

VIRIDOR

Saving an Endangered UK Native Plant Species

A Natural Capital pilot project by Viridor

**Inder Poonaji
Sustainability Director**

6/9/2016

Viridor to partner with a civil society group to take one native plant species off the endangered list by 2019. Focusing on natural, social and economic capital activities. Undertaking projects using ecosystem service methodology.

1. Key Messages.

- a. Nature is essential to business. Measuring and acting on organisational assets can yield natural and social capital benefits through ecosystem management and organisational change. By undertaking this challenge the project will also contribute to the Sustainable development goals of: Good Health and Wellbeing (3), Sustainable Cities and Communities (11) and Life on Land (15).
- b. Viridor is committed to develop its business in a way that safeguards Natural Capital in particular biodiversity and ecosystem services.

2. Business Rational

- a. We recognise that there is less room for Natural Capital, it is getting fragmented as increased urbanisation and the demand for infrastructure grows. This has resulted in less land for biodiversity and ecosystem services. Viridor can play its part as it is dependent on Natural Capital.
- b. Ecosystem services are gaining attention among regulators, civil society groups and some business organisations within the UK. The Natural Capital Committee (NCC) is capturing good corporate practices thus enabling ecosystem services assessments to be undertaken more widely.
- c. By undertaking this project Viridor will effectively engage with this emerging area of interest and work (which could become a

regulator issue in the future) thus complimenting Viridor's Sustainability and Health & Wellbeing strategy.

3. Aims

- a. To progress our stewardship of Natural Capital across the business and for stakeholder and communities. To reduce our risk, increase our responsibility and reputation.

4. Objectives

- a. The sustainability strategy for Viridor has a clear strapline "no harm to people and the environment." The sustainability strategy contains a detailed road map underpinned by several Key Performance Indicators (KPI). The KPI's measure and monitor the sustainability goals and objectives. A key sustainability KPI is to "partner with a civil society group (Plantlife) to increase populations of one or more threatened native plant species and potentially take one off the endangered list by 2019" focusing on natural and social and economic capital activities.
- b. The project is also mapped to the Sustainable development goals of: Good Health and Wellbeing (3), Sustainable Cities and Communities (11) and Life on Land (15).
- c. As Viridor rapidly accelerates closure of its landfill sites, the impact and opportunities it has created for the ecosystem are substantial. It enables Natural Capital attributes in response to this challenge to be identified; as the business wants to manage

land assets to enhance Natural Capital, reduce liabilities and build brand reputation.

- d. By undertaking the headline project and measuring the Natural Capital impacts the business will better understand the significant business and materiality risk. The project provides a focus on emerging risks and opportunities associated with the organisations dependences & impacts on the ecosystem services. This coupled with the additional benefit of enhancing the social capital for stakeholders and employees via organisational change. These endeavours will be a major change driver for better business processes, practices, systems and strategies.

5. Scope

- a. This is a pilot project set at a site level and enterprise wide. The project will actively involve regional operations and employees at sites. The project will primarily focus on native plants and native butterflies. The duration of the pilot is three years.

6. Sector

- a. Environmental Services, Recycling and Energy Recovery facilities.

7. Approach

- a. Collaboration with Plantlife to establish the requirements of native British plants: to increase populations of three threatened species. The threatened list is defined in an annex to the Natural Environment and Rural Communities Act.

b. The second aim is to establish Butterfly Meadows at various sites (or surrounding areas) through employee and stakeholder engagement that nurture and support local butterfly species. The Butterfly Meadow¹ approach has been chosen for the following reasons:

- i. Butterflies are the UK's most threatened wildlife group.
- ii. Butterflies are an indicator for environmental health. A decline in butterflies has a negative effect on a range of other wildlife groups and therefore it is known that conservation measures for butterflies will help many other components of local biodiversity.

c. Both key activities will have following objectives:

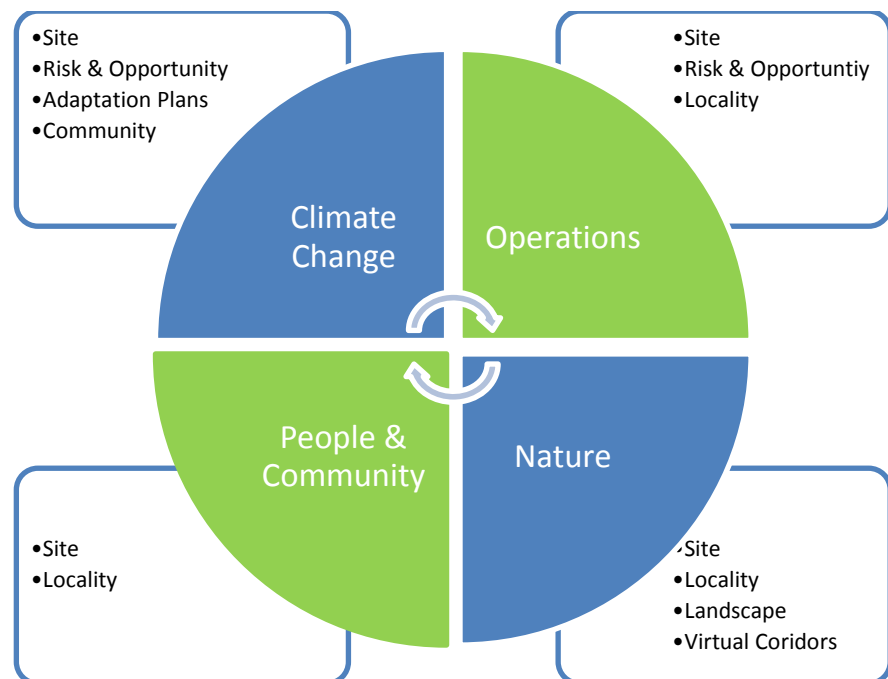
- i. Restore land back to nature.
- ii. Deliver employee and community engagement through creating, planting and monitoring of the plants and butterflies.
- iii. Build relationship with local nature specialist groups and community stakeholders.
- iv. Educate employees and the community to allow them to directly contribute and take ownership of a local sustainability initiative.
- v. Provide a natural visual impact for discussion and linking into the sustainability strategy.

¹ Butterfly Meadows, Poonaji 2012

- vi. Provide data of native plants and butterfly populations to help conservation organisations monitor the prevalence of the species using modern technology.
- vii. Activities and data will contribute to the ecosystem services.

8. Model

- a. The following Business and Nature Model² (BNM) will be used to align the project aims, methodology, measurement and outputs. In essence the model establishes four arenas for businesses to undertake activities for establishment and enhancement for Natural Capital. It connects nature and climate change to business operations, people and the community.



- b. This model depicts four key areas that activities will be undertaken:

² Business & Nature Model, Poonaji 2011

- i. Operations, reducing environmental impact, employee engagement, on-site biodiversity and increasing social capital.
- ii. Climate Change, maximising the benefits of the natural environment and reducing impacts: flood prevention, carbon absorption, clean and healthy water sources and geological areas. Climate Adaptation plans to reduce the impact.
- iii. People & Community, establishing links and nexuses with schools, community and civil society; access, events, volunteering for both environmental and health benefits. Encouraging opportunities for educating and learning – access to & valuing to nature.
- iv. Nature, restoring damaged and fragmented areas of habitat, recreate habitats and natural (and virtual) corridors in the landscape. Reconnecting these habitats including linking them to green space for the community.

9. Activities overview

a. Operations

- i. Native plant species: Partner with Plantlife to identify, quantify, measure and undertake projects by employees and stakeholders to save up to three native plant species by 2019; the project will combine resources and expertise of the two organisations.
- ii. KEY MESSAGE: "Nature can exist without us, but we cannot exist without nature."

- iii. Butterfly Meadows: Establish “Butterfly Meadows” using the endangered plant species at 12 key sites for autumn planting 2016/17. This will require baseline audit and possible involvement of 3rd party sites such as schools. This project will actively encourage employees to volunteer (contributing to the target of 1500 hrs by 2017), this will increase awareness of nature and sustainability matters and will improve the wellbeing of employees
- iv. KEY MESSAGE: “The number of butterfly species tells us the health of our environment.”

b. Community & People

- i. Friends and Family: Friends and Family programme to encourage connection with nature and wellbeing, raising awareness within the business, especially with operational employees to encourage connection with nature and wellbeing. Activities to carry out at home and events hosted at Viridor locations. Seed give away, raise awareness within business esp. operators/drivers. Guides on what to see/do.
- ii. KEY MESSAGE: “Getting out and about in the countryside is good for our health and wellbeing.”
- iii. Showcase: Ranscombe Nature Reserve in Kent, close to a Viridor location is the location of showcase for the partnership with Plantlife.
- iv. KEY MESSAGE: “Collaboration is essential in securing nature.”

c. Climate Change

- i. Undertake Operational Climate Adaptation Programme³ to build resilience, mitigate risk and use nature as force for good.
- ii. KEY MESSAGE: “Climate Adaptation & Reliance is essential in securing sustainable business.”

d. Nature

- i. Restoring damaged and fragmented areas of habitat by creating habitats for native plant species.
- ii. Using natural space to provide opportunities for learning and health and wellbeing.
- iii. KEY MESSAGE: “Ecosystems are the life blood for healthy human development.”

10. Implementation

- a. A draft project plan has been established with milestones:
 - i. Partner selection – shortlist – presentations
 - ii. Partnership Agreement
 - iii. Native Species Agreement
 - iv. Initial partner meeting to agree projects.
 - v. Partnership Summary
 - vi. Communications Plan
 - vii. Internal Launch - UN Day for diversity
 - viii. Membership baseline

³ OCAP workshops run by Carbon Clear target to achieve 8 by March 2017

- ix. External Launch
- x. Natural Capital Protocol Launch
- xi. Natural and Social Capital Methodology & Accounting
- xii. National Meadows Day Planning
- xiii. Agree Plantlife roadshows
- xiv. Agree number of friends and family events – Nature Counting
- xv. Monitoring and Measurement
- xvi. Nature activities.
- xvii. Possible approach using the business nature model is illustrated below-

No	BNM Category	Possible Approach
1a	Nature	Map existing habitat, and areas for potential habitat creation/restoration, on land owned. Review ecology data Records. Review historical Maps. Incorporate information on water flows.
1b	Nature / Operations	Map land uses on Viridor sites, plus any development plans. Include mapping of fauna and flora.
1c	People & Community / Operations	Contact local groups working on the regional project, including CSG's. Review local action plans e.g. regional BAP equivalent. See previous point 1a about mapping, and using local ecologists.
1d	People & Community	Create record centre on site with information about fauna, flora and wildlife observed now and previously, and historical land uses.
2a	Operations	Analyse opportunities based on existing project. Establish capacity for funding or from local collaborators.
2b	Operations	If relevant, describe relationship between agri-environment schemes and water resources.
2c	People	Review local biodiversity priorities.
3a	Nature	On land Viridor owns or is responsible for, identify best existing habitat in the catchment areas.
3b	People / Nature / Operations	Develop biodiversity enhancement and/or restoration initiatives on site. This would constitute a range of options, one of which might be Butterfly Meadows.
3c	Nature	Establish local metrics used to measure biodiversity conservation. Factor in to site KPIs. Set up employee or community biodiversity monitoring initiatives.
4a/b/c	Climate	Revisit carbon strategy and update to reflect this

	Change	target. Assess opportunities. Review existing regional monitoring for these impacts.
--	--------	--

- b. Third party verification on achievements will be undertaken during and at the end of the project.

11.Ecosystem Focus & Measurement

- a. The key focus will be on biodiversity with an attention on endangered plant species and butterflies. The project, where possible will connect into existing landscape projects however the focus will be on taking action on existing Viridor land with employees and local communities.
- b. Even though the precise methodology for ecosystem services to assess impacts and dependencies has not been established, a third party will be used to select the most appropriate approaches for specific business settings through detailed review of the latest developments and understanding of potential business risks and opportunities.
- c. To gauge effectiveness, there will be a programme of engaging with leading groups and thought leaders in the public, private, non-profit, and academic sectors. In particular, using existing tools and data basis. These will be studied further and selected on ease of use and publically available:
 - i. WBCSD Guide to Corporate Ecosystem Valuation (CEV) for screening.

- ii. WRI WBCSD Corporate Ecosystem Services Review (ESR) to develop strategies in addressing the risks and opportunities of the organisations impact on the dependence on ecosystem services.
 - iii. Operation Climate Adaptation Programme by Carbon Clear to establish actions against weather and climate impact on operations.
 - iv. Integrate Biodiversity Assessment Tool (IBAT).
- d. Metrics used for valuation purposes are still yet to be established (see above) but the following metrics are being considered and developed:
- i. Social (action type metrics) e.g. how many people volunteered, how many events were held, the number of hours those volunteers spent outside instead of at their desks as a proxy for health benefits, number of staff visits to meadow sites for enjoyment. Internal measures will include the following:
 1. 1,500 hours of volunteering delivered by March 2017. 50% must be operations.
 2. Improve health & wellbeing of employees KPI: Health age/absence rate.
 3. Improve employee engagement. KPI: Q12 question 5 increase score from 3.8 on employee survey.
 4. Increase Viridor's profile. KPI: Projects supported and people benefiting.

- ii. Environment (outcome type metrics) e.g. how many seedlings that established, species diversity, small food chain calculation based on the number of plants planted, the amount of CO2 that those plants would sequester over their lifetime, the difference in water flow rate over a site that was originally used by Viridor for industrial purposes and which is now planted as natural habitat as a proxy for flood mitigation. Internal measures will include the following:
 - 1. Partner with Plant Life to take one native plant species off the endangered list by 2019 (V2020 ref15/SDG11).
 - 2. Complete Materiality Matrix by October 2016.
 - 3. Complete Climate adaption plans for key sites (i.e. ERFs/MRFs/Landfill). 8 climate adaptation workshops by March 2017 (V2020 ref12/SDG13).
 - 4. Work with customers to instigate potential sustainability projects by December 2016 (V2020 ref9/SDG8).
 - 5. Implement a school partnership at a key facility.
 - 6. Implement two community projects.
 - 7. Reduce Environment Incidents by 30%.
 - 8. Establish Butterfly Meadows.
- iii. Economic measures (benefits type metrics), e.g. how many client visits to sites, how many people join Viridor because of their green policies, how many people hire Viridor because of their green policies, etc.

12. Geographic Focus

- a. The project will be scoped within the existing UK Viridor operations sites.
- b. Species conservation work will also be carried out at Plantlife's Ranscombe Nature Reserve.

13. Business Benefits

- a. By undertaking this project there are several business benefits sought:
 - i. Improved understanding of the importance of nature and ecosystem services to Viridor.
 - ii. Increase employee understanding of sustainability and link to wellbeing.
 - iii. Raise awareness of Natural and Social Capital.
 - iv. Increase employee engagement and volunteering.
 - v. Improve employee wellbeing.
 - vi. Improve reputation and brand with stakeholders (Natural Capital).
 - vii. Contribute to local communities.
 - viii. Provide Investors and Stakeholders with actual case studies of activities undertaken for Natural Capital.
- b. By undertaking this project there are several benefits sought for Plantlife and Viridor:
 - i. Increased populations of three threatened species.

- ii. Increased populations of native flowers, butterflies, bees and other wildlife on Viridor sites.
- iii. Wider engagement of the importance of biodiversity among Viridor staff and stakeholders.
- iv. More people enjoying nature around them.

14.Risk

- a. The Partnership could be perceived by internal and external stakeholders as fundraising or helping a charity rather than volunteering, engagement, wellbeing and education to improve ecosystems and increase biodiversity.
- b. The risk of undertaking a very specific project could fail as there are many dependencies that are outside the control of the project e.g. weather, regulations etc. Adverse conditions outside our control could affect populations of threatened species.
- c. Viridor staff may not engage. The project will implement a joint (Viridor and Plantlife) communications plan to inspire staff and stakeholders to participate and enjoy the project.

15.Dependencies

- a. Organisational contribution and willingness could shift with change of management.

- b. Engagement could be difficult; the change management programme via the communication channel might not resonate with employees and stakeholders.
- c. The shift in focus from previous philanthropic charities, where Viridor raised cash for a particular charity to one where contribution is in the form of volunteering and other activities, will be major change. It might take time for employees to understand the partnership and relationship of Natural Capital.

16.Key Players

- a. The key players will be Viridor's Sustainability and SHEQ department and include the following organisations:
 - i. Plantlife (National)
 - ii. Wildbusiness Consultancy
 - iii. Natural Capital Committee (NCC)
 - iv. Local community groups
 - v. Third party advisors

17.Contact

- a. Inder S Poonaji, Sustainability Director, Viridor