PINNACLEHILL PARK ORCHARD PROJECT

Objective

To turn the parcel of land behind 48,49,50 Pinnaclehill Park, currently designated as a dog walking area, into an organic community orchard and wildflower area.

Introduction

SBC Parks and Environment department, recognizing the need to reduce costs, reduce carbon emissions, increase biodiversity and encourage local, stable food sources, is keen to consider community projects to repurpose under-utilised areas to meet these needs.

The plot of land in question is Common Good land, a great fit with his initiative and has the potential to become an inclusive, green, multi-functional space for everyone in the neighbourhood.

Process & Timing

- 1. Seek approval for the proposal
 - ✓ Discuss proposal with Councillor Mountford, Amy Alcon, Emma Husband
 - ✓ Engage Pinnaclehill Park residents
 - Present proposal to the Common Good Committee for approval. 27th June
- 1. Once approved:
 - Develop an application for financial assistance to the Kelso Common Good Fund
 - Pursue additional sources of funding
 - Cease mowing (except designated areas) and monitor species appearance
 - Aim to plant the first trees and hedging plants during Winter 2023/24 and plant wildflowers Spring 2024

Benefits to the community

- Provide fresh, sustainable, affordable, organically grown fruit
- Get people active, improving physical and mental health
- Provide a shared purpose and build a sense of community and belonging
- Get people closer to nature, improving mental health and wellness
- A beautiful space for people of all ages and backgrounds to come together
- Encourage and share knowledge about gardening organically and in partnership with nature
- Create opportunities for involvement in citizen science projects
- Enable people to combat "eco-anxiety", channeling it into tangible action for the environment
- Increase pollinators and therefore flower/food crops in neighbouring gardens

Benefits to nature and the environment

- Create a species rich wildflower area, eliminating a "green desert" and providing food and habitat for insects and the food chains they support
- Provide approx. 40m of native hedging, creating food and shelter for insects and birds
- Increase biodiversity
- Produce food with zero food miles or packaging
- Reduce or eliminate the fossil fuel currently used to mow the area
- Maintain the "purity" of the land, by zero-use of chemical pesticides, herbicides and fungicides

Funding

Initial funding will be needed for:

- Native Hedging Plants
- Organic fruit and nut trees
- Fruit bushes
- Native wildflower seeds/plugs
- 2+ Garden benches
- Materials for compost bins (reclaimed where possible)
- Water storage
- Solitary bee homes¹

Additionally, depending on the specific use of the plot, **further funding** may be needed, for example:

- Materials for a fruit cage
- Materials for wildlife houses (bird boxes, bug hotels, hedgehog houses)
- Storage shed (including fruit storage trays)
- Tool hire to remove grass & prepare soil for seeding
- Picnic table

Funding could be obtained through a variety of sources, including:

- Common Good Fund
- Neighbourhood Support Fund
- Small Schemes Fund garden benches
- Council compost scheme
- Community fund raising (e.g. plant sales, fruit sales, bake sales)
- Hedging plants from Woodland Trust: <u>Free Trees for Schools and Communities</u> -Woodland Trust
- Membership subscriptions

¹ Typically, about two-thirds of the pollinators that visit apple blossoms are solitary bees, mainly mason bees and mining bees" Dave Goulson, *The Jungle Garden* (Vintage, 2020) pg 59

A LITTLE CONTEXT

Food Miles

- According to "The Eco Experts"² in the UK, food transportation is responsible for 25% of all miles covered by heavy goods traffic and globally, food miles generate 3 billion tonnes of carbon dioxide equivalent (CO2e) each year. The three key actions all of us can take to reduce food miles are:
 - Shop locally
 - Eat seasonally
 - Grow your own
- 80% of UK orchards have gone since 1920 due to competition from imports³

Biodiversity - Some Statistics

- In a 2018 study on "biodiversity intactness", the UK ranked 189th out of 218 countries⁴
- Buglife study showed that UK flying insect populations have declined by over 60% in the last 20 years⁵
- 80% of butterfly species have declined across the UK since the 1970s, with particularly dramatic declines in habitat specialists⁶
- In the next few decades, as many as 40% of the world's insect species could become extinct⁵
- Gardens cover about half a million hectares in the UK, more than all our nature reserves⁷ and offer excellent opportunities to create important wildlife "corridors" to reduce fragmentation.

Causes of Insect Decline

There are multiple compounding pressures leading to these declines, including:

- Use of pesticides and fungicides
- Loss of habitat due to urbanization and conversion of meadows, woodland and hedgerows into pasture and arable land
- "Monoculture" planting
- Habitat fragmentation
- Climate change
- Air and light pollution

² What Are 'Food Miles' And How Can You Reduce Them? | The Eco Experts

³ Dave Goulson, Silent Earth (Vintage, 2021) pg 258

⁴ Dave Goulson, Silent Earth (Vintage, 2021) – pg 279

⁵ Bug Matters Survey report, **Buglife**

⁶ The State of UK's Butterflies 2022 Report, <u>Butterfly Conservation</u>

⁷ Dave Goulson, Silent Earth (Vintage, 2021) pg 244

Impact of Insect Decline

The impact of insect declines is far-reaching, because of the numerous roles they play and their position in the food chain. Some impacts are noticeable already, all will become increasingly noticeable over time:

- Reduced production of food plants requiring insect pollination. This will result in a loss
 of "real food" such as fruits and vegetables, as well as treats such as chocolate, wine,
 coffee etc.
- Increase in "unwanted" insects
- Declines in animals higher up the food chain
- Reduced recycling of dead plant and animal matter

Predator Allies for Orchards8

| Species | Prey | How to attract them |
|-----------------|-------------------------------------|---------------------------|
| Bats | Codling moth | |
| Earwigs* | Aphids, scale insects, codling moth | Bottle refuges |
| Ladybirds** | Aphids | Nettles, Yarrow, Feverfew |
| Hoverflies | Aphids | Small flowers, such as |
| | | yarrow, lemon balm, cow |
| | | parsley, sweet cicely |
| Ground Beetles | Sawfly larvae, moth caterpillars | Logs/large stones around |
| | | base of trees |
| Parasitic wasps | Caterpillars, sawflies, leaf midge, | Yarrow, mallow, lemon |
| | aphids, ants | balm |
| Lacewings | aphids | Log piles, dense hedges, |
| | | yarrow, dandelion, sweet |
| | | cicely, cow parsley |

^{*} Earwigs have been estimated to eat as many aphids each year in apple orchards as could be killed by three rounds of spraying with insecticides. Unfortunately, in most commercial orchards earwigs have been eradicated by insecticides⁹

^{**} Ladybird larvae can munch their way through up to 5000 aphids each before pupating into an adult where their hunting resumes

⁸ Beneficial predators to welcome to you orchard – <u>The Orchard Project</u>

⁹ Dave Goulson, *The Garden Jungle* (Vintage, 2020) – pg 40)