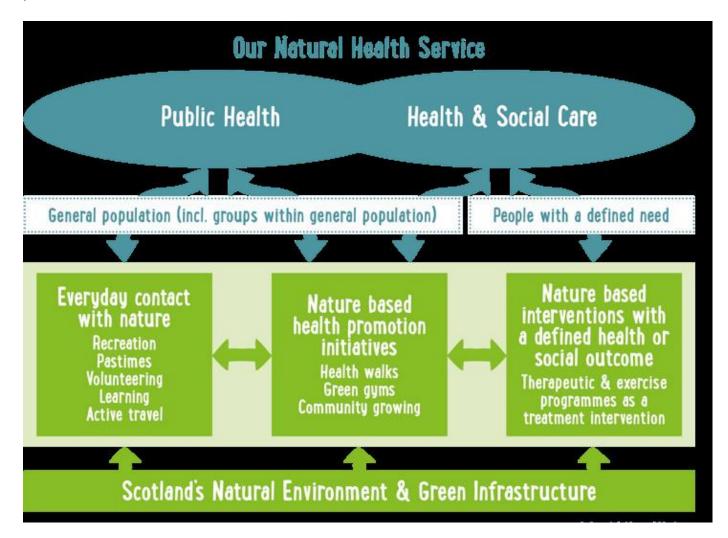
Health and the natural environment: a review of evidence, policy, practice and opportunities for the future, 2018 DEFRA and University of Exeter

"There is compelling evidence that green exercise improves not only our physical health, but also our emotional and mental health as well. I welcome the joined-up approach encompassed in the Our Natural Health Service initiative, the impact of which is entirely consistent with Realistic Medicine."

#### Dr Gregor Smith

#### **Deputy Chief Medical Officer**

The diagram below is sourced from the same NatureScot publication and shows exactly why the WSWG Proposal should be seen as an investment by the Scottish Government in line with worldwide accepted practice.



If we factor in research from other countries such as Japan it becomes clear that the UK governments are grossly underestimating the health benefits and associated financial savings afforded by forest based activities. WSWG has previously highlight such research in its SROI calculations which show for example that people who participated in short periods of structured forest bathing/walking exhibited a 50%

increase in levels of natural killer cells—the body's disease fighting agents – including increased anti-cancer proteins which remained elevated up to 30 days afterwards.

#### References:

Li Q1, Morimoto K, Kobayashi M, Inagaki H, Katsumata M, Hirata Y, Hirata K, Suzuki H, Li YJ, Wakayama Y, Kawada T, Park BJ, Ohira T, Matsui N, Kagawa T, Miyazaki Y, Krensky AM. Visiting a forest, but not a city, increases human natural killer activity and expression of anti-cancer proteins. *Int J Immunopathol Pharmacol.* 2008 Jan-Mar;21(1):117-27.

Li Q, Kobayashi M, Inagaki H, Hirata Y, Li YJ, Hirata K, Shimizu T, Suzuki H, Katsumata M, Wakayama Y, Kawada T, Ohira T, Matsui N, Kagawa T. A day trip to a forest park increases human natural killer activity and the expression of anti-cancer proteins in male subjects. *J Biol Regul Homeost Agents*. 2010 Apr-Jun;24(2):157-65.

Li Q. Kobayashi M, Wakayama Y, Inagaki H, Katsumata M, Hirata Y, Hirata K, Shimizu T, Kawada T, Park BJ, Ohira T, Kagawa T, Miyazaki Y. Effect of phytoncide from trees on human natural killer cell function. *Int J Immunopathol Pharmacol*. 2009 Oct-Dec;22(4):951-9.

#### **Green Health Programme for North Perthshire**

WSWG has established that there is a desperate need across North Perthshire for WSWG's Wellbeing and Resilience Programme as a resource for the local community.

Through the Highland and Strathtay Stronger Communities Network, WSWG has found that local health professionals are very keen to establish a Green Health Programme (GHP) in North Perthshire as have been developed in the four pilot areas around Scotland, including Dundee, as detailed in the NatureScot Green Health Leaflet 2019 (Appendix RP6). Such is the drive for outdoor health benefits, it is now policy in NHS Tayside that staff conduct some walking work meetings outdoors to benefit from the health effects over seated indoor meetings.

WSWG is currently liasing with Perth and Kinross Health and Social Care Partnership (PKC + NHS Tayside) to help catalyse a service whereby health professionals can refer patients to our health and wellbeing nature based activities under our Window on the Woods Vision for Community Wellbeing and Resilience. There is currently nothing in Perthshire like this available to health care professionals, patients or vulnerable groups and individuals.

#### Wellbeing & Resilience Programme 2024 – A Pilot Project for Taymount Wood

As mentioned in Section 1 above, along with P&K HSCP, WSWG has further developed the detail and means of evaluating the potential community benefit impact of WSWG's Wellbeing & Resilience Programme in future. As a pilot project demonstrating the type of activity which will become regular once the woods are in community ownership and to assess the associated community benefit which will accrue, we are collaborating on a programme of events throughout 2024 involving a diverse range of local wellbeing organisations. A stage on from the wonderful programme of taster events WSWG ran for our local community in Taymount and Five Mile Wood pre Covid, called "Feeling Good in the Woods", the 2024 programme will focus on actively including more people living with significant challenges or disadvantage. (Appendix RP7.)

#### 6. Risk Analysis

There are risks, but they can be mitigated or avoided.

#### **6.1 Acquisition risks**

- Excessively high valuation
- Discount conditions from FLS
- Difficulty obtaining funds for acquisition.

#### Mitigation

- Agree FLS purchase price at 0% discount
- Funding to be sought from Scottish Land Fund below £1million cap per asset
- Seek funding from a wide variety of sources, public, private, corporate, crowd funding etc. Hire professional fundraiser

#### **6.2 Management and organisational risks**

- Lack of full spectrum of skills and expertise to run the organisation
- Reduced enthusiasm from trustees, staff and volunteers leading to organisational atrophy
- Insufficient funds to implement scale and type of projects, year-round activities, etc in the Proposal
- Poor cohesion and interaction of management teams leading to ineffective discharge of tasks

#### Mitigation

- There will be strong interaction between the Trustees, staff and representatives in the Wildwood Steering Group as well as other volunteers to ensure skills, enthusiasm and learning is maintained.
- The WSWG Trustees are acutely aware of the need to maintain a high degree of relevant skills and competent leadership and will endeavour to ensure this is maintained. We have sought and will continue to seek advice and mentoring from relevant sources, as well as maintaining a skills base commensurate with Project needs.
- Sound recruitment processes to ensure high quality staff
- Fixed terms of office allow the Board to be refreshed and new members of the community to be invited to contribute
- Trustees will normally spend some time as part of the Wildwood Steering Group to immerse them
  in the workings and any complexities of the WSWG Project
- Site Management Plan to complement Woodland Management Plan
- Funding volumes and availability is likely to be dynamic from year to year and WSWG will be fluid in its management approach. The Office Manager/Fundraiser will commit a minimum of 0.5 days per week to fundraising
- Our projections include early income from timber sales, as well as living forest income streams and community enterprises being developed year by year
- Ensure volunteering activities are fun and rewarding. Spread the activity loads by having lots of volunteers thus avoiding overload stress and fatigue
- Ensure that appropriate financial systems are in place
- Ensure compliance with GDPR
- Ensure robust operational policies and protocols are in place, including safeguarding policies for vulnerable groups and individuals
- Trustee training
- Regular team meetings and assessment of functionality

#### 6.3 Financial and market risks

- Debt
- Poor accounting
- Fraud
- Scale of operations
- Fluctuations in markets

#### Mitigation

- Ensure a robust financial system is in place to prevent potential fraud, debt and poor accounting
- Ensure there is a contingency resource fund available at all times sufficient to meet unexpected costs and emergencies
- Diversity of enterprise activities provides flexibility and resilience in the face of changing markets
- Enterprises and activities will be developed through continuous community engagement

#### 6.4 Planning and regulatory risks

- Non-approval of long-term woodland plan and associated felling license by Scottish Forestry
- Planning permissions for building and infrastructure

#### Mitigation

- Adhere to UK forestry standard and work towards UKWAS designation
- Liaise with PKC in early phase and ensure related legal and planning requirements are in place in good time

#### 6.5 Physical risks

Health & safety of staff and visitors

- Injury from overhanging trees on roads and paths, timber operations etc
- · Accidents during work and recreation activities

#### Mitigation

- H&S protocols established to identify and eliminate risks and unsafe practices
- Staff and volunteers to be trained in first aid and be aware of protocols
- Ensure legal compliance with relevant H&S regulations

#### Climate breakdown:

- Increased disease and fire risk to forest resources
- Loss of Ecosystem services water & air filtration, food resources and biodiversity collapse
- Reduced social returns from woodland users (foragers, bird watchers, children's education, health and wellbeing activities)
- Reduction in variability of financial returns from living forest and timber products from biodiversity loss

#### Mitigation

- Increase species diversity and structural heterogeneity to maximise resilience
- Increase carbon sequestration potential of woodland via innovative and visionary approach
- Assess future impact of global warming on tree species and provenance, to inform long term management plans
- Implement a programme of robust survey and monitoring to better understand how to prevent biodiversity collapse
- Take action to prevent biodiversity loss at all levels:

- 1) Genetic biodiversity loss Ensure connectivity of habitats is a priority and that the carrying capacity of the woodland's species-specific habitats are not eroded and limited due to inappropriate management
- 2) Species diversity loss: work with others to ensure habitat connectivity and free movement of species across the landscape and ensure habitat carrying capacity of vulnerable species is not eroded from destructive management practices
- 3) Ecosystem diversity loss: Seek to protect, enhance and increase the variety of ecosystems and niche habitats within the woodland

#### 6.6 Community engagement risks

 Lack of community engagement leading to reduced wellbeing and social benefits, as well as project deliveries

#### Mitigation

- Continue to develop and expand opportunities for community involvement in the woodland via the Wildwood Steering Group, Window on the Woods Community Working Groups and associated stakeholder network
- Increase the recreational and educational infrastructure potential, working with relevant stakeholders and user groups
- Engage staff with exceptional community engagement skills

#### 7. Reporting and Monitoring

#### 7.1 Reporting

It is essential that we have a robust monitoring and reporting protocol in place to enable us to gauge the effectiveness of our management and activities in delivering meaningful benefits for people and nature.

#### 7.2 Monitoring

Table 11 shows examples of activities and evaluation procedures.

**Table 11: WSWG Project Monitoring** 

Objective	Monitoring
Education	Feedback from participants, schools, groups, individuals.
	Numbers & profile of those involved, skills & expertise obtained
Nature recovery	Monitoring and assessment of species and habitat change.
	Comparing various management techniques and inputs. Soil
	carbon, growth rates, population dynamics. Climate
Community engagement	Feedback from user groups, stakeholders, visitors. Numbers
	and profile of those participating. Story-telling. Reminiscence
	work.
Health and wellbeing	Feedback from participants, user groups. Dedicated surveys
	tailored to specific outcomes.
	Talking therapies
Volunteer hours	Board, Wildwood Steering Group, WotW themed Community
	Working Group, ad hoc volunteering.
SROI Evaluation	Collate sufficient structured feedback to be able to evaluate
	SROI in addition to conventional financial data for the WSWG
	Project as a whole.

The Wellbeing and Resilience Programme 2024 will provide an opportunity for WSWG to establish and test its approach to monitoring and evaluation of community benefit.

#### 8. Outcomes for Government: Connecting with Local, National and Global Priorities

#### **8.1 Connecting with Local Priorities**

Bringing Taymount Wood and Five Mile Wood into community ownership is in the top ten priorities voted for by the people of Stanley in the Stanley Community Action Plan 2023-2028.

Action Partnerships have been established between WSWG and other stakeholders across Perth and Kinross in order to bring services and communities together to tackle local issues and inequalities.

The Strathtay Local Action Plan is the key document for the Strathtay ward in which Taymount is located, in which the priorities for action are:

Key Priority 1: Poverty (Child, Food and Fuel Poverty)

Key Priority 2: Physical and Mental Wellbeing

Key Priority 3: Skills, Learning and Development

Key Priority 4: Employability

Key Priority 5: Digital Participation

WSWG has been included in the Strathtay Local Action Plan as a working partner in several Outcomes and Actions relating to Key Priority 2 around providing outdoor access and Year-Round Activities Programmes with benefits for physical and mental health and wellbeing.

#### 8.2 Connecting with Regional Priorities

WSWG has developed links with several organisations at Perthshire and Tayside level, whose priorities overlap with WSWG's. In particular, WSWG will continue to develop its relationship with Perthshire Nature Connections Partnership (PNCP) and Tayside Biodiversity Partnership (TBP). WSWG is part of the TBP Joint Farming, Upland and Woodland Working Group and contributed to a PNCP workshop at the Biodiversity Conference in January 2022 run by Perth City Leadership Forum under its Perth Most Sustainable Small City in Europe by 2050 programme. WSWG would like very much to be part of the rural input to that initiative.

#### 8.3 Integration with National and Global Priorities

#### **Sustainable Development Goals and Scottish Government Outcomes**

The following section is an extract from our Feasibility Study 2021:

The Scottish Government in recent years has based its National Performance Framework (<a href="https://nationalperformance.gov.scot/">https://nationalperformance.gov.scot/</a>) partly on the United Nations Sustainable Development Goals (SDGs). It intends to achieve all of the goals by 2030. The 17 Sustainable Development Goals are below.

- 1. No Poverty
- 2. Zero Hunger
- 3. Good Health and Well Being
- 4. Quality Education
- 5. Gender Equality
- 6. Clean Water and Sanitation
- 7. Affordable and Clean Energy
- 8. Decent Work and Economic Growth
- 9. Industry, Innovation and Infrastructure
- 10. Reduced Inequalities
- 11. Sustainable Cities and Communities
- 12. Responsible Production and Consumption
- 13. Climate Action
- 14. Life Below Water
- 15. Life on Land
- 16. Peace, Justice and Strong Institutions
- 17. Partnership for the goals

The Scottish Government has taken the 17 SDGs to inform the National Performance Framework which has 11 National Outcomes. These describe the kind of Scotland the Scottish Government wishes to see, aligned with an international sustainable development context. <a href="https://nationalperformance.gov.scot/national-outcomes">https://nationalperformance.gov.scot/national-outcomes</a>. The relevance of the West Stormont project to the 11 National Outcomes is now discussed:

- 1. Children and Young People the project is for the benefit of all ages and young people are a crucial group. There will be recreational and educational activities targeted at this group. They will be consulted on the future of the woodlands.
- **2. Communities** this is a community project and its core driver is the well-being of the local community.
- **3. Culture** the project will be enjoyed by everyone in the local community, seeking to be inclusive of all cultures to be found there. Cultural values will be expressed creatively.
- **4. Economy** green enterprise will add value to primary products such as timber and wild harvest, through processing in the forest. Land-based, artistic, therapeutic and educational skills will be rewarded financially where possible. Rents from huts and other forest buildings will contribute to the forest economy.
- **5. Education** life-long learning is another pane of the Window On The Woods. All ages will have the opportunity to learn from the project and share skills. All will be informed of the Scottish Right to Responsible Access.
- **6. Environment** the protection and enhancement of the forest environment lies at the heart of the project.
- **7.** Fair Work and Business enterprise and innovation will be encouraged and the workplace will be safe, fair and inclusive for all, as far as is possible.
- **8. Health** the active enjoyment of the woodlands will be encouraged. Activities, paid and unpaid, will take place in a positive, supportive environment. Everyone will be respected, leading to good mental health for all.
- **9. Human Rights** the human rights of all will be respected.
- **10.** International the project will be a beacon regionally, nationally and internationally.
- **11.** Poverty the project will play its part in combating poverty in the local area.

"In conclusion, the WSWG aims and objectives are closely aligned with the Scottish National Performance Framework and contributes to all of the National Outcomes" *Donald McPhillimy – Taymount and Five Mile Wood Feasibility report 2021* 

#### Global challenge for Climate and Ecological Emergency

If we place value on the future – one in which the next generations will inherit – then we must adopt the morally best decision options available to us. Bequeathing an uninhabitable planet is not a morally viable option. Therefore the Climate and Ecological Emergency is our greatest local, national and global priority. We are rapidly losing ground in the race to address this existential threat to humanity. WSWG has therefore placed this as a top priority.

#### **Community Resilience**

Food resilience: The recent Special Report on Climate Change and Land (IPCC) states "there is a need to produce about 50% more food by 2050 in order to feed the increasing world population. This would engender significant increases in GHG emissions." Yet the area required to produce food is rapidly diminishing due to global warming and biodiversity collapse.

# PART B LONGER TERM PRIORITIES

**FUNDABLE PROJECTS ON THE HORIZON** 

#### **Longer term Priorities**

#### a. Fundable Projects - medium term Priorities

Whilst the core commitment of this Revised Proposal is the Wildwood Project – Taymount Wood baseline programme, the scope and aspirations for the evolution and expansion of the WSWG Project goes way beyond that both for WSWG Charitable Activities and Services and WSWG Enterprises, as explored in the original CATS Proposal 2022.

As its medium-term priority to progress once the Wildwood Project is securely underway, WSWG has selected the most plausible of these potential additional projects and grouped them below as:

- Horizon 1 Fundable Projects enhanced operations
- Horizon 2 Fundable Projects advanced operations

Fundable Projects: Horizon 1 – enhanced operations	
	Funding requirement
Staff:	
- Community Engagement Manager	£30,000 per year
Habitat:	
- professional Habitat and Species Survey and Equipment	Contracts from £250 to £7,500
	Annual insect survey; others periodic.
Premises:	
- improved Project portacabin base and utilities	Up to £100,000
(if Taymount Hub not proceeding)	op 10 ==00,000
Enhanced WAA Programme:	
- all abilities path (with associated disabled vehicle access)	£37,500
- seats 4	£2,400
- picnic benches 3	£2,400
- open rain shelter 1	£2,500
- refurbish old gates 2	£1,000
- 18 bike toaster rack 1 - bird hide 1	£1,000
	£10,000
- open up Muirside loop path	£1,000 £500
- create new Kingsmyre loop path - MiDAS Phase 2	£22,250
- IVIIDAS I Hase Z	122,230
Income Generating Enterprises:	
- Loggers' Shieling	£20-25,000 (10 year GM £56,000)
- Woodworking Gouges for log hive making 5	£1,000 (10 year GM £7,500)

Whilst there is no great urgency to pursue Horizon 1 Fundable projects in the short term, WSWG sees its reduced staff complement in the Wildwood Project as a limiting factor in delivering the amount and diversity of community benefit it knows the WSWG Project can and wishes to achieve.

As such, WSWG intends to fundraise for the top priority Horizon 1 Project alongside the Wildwood start-up budget for the appointment of a Community Engagement Manager to raise the field staff complement to the share projected for Taymount Wood in the original two woods Proposal. This would increase the capacity of WSWG to service to greater effect the community engagement and Year-Round Activities within the WSWG Charitable Activities and Services programme and help deliver associated income generating activities. Ideally a 3-year Project and appointment, the following table shows the fundraising level required during the 2-year start-up period to secure this additional post for the WSWG Project.

Table 12
2 year start-up costings for part time additional Field Staff post - Community Engagement Manager

Horizon 1 Project - enhanced	1st Year	2nd Year
Community Benefit Programme:		
Community Engagement Manager 3 d/wk	£21,000	£21,000
Overheads	£3,500	£2,500
Enhanced YRA Programme budget - 4 CWG	£4,000	£4,000
Sub total Projects	£28,500	£27,500

Fundable Projects: Horizon 2 – advanced operation	ns
	Funding requirement
Advanced Year-Round Activities Programmes	£15,000 pa
Advanced WAA Programme:	
Board walk – 2 boggy sections core path	£4,500
Ditch bridges 8	£1,600
Steps core path at King's Myre Cottage	£950
Interpretation boards	£1,000 each
Additional name boards 2 (east entrances)	£500 each
Finger posts	£225 each
Additional waymarkers	£40 each
Seats 2	£1,200
Picnic benches 4	£3,200
Children's active play area - 20m x 10m	£35,000
Income Generating Enterprises:	
- Artists' Bothy	£30-35,000 (10 year GM £94,500)

#### b. Fundable Projects - Long-term Priorities

The long-term priority for the WSWG Project at Taymount Wood is premised upon whether or not the Flagship Project at the south entrance goes ahead or not in one or other form at some point in the future.

• Horizon 3 – Taymount Hub Flagship Project

As before, the intention is to determine the style, scale and purpose of a Hub facility through a community-led design process. It is envisaged this could lead down one of three routes.

Option 1: Mini Taymount Hub Option 2: Full Taymount Hub Option 3: No Taymount Hub

#### **Fundable Projects**

#### Horizon 3 - Taymount Hub Flagship Project

#### **Indicative costs & Gross Margins**

Option 1: Mini Taymount Hub: £100,000

A simple, single space outer shell partitioned to provide:

- staff base/project office (basic)
- social venue (basic)
- kitchenette and toilet (basic)
- micro renewables and batteries
- fees

Services (water and power) £50,000

Hub safety fencing £3,500

Income generation:

Mini Hub rental £100,000 10 year GM

Option 1: Full Taymount Hub: £385,000

Purpose-built complex with multiple spaces:

- staff base/project office
- multipurpose community facility
- kitchen and toilets
- micro renewables and batteries
- architects fees
- endowment

Services (water and power) £50,000

Additional staff:

Hub and Green Enterprise Manager (F/T position)£32,500 paCamp 53 service staff (1.5 job equivalents)£31,500 pa

Hub safety fencing £3,500

New car park creation standard + disabled – 50m x16m £36,500 Out of hours vehicle gate £500

Income generation:Capital outlay10 Year GMCamp 53 Café£400,000Camp 53 Shop£110,000Camp 53 Exhibition Space£35,000Camp 53 Meeting Room£85,000Camp 53 enterprise fit out£30,000£630,000total GM

Craft Hamlet £62,500 £85,000

#### **Addendum**

#### **Addressing Key CATS concerns:**

Evidential response to other suggestions and concerns in CATS feedback March 2023

#### **Financial Sustainability**

Opportunities suggested by CATS to increase long-term income:

#### Woodfuel

The reason why WSWG decided in early 2022 to drop woodfuel from its Proposal for Taymount Wood and why it stands by that position in this Revised Proposal is eloquently and fully explained in the letter to the EU Parliament signed by 784 scientists from across the globe, which WSWG submits as Appendix RP8.

- Points that have not been adequately considered in the business case including:
- o Discussions with PKC Planning/Highways to explore feasibility of larger car park and Taymount Hub

WSWG has been in lengthy conversation with the PKC Planning department during 2023 to seek an indication of likelihood of these proposals at Taymount Wood receiving planning permission. In phone conversation, the planning officer did not see any fundamental problem with our proposals, especially given the charitable nature of the WSWG organisation and the limited car parking provision currently available on site or nearby. At this stage, there is no possibility of a meaningful written response for an agreement in principle within the timescale required without more detailed drawings and a significant fee.

- Market research into Displacement due to proposed WSWG activities.
   See below.
- Strengthening partnerships with:
  - o The Woodland Trust who own a nearby site with an established car parking infrastructure
  - Stanley Development Trust

#### One Wood with a Gap in the Middle?

WSWG's Vision for the two neighbouring woods, Taymount and Five Mile, a mile apart, as a catalyst for collaborative community action at local landscape scale remains steadfast as a platform for taking meaningful action for the climate and biodiversity emergencies, some of which is already underway.

Tayside Biodiversity Action Partnership has included Taymount and Five Mile Woods in the envelope map drawn up for Stanley as a prospective Biodiversity Village, the process for which is underway with an online Mini Bioblitz and to continue with the community mapping exercise during autumn 2023.

The Woodland Trust which owns and manages Kinclaven Bluebell Wood a field away to the east of Taymount Wood is supportive of the WSWG Project and the West Stormont Connect initiative, as well as intimating their willingness to work with WSWG through their Outreach Group going forward. Perhaps a more appropriate descriptive motto would be One Wood with Two Gaps in the Middle. (Appendix RP10.)

Stanley Development Trust (SDT) is also very supportive of the WSWG Project whose letter expressing that support was included with the original CATS Proposal in December 2022. During 2023, SDT has led the Stanley Community Action Plan process, with WSWG on the Steering Group and a participant in the Rural Focus Group. In the community voting, out of 21 Priorities for Action, community ownership of Taymount and Five Mile Woods was 9<sup>th</sup> equal. A letter of support from Stanley Development Trust was submitted with the original CATS Proposal in December 2022 (Appendix BP10).

WSWG is part of the process to set up a Perth and Kinross Climate Action Hub.

#### Governance

The Panel noted that there has been a consistent core of trustees since the initial interest in the two woods in 2018, which includes people with land management skills, ecological skills and third sector experience.

#### **Key CATS concerns about WSWG governance**

• A gap in financial oversight and fund-raising capacity for such a high value project

#### **Fundraising capacity**

One of the current board members was MD of a business start-up training company in the 1990s. Another has past experience in the agriculture sector providing technical, business and financial management advice and support to farm businesses.

The majority of the current board members have fundraising experience stretching back up to 40 years including agricultural and forestry grant schemes, SRDP, SITA, a successful £250k application to the Climate Challenge Fund in 2014, the PKC Community Investment Fund in 2019-20 and the Investing in Communities Fund Round 2. One board member has recently sat on the Strathtay Local Action Plan panel for judging funding applications from local community groups.

At the Community Woodlands Association Conference in 2022, a WSWG board representative attended the workshop on Fundraising & Grant Applications: How to make a good application & keep funders on board. Raising funds from Trusts and Foundations in a highly competitive arena. How to make your application stand out against the rest. Good stewardship and how to keep your funders happy. WSWG has had to reduce the fundraising post in the Wildwood baseline programme, but there is potential to expand on this under Fundable Projects. In the event of insufficient in-house time and skills, WSWG will contract professional fundraisers to assist in larger or more complex applications. We have already liaised with three independent funding professionals who would provide this service.

WSWG has progressed its fundraising strategy during 2023 and has compiled a tailored database of prospective funders, both local and other, which WSWG is currently working through to identify willing donors. A programme of letters and emails is underway to initiate contact. A link has been made with a Crowdfunding company with a view to setting up a complementary fundraising campaign in the coming months.

Following attendance at a funding roadshow organised through PKC in May 2023, a funding application was submitted to the Gannochy Trust for a capital contribution towards acquisition of Taymount Wood. Whilst it was not successful, the Trust extended an invitation to WSWG to instead submit an application for start-up costs in due course.

#### Financial oversight

Regarding financial management going forward, WSWG has recently appointed Alyth-based KWG Accountancy to provide a financial system and oversight for the WSWG Project.

#### **Community/Social Benefits**

#### Displacement

The concerns regarding displacement of commerce from any potential WSWG enterprise activity (café, Hub, food outlet, creative arts) and job displacement and deadweight associated with our SROI valuation of WSWG job creation were raised against us in our original submission. We have previously addressed these at great length in our reply to FLS in June 2023. We have also since met with various advisors including

Third Sector Interface, P&K Business Gateway/Elevator, Evaluation Support Scotland, Social Value Lab and the Community Ownership Support Service.

WSWG was advised by P&K Business Gateway that, "Strictly speaking displacement is an economic concern so your charitable/communal activities that are free shouldn't be considered at risk of displacing local business."

The issue of displacement around WSWG enterprise activity and employment is examined here using the Tayside Cities Regional Economic Strategy 2019-2039 as an evidential source.

#### 1) Restaurant, Café and Coffee Shop market

"Food and Drink is one of six growth sectors identified within Scotland's Economic Strategy"

This shows there is plenty of scope for additional services should WSWG wish to deliver any of them at some stage in the future. Most people that would visit our food outlet (café, food forest, etc) would be there for the woodland experience anyway, rather than visiting a sit-down café to meet with friends. The Stanley Community Action Plan consultation in 2023 has identified a need for a wider range of sit-down places to meet up with friends. Passing trade from tourists and trades people would equally be opportunistic by road location and not destination-based.

#### 2. Creative Industries

The Tay Cities Regional Economic Strategy also identifies creative industries as being growing markets in full swing at the moment. This supports and validates the portfolio of enterprises WSWG included in its original Proposal, including The Artist's Bothy, the exhibition space in the Taymount Hub and the Craft Hamlet. It also validates the Culture and Creativity theme on the Window on the Woods Vision and the scope for collaboration between that Community Working Group and the Community Green Enterprise CGW to develop potential income streams through the membership and local community.

#### 3) Job displacement

The Tay Cities Regional Economic Strategy states that "Up to 230,000 Scottish jobs could be at risk from automation." Therefore, WSWG does not consider its staff posts are simply deadweight or even displacement under its SROI evaluations. This is especially the case when considering the specialised nature of the posts and severe lack of alternative opportunities for such jobs in the region.

Whilst we intend to seek public funding towards staff posts as 2-year start-up costs, the expectation is that thereafter WSWG staff posts would be funded independently of the public purse.

"WSWG's proposals would enhance education benefits through the proposed forest school activities and the forest food activities. Again, however, the baseline for assessing these benefits would need to take into account existing provision and the potential for displacement from existing forest school and similar activities locally."

WSWG's mission and ethos is to work with rather than compete with compatible local businesses. Its financial projections do not currently include income from forest school activities, although that could well evolve. To date, WSWG has paid a local Forest School provider and a local outdoor adventure company to run free taster sessions for local people. In the past year, the same Forest School provider has advertised for more staff to meet increasing demand locally. It is a distinct possibility that in future, with Taymount Wood as an ideal venue, WSWG would enter into a business arrangement with existing or new forest school providers looking to serve this increasing demand. PKC are also recognising this increase in demand and benefit and as such are providing training in outdoor kindergarten and related educational services. In the first instance, WSWG's forest school and outdoor adventure events are likely to be charitable services and activities and therefore not subject to displacement concerns.

#### Transport and connectivity

WSWG wishes to address here CATS concerns as to the level of demand for community transport services as offered through the WSWG MiDAS Community Transport Project and how much of the benefits for key target groups are additional and not simply displacement. WSWG has already encountered a lack of trained MiDAS drivers to meet its community benefit activities to date.

The Tay Cities Regional Economic Strategy states under Transport:

- "Key issues and challenges include:
  - issues around poor rural transport
  - rural transport connectivity and public transport services
  - poor public transport connections in rural area "

The WSWG MiDAS Community Transport Project will therefore be a valuable resource for the community. However, in order to avoid reliance on external and third party funding, in this Revised Proposal, it has been necessary to scale down the MiDAS Project within the Wildwood baseline budget. The remainder of the original MiDAS Project has been included in Horizon 1 Fundable Projects.

To further address a risk of over-dependence on car travel to access the woods, WSWG includes in its Revised Proposal a Travel Plan (Appendix RP9) which builds on and strengthens WSWG's original MiDAS Community Transport Project and postpones consideration of additional car parking at Taymount Wood. This also fits well with the West Stormont Connect Active Travel theme.

The Wildwood baseline will not include a new car park but will include upgrading and maintaining the current parking area and marking it out for optimum and safe parking use. Some existing hard standings within the woodland itself have the capacity to absorb a certain amount of parking overspill associated with organised community activities. These can easily be expanded if required at low cost. The default position will be that WSWG will only consider a new car park if associated with one of the Taymount Hub Options proposed in Horizon 3 Fundable Projects. However, it may be that public demand or indeed a need for safer parking brings forward that debate, whether or not associated with a welcoming Hub facility at the south entrance.

WSWG nonetheless has a different view to the CATS claim that "the inability to access the woodlands easily on foot or by bike on the narrow and busy road to Taymount limits access to car-owning households". Indeed the C406 is busy and twisty, but it is not narrow. Moreover, access to Taymount Wood is well served off-road by the core path network as shown in the maps below, which show much used circular routes as well as gaps and opportunities for improvement in future. The local community is working with PKC (specifically, but not only, their Road Safety and Active Travel Officer) to address traffic issues on the C406, which is also expected to significantly reduce once the Cross Tay Link Road is opened in 2024. Perth and Kinross Countryside Trust is also working on a long-distance walking and cycling route, the River Tay Way, which will incorporate and improve the path network in this area.

Taymount Wood as a community woodland will empower the local community and give huge leverage to the local active travel momentum for improved path maintenance, additional short loops, community bus, reinstatement of a public bus service with a bus stop at the main entrance, safe crossing point, speed limit and more. Far from being a reason for not having a community woodland here, it is a missed opportunity not to have a community woodland as a star feature in the local Paths and Places provision.

WSWG and the WSWG project need to be seen in the context of what else is going on in the community and local area to improve all the things highlighted as barriers or impediments in this CATS process. It is about playing a part in collective networking, integratedness, hybrid vigour, opportunism and gradual and occasionally thrilling progress. WSWG is not an isolated project.









### How can the WSWG Living Forest vision be multiplied to best effect?

Taymount Wood represents about 0.03% of current forested land in the national forest estate. There are bound to be many more woods in both the national forest estate and privately owned which are ideally positioned for similar treatment as WSWG proposes for Taymount Wood.

WSWG's dream is that private and public forest owners and managers across Scotland would examine their forest portfolios for woodlands which could be candidates for Nature Recovery and Living Forest systems through their own in-house management.

Five Mile Wood could be an ideal opportunity for this in the coming five years.











## appendices

#### **List of Appendices**

Appendix RP1 Letter of Support from Professor Dave Goulson, University of Sussex

Appendix RP2 WSWG SROI Forecast (Revised 2023)

Appendix RP3 Wellbeing and Resilience Programme 2024

Appendix RP4 WSWG Trustee and Wildwood Steering Group Biographies

Appendix RP5a WSWG Wildwood Project Financial Projections Years 1-10

Appendix RP5b WSWG Wildwood Project Financial Summary with P&L Years 1-10

Appendix RP6 Our Natural Health Service (NatureScot April 2020)

Appendix RP7 WSWG Feeling Good in the Woods Monitoring Report 2019

Appendix RP8 World Scientists' letter to the European Parliament 2023 – Biofuel and Climate

Appendix RP9 WSWG Travel Plan

Appendix RP10 Letter of Support from the Woodland Trust Scotland

#### Abbreviations used

WSWG (pronounced Wizzywig!) West Stormont Woodland Group

SCIO Scottish Charitable Incorporated Organisation

SROI Social Return on Investment
CATS Community Asset Transfer Scheme

FLS Forestry and Land Scotland

SLF Scottish Land Fund
PKC Perth and Kinross Council

P&K HSCP Perth and Kinross Health and Social Care Partnership

TSI Third Sector Interface

COSS Community Ownership Support Service
SSEN Scottish and Southern Electricity Networks

WotW Window on the Woods (Vision)
CWG Community Working Group
MiDAS Minibus Driver Awareness Scheme
LISS Low Impact Silvicultural System

ha hectare

BITT Burmieston in the Trees

UN United Nations

GNH Gross National Happiness
GDP Gross Domestic Product
AGM Annual General Meeting

GM General Meeting

P/T Part time

YRA Year-Round Activities (Programme)

WAA Welcome, Access and Accessibility (Programme)

EV Electric vehicle
BNG Biodiversity Net Gains
SRW Small round wood

NGO Non-Governmental Organisation

NHS National Health Service

VAT Value added tax

CAS (WSWG) Charitable Activities and Services

Ents Enterprises

GDPR General Data Protection Regulations

H&S Health and Safety

TBP Tayside Biodiversity Partnership
SDG UN Sustainable Development Goals

SNH Scottish Natural Heritage (now NatureScot)

Appendix BP Indicating an Appendix to the Business Plan
Appendix P Indicating an Appendix to the Proposal

Appendix TW Indicating an Appendix to the Woodland Management Plans

Appendix RP Indicating an Appendix in this Revised Proposal



25 September 2023

To West Stormont Woodland Group (WSWG),

As a specialist in insect conservation I am very happy to write in support of WSWG's plans to bring Taymount Wood into community ownership, for the benefit of biodiversity and the local community.

WSWG is prioritising nature recovery as a primary objective of woodland management. We are in a biodiversity crisis, and urgently need to act. The emphasis on increasing the diversity and abundance of insect habitat and ensuring ecological continuity of these essential resources will help underpin and regenerate the woodland ecosystem from the bottom up.

The ecological value of trees rises significantly after around 80 years of age due to increased biomass, diversity and abundance of habitat niches such as deadwood habitat, holes and crevices etc. However, under typical forestry management, trees are usually felled at between 40-60 years of age, thus depriving woodland species of these habitats. WWF recently called on European governments to help conserve Biodiversity by substantially increasing deadwood in forests by 2030. WSWG's aim of increasing deadwood habitat will help ensure continuity of essential habitat to a wide range of species while trees mature and natural sites within the woodland become more abundant across future decades.

The proposed substantial increase in flowering plants and shrubs, and tree species such as wild apple and hawthorn in the Nature Recovery zones will afford a valuable feeding resource for insects including adult stages of deadwood specialist beetles. Oak restoration across the woodland will also add great biodiversity value. The aim of creating an oak network across the woodland and linking with the adjacent Kinclaven Bluebell Wood owned by the Woodland Trust is in line with the drive for local landscape scale ecological connectivity.

WSWG plan to implement species-specific measures to halt the decline of vulnerable invertebrate species through targeted actions at forest scale. Such actions are generally absent from conventional forestry management due to lack of knowledge, resource and intent.

The proposed nature-based health and wellbeing activity programmes should help install a greater appreciation of our dependence upon the natural environment and the urgent need to protect it.

WSWG is addressing the limitations of the conventional forestry system that places severe constraints on nature recovery, by challenging the accepted view in the commercial sector that the UK Forestry Standard is as good as it gets for nature conservation and there is no need for disruptive change. Yet our biodiversity is in free fall, and we are called to action. WSWG has adopted the principle of Nature Needs Half and their actions should inspire other communities to follow suit.

Best wishes,



**Prof Dave Goulson** 



A Revised Statement on Social Return on Investment (SROI) for Taymount Wood Analysis of potential social value of bringing Taymount Wood into community ownership September 2023



#### **Summary**

In this SROI study, WSWG has demonstrated our Living Forest, economic, nature-based initiatives will not only deliver meaningful social and financial benefits to local communities, but will also deliver wider outcomes to the Scottish economy. For the purposes of calculating the more tangible direct benefits deriving from the WSWG management of its charitable activities and services we have focused on health and wellbeing benefits gained from participation in woodland based activities including volunteering opportunities. However, there are other significant benefits which tend to go unrecognised, but which must be acknowledged due to the gravity of impact of ignoring them. These are the ecosystem services afforded by nature, our life support system.

In assessing the benefits of community ownership of Taymount Wood, Scottish Government agencies and policy makers should consider a range of benefits that are not obvious, but could be of profound importance to the community. Some of these benefits and their associated economic value are examined within this report. Figures and methodologies may well be debated, but the underlying outcome is that of a profound value to people and the local economy and meeting government targets.

Potential direct tangible community benefits from the Wildwood Project based on methodologies used in the references listed in this report.

 Wellbeing and resilience: £217,284/year

• Job creation: £4,284/year

• Voluntary sector: £35,870/year

Community food growing: £26,000

The community benefit outcomes align with 8 out of 11 Scottish Government National

Outcomes:

Children

Communities

Culture

Economy

Education

Environment

Fair Work and Business

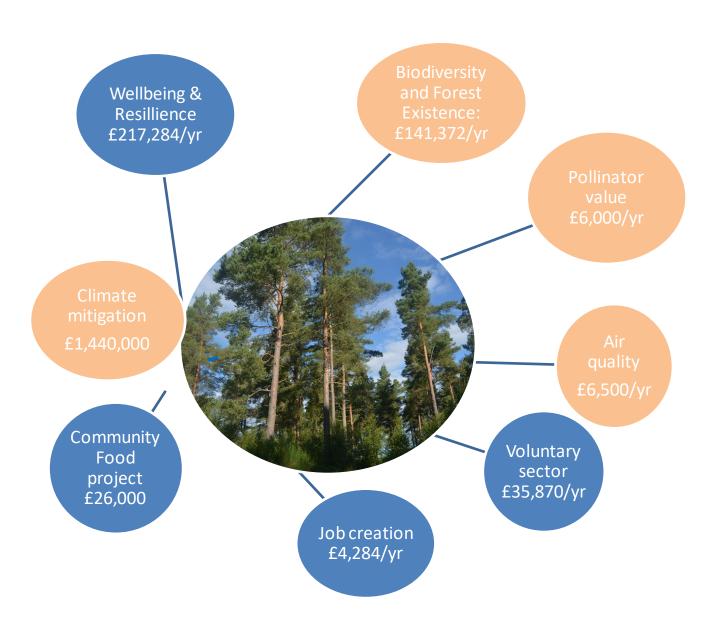
Health

A different methodology of calculation of investment and return based on the case studies within the report is shown below. This shows a potential annual value using the case studies as reference points for ratio of investment to economic return from the Wildwood Project Community Benefit Programme assuming it is supported by half the annual investment in the Wildwood Project. These figures are indicative.

	Potential annual	% of value within	Ratio of return per £	Corresponding
Wildwood Community	value derived from	overall Community	identified through	annual investment in
Benefit Programme	reference sources	Benefit Programme	reference case studies	Wildwood Project
Wellbeing & resilience	£217,284	73.42%	1 : 6.75 pa	£32,190
Community Food growing	£26,000	8.79%	1:7 pa	£3,714
Pollinator value	£6,000	2.03%	n/a	n/a
Air quality	£6,500	2.20%	n/a	n/a
Job creation	£4,824	1.45%	1:10.72/3yrs	£1,200
Voluntary sector	£35,870	12.12%	1:3 pa	£11,957
	£295,938	100.00%		£49,000

If we assume that scale of operations and investment in the WSWG Wildwood Project amounts to around £100,000 per year, if half relates to woodland management for nature recovery and half to direct community benefit, the SROI research that WSWG has done suggest that for this £50,000 investment in the Wildwood Project, there could be a social return to the Scottish economy of £295,938 per annum.

Diagram showing full range of potential values for community benefits arising from WSWG management In the diagram, the direct community benefits in the above table are shown in blue. The peach colour indicates ecosystem services which WSWG has not included in its SROI forecast.



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#### 1. Introduction

The Scottish Government has signed up to the Wellbeing Economy Government's partnership (WEGo). This collaboration of national and regional governments is aimed at advancing expertise and understanding to build wellbeing economies. WSWG has, from its formation, held this ethos as a driver for its approach to community woodland ownership. We also aim to use these woodlands to catalyse a landscape scale approach to supporting a wellbeing economy through the local West Stormont Connect initiative. We have drawn inspiration from Bhutan, with its Gross National Happiness (GNH) approach to governance over GDP. Their four pillars of GNH include:

- Sustainable & equitable socio-economic development
- Good governance
- Preservation of environmental diversity (ecological diversity and resilience)
- Preservation of cultural values & diversity (wellbeing and community vitality)

"The end result of any development activities should be the attainment of GNH" (Constitution of Bhutan, 2008)

Their understanding that "genuine happiness" arises from, amongst other things, a sense of harmony with the natural world, together with the ecosystem services it provides, has prompted them to enshrine in law a

minimum conservation of 60% forest cover across the country in perpetuity, most of which is native forest. This is in comparison to an average of 37% forest cover across Europe and less than 20% in Scotland and the UK, most of which is non-native forest.

Towards achieving the aims of wellbeing economic objectives, Social Return on Investment (SROI) has become a method for measuring a monetary value that incorporates social, environmental and economic impacts. It is a way of assessing the value created by our activities and the factors which facilitate that activity. It is also one way of recording the history and story line of a particular journey.

There are two recognised forms of SROI - **Evaluative**, which is conducted retrospectively and based on actual outcomes that have already taken place, and **Forecast**, which predicts how much social value will be created if the activities meet their intended outcomes.

This evaluation examines the Forecast of SROI from Taymount Wood as a future community woodland and associated community benefits arising from WSWG's proposed management of it. The SROI analysis draws upon an assessment of existing studies and published reports from a range of well-known, mainstream sources (eg The Woodland Trust and NatureScot) to give an indicative potential social value, applied to WSWG's anticipated vision for the woodland and outcomes from the WSWG Wildwood Project at Taymount Wood.

WSWG cannot profess to be expert in this complex field but it has conducted thorough research in good faith with a view to illustrating the unseen value of nature as an integral part of the economy.

#### The Theory of Change

The theory of change which we are basing our analysis on is that through innovative, meaningful and consistent community engagement via woodland activity programmes, a positive benefit within the community is promoted.

Our anticipated outcomes will be generated under the themes of improved mental and physical health and wellbeing through a positive engagement with nature. The recognised Natural Health Service these woodlands can provide under WSWG management will be as a preventative intervention that can mitigate the need for higher social and health related costs.

Additional outcomes will include reduced economic impact from health-related days off work, increased employment opportunities and associated economic benefits to society, ecosystem services and enhanced community cohesion and resilience.

#### 2. Wellbeing and Resilience outcomes from woodland engagement

#### Annual value of £217,284.

Rationale:

The weight of evidence proving the health benefits to people from engagement with nature is indisputable. Governments the world over are actively incorporating this into public health programmes. The Scottish Government is no exception in recognising the health benefits of promoting nature-based solutions as a means to both improve people's lives and make significant savings for the Scottish economy. WSWG has been promoting nature-based activities for people for 5 years now in Taymount Wood and Five Mile Wood and is proposing a substantial upscaling of activities following community ownership. Relevant findings came from a Natural Health Service study with the Community Forest Trust, an environmental charity supporting community forestry in England - "Measuring the social return from investment in the Natural Health Services".

The study concluded that the Social Value, viewed over a 5-year period, of the total impact from 6,000 participants engaging in woodland-based activities for limited periods was £13,037,051.

Total investment figure in the same period to generate this value was £1,931,500.

Social return of £6.75 for every £1 invested.

#### Relevance of this study to the WSWG Project:

The study examined the outcomes of participants engaging in targeted activities. These included:
Forest school
Health walks
Horticulture Therapy and Green Gyms
Mindful contact with nature

WSWG intends implementing all of the above activities and many more as part of a comprehensive suite of themes in its "Window on the Woods" Vision. Using the statistics from the Community Forest Trust study above, where WSWG predicts a basic number of 100 participants who complete a programme of healthy living involving weekly engagements per year would give an <u>annual value of £217,284.</u> Even at a 90% reduced value for whatever reason as yet unknown, it still gives an annual value of £21,729.

However, the WSWG pilot project outlined for 2024 has an estimated 531 participant engagements from a diverse year round programme of tailored events. While this delivery is restricted in duration, it still shows the potential for community benefit even before staff are in place.

There is a severe lack of similar activity types across Perthshire and mostly confined to expensive holiday retreats. There is no regional Green Health Partnership (GHP) service which allows health care professionals to prescribe nature-based activities such as exists in Dundee and Angus and three other regions across Scotland. WSWG is already networking with organisations such as the P&K Health and Social Care Partnership to catalyse a GHP in the region where Taymount Wood would be a resource for patients, vulnerable groups and

individuals to visit either independently or as part of structured activities under the many themed programmes.

#### References:

**Natural Health** Service study with the Community Forest Trust "Measuring the social return from investment in the Natural Health Services".

NatureScot "Scotland's outdoors, Our Natural Health Service"

#### Mental health statistics for Scotland

**£8.8 billion =** the cost of mental illness to the Scottish economy

Reference: Mental Health Foundation and the London School of Economics and Political Science (LSE),

**94%** = percentage of people who visited the outdoors and stated it "helps them de-stress relax and unwind" Reference: Nature Scot Scotland's outdoors, Our Natural Health Service

#### Forest walking = better for health than urban walking

Reference: (Mitchell, 2013) *Is physical activity in natural environments better for mental health than physical activity in other environments? Social Science and Medicine, 91, 130–134*)

1 in 4 = number of people that will suffer mental health problems per year.

Reference: (MIND 2017)

**20.6%** = percentage of people having suicidal thoughts over their lifetime.

Reference: (MIND 2017)

(Mitchell, 2013) Is physical activity in natural environments better for mental health than physical activity in other environments? Social Science and Medicine, 91, 130–134)

#### Forest bathing and forest walks

#### References:

Li Q1, Morimoto K, Kobayashi M, Inagaki H, Katsumata M, Hirata Y, Hirata K, Suzuki H, Li YJ, Wakayama Y, Kawada T, Park BJ, Ohira T, Matsui N, Kagawa T, Miyazaki Y, Krensky AM. Visiting a forest, but not a city, increases human natural killer activity and expression of anti-cancer proteins. *Int J Immunopathol Pharmacol.* 2008 Jan-Mar;21(1):117-27.

Li Q, Kobayashi M, Inagaki H, Hirata Y, Li YJ, Hirata K, Shimizu T, Suzuki H, Katsumata M, Wakayama Y, Kawada T, Ohira T, Matsui N, Kagawa T. A day trip to a forest park increases human natural killer activity and the expression of anti-cancer proteins in male subjects. *J Biol Regul Homeost Agents*. 2010 Apr-Jun;24(2):157-65.

Li Q. Kobayashi M, Wakayama Y, Inagaki H, Katsumata M, Hirata Y, Hirata K, Shimizu T, Kawada T, Park BJ, Ohira T, Kagawa T, Miyazaki Y. Effect of phytoncide from trees on human natural killer cell function. *Int J Immunopathol Pharmacol*. 2009 Oct-Dec;22(4):951-9.

#### 3. Community food project

#### Social value of £26,000

Rationale:

A priority of WSWG is that of educating people to become more aware and self-confident, building community cohesiveness and resilience with food growing in a world where food security is being increasingly threatened by global warming, loss of biodiversity and war. Our objective includes community food forest, commercial food forest, edible forage trails and hazel orchards.

Research carried out by the Countryside and Community Research Institute (CCRI) in 2014 on the SROI of local food programmes which covered three separate community food growing initiatives, revealed that for every £1 invested in Local Food (including not only the grants but also the value of volunteer time and other in-kind contributions) generated just under £7 for society. This represents a 700% return on investment for Local Food.

Our Community/Mini Food Forest project on its own should therefore give around £26,000 in social value return for the £3,800 set-up investment. There will be a continual community benefit through subsequent years as this community-led project evolves.

References: Countryside and Community Research Institute (CCRI) in 2014

#### 4. Job creation

#### Annual value of £4,284 per job created

Rationale:

The full scale WSWG project submitted in December 2022 proposed 5 full time jobs after year 6, with an estimated social value return of £207,413 over 10 years not including part time jobs. Due to FLS requesting the project is scaled down we have put together a smaller community benefit package to reflect this. The reduced scenario has the equivalent of 1 full time worker with this having the potential to increase across additional fundable projects.

Using the Street Elite report referenced below which indicated a £10.72 return to society over a 3 year period for every £1 invested. WSWG estimates the social value and impacts of job creation per person over a 3-year period for 1 full time job equivalent are valued as:

- 1) Avoiding social security benefits payments and increased tax payments on earnings from working = £2,127.37
- 2) The economic contribution made by each person moving into employment =£3,407.61.
- 3) Reduced health costs & increased well-being and associated benefits = £8,939.29.

This gives an annual value to society of approximately £4,824. per job created.

This value is regardless of whether the job is funded by public funds or private. In addition, WSWG is only seeking funding for start-up costs for the first 2 years only and at this stage there is no confirmation as to how

much public funding, if any, will contribute to job creation. WSWG has already been invited to submit a funding application to the Gannochy Trust for start-up costs.

#### References:

Street Elite, Social Return on Investment Analysis Report 2019, Bean Research, Berkeley Foundation and the Change Foundation.

#### 5. Voluntary sector and volunteering

- **5.1 Annual value** of volunteering to society of £35,870
- **5.2** Annual value of volunteers of £4,221 based on 2 months of volunteering:
- 5.1 Rationale: We have based our forecast valuation partly on the SROI Analysis of the Greenlink, a partnership project managed by the Central Scotland Forest Trust (CSFT) Greenspace 2009. The report found that from 185 volunteers participating over one year, the Net Present Value was £976,552 over a five year period, equating to a ratio of £3 return to society for every £1 invested. This gives an average annual value of £1,055 for each volunteer.

WSWG case study: Tow community projects run by WSWG during 2023 attracted 35 volunteers across 53 volunteer engagements. Discussions with volunteers concluded only 1 person had the choice to volunteer on a different event unrelated to WSWG. (This equates to roughly 3% deadweight.) Our initial SROI report 2022 used a minimum estimate of only 18 volunteers, yet WSWG almost doubled this in 2023 with just 9 events over 2 months and more are planned for the rest of the year. In addition, in the WSWG Wellbeing and Resilience Programme 2024, we have an estimated 531 participant engagements from vulnerable groups programmed in for activities. This will require dedicated volunteer output until we are in a position of owning the wood and hiring staff. All things considered including deadweight and displacement, our calculated annual value is based upon 34 volunteers (35-1) at £1,055 per volunteer.

5.2 Rationale: A different way to calculate this is a basic payment system of what volunteers would be paid if working. However, this system excludes the wider economic benefits to society and is based on the Office of National Statistics and Scottish Government's guidance. This comes out at £15.75/ per hour over 268 hours for just 9 events over 2 month period to £4,221. The actual anticipated number of participant engagements over the remainder of 2023 year is higher.

#### References:

- Greenlink, a partnership project managed by the Central Scotland Forest Trust (CSFT) Greenspace 2009.
- Office of National Statistics 2023
- Scottish Government volunteer calculator.

#### 6. Ecosystem Services

The Taymount and Five Mile Woods provide a wide range of ecosystem services including air quality regulation, carbon sequestration, water filtration, soil formation, nature-based tourism and recreation, noise buffer, natural health service and pollinator resource for both community and commercial food growing.

While it is impossible to put an accurate figure on these services, they are still recognised by government and integrated into policy and legislation.

#### 6.1 Pollinator value

#### Annual value of £6,000

#### Rationale:

The woodlands are host to many pollinating species including social and solitary bees, hoverflies and other insects. Our aim is to substantially increase the essential habitat of these species throughout the woodlands, resulting in a significant increase to their numbers and diversity.

We envisage this will have meaningful benefits to society including:

- Increased pollination rates to food producing local gardeners and landowners.
- Increased pollinator populations across the wider landscape as the woodland carrying capacity is exceeded, leading to increased dispersal of pollinators into the wider landscape.
- The woodlands will be resilient refugia for pollinators in times of landscape-scale biodiversity decline, for example under increasing global warming influences.
- Educational resource where people from local or further afield locations can come and learn how to manage pollinator species and their habitats.

Pollinators contribute around £400 million to the UK economy annually, not including the millions of pounds saved by householders growing their own food and health care cost savings to the NHS from those eating home grown healthy foods. Therefore, our nature recovery strategy that will benefit pollinators and their value to the wider communities must be valued in economic terms.

In the absence of raw data for appropriate calculations, we have attributed a nominal ecosystem value of £50 per woodland hectare over the 120 hectares of Taymount Wood outwith the sustainable timber production zones.

#### References:

- The average economic benefit for apple orchards from bee pollination was estimated to be up to £14,000 per hectare. *Garratt et al.* (2014)
- National Pollinator Strategy: evidence statements and summary of evidence http://sciencesearch.defra.gov.uk

#### 6.2 Air purification

#### Annual value of £6,500.

#### Rationale:

We have attributed a nominal value at £50/ha/year over the 130 ha of Taymount Wood not being felled in Phase 1 Years 1-5. To put this value in perspective, one hectare of urban woodland has been estimated to improve health to a value of nearly £150,000 a year, based upon early death prevention and reduction of hospital visits due to air pollution.

References: Woodland Trust; Economic Benefit of Woodland 2017

#### 6.3 Climate change mitigation

#### Value in perpetuity £1,440,000

Rationale:

The Climate Change Act 2008 estimated UK costs of between £324bn and £404bn for enacting measures to avoid and mitigate the impact of a 1.5 degree rise. However, the benefits were estimated between £457bn and £1,020bn (DECC, 2009). The world is currently on track for a 3 degree rise. The collapse of civilisation under a temperature rise of 3 degrees is likely to be unavoidable, (World Economic Forum 2020) and reiterated by the IPCC 2023. The Scottish Government has a target of Net Zero by 2045.

The Woodland Trust report 2017 (*The Economic Benefit of Woodland*) states that the value of climate change mitigation is estimated at £16,000 per hectare for standing timber. The way in which a woodland is managed has a direct impact on the climate change mitigation potential. For example, our objective of retaining and enhancing a substantial area of maturing mixed woodland as biological reserves is in keeping with the principle outlined in the process of "proforestation" – a term used to describe allowing trees to reach their biological potential, thus maximising their carbon sequestration potential within trees and undisturbed fungi rich soils. We have estimated a minimum of 90ha @ £16,000/ha. We have excluded areas where harvesting will occur. We do not consider the 90ha as deadweight because as mature woodland this would be felled by another private owner.

#### References:

- The Woodland Trust; The Economic Benefit of Woodland
- Fen Montaigne, Why Keeping Mature Forests Intact Is Key to the Climate Fight, Yale Environment 360, 15 October 2019.
- Harmon, Mark; Ferrell, William; Franklin, Jerry (9 February 1990). "Effects on Carbon Storage of Conversion of Old-Growth Forests to Young Forests". Science. 247 (4943): 699–702.
   doi: 10.1126/science.247.4943.699. PMID 17771887. S2CID 29755884. Retrieved 12 November 2020.
- <u>"Proforestation"</u>. Regeneration.org. Retrieved 2023-02-01.

#### 6.4. Biodiversity, Forest Existence and Bequest

#### Annual value of £141,372

Rationale:

Although the current forest valuation system used by the forestry industry and government economists usually focus on the market value of forest products, such as timber and land, it is clear this thinking has significantly restricted other values, such as the non-timber use benefits and specifically the existence values.

However, awareness that forest existence values are real and growing in society, with many people showing their willingness to pay to conserve the forests and their associated wildlife. Our objective of proforestation, nature recovery and naturalisation of substantial areas of the woodland ensures this value is increasingly realised, more so than the usual system of rotational felling and restocking across a biologically impoverished woodland.

The Woodland Trust report 2017 (The Economic Benefits of Woodlands) estimated the Value of Existence and Bequest - <u>safeguarding woods and their associated biodiversity for future generations</u> - at £1,848 per hectare per year for new broadleaved woodland. Taymount Wood is an ancient/centuries old woodland with predominantly mature Scots pine/broadleaved mixed with valuable residual biodiversity, that far exceeds most new broadleaved plantings. It is also accessible to the public.

WSWG has produced a woodland management plan that will ensure the ecological and aesthetic values of these woodlands are protected and substantially enhanced for future generations, thus maintaining this value. The same cannot be said if a private buyer were to acquire the woodlands and exploit them for short term timber profits, while at the same time restocking with exotic conifer plantation monoculture, resulting in a catastrophic impact on biodiversity, woodland aesthetics and amenity values. To claim that this outcome is unlikely is to ignore the reality of investment forestry history over past decades and still prevalent today.

While it is impossible to put an accurate value to the comparisons of impact from different future management objectives, we have used the Woodland Trust estimate of £726 per hectare per year for lowland conifer woodland as deadweight (ie. what would happen without WSWG intervention). Deducting this deadweight figure from the £1,848 per ha figure above gives a reduced Existence and Bequest annual value of £1,122 per hectare. At the 126 hectares being managed primarily for nature, this equates to £141,372.

References: Woodland Trust: (The Economic Benefits of Woodlands) 2017

## 7. SROI outputs and impact predictions

Activity	Output	Outcome	Impact
"Window on the	Group activities,	As a result, people were	Less reliance on NHS. Fewer
Woods"- themed	individual activities,	healthier, happier,	days off work. Reduced costs to
Year-Round Activities	social interaction.	increased mental health	economy and NHS. Family units
Programmes:	Green Health	and wellbeing. Self	more cohesive and happy.
	Prescriptions, NHS	confidence improved,	Happier and self confident
	referrals	able to function better in	individuals.
		workplace and personal	More cohesive society.

		life. New abilities and	Individuals, groups and wider
		awareness gained.	community taking action to
		Greater environmental	mitigate climate emergency and
		awareness.	become more resilient.
Activity	Output	Outcome	Impact
Volunteers learning	Group activities,	As a result they were	Increased wellbeing from
environmental skills	individual activities,	able to find work, try	employment, contributed to
via activities and	social interaction,	new volunteering	economy, reduction in NHS
training sessions	skills learning,	activities, moved into	costs, reduction in alcohol and
	confidence building,	higher education and	drug addiction leading to
	employability and	continued learning.	savings to society and happier
	communication	Skills and ideas utilized	family life.
	skills.	and shared as people	
		move around.	
Activities for	Group activities,	As a result, people felt	Less reliance on NHS and social
older, less mobile or	social interaction	less isolated, happier,	care. Happier individuals and
socially isolated		fitter & healthier.	more cohesive society.
people		Renewed vigour for life.	
Activities for people	Group activities,	As a result people felt	Increased self worth leading to
with learning	individual activities,	less isolated, better self	greater social interaction and
disabilities	social interaction.	confidence, sense of	employability. Happier people
		achievement, doing	and less stress in family unit.
		activities	
Activities for young	Group activities,	As a result new skills	Happier individuals, fewer drug,
people	social interaction	learned, confidence	alcohol and crime incidents
		building, self awareness	leading to reduced costs on
		and value.	social and health services.
		Appreciation of mixed	Greater employment potential.
		generations.	
Activities for children	Outdoor learning,	Healthier children,	Children reconnected with
	social interaction,	imagination stimulated,	nature leading to greater
	physical activity	physically fitter, greater	awareness of the importance of
		self-confidence,	the natural environment.
		increased	Happier and more motivated
		communication skills	children leading to healthier,
			more resilient young people.

#### 8. Conclusion

We conclude that the true value of Taymount Wood is the intrinsic nature of the woodland itself. Because of the unique biodiversity value of the woodland, its proximity to so many rural settlements, the health and wellbeing resource it offers to the community and its economic potential in terms of supporting novel green enterprises, we conclude that it is in the Public Interest that Taymount Wood be brought under community ownership, and that, as such, we ask FLS and the Scottish Government to work with WSWG to facilitate this outcome.

In this SROI study WSWG has demonstrated there is real potential for significant social returns from a well managed woodland resource that places nature - our life support system - at the forefront of decision making. In this UN Decade on Ecosystem Restoration we must adopt a paradigm change in land management thinking. WSWG aims to help catalyse this change through its many themed activities.

In assessing the benefits of community ownership of Taymount Wood, Scottish government agencies and policy makers should consider a range of benefits which are not obvious but could be of profound importance to the community. Figures and methodologies used to calculate these benefits may well be debated, but the underlying outcome is that of a profound value to people and the local economy and meeting government targets.

#### APPENDIX RP2 – WSWG Wellbeing and Resilience Pilot Programme 2024

As a means of demonstrating the type of activity which will become regular once the woods are in community ownership and to illustrate the associated community benefit which will accrue, WSWG has developed a Wellbeing and Resilience Programme of events for 2024 in conjunction with the P&K Health and Social Care Partnership which is detailed in the Table 1 below.

The aim of the outdoor activities in the proposed Wellbeing and Resilience Programme is to establish confidence and awareness to families, user groups & individuals, vulnerable and disadvantaged people so they can enjoy and benefit from the outdoors within reach of their own homes. The health benefits and associated savings to the Scottish economy are well recognised and evidenced by the fact that there is an increasing trend of funding nature-based initiatives by governments and public bodies.

This multi-themed programme will have the following objectives:

- Providing an invaluable resource for user groups & individuals, health care & educational professionals
- Increasing awareness of health benefits from engagement with nature
- Aligning priorities with local and national outcomes
- Upscaling capacity to meet demand from increased user groups/individuals when WSWG staff in post.

Unfortunately, WSWG will not have the MiDAS Community Transport project at its disposal during this pilot project. However, we will endeavour to address transport and active travel issues as part of the programme.

Key Partner, Purpose	Activity	Frequency	No of	Cumulative	Social	Date(s)
and Output:		p.a.	participants	beneficiary	Value	
			per event	engagements	???	
			including referrals	p.a.		
\\/\$\\/G	Healthy Living Su	h_theme		onle Active	Dlaces	
P4All	Theattily Living 30	ib-tilelile	i. Active re	bpie, Active	riaces	
Stride for Life	Short Walks					
Health Walks:	Long Walks					
existing local groups	Dementia Walks					Monthly
eg						,
Stanley/Bankfoot:		12	10	120		
WSWG new group:		12	10	120		
Probation/Community	Practical access					February/
Payback Service	improvement	4	10	40		March or
Boosting self-esteem	project: eg brashing					October/
through action project	to create access and					November
with a lasting effect.	amenity areas					
CLD Qualification	under the trees;					
	bushcraft shelter -					
	design and					
	construction					
HSCP - Recovery May						
Rehabilitation from	Event 1	1	10	10		May Week
addiction, mental						
health issues, etc						

WSWG Path and	Monthly action for					
Nature Group	access/biodiversity	12	8	96		Monthly
Path maintenance;	, ,					,
habitat management.						
Benefits for physical						
and mental health.						
Sub totals Theme i		41		386		
	WSWG Healthy	Living The	me ii. Heal		<u>I</u>	
HSCP - Recovery May	Recovery May			, <u> </u>		
Rehabilitation from	Event 2	1	10	10		May Week 2
addiction, mental	Wild produce /	_				,
health issues, etc	foraging					
Local primary school:	Planting fruit trees					October/
Forest Food Trails	along paths in the	3	10	30		November
Toreseroda Trans	woods	J	10			November
Sub totals Theme ii		4		40		
	WSWG Healthy L	iving Ther	ne iii. Socia	l Wellbeing		
Key Partner, Purpose	Activity	Frequency	No of	Cumulative	Social	Date(s)
and Output:		p.a.	participants	beneficiary	Value	
		•	per event	engagements	???	
			including	p.a.		
			referrals			
HSCP - Recovery May			10	10		
Rehabilitation from	Event 3	1				May Week 3
addiction, mental						,
health issues, etc		1	10	10		
	Event 4					May Week 3
Vision PK	Birdsong event for					
Inclusiveness.	visually challenged	3	10	30		April, May,
New individual and	people					June
group experience						
Wisecraft	Creative event: arts					
Mental health and	and crafts, creative	2	5	10		tbc
wellbeing	writing,					
Greater self-awareness	performance and					
and self-worth; stress	music sessions					
reduction, etc	Exercise in the					
	Woods: yoga/	3	10	30		tbc
	movement sessions;					
	group walk etc					
	Woodworking: eg					
	den-building,	3	5	15		tbc
	installing bat poles,					
	etc					
Sub totals Theme iii		13		105		
Grand total		58		531		
			I			I

# Output and impact predictions for the pilot Wellbeing and Resilience Programme 2024

Activity	Output	Outcome	Impact
"Window on the Woods"- themed Year-Round Activities Programmes:	Group activities, individual activities, social interaction.	As a result, people were healthier, happier, increased mental health and wellbeing. Self confidence improved, able to function better in workplace and personal life. New abilities and awareness gained. Greater environmental awareness.	Less reliance on NHS. Fewer days off work. Reduced costs to economy and NHS. Family units more cohesive and happy. Happier and self confident individuals. More cohesive society. Individuals, groups and wider community taking action to mitigate climate emergency and become more resilient.
Activity	Output	Outcome	Impact
Volunteers learning environmental skills via activities and training sessions	Group activities, individual activities, social interaction, skills learning, confidence building, employability and communication skills.	As a result they were able to find work, try new volunteering activities, moved into higher education and continued learning. Skills and ideas utilized and shared as people move around.	Increased wellbeing from employment, contributed to economy, reduction in NHS costs, reduction in alcohol and drug addiction leading to savings to society and happier family life.
Activities for older, less mobile or socially isolated people	Group activities, social interaction	As a result, people felt less isolated, happier, fitter & healthier. Renewed vigour for life.	Less reliance on NHS and social care. Happier individuals and more cohesive society.
Activities for people with learning disabilities	Group activities, individual activities, social interaction.	As a result people felt less isolated, better self confidence, sense of achievement, doing activities	Increased self worth leading to greater social interaction and employability. Happier people and less stress in family unit.
Activities for young people	Group activities, social interaction	As a result new skills leaned, confidence building, self awareness and value. Appreciation of mixed generations.	Happier individuals, fewer drug, alcohol and crime incidents leading to reduced costs on social and HNS services. Greater employment potential.
Activities for children	Outdoor learning, social interaction, physical activity	Healthier children, imagination stimulated, physically fitter, greater self-confidence, increased communication skills	Children reconnected with nature leading to greater awareness of the importance of the natural environment. Happier and more motivated children leading to healthier, more resilient young people.

#### APPENDIX RP3- WSWG Team Biographies – Trustees and Wildwood Group Members

#### Shonagh Moore, Trustee, WSWG Chair

Shonagh graduated with a BA Hons degree in Visual Communications (Graphics). She has taken on various positions that have utilised her design abilities from working for a studio in Birmingham on prestigious accounts to various design and marketing projects to date.

She has taken several management positions which included retail and buying for over 10 years before moving to Scotland and is currently the Centre Operations Administrator for PGL Travel Ltd at Dalguise. In addition, for the past twenty-eight years she has been on the Board of Trustees for another registered Charity and has been one of their course organisers as well as being their newsletter and website editor.

Shonagh has always had a close connection and respect for the environment and joined WSWG because she recognised the importance and value of what was being strived for and felt that her skills could help to present the narrative.

#### Alan Ross, CIEEM (rtd), Trustee, WSWG Ecologist and Treasurer

Alan has been an ecological consultant for more than 20 years, with extensive expertise in woodland ecology, as well as experience as ecological clerk of works (ECoW) on forestry operations and developments including windfarms and hydro schemes, with clients including SNH and FLS.

Prior to entering the field of ecology, he spent 20 years working in the forestry industry in the UK, New Zealand and Australia, during which time he had his own horse-logging business in Scotland. He has also sat on government-level advisory panels for red squirrel and wildcat conservation and the Tayside Beaver Study Group. Alan also has experience working with environmental NGOs and volunteers.

#### **Bob Talbot, Trustee, WSWG Secretary**

Bob moved to Perthshire in 2000 after a career in university, and then in industry in senior management roles in big pharma and cosmetics multinationals, (Hoffman La Roche Revlon and L'Oreal) followed by business training and strategic consultancy in both Wales and in Scotland. With a first class honours degree in Chemistry, he also has a PhD in Physical Organic Chemistry and has maintained a continued interest in scientific research in a number of fields. As one of the first chemists in the UK to make use of computers to model complex chemical reactions he has maintained an active interest in their application in modelling complex systems in business and financial applications.

A published author in both English and Japanese Bob is committed to improving local democracy, to understanding and increasing biodiversity in our rural environment, to regenerative forestry, to a better understanding of how forests and communities can work together for mutual benefit, and to land reform. He is currently a trustee of three local charities, is an active campaigner against misuse of local farmland for solar and battery farms and is the MD of a successful tree surgery company.

#### Elspeth Coutts, Trustee, Membership Secretary

Elspeth graduated from the University of Edinburgh with a BSc in Agriculture and has worked in the Scottish land and environmental sector for almost 40 years, including agriculture, countryside development, golf environment and home energy. She also has City & Guilds qualifications in Home Energy and Micro-renewables.

She has held posts in SAC (now SRUC), Edinburgh Green Belt Trust, IIED, Scottish Golf Environment Group, worked for a climate challenge home energy project and been self-employed since 2007. She has volunteered in diverse community and environmental initiatives in Lothian, Scottish Borders and Perthshire since 1990 but believes a sustainable future has to depend on green livelihoods.

She is passionate about local action at landscape scale as an urgent response to the climate and ecological emergencies we are in. She always looks for wider references and initiatives into which local efforts can connect. She is a wholehearted proponent of Doughnut Economics, Good Ancestor philosophy and transition to a Wellbeing Economy.

#### **Betty Abbott, Trustee**

Betty has been heavily involved in volunteering all her adult life, her main interest in the past having been working with young people, using drama, outdoor education, environmental projects, local history, healthy eating, art etc.

She has enjoyed living near and walking in Taymount Wood since the 1990s and, along with her husband Mike, is a founder member of WSWG.

#### Hannah Esdaile

Hannah is a trainee solicitor who is also currently studying for a Masters Degree in Sustainable Rural Development. She has a keen interest in the environment and the outdoors and wrote her undergrad law dissertation on the Community Right to Buy. She has a keen interest in community projects that serve to combat the twin challenges of climate change and biodiversity loss and believes that the West Stormont Woodland Group's vision for both Taymount and Five Mile Wood is vital to the local community and would encourage engagement in the larger vision around biodiversity management and climate change.

#### **Ann Medlock**

A chartered surveyor, lived on the south side of Five Mile Wood for 21 years, during which time regularly communicating with SLF and predecessor Forestry Commission Scotland to inform them of changes, good and bad in the wood. Also regularly reports on anti-social behaviour including fire raising. Established Friends of Five Mile wood and is a Woodland Trust Ambassador.

#### **Jess Pepper**

Founder/ Director Climate Café CIC, #lovemybus Programme Director, Paths for All Board (previously SCCS, NTS), FRSGS, FRSA. Experienced in strategic communications, community climate engagement, sustainable transport, public affairs and campaigning.

#### **Martin Mathers**

Environmental scientist with over 35 years experience in the voluntary and private sectors, and in government. Twelve years working on UK forestry policy, first with RSPB and then WWF including membership of the environment sub committee of the Home Grown Timber Advisory Committee from 1995 to 2000. More recently specialising in climate change with Scottish Government and then ScottishPower Renewables. Member of the Perth and Kinross Climate Commission. Main interest in supporting WSWG is the protection, restoration and expansion of native and semi native woodland as a response to the climate crisis and the catastrophic decline in invertebrates.

# **WILDWOOD PROJECT** - Taymount Wood baseline programme

SUMMARY TABLE	Years 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10 year total
		_	_		_					-	
INCOME	62.640	55,050	co 200	CO 740	C42 242	C1 4 202	C4 F 004	C1 F 004	C4 F 00 4	C1 F 004	C11C FFC
Community Enterprises Woodland Enterprises	£2,640 £10,100	£6,060 £265,678	£8,388 £141,452	£8,748 £29,925	£13,212 £35,425	£14,292 £152,097	£15,804 £57,930	£15,804 £62,565	£15,804 £70,475	£15,804 £77,385	*
Woodiand Enterprises	110,100	1205,076	1141,432	129,923	133,423	1132,097	137,930	102,303	170,473	177,303	1903,032
Sub-total Trading Income	£12,740	£271,738	£149,840	£38,673	£48,637	£166,389	£73,734	£78,369	£86,279	£93,189	£1,019,588
Cumultative Trading Income	£12,740	£284,478	£434,318	£472,991	£521,628	£688,017	£761,751	£840,120	£926,399	£1,019,588	
Less											
EXPENDITURE											
VARIABLE COSTS											
WSWG Enterprises Variable Costs	•	£15,455	£14,190	£7,660	£6,210	£8,180	£8,993	£10,105	£11,305	£12,505	·
Sub-total VARIABLE COSTS	£2,910	£15,455	£14,190	£7,660	£6,210	£8,180	£8,993	£10,105	£11,305	£12,505	£97,513
Equals											
ANNUAL GROSS MARGINS	£9,830	,	£135,650	£31,013	£42,427	£158,209	£64,741	£68,264	£74,974	£80,684	ŕ
Cumultative Gross Margin	£9,830	£266,113	£401,763	£432,776	£475,203	£633,412	£698,153	£766,417	£841,391	£922,075	
Less											
TOTAL ANNUAL CHARITABLE ACTIVITIES AND SERVICES											
COSTS and OVERHEADS (plus ANY RESERVE)	£130,324	£98,840	£84,311	£70,432	£71,658	£104,836	£74,198	£75,338	£75,227	£75,891	£861,055
Equals				_, ,,,,,	_: _,;;;	,	_: ,,;	_: 0,000	,	_, _,	
NET ANNUAL TRADING SURPLUS / DEFICIT (before											
external fundraising)	-£120,494	£157,443	£51,339	-£39,419	-£29,231	£53,373	-£9,457	-£7,074	-£253	£4,793	£61,020
Cumultative Surplus ( before external funding)	-£120,494	£36,949	£88,288	£48,869	£19,638	£73,011	£63,554	£56,480	£56,227	£61,020	
Note: OF WHICH:											
Staff Costs (3 part time posts)	£37,000	£37,000	£37,000	£37,000	£37,000	£37,000	£37,000	£37,000	£37,000	£37,000	£370,000
Temporary staff base and office set-up	£37,670	£2,000	£2,050	£2,050	£2,050	£18,205	£2,050	£2,000	£2,050	£2,000	£72,125
Totalling	£74,670	£39,000	£39,050	£39,050	£39,050	£55,205	£39,050	£39,000	£39,050	£39,000	£442,125
<u>•</u>											



# Scotland's outdoors Our Natural Health Service

naturalhealthservice.scot



# Working together to help improve people's health and wellbeing through greater use of green environments and nature

## Contributing to a healthier Scotland

Changes over recent generations in the causes and nature of illness, and modern day living, create complex challenges. It is increasingly recognised that addressing some of our key public health issues – physical inactivity, poor mental health and wellbeing, and health inequalities – is not wholly reliant on the health sector and requires solutions with contributions from across many different sectors.

The natural environment is a valuable health resource and one that can help deliver the new public health priorities. **Our Natural Health Service** is a cross-sectoral initiative that is showing how this resource can be integrated into public health, health and social care to contribute to prevention, treatment, recovery and care.



#### It's in our nature

The positive links between environment and human health and wellbeing are now well proven, supported by research from around the world and echoed in powerful individual life stories of how contact with nature can help people acquire and maintain healthy behaviours.

Ways to use the outdoors for health and wellbeing include outdoor recreation, volunteering, play and learning, gardening and active travel, as well as just relaxing and enjoying being out in green environments and nature.

Scotland has an extensive, diverse and accessible natural environment, which enables a range of healthy activity – see adjacent ONHS diagram. Good planning, provision and management of local parks, woods, green spaces and access networks is key to encouraging more **everyday use** for physical activity and contact with nature. The outdoors can be fun for all ages and abilities, provide a setting for social contact thus helping to reduce loneliness and isolation, and can help tackle health inequalities.

Making use of the outdoors purely for health objectives doesn't motivate everyone and for many people, other factors encourage them to engage. **Supportive programmes** such as health walks groups, environmental volunteering or community growing schemes are valued by participants for the social benefits offered by group activities and as a stepping stone towards improvements in physical and mental health.

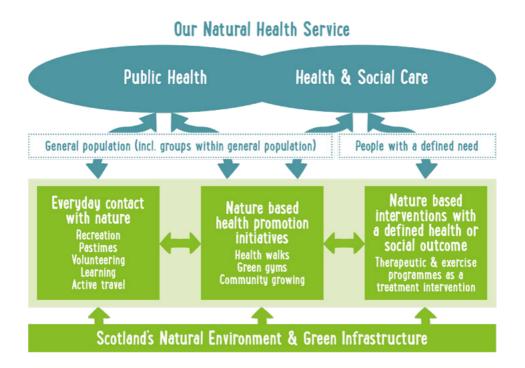
Health interventions based on the use of the outdoors can support people with a range of physical or mental health issues. From physical activity sessions for people with cancer or type 2 diabetes to wilderness therapy programmes for mental health or addiction service users, connecting to green space can provide fun, motivation, inspiration and the restorative value of being in and being active in nature



#### **Our Natural Health Service**

Realising the potential of Scotland's outdoors to contribute to better health requires a more joined up approach. The **Our Natural Health Service** (ONHS) programme is being led by NatureScot (formerly known as Scottish Natural Heritage), working in partnership with Scottish Forestry, NHS Health Scotland (now part of Public Health Scotland) and a range of other national and local organisations across the environment, transport, sport, education and health sectors.

Central to the ONHS concept is making more use of Scotland's natural environment through a range of green health activity to deliver both public health and health and social care outcomes – as illustrated in the diagram below



ONHS partners are working together to increase awareness across sectors and among the public of how greater use of the outdoors can help sustain individuals' health and happiness by providing connections to places, people and purpose. The programme is also encouraging the health and social care sector to integrate green health into their routine practice.

More than 9 IN 10

visitors to Scotland's outdoors report improvements to their physical and mental health as a result.

### OF THOSE WHO VISIT THE OUTDOORS:

Say it helps them de-stress. relax and unwind

Found it improved their physical health

Report that it makes them ofeel energised and re-vitalised

Say they enjoy getting closer to nature

Value the social

As an illustration of synergy with government policy, a number of ONHSrelated actions are included within Scotland's Physical Activity Delivery Plan. The aims of the programme also support public health reform and other transformational initiatives within health service delivery such as Realistic Medicine, health and social care integration and social prescribina.

# Delivery on the ground

To demonstrate how the ONHS approach can work in practice, four Green Health Partnerships (GHPs) have been established in Lanarkshire, Dundee, North Ayrshire and Highland.

GHPs are led locally by health boards and local authorities and, with a range of cross-sector partners, are shining a spotlight on nature as a local resource for health and wellbeing in response to local strategic plans and priorities. Collectively, the GHPs are beginning to show how a whole system approach can help deliver public health priorities around place, mental health and physical activity.



The four GHPs have dedicated project staff who are co-ordinating the following types of activity:

**Improving access to green health information** – collating information about accessible green spaces and green health projects to be integrated into information sources used by the public and health practitioners

Raising awareness of the value of green health within healthcare communicating the benefits of green health to practitioners from the health, social care and voluntary sectors and ways to connect their service users to local opportunities

**Developing referral pathways to green health projects** – establishing green prescription pathways or incorporating green health options into existing physical activity, mental health, social prescribing and lifestyle pathways and programmes

**Promoting the benefits of green health to the public** – promoting green health activity such as active travel, volunteering, community gardening and informal recreation through social media, leaflets, short animated films shown in health and leisure settings and an annual Green Health Week

**Developing green health projects and opportunities** – working with partners and green health activity providers to deliver new or expand existing projects for the general public or target locations / clinical groups

The ONHS programme has also helped establish four **NHS Greenspace for Health Partnerships** at New Craigs, Gartnavel, Ayr & Ailsa and Royal Edinburgh Hospitals. This follows on from the success of the **NHS Greenspace Demonstration Project** showing the benefits of investing positively in the outdoor estate as a health promoting asset. These four partnerships are facilitating greater use of hospital greenspace

by patients, staff, visitors and the local community as well as testing models to engage wider groups in the management of the NHS estate. This approach is helping to achieve health and wellbeing benefits alongside other policy objectives around biodiversity, climate change, sustainability and corporate social responsibility.



## Knowledge exchange

Experience gained through the ONHS programme will be shared widely to inform policy and practice in using the natural environment to achieve health outcomes. An ONHS logic model and evaluation framework have been developed to assess the effectiveness of GHPs in contributing to closer and improved working between the natural environment and health sectors. The first outputs of this evaluation will be available during 2020/21.

Scotland's natural environment is important for people's health and wellbeing. Nature is an underused health resource with significant potential to contribute to a modern sustainable health and social care system and a healthier Scotland.

More information on the ONHS programme and what it is achieving is available via www.naturalhealthservice.scot

#### Sources of evidence:

The health benefits of the great outdoors: A systematic review and meta-analysis of greenspace exposure and health outcomes, 2019 C Twohig-Bennet, A Jones – University of East Anglia

Spending at least 120 minutes a week in nature is associated with good health and wellbeing, 2019 MP White et al - University of Exeter

Health and the natural environment: a review of evidence, policy, practice and opportunities for the future, 2018 DEFRA and University of Exeter



"There is compelling evidence that green exercise improves not only our physical health, but also our emotional and mental health as well. I welcome the joined-up approach encompassed in the Our Natural Health Service initiative, the impact of which is entirely consistent with Realistic Medicine."

Dr Gregor Smith
Deputy Chief Medical Officer









Our Natural Health Service is supported by partners from national and local government and the voluntary sector including:











# **Community Investment Fund End of Grant Monitoring Form**

1.Ref:	"Feeling Good in the Woods"		
2. Name of organisation:	West Stormont Woodland Group		
3. Amount approved:	£ 3,432.50		

As a condition of the grant from the Community Investment Fund, you are required to provide a report on how you spent your grant and the benefits achieved. Please complete and return this form to the address below (you do not need a covering letter) at your earliest convenience and no later than 30<sup>th</sup> September 2019. If you have any questions about this form, please contact the Community Planning Policy team on 0345 605 200

#### **Section 1: Spending your grant:**

Please provide details of the items or activities funded by this grant. If you do not have enough room here, please provide a separate sheet to show us exactly how you spent the grant. Please do not sent receipts with this form, but do keep them on record.

Item/Activity	Cost
Three events for the elderly and less mobile	
- Minibus Picnic Lunch and Picnic Tea with Storyteller	£ 582.70
- Cycling Without Age	£ 120.00
- Seated Mindfulness	£ 82.50
Four Health and Wellbeing events	
<ul> <li>Woodland Walks for Peace of Mind</li> </ul>	£ 230.00
- Forest Sustenance: Herbal Day	£ 255.22
<ul> <li>Forest Sustenance: Sustainable Foraging Walk</li> </ul>	£ 10.00
<ul> <li>Woodland Art: Generations Hand in Hand</li> </ul>	£ 484.85
3. Two Forest School events (four sessions)	£ 800.00
4. One Bushcraft event for Brownies & Rainbows (four sessions)	£ 300.00
5. Ten Woodland in a Backpack Primary School visits	£ 500.00
6. Promotional materials	£ 64.56
Total amount spent	£3,429.83

If the items or activities detailed above are different in any way from what was stated on your original application, use the space below to explain the changes.

Due to tight budget management and additional contributions-in-kind, we increased the number of events compared to what was stated in the application as follows:

One extra event for the elderly and less mobile people.

Ten additional "Woodland in a Backpack" visits to 7 local primary schools to extend the Bushcraft experience to many more children.

#### Section 2: The benefits of your grant

Please give details below of the ways in which the grant has been of benefit to people in your community, or groups you are working with. You can attach an activity report, or other supporting information if you wish.

Our taster sessions of a range of woodland-based and woodland related activities have benefited people of all ages and abilities in our community.

Age group	Number benefiting	(Target number)
>65 yrs (to 96yrs)	35 (from 49 bookings)	(40-60)
16-65 yrs 10-16 yrs	75 40	(30-40) (10-20)
<10 yrs (from 4 months)	270	(70-80)
	TOTAL 418	(TOTAL 150-200)

1. Events for the elderly and less mobile

Taking the advice of PKAVS Community Engagement, WSWG reached out to existing groups and networks to invite uptake of WSWG's Feeling Good in the Woods programme. The elderly and less mobile participants came through lunch clubs, residential care homes, local churches, Stanley Development Trust, WSWG stalls at community events, poster publicity and word of mouth. They included people with age-related and physical disabilities, dementia and learning disabilities.

The Minibus Picnics in the Woods gave participants a mystery tour in a minibus adapted for disabled access, to a marquee in a magical woodland environment set out with white tablecloths, china teasets, flowers, heaps of food and blankets if chilly. A storyteller talked about traditional woodland crafts, told woodland stories, sang songs and led reminiscence activity with the elderly people, several of whom had lived nearby or been brought up in families who used the woods for work and play in the past. Everybody had a thoroughly enjoyable time.

The Cycling Without Age event gave participants with limited or no mobility the feeling of riding a bike, wind in their hair, all under a cosy fleece and at a gentle pace, chatter and laughter all the way with their trained pilot on board. One person commented that this opportunity had opened up whole new horizons for him and his wife in finding ways for living with dementia. This lady's initial trepidation turned into exhilaration, that giving as much joy to her husband as to herself. This was the first rural outing in this part of Perthshire for Cycling Without Age Perth. It flagged up the need for provision of all abilities access routes in both Taymount and Five Mile Wood, requiring instead to be staged on this occasion on surfaced paths in the grounds of Ballathie House Hotel. A taxi service and a volunteer driver were provided for those who did not have their own transport. Transport costs are a huge impediment to those in residential care homes or living on low incomes getting out and about within available budgets. Our free events and the back-up of transport provision were hugely appreciated by many if not all who came.

#### 2. Health and Wellbeing Events

These four events attracted people wishing or needing to relax, enjoy the fresh air and learn more about our local natural environment. In addition to responding to open publicity by email, posters and facebook, practitioners and participants came through word of mouth and networks connected to the Care and Wellbeing Co-op, local Stride for Life groups, etc. The peace, relaxation, different company, trying out new things and getting pleasure from quite simple things, observations and activities were among the many beneficial outcomes from these events.

An extra Seated Mindfulness session was put on by request to enable those who were effectively excluded from the Walking in the Woods for Peace of Mind event through their personal mobility limitations. Special permission from Forestry and Land Scotland for vehicular access into the woods enabled them to access a normally inaccessible off-road woodland environment for them. The pleasure gained from such a simple activity is marked and tangible and, as we now know, totally achievable with a bit of thought.

#### 3. Forest School taster session

The rising appetite for outdoor early years learning in the local area was clear from the success of the forest school taster sessions. The diversity of activities and the supreme skills and techniques of the leaders was a lesson for the adults present as well as a huge benefit for the children who gained such a lot from the sessions in so many sensory and experiential ways. Every session had its own feel, different in mood, tone and dynamic according to the ages, mixes, creativity and interactions of the children. All developed to be constructive, collaborative, inquisitive and naturally inclusive. What a fantastic social and physical environment in which to learn and grow, regardless of background. The scope for forest school as a routine part of the future of Taymount and Five Mile Wood as community woodlands is clear. With the new 2018 teaching standards requiring curriculum-wide outdoor education, there will be an increasing need for suitable local venues for delivering outdoor learning and teacher training.

#### 4. Bushcraft sessions

These were delivered expertly and magically by Biscuit of Aberfeldy-based Wee Adventures, melding and blending the diverse energies, personalities and abilities of the sizeable groups of local Brownies and Rainbows. The sheer animation of the girls was a delight, so excited were they with this discovery and new relationship with their local woodland environment, many of whom had never been there before. The scope for ongoing activity in a community woodland setting developed with their needs and opportunities in mind for all uniformed groups of boys and girls across the age groups is vast and would be such a social asset for our community.

#### 5. Woodland in a Backpack school visits

These hour-long bespoke visits to seven of our local primary schools were developed by Wee Adventures alongside the Bushcraft sessions in recognition of how challenging it can be to get school groups to out-of-school locations. The "Woodland in a Backpack" ideas are shaped around inspiring the children's imaginations, engaging the senses and creating a sense of wonder. Along the lines of 'creating a woodland space in your classroom' either indoors or outdoors, the children are engaged in:

- building a camouflage tarp den
- decorating it with branches, leaves, grasses, woodland animals etc
- discovering everyone's favourite sights, smells, thoughts and feelings when in the woods
- a guided forest meditation
- a Leave No Trace discussion while everyone clears up
- talk about WSWG, its opportunities and benefits and how they can get involved

Please give details below on how your project has impacted on inequalities in your community:

Our Feeling Good in the Woods project has impacted on inequalities in many ways.

We have delivered activities across all age groups.

We have actively engaged with elderly care homes to create new community links and strengthen inclusiveness and help reduce social isolation.

We put on an extra event designed to cater for people who felt excluded from a similar ablebodied event due to mobility issues.

We contracted the services of a minibus with specialist driver to accommodate disabled people (including those using fixed and folding wheelchairs had this been required).

That all events have been totally free of charge means people were not disadvantaged through low income or relative poverty.

We have offered and provided taxi services or volunteer drivers so that lack of personal transport, financial constraints or practical inability to get to some of the events was not a basis for missing out.

Whilst our events have essentially been open to all, we have taken active steps to reach groups and individuals with special needs through a Community Link Worker, Stanley Development Trust, lunch clubs, churches, etc.

We have targeted specific events such as bushcraft and Woodland in a Backpack at inclusive, non-discriminatory participation by consciously working with local brownie and rainbow units and primary schools.

We have participated in the SHARE Festival to help spread the word about who is out there, keen to help and include everyone in the community.

We are now supporting a disabled couple who attended two Feeling Good in the Woods events in their wish to contribute to the WSWG project in some way. One idea is that they can help develop the vision for how Taymount and Five Mile Woods can be developed to incorporate the needs and aspirations of all disadvantaged groups in our future community woodlands.

#### Please estimate the following:

The number of people that have benefitted from your project	420
The number of volunteers who have helped to deliver your project	30

#### Section 3: The signed declaration

I confirm that the details contained in this form are correct and that we will keep all financial records and accounts for at least two years from payment of the grant. We understand that this does not release us from any legal responsibility to keep records for longer periods. We are aware that we may be asked to forward receipts for inspection or that we may be visited to inspect our records.

Name: _	Position in group:
Contact telephone number:	
Signature:	Date:11 October 2019

# THANK YOU FOR TAKING THE TIME TO COMPLETE THIS FORM PLEASE RETURN TO:

Community Planning Policy Team
Perth and Kinross Council
2 High St
PERTH
PH1 5PH

communityplanningpartnership@pkc.gov.uk

#### **HOW WE USE YOUR PERSONAL INFORMATION**

The information provided by you will be used by Perth & Kinross Council to contact you about your application. The information will not be disclosed to third parties except as described below.

The Council may check information provided by you, or information about you provided by a third party, with other information held by us. We may also get information from certain third parties or share your information with them in order to verify its accuracy, prevent or detect crime, protect public funds or where required by law.

For further information, please look at our website www.pkc.gov.uk/dataprotection; email <u>dataprotection@pkc.gov.uk</u> or phone 01738 477933.

# LETTER FROM SCIENTISTS TO THE EU PARLIAMENT REGARDING FOREST BIOMASS

(updated January 14, 2018)

To Members of the European Parliament,

As the European Parliament commendably moves to expand the renewable energy directive, we strongly urge members of Parliament to amend the present directive to avoid expansive harm to the world's forests and the acceleration of climate change. The flaw in the directive lies in provisions that would let countries, power plants and factories claim credit toward renewable energy targets for deliberately cutting down trees to burn them for energy. The solution should be to restrict the forest biomass eligible under the directive to residues and wastes.

For decades, European producers of paper and timber products have generated electricity and heat as beneficial by-products using wood wastes and limited forest residues. Since most of these waste materials would decompose and release carbon dioxide within a few years, using them to displace fossil fuels can reduce net carbon dioxide emissions to the atmosphere in a few years as well. By contrast, cutting down trees for bioenergy releases carbon that would otherwise stay locked up in forests, and diverting wood otherwise used for wood products will cause more cutting elsewhere to replace them.

Even if forests are allowed to regrow, using wood deliberately harvested for burning will increase carbon in the atmosphere and warming for decades to centuries – as many studies have shown – even when wood replaces coal, oil or natural gas. The reasons are fundamental and occur regardless of whether forest management is "sustainable." Burning wood is inefficient and therefore emits far more carbon than burning fossil fuels for each kilowatt hour of electricity produced. Harvesting wood also properly leaves some biomass behind to protect soils, such as roots and small branches, which decompose and emit carbon. The result is a large "carbon debt." Re-growing trees and displacement of fossil fuels may eventually pay off this "carbon debt' but only over long periods. Overall, allowing the harvest and burning of wood under the directive will transform large reductions otherwise achieved through solar and wind into large increases in carbon in the atmosphere by 2050.

Time matters. Placing an additional carbon load in the atmosphere for decades means permanent damages due to more rapid melting of glaciers and thawing of permafrost, and more packing of heat and acidity into the world's oceans. At a critical moment when countries need to be "buying time" against climate change, this approach amounts to "selling" the world's limited time to combat it.

The adverse implications not just for carbon but for global forests and biodiversity are also large. More than 100% of Europe's annual harvest of wood would be needed to supply just one third of the expanded renewable energy directive. Because demand for wood and paper will remain, the result will be increased degradation of forests around the world. The example Europe would set for other countries would be even more dangerous. Europe has been properly encouraging countries such as Indonesia and Brazil to protect their forests,

but the message of this directive is "cut your forests so long as someone burns them for energy." Once countries invest in such efforts, fixing the error may become impossible. If the world moves to supply just an additional 3% of global energy with wood, it must double its commercial cuttings of the world's forests.

By 1850, the use of wood for bioenergy helped drive the near deforestation of western Europe even when Europeans consumed far less energy than they do today. Although coal helped to save the forests of Europe, the solution to replacing coal is not to go back to burning forests, but instead to replace fossil fuels with low carbon sources, such as solar and wind. We urge European legislators to amend the present directive to restrict eligible forest biomass to appropriately defined residues and wastes because the fates of much of the world's forests and the climate are literally at stake.

#### Initial signatories:

**John Beddington**, Professor, Oxford Martin School, former Chief Scientist to the government of the United Kingdom

**Steven Berry**, Professor, Yale University, former Chairman, Department of Economics, fellow American Academy of Arts and Sciences, winner of the Frisch Medal of the Econometric Society.

**Ken Caldeira**, Professor, Stanford University and Carnegie Institution for Science, Coordinating lead author or lead author of multiple IPCC reports.

**Wolfgang Cramer**, Research Director, CNRS, Mediterranean Institute of marine and terrestrial Biodiversity and Ecology, Aix-en-Provence, member Académie d'Agriculture de France, Coordinating lead author and lead author of multiple IPCC reports,

**Felix Creutzig**, Chair Sustainability Economics of Human Settlement at Technische Universität Berlin, Leader, leader Mercator Research Institute on Global Commons and Climate Change, Lead author of IPCC V Assessment Report and coordinator of appendix on bioenergy.

**Phil Duffy**, President, Woods Hole Research Center, former Senior Advisor White Office of Science and Technology Policy, Contributing author of multiple IPCC reports

**Dan Kammen**, Professor University of California at Berkeley, Director Renewable and Appropriate Energy Laboratory, Coordinating lead author or lead author of multiple IPCC reports.

**Eric Lambin**, Professor Université catholique de Louvain and Stanford University, member European and U.S. Academies of Science, 2014 laureate of Volvo Environment Prize

**Simon Levin**, Professor Princeton University, Recipient, U.S. National Medal of Science, member U.S. National Academy of Sciences

**Wolfgang Lucht**, Professor Humboldt University and Co-Chair of Potsdam Institute for Climate Research, lead author of multiple IPCC reports

**Georgina Mace FRS**, Professor, University College London, Lead author IPCC report and Winner International Cosmos Prize

**William Moomaw**, Emeritus Professor, Tufts University, Lead author of multiple IPCC reports **Peter Raven**, Director Emeritus Missouri Botanical Society, Recipient U.S. National Medal of Science and former President of American Association for Advancement of Science

**Tim Searchinger**, Research Scholar, Princeton University and Senior Fellow, World Resources Institute **Nils Chr. Stenseth**, Professor, University of Oslo, Past president of The Norwegian Academy of Science and
Letters, member U.S. National Academy of Science), French Academy of Sciences, and Academia Europaea **Jean Pascal van Ypersele**, Professor, Université catholique de Louvain, Former IPCC Vice-chair (2008-2015),
member of the Royal Academy of Belgium, lead author or review editor of multiple IPCC reports

#### Additional Signatories:

- 17. Andrew Balmford; Professor; University of Cambridge
- 18. Robert Socolow; Professor Emeritus; Princeton University
- 19. Richard Plevin; Research Scholar; UC Berkeley
- 20. Michael O'Hare; Professor; Univ. of California, Berkeley
- 21. Zuzana Burivalova; Post-Doctoral Fellow; Princeton University
- 22. Timothy Treuer; PhD Candidate; Princeton University

- 23. Greg Davies; PhD Candidate; Princeton University
- 24. Yixin Guo; PhD Candidate; Princeton University
- 25. Jonathan Colmer; Assistant Professor; University of Virginia
- 26. David S. Wilcove; Professor; Princeton University
- 27. Mayank Misra; PhD Candidate; Princeton University
- 28. Kasparas Spokas; PhD Candidate; Princeton University
- 29. Robert O. Keohane; Professor Emeritus; Princeton University
- 30. Yujing Yang; Masters; Princeton University
- 31. David S. Wilcove; Professor; Princeton University
- 32. Lian Pin Koh; Professor; University of Adelaide
- 33. Emily Lines; Research Scholar; Queen Mary, University of London
- 34. Eleanor Jackson; PhD Candidate; University of Exeter
- 35. Frederico Martins; Intern; UCL
- 36. SPECO Sociedade Portuguesa de Ecologia; Non-governmental Association; SPECO
- 37. Maria Amélia Martins-Loução; Professor; Centre for Ecology, Evolution and Environmental Changes.
- 38. Bethany Bradley; Professor; University of Massachusetts, Amherst
- 39. Emily Chen; Masters; Princeton University
- 40. Mikaël Maes; PhD Candidate; University College London
- 41. Jessica Fisher; PhD Candidate; University of Kent
- 42. Thomas Evans; PhD Candidate; University College London (UCL)
- 43. Tatsiana Barychka; PhD Candidate; University College London
- 44. Jim Labisko; PhD; University College London
- 45. Roi Maor; PhD Candidate; Tel Aviv University
- 46. Mario Herrero; Professor; Commonwealth Scientific and Industrial Research Organisation
- 47. Zhongshu Li; PhD Candidate; Princeton University
- 48. Andy Jarvis; Professor; International Centre for Tropical Agriculture
- 49. Ricardo Rocha; Post-Doctoral Fellow; University of Cambridge
- 50. Marta Sampaio; Masters; CIBIO/InBIO; University of Porto
- 51. Frederico da Costa Santarém; PhD Candidate; University of Porto
- ${\bf 52.\,James\,Russell\,Kemp;\,PhD\,\,Candidate;\,University\,of\,Lisbon}$
- 53. Jorge Palmeirim; Professor; University of Lisbon, Portugal
- 54. Paul Elsen; Post-Doctoral Fellow; University of California, Berkeley
- 55. Duarte V Goncalves; PhD Candidate; University of Porto
- 56. Daniel Burgas; Post-Doctoral Fellow; University of Helsinki
- 57. Hannah Cheales; Masters; University College London
- 58. Elizabeth Boakes; Post-Doctoral Fellow; UCL
- 59. Catarina Serra Goncalves; PhD Candidate; University of Tasmania Institute of Marine & Antarctic Studies
- 60. Adria Lopez-Baucells; PhD Candidate; University of Lisbon
- 61. Christopher Crawford; PhD Candidate; Princeton University
- 62. Ryan Edwards; PhD Candidate; Princeton University
- 63. Meir Alkon; PhD Candidate; Princeton University
- 64. Aaron Match; PhD Candidate; Princeton University
- 65. Christoph Meyer; PhD; University of Salford
- 66. Thomas Hodson; PhD Candidate; Princeton University
- 67. Ching-Yao Lai; PhD Candidate; Princeton University
- 68. Tim Michiels; PhD Candidate; Princeton University
- 69. Teresa Silva; PhD Candidate; CIBIO UP, POrtugal
- 70. Elena Krieger; Research Program Director; Physicians, Scientists & Engineers for Healthy Energy
- 71. Cleo Chou; Post-Doctoral Fellow; Princeton University
- 72. Jonathan Green; Research Scholar; University of York
- 73. Tim Blackburn; Professor; UCL
- 74. Tiziano Gallo Cassarino; Research Scholar; University College London
- 75. Jonathan Aguire; PhD Candidate; Princeton University
- 76. Silvia Salatino; Research Scholar; University of Oxford
- 77. Andrew Blakers; Professor; Australian National University
- 78. Joana Valente; Masters; N/A

- 79. Susana C. Gonçalves; Assistant Professor; Centre for Functional Ecology, University of Coimbra, Portugal
- 80. Diogo Ferreira; Masters; Faculty of Sciences of the University of Lisbon
- 81. Claire Wordley; Post-Doctoral Fellow; Conservation Evidence: University of Cambridge
- 82. Nicolas Choquette-Levy; PhD Student; Princeton University
- 83. César Garcia; PhD; University of Lisbon. MUHNAC/CE3C
- 84. Ricardo Melo; Professor; Universidade de Lisboa, Portugal
- 85. Rutwik Kharkar; PhD Candidate; Princeton University
- 86. Isaac Uyehara; PhD Candidate; Princeton University
- 87. Sarah Budischak; Post-Doctoral Fellow; Princeton University
- 88. Dylan H. Morris; PhD Candidate; Department of Ecology & Evolutionary Biology, Princeton University
- 89. William Anderegg; Professor; University of Utah
- 90. Leander Anderegg; Post-Doctoral Fellow; Carnegie Institution for Science
- 91. Joseph Bak-Coleman; PhD Candidate; Princeton University
- 92. Daniel I. Rubenstein; Professor; Princeton University
- 93. Ian Miller; PhD student; Princeton University
- 94. Julio E. Herrera Estrada; Post-Doctoral Fellow; Stanford University
- 95. Ryan Herbert; PhD Candidate; Princeton University
- 96. Malavika Rajeev; PhD Candidate; Princeton University
- 97. Arjun B. Potter; PhD Candidate; Princeton University
- 98. Robin Chazdon; Professor Emeritus; University of Connecticut
- 99. Vítor V. Vasconcelos; Post-Doctoral Fellow; Princeton University
- 100. Bruce Perry; PhD Candidate; Princeton University
- 101. Dr. Beverly E. Law; Professor; Oregon State University
- 102. Andrew Friedland; Professor; Dartmouth Environmental Studies Program
- 103. Alexandra Marçal; Professor; Universidade de Lisboa
- 104. Jarome Russell Ali; PhD Candidate; Princeton University
- 105. Artur Raposo Moniz Serrano; Professor; Faculdade de Ciências, Universidade de Lisboa
- 106. James N. Galloway; Professor; University of Virginia
- 107. Henry W. Art; Professor; Williams College
- 108. Malcolm Hunter; Professor; University of Maine
- 109. Scott Goetz; Professor; Northern Arizona University
- 110. Eric Chivian M.D.; Professor Emeritus; Founder and Former Director, Center for Health and the Global Environment, Harvard Medical School; Shared 1985 Nobel Peace Prize for Co-Founding International
- Physicians for the Prevention of Nuclear War
- 111. Robert M. Hughes; Research Scholar; Amnis Opes Institute
- 112. Aaron Ellison; Research Scholar; Harvard University
- 113. Richard A Houghton; Research Scholar; Woods Hole Research Center
- ${\bf 114.\ James\ J.\ McCarthy;\ Professor;\ Former\ Co-Chair\ IPCC\ Working\ Group\ 2,\ Former\ President\ American}$

Association for the Advancement of Science; Harvard University

- 115. Jorge Marques da Silva; Professor; Universidade de Lisboa
- 116. Sarah Hobbir; Professor; University of Minnesota
- 117. Megan McSherry; Post-Doctoral Fellow; Princeton University
- 118. John Harte; Professor; University of California, Berkeley
- 119. Miles R. Silman; Professor; Wake Forest University
- 120. Robert Howarth; The David R. Atkinson Professor of Ecology; Cornell University
- 121. Susan Natali; Research Scholar; Woods Hole Research Center
- 122. Viney Aneja; Professor; North Carolina State University
- 123. Andrew Baruth; Professor; Creighton University
- 124. Laura Kuurne; Masters; University College London
- 125. Mary S. Booth; PhD; Partnership for Policy Integrity
- 126. Gene Likens; Professor; U.S National Medal of Science, U.S. National Academy of Sciences, Founding

President of the Institute of Ecosystem Studies; Cary Institute of Ecosystem Studies

- 127. Robert Max Holmes; Deputy Director and Senior Scientist; Woods Hole Research Center
- 128. Matthew C. Hansen; Professor; University of Maryland
- 129. Robert Cabin; Professor; Brevard College
- 130. Gillian T. Davies; Society of Wetland Scientists Immediate Past President
- 131. Robert K. Musil; President & CEO; Rachel Carson Council

- 132. Elin Götmark; Research Scholar; Chalmers University of Techology
- 133. Surshti Patel; Masters; Zoological Society of London
- 134. Dominic Patel; Research Scholar; University College London
- 135. William Schlesinger; Professor; Duke University
- 136. Deborah Lawrence; Professor; University of Virginia
- 137. Alan Weakley; Professor; University of North Carolina at Chapel Hill
- 138. George M. Woodwell; Professor; Woods Hole Research Center
- 139. Beverly Law; Professor; Oregon State University
- 140. Anni Arponen; Research Scholar; University of Helsinki
- 141. André Lourenço; PhD Candidate; CIBIO
- 142. Snæbjörn Pálsson; Professor; University of Iceland
- 143. Sebastiaan Luyssaert; Professor; Vrije Universiteit Amsterdam
- 144. Mark Stanback; Professor; Davidson College
- 145. Prof. Dr.-Ing. Wolfgang Benecke; Professor; CAU Kiel Germany
- 146. Kate Dooley; PhD Candidate; Climate and Energy College, University of Melbourne
- 147. Leili Khalatbari; PhD Candidate; CIBIO
- 148. Professor A. William Rutherford FRS; Professor; Imperial College London
- 149. David van der Spoel; Professor; Uppsala University
- 150. Elsa Teresa Rodrigues; Post-Doctoral Fellow; University of Coimbra, Portugal
- 151. Ceres Barros; Post-Doctoral Fellow; University pf British Columbia
- 152. James Petranka; Professor Emeritus; University of North Carolina at Asheville
- 153. Dominick DellaSala; PhD; Geos Institute
- 154. Lee E. Frelich; Research Scholar; University of Minnesota
- 155. Christopher Paradise; Professor; Davidson College
- 156. Sam L Davis; PhD; Dogwood Alliance
- 157. Jeffrey Corbin; Professor; Union College
- 158. Kimberli J. Ponzio; Research Scholar; Professional Wetland Scientist #000602
- 159. Aude Valade; Post-Doctoral Fellow; Institut Pierre Simon Laplace
- 160. Jaana Bäck; Professor; Univ. of Helsinki, chair of the EASAC report on 'Sustainable use of EU forests'
- 161. Walter Bock; Professor Emeritus; Columbia University
- 162. Jerry Melillo; Professor; Member, U.S. National Academy of Sciences; The Ecosystems Center, Marine Biological Laboratory
- 163. Philip K. Stoddard; Professor; Florida International University
- 164. Dominique G Homberger; Professor; Louisiana State University, Baton Rouge
- 165. Douglas Wartzok; Professor Emeritus; Provost Emeritus; Florida International University
- 166. Bjart Holtsmark; Research Scholar; Statistics Norway
- 167. Tamara Fetzel; PhD Candidate; University of Klagenfurt
- 168. Wietse de Boer; Professor; Netherlands Institute of Ecology / Wageningen University
- 169. Filipe Duarte Santos; Professor; University of Lisbon
- 170. Gretchen C. Daily; Professor; Stanford University
- 171. Wim de Vries; Professor; Wageningen University and Research
- 172. Rick Savage; Masters; Carolina Wetlands Association
- 173. Leffert Oldenkamp; Research Scholar; forest management advisory
- 174. Louise Vet; Professor; Director Netherlands Institute of Ecology (NIOO-KNAW), Member Royal

Netherlands Academy of Arts and Sciences; Wageningen University

- 175. John Kominoski; Professor; Florida International University
- 176. Atte Korhola; Professor; University of Helsinki
- 177. András Báldi; Professor; MTA Centre for Ecological Research
- 178. Zoltán Tóth; Post-Doctoral Fellow; Hungarian Academy of Sciences
- 179. Judit Sonkoly; Research Scholar; University of Debrecen
- 180. Marten Scheffer; Professor; Wageningen University
- 181. Lisa Gomes; Professor; Florida International University
- 182. Jonathan Evans; Professor; University of the South
- 183. Jacintha Ellers; Professor; VU University Amsterdam
- 184. Christian Lauk; Research Scholar; Institute of Social Ecology, Alpen-Adria-Universität Klagenfurt/Graz/Vienna
- 185. Marcel Dicke; Professor; Wageningen University and Research, Wageningen, The Netherlands

- 186. Christoph Plutzar; Research Scholar; Institute of Social Ecology, Univ. Klagenfurt
- 187. Andrew J. Laughlin; Professor; University of North Carolina Asheville
- 188. Paul C. Struik; Professor; Wageningen University & Research
- 189. Peter Reijnders; Professor Emeritus; Wageningen University, CA-Universität Kiel
- 190. Erzsébet Hornung; Professor; University of Veterinary Medicine, Budapest, Hungary
- 191. Jamie Theobald; Professor; Florida International University
- 192. Eszter Lellei-Kovács; Post-Doctoral Fellow; MTA Centre for Ecological Research
- 193. Ariadna Szczybelski; PhD Candidate; Wageningen University
- 194. Karlheinz Erb; Professor; Institute of Social Ecology Vienna, Alpen-Adria University Klagenfurt-Vienna-Graz
- 195. Anders Lindroth; Professor Emeritus; Lund University
- 196. Margareta Ihse; Professor Emeritus; Stockholm University
- 197. Luc Lens; Professor; Ghent University
- 198. Eszter Wainwright-Deri; PhD; ZSL
- 199. Bernhard Schink; Professor; University of Konstanz
- 200. Timo Vesala; Professor; University of Helsinki
- 201. PWG Groot Koerkamp; Professor; Wageningen University and Research
- 202. Sue Hartley; Professor; Director of the York Environmental Sustainability Institute, University of York,
- Past-President of the British Ecological Society
- 203. Andreas Jechow; Research Scholar; Leibniz Instite of Freshwater Ecology and Inland Fisheries, Berlin
- 204. Per Milberg; Professor; Linköping Universiy
- 205. Jens Kiesel; Post-Doctoral Fellow; Leibniz Institute of Freshwater Ecology and Inland Fisheries
- 206. Christian Stein; PhD Candidate; University of Osnabrück
- 207. Per Angelstam; Professor; Swedish University of Agricultural Sciences (SLU)
- 208. Therese Kettner; PhD Candidate; IGB Leibniz-Institute of Freshwater Ecology and Inland Fisheries
- 209. Malte Andersson; Professor Emeritus; University of Gothenburg
- 210. Stuart Butchart; Research Scholar; Chief Scientist, BirdLife International
- 211. Alexandre Antonelli; Professor; University of Gothenburg, Sweden
- 212. Gábor Seress; Post-Doctoral Fellow; University of Pannonia
- 213. Kathryn Kirby; Post-Doctoral Fellow; University of Toronto
- 214. Urban Olsson; Professor; University of Gothenburg
- 215. Kim Naudts; Post-Doctoral Fellow; Max Planck Institute for Meteorology
- 216. Susanne Baden; Professor Emeritus; University of Gothenburg
- 217. Martin Eriksson; Research Scholar; Chalmers University of Technology
- 218. Giovanni Seminara; Professor Emeritus; University of Genoa and Accademia Nazionale dei Lincei, Italy
- 219. Marcello Sanguineti; Professor; University of Genova
- 220. Georg Staaks; Research Scholar; Leibniz-Institute of Freshwater Ecology and Inland Fisheries, Berlin
- 221. Giuseppe Casalino; Professor; University of Genova, Italy
- 222. Gianangelo Bracco; Professor; Università degli Studi di Genova (Italy)
- 223. Philip Taylor; Research Scholar; Mad Agriculture & CU Boulder
- 224. Adrian K. Clarke; Professor; University of Gothenburg
- 225. Izabela Delabre; PhD; Zoological Society of London
- 226. Ane T. Laugen; Research Scholar; Swedish University of Agricultural Sciences
- 227. Marcy Kravec; Professor; Florida International University
- 228. Bruno Carli; Research Scholar; IFAC del Consiglio Nazionale delle Ricerche
- 229. Lysanne Snijders; Post-Doctoral Fellow; Leibniz IGB Berlin
- 230. Gabriela Costea; Post-Doctoral Fellow; Leibniz Institute for Freshwater Ecology and Inland Fisheries Berlin
- 231. Dennis Baldocchi; Professor; University of California Berkeley
- 232. Christopher Kettle; Research Scholar; Bioversity International/ ETH Zurich
- 233. Walter Bock; Professor Emeritus; Columbia University
- 234. Aaike De Wever; Research Scholar; Royal Belgian Institute of Natural Sciences
- 235. Wim Carton; Post-Doctoral Fellow; Lund University Centre for Sustainability Science
- 236. Juha Merilä; Professor; University of Helsinki
- 237. Ulrika Jansson; PhD; BioFokus
- 238. Dag O. Hessen; Professor; University of Oslo, Dept. Biosciences
- 239. Torbjörn Tyler; Research Scholar; Lund University, Dept. of Biology
- 240. Åsa Kasimir; Research Scholar; University of Gothenburg, Sweden
- 241. Cornelis J.P. Grimmelikhuijzen; Professor; University of Copenhagen

- 242. Roland Jansson; Research Scholar; Umeå University
- 243. Thomas Lund Koch; PhD Candidate; University of Copenhagen
- 244. charlie cornwallis; Research Scholar; Lund University
- 245. Stefan Wirsenius; Associate Professor; Chalmers University of Technology
- 246. Ira Brinn; Professor; Univ. Federal do Rio de Janeiro, Brasil
- 247. David van der Spoel; Professor; Uppsala University
- 248. Colin Averill; Post-Doctoral Fellow; Boston University
- 249. Janice Ser Huay Lee; Professor; Nanyang Technological University of Singapore
- 250. Mar Cabeza; Research Scholar; University of Helsinki
- 251. Graciela Rusch; Research Scholar; Norwegian Institute for Nature Research
- 252. Tormod V. Burkey; Research Scholar; University of Oslo
- 253. Fernando Gonzalez-Candelas; Professor; University of Valencia, Spain
- 254. Thomas Læssøe; Research Scholar; University of Copenhagen; Danish Mycological Society
- 255. Göran Englund; Professor; Umeå University
- 256. Jens Borum; Professor; Department of Biology, University of Copenhagen
- 257. Jan Kunnas; Post-Doctoral Fellow; Independent researcher
- 258. Koen Sabbe; Professor; Ghent University
- 259. David Bilton; Professor; Plymouth University
- 260. Sigmund Hågvar; Professor Emeritus; Norwegian University of Life Sciences
- 261. Jens-Christian Svenning; Professor; Department of Bioscience, Aarhus University
- 262. Jens-Christian Svenning; Professor; Department of Bioscience, Aarhus University
- 263. Bodil Enoksson; Post-Doctoral Fellow; University of Lund
- 264. Bruce Baldwin; Professor; University of California, Berkeley
- 265. Mathias Grünwald; Professor; Hochschule Neubrandenburg, FB LG
- 266. Sandra Luque; Research Director; IRSTEA France
- 267. Honor C. Prentice; Professor; Department of Biology, Lund University, Sweden
- 268. Amalesh Dhar; Research Scholar; University of Alberta
- 269. Shadananan Nair; Research Scholar; Centre for Earth Research and Environment Management
- 270. Audrey Mayer; Professor; Michigan Technological University
- 271. Richard Bradbury; Research Scholar; RSPB & Cambridge University
- 272. Graeme M. Buchanan; Research Scholar; Centre for Conservation Science, Royal Society for the Protection of Birds
- 273. Kira Sullivan-Wiley; Post-Doctoral Fellow; Institute at Brown for Environment and Society
- 274. Jostein Lorås; Professor; Nord University
- 275. Christine Fürst; Professor; Martin Luther University Halle-Wittenberg
- 276. Danijela Puric-Mladenovic; Professor; Faculty of Forestry, University of Toronto
- 277. Jennifer Schulz; Research Scholar; University of Potsdam
- 278. Philippe Ciais; Research Scholar; Laboratoire des Sciences du Climate et de l'Environnement
- 279. Fiona Schmiegelow; Professor; University of Alberta
- 280. Lisa Naughton; Professor; UW Madison
- 281. Giovanni Sanesi; Professor; University of Bari
- 282. Nathan Samuel Gill; PhD Candidate; Clark University
- 283. Miguel Martinez-Ramos; Professor; Universidad Nacional Autónoma de Mexico
- 284. Robin Chazdon; Professor Emeritus; University of Connecticut
- 285. Joaquín Francisco Lavado Contador; Professor; University of Extremadura. Spain
- 286. Håkan Ljungberg; Entomologist, conservation biologist; Swedish University of Agricultural Sciences
- 287. Tuomo Kalliokoski; Post-Doctoral Fellow; Institute for Atmospheric and Earth System Research / Physics
- Faculty of Science & Helsinki Institute of Sustainability Science, University of Helsinki
- 288. Louis Iverson; Affiliate Professor; Ohio State University
- 289. Dejan Stojanovic; Research Scholar; University of Novi Sad
- 290. Nico M. van Straalen; Professor; Vrije Universiteit Amsterdam
- 291. Colin Chapman; Professor; McGill University
- 292. Paul T. Scott; Professor; New York University
- 293. Patrick Meyfroidt; Professor; Université catholique de Louvain & F.R.S.-FNRS
- 294. Tobias Kuemmerle; Professor; Humboldt-Universität zu Berlin
- 295. Janne I. Hukkinen; Professor; University of Helsinki
- 296. Lars Hedenäs; Research Scholar; Swedish Museum of Natural History

- 297. Peter Batary; Research Scholar; University of Goettingen
- 298. Stig-Olof Holm; Research Scholar; Umeå university
- 299. Lisa McManus; Post-Doctoral Fellow; Rutgers University
- 300. Lee Dyer; Professor; University of Nevada Reno
- 301. Elizabeth Pringle; Professor; University of Nevada, Reno
- 302. Sirkku Manninen; Director of the Ecosystems and Environment Research Programme; Univ. of Helsinki
- 303. Juha Mikola; University Lecturer; University of Helsinki
- 304. Markus Kröger; Research Scholar; University of Helsinki
- 305. Jacob Socolar; Post-Doctoral Fellow; University of Connecticut
- 306. Morgan W. Tingley; Professor; University of Connecticut
- 307. Sabina Burrascano; Research Scholar; Sapienza University if Rome
- 308. Johannes Küchler; Professor Emeritus; Technische Universität Berlin
- 309. Ton Bisseling; Professor; Wagenugen University
- 310. Annette Trierweiler; Post-Doctoral Fellow; University of Notre Dame
- 311. Susanna Hecht; Professor; Graduateinstitute for development studies; also ucla
- 312. Cleo Stratmann; PhD Candidate; Netherlands Institute of Ecology
- 313. Mikko Mönkkönen; Professor; University of Jyvaskyla
- 314. Philippe Rufin; PhD Candidate; Humboldt-Universität zu Berlin
- 315. Maja Grubisic; Post-Doctoral Fellow; Freie Universität Berlin
- 316. Naomi Schwartz; Post-Doctoral Fellow; University of Minnesota
- 317. Eduardo van den Berg; Professor; Universidade Federal de Lavras
- 318. Will Turner; Chief Scientist & Senior Vice President; Conservation International
- 319. Hans-Peter Grossart; Professor; Leibniz Institut für Gewässerökologie und Binnenfischerei (IGB)
- 320. Solen Le Clec'h; Post-Doctoral Fellow; ETH Zürich
- 321. Douglas Yu; Professor; University of East Anglia
- 322. Attila Marton; Masters; University of Debrecen, Hungary
- 323. Massimo Paolucci; Professor; UNiversity of Genova
- 324. Zdenek Burival; Masters, Executive Director; AURA, s.r.o.
- 325. Ariane Walz; Professor; University of Potsdam
- 326. David Kleijn; Professor; Wageningen University
- 327. Inigo Miguelez; Masters; University pf Copenhagen
- 328. Rebecca Runting; Post-Doctoral Fellow; The University of Queensland
- 329. Hanna Kokko; Professor; University of Zurich
- 330. Sven Lautenbach; Professor; University of Bonn
- 331. Emma kritzberg; Professor; Lund University
- 332. Frank Götmark; Professor; University of Gothenburg, Sweden
- 333. Franco Montanari; Professor; Università degli Studi di Genova
- 334. Anne Sverdrup-Thygeson; Professor; Norw. Univ. of Life Science
- 335. Rolf A. Ims; Professor; UiT- The Arctic University of Norway
- 336. Tom Swinfield; Research Scholar; University of Cambridge
- 337. Martin Berg; Masters; Lund Univeristy
- 338. Lars Johan Erkell; Research Scholar; University of Gothenburg, Sweden
- 339. Sten Svantesson; PhD Candidate; Uni. of Gothenburg, Dept. of Biological and Environmental Sciences
- 340. John-Arvid Grytnes; Professor; University of Bergen
- 341. Søren Faurby; Research Scholar; Göteborgs universitet
- 342. Charlotta Kvarnemo; Professor; University of Gothenburg
- 343. Micaela Hellström; Research Scholar; Stockholm University
- 344. Perla Maiolino; Post-Doctoral Fellow; Cambridge University
- 345. Greg King; Professor; University of Alberta Augustana
- 346. Erik E Stange; Research Scholar; Norwegian Institute for Nature Research
- 347. Harini Nagendra; Professor; Azim Premji University
- 348. Håkan Hytteborn; Professor Emeritus; Norwegian University of Science and Technology
- 349. Joshua Daskin; Post-Doctoral Fellow; Yale University
- 350. Gabor L Lövei; Professor; Aarhus University/ Fujian Agricultural & Forestry University
- 351. Anna Boato; Professor; Università di Genova
- 352. Els; Masters; Ottawa University
- 353. Iulie Aslaksen; Research Scholar; Statistics Norway/Research Department

- 354. Jan Willem Erisman; Professor; VU university Amsterdam and Louis Bolk Institute
- 355. Zoltán Sándor VARGA; Professor Emeritus; Department Evolutionary Zoology, University of Deberecen
- 356. Bente Jessen Graae; Professor; Norwegian Science and Technology
- 357. Tartally András; PhD; University of Debrecen, Hungary
- 358. Erik Framstad; Research Director; NINA
- 359. Tage Vowles; PhD; University of Gothenburg
- 360. Patrick Hostert; Professor; Humboldt University Berlin
- 361. Jörn Theuerkauf; Professor; Museum and Institute of Zoology, Polish Academy of Sciences
- 362. Andrea Balduzzi; Research Scholar; Università di Genova
- 363. Alexandra Balogh; Post-Doctoral Fellow; Stockholm University
- 364. Francesco Maria Sabatini; Post-Doctoral Fellow; Humboldt-Universität zu Berlin
- 365. Sara Holmgren; Research Scholar; Swedish University of Agricultural Sciences
- 366. Philip Platts; Research Fellow; University of York
- 367. Klara Fischer; Research Scholar; Swedish University of Agricultural Sciences
- 368. Michael Schmitt; Professor Emeritus; Ernst-Moritz-Arndt-Universitaet Greifswald
- 369. Norman Lim; PhD; Nanyang Technological University
- 370. Julien Vollering; PhD Candidate; University of Oslo
- 371. John E Hermansen; Professor; NTNU
- 372. William Thomas; Professor; Montclair State University
- 373. Peter C Frumhoff; Chief Climate Scientist; Union of Concerned Scientists
- 374. Jenni Nordén; Research Scholar; Norwegian Institute for Nature Research
- 375. Joaquin Solana-Gutierrez; Professor; Universidad Politecnica de Madrid
- 376. Lyndon Estes; Professor; Clark University
- 377. Lisa Westholm; PhD; Focali
- 378. Björn Nordén; Research Scholar; Norwegian institute for nature research
- 379. Laura German; Professor; University of Georgia
- 380. Carol Hunsberger; Assistant Professor; University of Western Ontario
- 381. Frances Seymour; Distinguished Senior Fellow; World Resources Institute
- 382. B.Bozetka; PhD; Nicolaus Copernicus University
- 383. Mats Grahn; Professor; Södertörn University
- 384. Giancarlo Mauceri; Professor; Università di Genova
- 385. Margaret E Conroy; PhD; Rutgers
- 386. Martin Stervander; Post-Doctoral Fellow; University of Oregon
- 387. Oskar Brattstrom; Post-Doctoral Fellow; University of Cambridge
- 388. Susanne Åkesson; Professor; Lund University
- 389. Anders Hedenström; Professor; Lund University
- 390. Nayden Chakarov; Post-Doctoral Fellow; Bielefeld University
- 391. Rebecca Tittler; PhD; Concordia University
- 392. Karin Rengefors; Professor; Lund University
- 393. Magnus Ellström; PhD; Lund University
- 394. Ashwini Chhatre; Professor; Indian School of Business
- 395. Thanos Smanis; PhD Candidate; Environmental Consultant of HCL Group
- 396. Dr. Jochen A.G. Jaeger; Professor; Concordia University Montreal
- 397. Jukka Lausmaa; PhD; RISE Research Institutes of Sweden
- 398. David Coomes; Professor; University of Cambridge
- 399. Luca; Post-Doctoral Fellow; Radboud University
- 400. Lars Ericson; Professor Emeritus; Umeå University
- 401. Nathan S. Debortoli; Post-Doctoral Fellow; McGill University
- 402. Sonia Wesche; Professor; University of Ottawa
- 403. Suvi Ponnikas; Post-Doctoral Fellow; Lund University
- 404. Dr. Maura Hanrahan; Professor; University of Lethbridge
- 405. Michael Allchin; PhD Candidate; Quesnel River Research Centre, University of Northern BC
- 406. Jody Peters; PhD; University of Notre Dame
- 407. Alex Latta; Professor; Wilfrid Laurier University
- 408. Leah Germer; Masters; World Bank
- 409. Martin Scheringer; Professor; Masaryk-Universität, Brünn
- 410. John-Michael Davis; Post-Doctoral Fellow; University of Illinois Urbana-Campaign

- 411. Rajmund Michalski; Professor; Institute of Environmental Engineering, Polish Academy of Sciences
- 412. Daniel Müller; Research Scholar; Leibniz Institute of Agricultural Development in Transition Economies
- 413. Held; Professor; University of Hamburg
- 414. Jeffrey Milder; Research Scholar; Rainforest Alliance & Cornell University
- 415. Marcia C M Marques; Professor; UFPR Federal University of Parana, Brazil
- 416. Sissel Sjöberg; Post-Doctoral Fellow; Lund University
- 417. Annie Lalancette; Post-Doctoral Fellow; Saint Mary's University
- 418. Bradley B Walters, PhD; Professor; Mount Allison University (Canada)
- 419. Alfredo; Post-Doctoral Fellow; Museum and Institute of Zoology, PAS
- 420. Fabien L. Condamine; Research Scholar; CNRS
- 421. William C. Burns; Professor; Co-Executive Director, Forum for Climate Engineering Assessment, American University
- 422. Elizabeth Allison; Professor; California Institute of Integral Studies
- 423. Dagnija Blumberga; Professor; Riga Technical University
- 424. George Sevastopulo; Professor Emeritus; Department of Geology, Trinity College Dublin
- 425. Henrik Selin; Professor; Frederick S Pardee School of Global Studies at Boston University
- 426. Corrado Boragno; Professor; Università di Genova
- 427. Jean-Paul Bourque; Founder of RIRE; Retired Independent Research in Ecology (RIRE)
- 428. Edwin J. Green; Professor; Rutgers University
- 429. Sergio Carrà; Professor Emeritus; Politecnico Milano, Italy
- 430. Teo Mora; Professor; University of Genoa
- 431. Karen Holl; Professor; University of California, Santa Cruz
- 432. Henning Rodhe; Professor Emeritus; Retired from Department of Meteorology, Stockhólm Univ.
- 433. Nora Davis; Research Scholar; Public sector
- 434. Jakob Skovgaard; Research Scholar; Lund University
- 435. Gabriela Kuetting; Professor; Rutgers University
- 436. Johan Lind; Research Scholar; Stockholm University
- 437. Tali Neta; Professor; Lethbridge College
- 438. Anna Sugiyama; Post-Doctoral Fellow; Yale University
- 439. Jacob von Oelreich; Research Engineer, Phil Lic; KTH Royal Institute of Technology
- 440. Jessica Green; Professor; New York University
- 441. Prof Susan Page; Professor; University of Leicester
- 442. Celia A. Harvey; Conservation International
- 443. Paal Krokene; Research Scholar; Norwegian Institute of Bioeconomy Research
- 444. Jeremy Firestone; Professor; Director, Center for Carbon-free Power Integration; University of Delaware
- 445. Bengt Gunnar Jonsson; Professor; President of the Europe Section of the SCB; Mid Sweden University
- 446. Anders Nielsen; Research Scholar; CEES University of Oslo
- 447. Cornelia Spetea Wiklund; Professor; University of Gothenburg
- 448. Wolf L. Eiserhardt; Associate Professor; Aarhus University
- 449. Anja Rammig; Professor; Technical University of Munich
- 450. Paul Eric Aspholm; Research Scholar; NIBIO
- 451. Guido Visconti; Professor Emeritus; Università dell'Aquila, L'Aquila, Italy
- 452. Sam Rabin; Research Scholar; Karlsruhe Institute of Technology
- 453. Inger Auestad; Professor; HVL
- 454. Anders Bryn; Professor; University of Oslo
- 455. Ulrika Beier; PhD; SLU
- 456. Hanna Sigeman; PhD Candidate; Lund University
- 457. Zoltan Barta; Professor; University of Debrecen
- 458. Anders K. Wollan; Research Scholar; Natural History Museum, University of Oslo
- 459. Eli Rinde; Research Scholar; NIVA
- 460. Johan Asplund; Research Scholar; Norwegian University of Life Sciences
- 461. Anna Persson; Post-Doctoral Fellow; Lund University
- 462. Barbara Zimmermann; Research Scholar; Inland Norway University of Applied Sciences
- 463. Mia Vedel Sørensen; PhD Candidate; NTNU
- 464. Eveliina Kallioniemi; Research Scholar; Norwegian Institute of Bioeconomy Research
- 465. Riccardo Guastini; Professor Emeritus; Tarello Institute for Legal Philosophy, University of Genoa
- 466. Charlotte Epstein; Professor; University of Sydney

- 467. Massimo Verdoya; Professor; University of Genova, Dept. of Earth, Environmental and Life Sciences
- 468. Hanna Laakkonen; Research manager; Lund university
- 469. Bruce Marsh; Research Scholar; CERN
- 470. Emma Morgan; Post-Doctoral Fellow; Charles University in Prague
- 471. Carsten Meyer; Research group leader; German Centre of Integrative Biodiversity Research
- 472. Stefan Ernst; Masters; Humboldt-Universität zu Berlin
- 473. Florian Poetzschner; Bachelor; Humboldt-University zu Berlin
- 474. Yann Clough; Professor; Centre for Environmental and Climate Research, Lund University
- 475. Andrew Foggo; Professor; University of Plymouth
- 476. Gustavo de L. T. Oliveira; Visiting Assistant Professor; Environmental Studies, Swarthmore College
- 477. Dr. José Sarukhán, Former Rector, Universidad Autónoma de México
- 478. Neil Losin; PhD; Day's Edge Productions
- 479. Tim Forsyth; Professor; London School of Economics and Political Science
- 480. Philipp Gärtner; Post-Doctoral Fellow; Leibniz Centre for Agricultural Landscape Research
- 481. Julie G. Zaehringer; Post-Doctoral Fellow; Centre for Development and Environment, University of Bern
- 482. Rutger A. Vos; Research Scholar; Naturalis Biodiversity Center, the Netherlands
- 483. Katie Horgan; PhD Candidate; University of Zurich
- 484. Timothy Boucher; Masters; Self
- 485. Petra Dvorak; Masters; Supsi
- 486. Jerry Skoglund; Associate Professor; Swedish University of Agricult. Sciences
- 487. Michel Sliger; Research professional; Université de Montréal
- 488. chiara; Research Scholar; University of Zurich
- 489. Kateřina Geržová; Research Scholar; Palackého University in Olomouc
- 490. Nicholas Watts; Research Scholar; Institute of Commonwealth Studies, University of London
- 491. Stephanie Mayer; Masters; WSL Institute for Snow and Avalanche Research SLF
- 492. Lian Pin Koh; Professor; University of Adelaide
- 493. Gerlinde B. De Deyn; Professor; Wageningen University
- 494. Camille Beasley; Masters; FL Dept of Environmental Protection
- 495. Tomas Jedlicka; Masters; Waldorf school Brno, Czech Republic
- 496. Deirdre Clark; PhD; University of Iceland
- 497. Christopher Martius; Research Scholar; Center for International Forestry Research (CIFOR)
- 498. Kamila Janeckova; Masters; CEMS, Master of International Management
- 499. Justine Atkins; PhD Candidate; Princeton University
- 500. Roylyn Nielson; No formal education just common sense; Friend of the forests
- 501. Hana Novotná; Masters; Charles University
- 502. Ciro Cabal; PhD Candidate; Princeton University
- 503. Marie Sarazova; Research Technician; Monasterium Laboratory, Münster, Germany
- 504. Kathleen Quinn; Associate Scientist; Invicro
- 505. Vishal Thacker; Masters; protagonIst
- 506. Jana Burivalova; Masters, Biology teacher; Zakladni Skola
- 507. Farhan Raza; Post-Doctoral Fellow; Weill Cornell medical college
- 508. Pamela McElwee; Professor; Rutgers University
- 509. Ian McFadden; PhD Candidate; UCLA
- 510. Wolfgang Schwan; 3 years of University; Concerned Human
- 511. Alex Washburne; Post-Doctoral Fellow; Montana State University
- 512. Karishmaa Pai; Masters; WFC
- 513. Eric Swanson; Citizen; Sierra Club
- 514. Caroline Farrior; Assistant Professor; University of Texas at Austin, Integrative Biology
- 515. Kimberly Neely; Research Scholar; Mendel Biological Solutions
- 516. Felicity Wynne; PhD Candidate; Plymouth University
- 517. Jane Baldwin; PhD Candidate; Princeton University
- 518. David Edwards; Professor; University of Sheffield
- 519. Thomas Lovejoy; Professor; George Mason University
- 520. Daniela Miteva; Professor; Ohio State University
- 521. Vera Chouinard; Professor; McMaster University
- 522. Maike Nesper; PhD; ETH Zurich
- 523. Richard Waring; Professor Emeritus; Oregon State University

- 524. Walter Stephenson; Bachelor in Environmental Engineering; George School
- 525. De. Rainer Bussmann, Professor Emeritus, Saving Knowledge
- 526. Spencer C.H. Barrett, Professor, University
- 527. Himadri Pakrasi , Professor, Director, International Center for Energy, Environment and Sustainability, Washington University in St. Louis
- 528. James Mallet, Professor, Harvard University and UCL London
- 529. David Zilberman, Professor, University of California at Berkeley
- 530. Paul Berry, Professor, University of Michigan, Department of Ecology and Evolutionary Biology
- 531. Ricardo Rozzi, Professor, Director, Sub-Antarctic Biocultural Research Conservation Program, University of North Texas (USA) & Universidad de Magallanes (Chile)
- 532. Mark E. Olson, Professor, Instituto de BiologÃa, Universidad Nacional Autónoma de México
- 533. William H. Schlesinger, Professor Emeritus, Nicholas School of the Environment, Duke University
- 534. Jorge V. Crisci, Professor Emeritus, Universidad Nacional de La Plata, Argentina
- 535. William F. Laurance, Professor, Distinguished Research Professor, Australian Laureate, and Prince Bernhard Chair in International Nature Conservation; Fellow of the Australian Academy of Science, James Cook University, Cairns, Australia
- 536. Christopher Leaver CBE,FRS,FRSE, Professor Emeritus, University of Oxford
- 537. Alan P. Covich, Professor, University of Georgia
- 538. Harold Mooney, Professor Emeritus, Stanford University
- 539. Richard Daley, Masters, EMD Consulting Group
- 540. Patrick Osborne, PhD, Former Executive Director, Harris World Ecology Center, UM-St. Louis
- 541. Dr. Christopher Davidson, PhD, Idaho Botanical Research Foundation
- 542. Nina Lundholm, Research Scientist or Scholar, Univesity of Copenhagen
- 543. Thomas Struhsaker, Professor Emeritus, Duke University
- 544. Claire Kremen, Professor, University of California Berkeley
- 545. Toby Gardner, Research Scientist or Scholar, Stockholm Environment Institute
- 546. David W. Inouye, Professor Emeritus, University of Maryland
- 547. David D Ackerly, Professor, Univ California Berkeley
- 548. Thomas J. Givnish, Professor, University of Wisconsin-Madison
- 549. James C Aronson, Research Scientist or Scholar; Missouri Botanical Garden
- 550. Warren R Muir, PhD, Granite Research Institute
- 551. David Creech, Professor Emeritus; Research Scientist or Scholar, SFA State University
- 552. Kenneth Olsen, Professor, Washington University in St. Louis
- 553. Bruce A. Stein, PhD, National Wildlife Federation
- 554. Patricia Vickers-Rich, Professor, Swinburne University of Technology, Department of Chemistry and Biotechnology
- 555. David White, Professor Emeritus, Loyola University
- 556. Anne Ehrlich, Research Scientist or Scholar, Stanford University
- 557. Brent D. Mishler, Professor, Integrative Biology, University of California, Berkeley
- 558. Toby Bradshaw, Professor, Department of Biology, University of Washington
- 559. Charles Perrings, Professor, Arizona State University
- 560 May Berenbaum, Professor, University of Illinois at Urbana-Champaign
- 561. Fariborz Zelli, Associate Professor, Lund University
- 562. John W. Terborgh, Professor Emeritus, Duke University
- 563. Stephen D. Hopper AC, Professor, Professor of Biodiversity, The University of Western Australia, and former CEO and Chief Scientists, Royal Botanic Gardens Kew
- 564. David Mabberley, Professor, Wadham College University of Oxford, UK
- 565. Phil Devries, Professor, University of New Orleans
- 566. Andreia Figueiredo, PhD Student, University of Missouri St. Louis
- 567. Amy Kirkham, PhD Candidate, University of Alaska Fairbanks

- 568. Daniel Janzen, Professor of Conservation Biology, University of Pennsylvania, Member US National Academy of Sciences
- 569. Juan Isaac Moreira Hernandez, PhD Candidate, University of Missouri-St. Louis
- 570. Ib Friis, Professor Emeritus, Natural History Museum of Denmark, member of the Royal Danish Academy of Sciences and Letters and the Royal Physiographic Society of Lund (Academy for the Natural Sciences, Medicine and Technology)
- 571. Rodrigo Mendez, Research Scientist or Scholar, centro de investigacion cientifica y de educacion superior de ensenada, bc Mexico
- 572. Michael Clegg, Professor Emeritus, University of California, Irvine; past foreign secretary US National Academy of Sciences
- 573. Jeffrey D. Sachs, Professor, Columbia University
- 574. Patricia G. Parker, Professor, University of Missouri St. Louis
- 575. Alan Weakley, Professor, University of North Carolina at Chapel Hill
- 576. Jeremy Bruhl, Professor, University of New England; Director, N.C.W. Beadle Herbarium
- 577. Hugh Possingham, Professor, The University of Queensland
- 588. Mary. T. K. Arroyo, Professor, Institute de Ecologia & Biodiversidad
- 589. Cagan H Sekercioglu, Professor, University of Utah
- 590. Michael MacCracken, Research Scientist or Scholar; Chief Scientist for Climate Change Programs, Climate Institute
- 591. Calvin Qualset, Professor Emeritus, University of California
- 592. Peter Crane FRS, Professor Emeritus, Oak Spring Garden Foundation
- 593. Osvaldo Sala, Professor, Arizona State University
- 594. Nicola Ripley, Masters, Betty Ford Alpine Gardens
- 595. Steve O'Kane, Professor, University of Northern Iowa
- 596. Christopher P. Dunn, Professor, Cornell Botanic Gardens
- 597. Carl Safina, Professor, Stony Brook University
- 598 Peter Ellis, Research Scientist or Scholar, The Nature Conservancy
- 599. Peter Gleick Pacific Institute, PhD, Pacific Institute
- 600. Andrew Beattie, Professor Emeritus, Macquarie university
- 601. James Blignaut, Professor, Stellenbosch University
- 602. Kingsley Dixon, Professor, Curtin University, Western Australia
- 603. Marleen Schafer, Masters, Pro Natura
- 604. Loren Rieseberg, Professor, University of British Columbia
- 605. Gerardo Ceballos, Professor;PhD, Universidad Nacional Autónoma de México
- 606. J Julio Camarero, Research Scientist or Scholar, IPE-CSIC
- 607. Leon Green, PhD Candidate, University of Gothenburg
- 608. Ghillean Prance, Professor Emeritus, Former Director, Royal Botanic Gardens, Kew
- 609. Mats Lindeskog, Research Scientist or Scholar, Lund University, Sweden
- 610. Debora Arlt, Research Scientist or Scholar, Swedish University of Agricultural Sciences
- 611. Ulrika Palme, Research Scientist or Scholar, Chalmers University of Technology
- 612. David Moreno Mateos, Research Scientist or Scholar, Basque centre for CLimate Change BC3
- 613. Christian Körner, Professor Emeritus, University of Basel, Switzerland
- 614. Peter Endress, Professor Emeritus, Professor Emeritus, University of Zurich, Switzerland, Member of German Academy of Sciences Leopoldina
- 615. Enrico Rizzuto, Professor, University of Naples Italy
- 616. Fang Yin, PhD Candidate, IAMO
- 617. Birgitta Bremer, Professor Emeritus, The Royal Swedish Academy of Sciences
- 618. Harith Farooq, PhD Candidate, University of Aveiro, Portugal, Gothenburg University, Sweden
- 619. Sine Kragh Petersen, Masters, University of Copgenhagen
- 620. Jane Phillips-Conroy, Professor Emeritus, Washington University

- 621. Juan D. Carrillo, Post-Doctoral Fellow, University of Gothenburg
- 622. TomÃiÅi Bujna, Lecturer, TC Business School
- 623. Matthias Baumann, Post-Doctoral Fellow, Humboldt-Universität zu Berlin
- 624. Alec Christie, PhD Candidate, University of Cambridge
- 625. Calum Brown, Post-Doctoral Fellow, Karlsruhe Institute of Technology
- 626. Rose Andrew, Research Scientist or Scholar, University of New England
- 627. Paul Cannon, Research Scientist or Scholar, Royal Botanic Gardens, Kew
- 628. Simone Gingrich, Research Scientist or Scholar, Institute of Social Ecology, Alpen-Adria Universitaet
- 629. Meredith Blackwell, Professor Emeritus, Louisiana State University
- 630. Elizabeth Bourne, Post-Doctoral Fellow, Berlin Centre for Genomics in Biodiversity Research
- 631. Luke Dollar, Professor, Catawba College
- 632. M.F. Wallis de Vries, Professor, De Vlinderstichting / Dutch Butterfly Conservation
- 633. John W. Fitzpatrick, Professor, Executive Director, Cornell Lab of Ornithology, Cornell University
- 634. R. Henrik Nilsson, Research Scientist or Scholar, University of Gothenburg
- 635. Pieter Baas, Professor Emeritus, Naturalis Biodiversity Center and Leiden University
- 636. Barbara M Thiers, Vice President, The New York Botanical Garden
- 637. W. Hardy Eshbaugh, Professor Emeritus, Miami University
- 638. Roy E Halling, Research Scientist or Scholar, New York Botanical Garden
- 639. Janet Simkin, Research Scientist or Scholar, British Lichen Society
- 640. David Barton Bray, Professor, Florida International University
- 641. William L. Crepet, Professor, Cornell University
- 642. Peter White, Professor, University of North Carolina at Chapel Hill
- 643. Neil Snow, Professor, Pittsburg State University
- 644. Maria Isabel Loza Rivera, PhD Candidate, University of Missouri Saint Louis
- 645. Josã Blanco, Post-Doctoral Fellow, INRA
- 646. John J. Engel, Curator Emeratus, The Field Museum, Chicago, IL 60605
- 647. Alfredo Romero Muñoz, PhD Candidate, Humboldt-Universität zu Berlin
- 648. Johanne Pelletier, Post-Doctoral Fellow, Cornell University
- 649. Fernando O. Zuloaga, Professor; Instituto de BotÃinica Darwinion, IBODA, Argentina
- 650. Donna Ford-Werntz, West Virginia University
- 651. David Boufford, Research Scientist or Scholar, Harvard University
- 652. Elsa Redmond, Research Scientist or Scholar, American Museum of Natural History
- 653. Charles S. Spencer, Curator, American Museum of Natural History
- 654. Juan Manuel Dupuy, Research Scientist or Scholar, Centro de InvestigaciÃ<sup>3</sup>n CientÃfica de YucatÃjn
- 655. Rosalind Gleave, Masters, Cambridge University
- 656. David Galbraith, Head of Science Department, Royal Botanical Gardens (Canada)
- 657. James S. Quinn, Professor, McMaster University
- 658. Stephen Blackmore, Professor, Royal Botanic Garden Edinburgh
- 659. Paul Smith, Botanic Gardens, Conservation International
- 660. Jay Malcolm, Professor, University of Toronto
- 661. Dawn R Bazely, Professor, Department of Biology, Faculty of Science & former Director, Institute for Research & Innovation in Sustainability, York University, Toronto, Canada
- 662. John Harte, Professor, University of California, Berkeley
- 663. Andrew Tilman, Post-Doctoral Fellow, University of Pennsylvania
- 664. Luca Di Corato, Assistant professor, University of Bari
- 665. Norman Ellstrand, Professor, University of California
- 666. Francesca Cavallaro, Post-Doctoral Fellow, London School of Hygiene & Tropical Medicine
- 667. Rodolfo Dirzo, Professor, Stanford University

- 668. Rauri Bowie, Professor, University of California, Berkeley
- 669. Richard S. Williams, Jr., Drniot Associate Scientist, Stefansson Arctic Institute; Senior Editor, Satellite Image Atlas of Glaciers of the World (11 vol.); Vice Chairman Emeritus, Committee for Research and Exploration,

National Geographic Society; Adjunct Senior Scientist, Woods Hole Research Center

- 669. Philip Martin, Post-Doctoral Fellow, University of Cambridge
- 670. LINDSAY MERRILL, Masters, University of Denver
- 671. Janet Franklin, Professor, University of California Riverside
- 672. Claudio Delgadillo, Research Scientist or Scholar, Universidad Nacional AutÃ<sup>3</sup>noma de México
- 673. Jonathan Losos, Professor, Washington University
- 674. Stephen Mahfood; ,Former Director of the Missouri Department of Natural Resources
- 675. Elena Lazos, Professor, Professor and Research Director, Instituto Investigaciones Sociales, Universidad Nacional Autónoma de México
- 676. Raghavendra Gadagkar, Professor, Indian Institute of Science
- 677. José M. Rey Benayas, Professor, University of Alcala
- 678. Per Weslien, Research Scientist or Scholar; PhD, University of Gothenburg
- 679. RaúI de la Mata Pombo, Research Scientist or Scholar, IRTA
- 680. Manuel J. MacÃa, Professor, Universidad AutÃ<sup>3</sup>noma de Madrid
- 681. Enrique Andivia, Post-Doctoral Fellow, Universidad de Alcala
- 682. Joan RomanyÃ, Professor, Universitat de Barcelona
- 683. Arantzazu L. Luzuriaga, Research Scientist or Scholar, Universidad rey Juan carlos
- 684. Luis Cayuela, Professor, Universidad Rey Juan Carlos
- 685. Juan A. Blanco, Research Scientist or Scholar, Universidad Publica de Navarra
- 686. Javier Loidi, Professor, University of the Basque Country
- 687. Natalia GonzÃi lez BenÃtez, Professor, University Rey Juan Carlos
- 688. Juan Luis Hidalgo CardÃ3s, PhD, Universidad Rey Juan Carlos
- 689. Francisco Pugnaire, Professor, CSIC
- 690. Rosa M. Chefaoui, Post-Doctoral Fellow, Centre of Marine Science
- 691. José Ignacio Querejeta, Research Scientist or Scholar, Spanish National Research Council (CSIC)
- 692. Alberto Bernués, Research Scientist or Scholar, Agrifood Research and Tecnology Centre or Aragón, Spain
- 693. Mauricio Diazgranados, Research Scientist or Scholar, Royal Botanic Gardens, Kew
- 694. Juande D. Miranda, Research Scientist or Scholar, Repsol Technology Center
- 695. Carolina Puerta Piñero, Post-Doctoral Fellow, Andalusian Institute of Agronomic research and training (IFAPA)
- 696. Alexandra RodrÃguez Pereiras, Post-Doctoral Fellow, Centre for Functional Ecology-University of Coimbra
- 697. Natà lia Corcoll Cornet, Post-Doctoral Fellow, University of Gothenburg
- 698. Julio Manuel, Professor, Universidad de Jaén (Spain)
- 699. Daniel Crespo, PhD, University of Coimbra
- 700. José A. Carreira, Professor, University of Jaen (Spain)
- 701. Márcia Araújo, PhD Candidate, Faculty of Sciences, University of Porto, Portugal and Center for Functional Ecology, University of Coimbra, Portugal
- 702. Julio Javier Diez, Professor, University of Valladolid
- 703. Stephan von Cramon-Taubadel, Professor, University of GA¶ttingen
- 704. Carolina MartÃnez Ruiz, Professor, University of Valladolid (Spain)
- 705. Maria J.I. Briones, Professor, Universidad de Vigo
- 706. Alberto SacristÃjn Velasco, PhD, Universidad de Valladolid
- 707. Susana RodrÃguez EcheverrÃa, Research Scientist or Scholar, University of Coimbra
- 708. Mauricio Diazgranados, Research Scientist or Scholar, Royal Botanic Gardens, Kew
- 709. Eloy Revilla, Research Scientist or Scholar, CSIC

- 710. Manuel Ramón GarcÃa Sánchez-Colomer, PhD, Centro de Estudios y Experimentación de Obras Públicas
- 711. Ruben Heleno, Research Scientist or Scholar, Universidade de Coimbra
- 712. Yolanda Melero, Post-Doctoral Fellow, CREAF UAB
- 713. Manuel B. Morales, Professor, Dept. of Ecology, AutÃ<sup>3</sup>noma University of Madrid
- 714. Miklós Bán, PhD, University of Debrecen
- 715. Helena Freitas, Professor, University of Coimbra
- 716. Daniel Montesinos, Research Scientist or Scholar, University of Coimbra
- 717. Xavier Lambin, Professor, University of Aberdeen
- 718. Manuel Ruiz Pérez, Professor, Universidad AutÃ3noma de Madrid
- 719. Asier RodrÃguez Larrinaga, Post-Doctoral Fellow, Misión Biológica de Galicia (CSIC)
- 720. Neptalà RamÃrez-Marcial, Senior Researcher, Department of biodiversity conservation, El Colegio de la Frontera Sur, Chiapas, Mexico
- 721. Elisa Oteros-Rozas, Post-Doctoral Fellow, Universidad Pablo de Olavide
- 722. Maricruz Jaramillo, PhD Candidate, University of Missouri Saint Louis
- 723. José A. Godoy López, Research Scientist or Scholar, Estación Biológica de Doñana, CSIC
- 724. Gloria I GuzmÃin Casado, Professor, University Pablo de Olavide
- 725. Ines Sanchez-Donoso, Professor Emeritus; Post-Doctoral Fellow, Doñana Biological Station, Spanish National Research Council
- 726. Cristina Zamora, PhD, University of Valladolid
- 727. Marta I. SÃjnchez, Research Scientist or Scholar, EBD-CSIC
- 728. Antonio R. Castilla, Post-Doctoral Fellow, Centre for Applied Ecology "Prof. Baeta Neves"
- 729. Jordi MartÃnez-Vilalta, Professor; Research Scientist or Scholar, CREAF & Autonomous Univ. Barcelona
- 730. Juan José Negro, Research Scientist or Scholar, EstaciÃ3n BiolÃ3gica de Doñana-CSIC
- 731. Õ ngel BlÃjzquez Carrasco, PhD Candidate, Universidad de Córdoba
- 732. Francisco Garcia Gonzalez, Research Scientist or Scholar, Estación Biológica de Doñana (CSIC, Spanish Research Council)
- 733. Õ Ã±igo Granzow-de la Cerda, Professor, Centre for Ecological Research and Forestry Applications (CREAF) and Autonomous University of Barcelona
- 734. Lucia del Moral-EspÃn, Research Scientist or Scholar, Universidad Pablo de Olavide
- 735. Andrés J. Cortés, Research Scientist or Scholar, University of Gothenburg
- 736. Belén Floriano, Professor, Pablo de Olavide University
- 737. Marco Visser, Post-Doctoral Fellow, Princeton University
- 738. Daniel M. Griffith, Professor, Universidad Técnica Particular de Loja, Loja, Ecuador
- 739. Cristina Aponte, Research Scientist or Scholar, The University of Melbourne
- 740. Richard C. Brusca, Executive Director Emeritus, Arizona-Sonora Desert Museum, Tucson, Arizona
- 741. Javier Bustamante, Research Scientist or Scholar, CSIC
- 742. Stephen D. Hopper AC, Professor, The University of Western Australia, and former CEO and Chief Scientist, Royal Botanic Gardens Kew
- 743. H. Jesse Dubin, PhD; Principal Plant Pathologist, CIMMYT [Retired]
- 744. Alicia Florit, Jefa del Servicio de Planificación en el Medio Natural de la CMAIP, ConsejerÃa de Medio Ambiente, Agricultura y Pesca (CMAIB) del Govern de les Illes Balears
- 745. Antonia Maria, Research Scientist or Scholar, Palma municipality
- 746. Carlos Ibáñez, Professor, Estación Biológica de Doñana (CSIC)
- 747. Juan Carlos Moreno Saiz, Professor, Universidad AutÃ<sup>3</sup>noma de Madrid
- 748. Sara SÃinchez Moreno, Research Scientist or Scholar, National Institute for Agricultural and Food Research and Technology
- 749. Marta Rueda, Post-Doctoral Fellow, EBD-CSIC
- 750. Fátima Alves, Professor, CFE, Science for People and the Planet, University of Coimbra; Universidade Aberta, Portugal

- 752. LucÃa DeSoto, Post-Doctoral Fellow, Centre for Functional Ecology, University of Coimbra
- 753. Peter Horvath, PhD Candidate, University of Oslo
- 754. Christian Levers, Post-Doctoral Fellow, Humboldt-UniversitÃxt zu Berlin
- 755. Maria Jesus Beltran, Adjunct professor, Pablo de Olavide University
- 756. Belén FernÃj ndez Santos, Research Scientist or Scholar, Universidad de Salamanca
- 757. Rubén Torices, Post-Doctoral Fellow, Estación Experimental de Zonas Õridas, CSIC, Spain
- 758. Mireia Llorente, Post-Doctoral Fellow, Universidad de Extremadura
- 759. Enrique de la Montaña, Professor, Universidad Laica Eloy Alfaro de Manabà (Ecuador)
- 760. Gerardo Moreno, Professor, Universidad de Extremadura
- 761. Laetitia Lenel, PhD Candidate, Humboldt-University Berlin
- 762. David Suzuki, Professor Emeritus; PhD, Professor Emeritus UBC
- 763. Eric W Crawford, Professor, Michigan State University
- 764. Miguel A. RodrÃguez-Gironés, Research Scientist or Scholar, Estación Experimental de Zonas Õ ridas (Spanish National Research Council)
- 765. Tommaso Anfodillo, Professor, Forest ecology group, Dept. TESAF, University of Padova ITALY
- 766. Tim Beringer, Research Scientist, Mercator Research Institute on Global Commons and Climate Change
- 767. Exequiel Ezcurra, Professor, University of California Riverside
- 768. Adriana Afonso Spielmann, Professor, Universidade Federal de Mato Grosso du Sul
- 768. Gregório Ceccantini, Professor, University of São Paulo
- 769. Giuliano Maselli Locosselli, Post-Doctoral Fellow, University of São Paulo
- 770. Sir Alan Mark, FRSNZ, Professor Emiritus, University of Otago
- 771. Marie Tiffany Knight, Professor, Heimholtz Centre for Environmental Research (UFZ)
- 772. Ádám Kőrösi, Post-doctoral fellow, MTA-ELTE-MTM Ecology Research Group
- 773. Miklós Bán, Phd, University of Debrecen
- 774. Mauricio Diazgranados, Research Scientist, Royal Botanic Gardens, Kew
- 775. Dr. Dieter Anhuf, Professor, University of Passau
- 776. L. Javier Palom, Professor, University of Málaga (Spain)
- 777. Verena Seufert, Post-Doctoral Fellow, Karlsruhe Institute of Technology (KIT)
- 778. Ben Phalan, Research Scientist, Oregon State University
- 779. Jorge Curiel Yuste, Professor, Basque Center for Climate Change
- 780. Günther Seufert, Senior Scientist (retired), EC -Joint Research Centre
- 781. Jenny Nelson, FRS, Professor, Imperial College London
- 782. Astrid Helena Huechacona Ruiz, Centro de Investigación Científica de Yucatán
- 783. Patrick Gonzalez, Associate Adjunct Professor, University of California, Berkeley
- 784. Werner Arber, Emeritus Professor of Molecular Mikrobiology, University of Basel, Winner Nobel Prize.

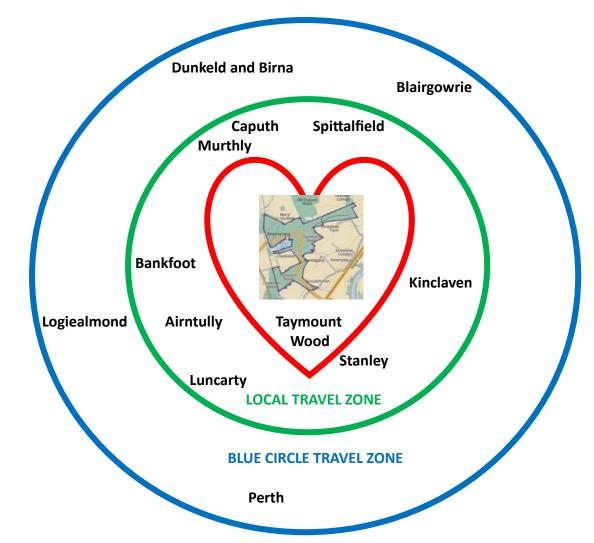


# **WSWG Travel Plan – Love My Woods**

#### **Context for the WSWG Travel Plan**

Taymount Wood lies at the heart of a circle of villages, hamlets and scattered rural communities in the immediate vicinity (the **Local Travel Zone**) and within easy reach of several other towns and villages (the **Blue Circle Travel Zone**).

Figure 1: TAYMOUNT WOOD - Geography, membership and community catchment



The woodland contributes to a cohesive local network of core paths which are well used by the community but would attract more use and contribute significantly more to the local active travel resource and multiuse forms of travel if upgraded, better maintained and increasingly promoted.

As a community woodland, Taymount Wood will empower the local community and give much needed leverage to the local active travel momentum. WSWG is not an isolated project, but already part of a landscape-scale grassroots movement in the local community of integrated thinking and collective networking for the greater good. Alongside WSWG's plans for improved path upgrade and maintenance within the woods and working more widely for increased connectivity of path networks across the local area, priorities for action to encourage and facilitate active travel to Taymount Wood include: development of a community minibus service; working for the reinstatement of a public bus service with a bus stop at the main entrance to Taymount Wood; seeking a reduced speed limit on the C406; and more.

#### What we know

#### Walking and wheeling

Taymount Wood is a key feature within and served by the local core path network. To be truly functional for active travel through walking and wheeling, gaps, surfaces and maintenance issues need to be addressed.

#### Bus travel

The Taymount Wood western entrance is accessible from the Stanley-Murthly-Bankfoot bus route on the B9099 over a level crossing, but the bus service past the main southern entrance on the C406 no longer operates. The Tay Cities Regional Economic Strategy cites "poor rural transport" and "rural transport connectivity and public transport services" as key challenges.

#### Car travel

CO<sub>2</sub> emissions from road traffic in Perth and Kinross is 10% above national average. Most people come by car to Taymount Wood where there is a small, poorly maintained car parking area at the southern entrance.

#### WSWG Active Travel action to date

In its events programme to date, WSWG has encouraged active travel where possible and car-sharing where not. In seeking to make use of PKC community minibuses for bringing less mobile people to the woods during the Feeling Good in the Wood events in 2019, WSWG encountered a lack of trained MiDAS drivers reliably available to assist in providing this service, but great appreciation for the hired minibus service offered in its place. Community Consultations have strongly supported WSWG's proposed MiDAS Community Transport Project going forward.

#### What we will do

With the anticipated increase in people accessing Taymount Wood when in community ownership, the WSWG Travel Plan sets WSWG's goals in the context of wider community action to increase active travel and reduce car dependency for local journeys.

WSWG will prioritise its focus and investment of time and money to a) encouraging more local people to travel to Taymount Wood by walking and cycling; b) providing regular group transport to the woods by minibus; and c) supporting travel methods for elderly and less mobile people who are unable to walk or cycle or who do not have access to a car.

#### In 2024 (before community ownership)

Provide some community transport support for events in the Wellbeing and Resilience programme 2024.

#### Years 1-2: Greener, Fairer, Healthier

- Improve information about upgraded facilities in the woods and marketing to encourage more people to come to the woods and to adapt their arrangements to achieve more sustainable travel to get there.
- Arrange Group Walking Events from Stanley to Taymount Wood along the core path with WSWG's Welcome Gazebo in the woods for cake and refreshments on arrival.
- Maintain and improve the path network within Taymount Wood, including the core paths, as part of the wider landscape-scale active travel network.
- Set up WSWG MiDAS Community Transport Project Phase 1 baseline programme:
  - MiDAS training to establish and maintain a WSWG pool of volunteer drivers,
  - budget for community bus service expenditure (insurance, fuel, volunteer drivers' expenses, etc),
  - scheduled bookings of free PKC community minibuses for events programme and pilot schemes,
  - support school visits with offer of community transport service.
- Two Community Transport pilot schemes scheduled community minibus service from different locations to bring people to Taymount Wood for diverse organised or self-determined activities, eg. walk alone or in company, group picnics, health walks, butterfly survey, Forest Food Soup day, etc.
  - i. Local Travel Zone Pilot (trialling service for local villages nearest Taymount Wood 1-2 months)
  - ii. Blue Circle Travel Zone Pilot (trialling service for towns and villages further afield 1-2 months)
- Upgrade and improve management of existing car park for safer and more effective use.

#### Years 3-5: Smarter, Safer, Stronger

- WSWG MiDAS Community Transport Project Phase 2 scaling up to meet increasing demand for community transport service.
- Develop imaginative programme of events for all ages and abilities to attract increased usage of community bus service.
- Continue maintenance and improvement of the active travel path network within Taymount Wood, including the core paths.
- Review car parking at Taymount Wood main south entrance:
  - monitor usage
  - monitor safety
  - consider car park expansion per se and in context of various Options for Taymount Hub.

#### **Years 1-10**

- Investigate prospects for WSWG purchasing its own electric minibus.
- Participate in the wider community mission to upgrade the core path network, address road safety, and improve public and community transport, including partnership working with:
  - the C406 Community Group
  - PKC eg Road Safety and Active Travel Officer
  - PKCT on access and active travel improvements in and beyond Taymount Wood including the River Tay Way.
- Qualitative and quantitative evaluation and case studies of improvements and services to active travel and community transport services and initiatives, including for example:
- impact on car miles/carbon footprint per visitor to Taymount Wood
- impact on inclusivity and social isolation
- increase in numbers visiting or attending WSWG events in Taymount Wood
- change in means of travelling to Taymount Wood.

#### **Funding the WSWG Travel Plan**

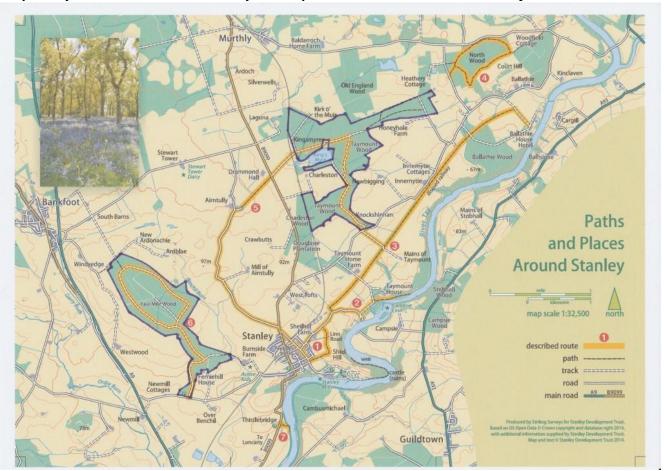
Much of the above is already costed in the WSWG Wildwood Project and will be funded in-house through Woodland and Community Enterprise income streams. With the Scottish Government's commitment to spend at least 10% of the total transport budget on active travel by 2024-25, WSWG anticipates accessing this funding source for the remainder either directly or through organisations such as Paths4All.

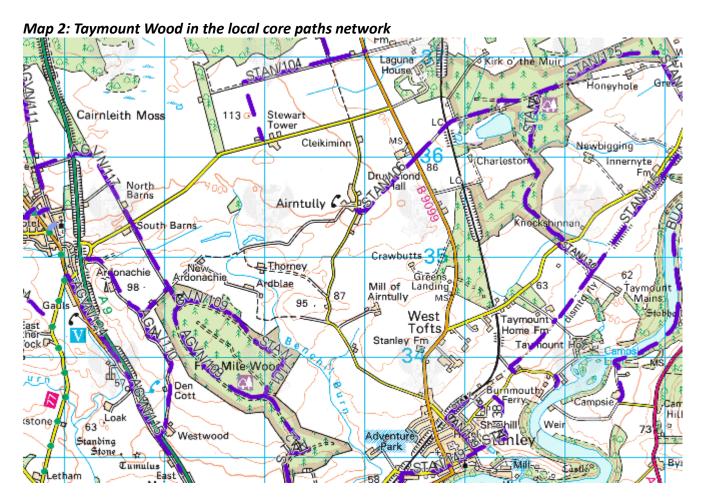
#### **Outcomes for Government**

WSWG's Travel Plan will deliver against the Scottish Government Outcomes as follows:

- **Children and Young People** filling a transport budget gap preventing schools being able to bring children for outdoor learning and supporting opportunities for young people's organisations to benefit from outdoor activities.
- **Communities** collective action on climate through more sustainable travel options.
- **Culture** shifting the local community mindset towards active travel and sustainable living as a default, preferred and achievable option.
- **Education** more people and hard-to-reach groups being able to visit the woods and benefiting from learning opportunities through woodland events.
- **Environment** reduced CO<sub>2</sub> emissions and awareness of the dual climate and biodiversity emergencies and how they can be addressed by local communities.
- **Health** more people and hard-to-reach groups gaining health benefits of more walking or cycling and engagement with nature.
- Poverty removing barriers for those less able to afford personal or public transport.

Map 1: Taymount Wood in the Stanley Development Trust Paths and Places leaflet







To whom it may concern

Our Ref: TH/th

23 October 2023

Dear Sir or Madam

#### **TAYMOUNT & FIVE MILE WOODS PERTHSIRE**

We are writing to confirm that we are very much in support of the community purchase of the above woodlands. The Woodland Trust Kinklaven Bluebell Woods are very close by and this provides an excellent opportunity to increase the woodland resource in the area for the benefit of wildlife and people.

If the community are successful in their fundraising and acquire the woodlands, the Trust will be delighted to work with them and offer some technical advice and support through our outreach team.

Yours faithfully



Tim Hall FICFor Head of Estate & Programmes Scotland



The Woodland Trust

South Inch Business Centre

www.woodlandtrust.org.uk

Scotland

Shore Road Perth

PH2 8BW Telephone 01738 635829 Facsimile 01738 629391

Website