

Biodiversity and Ecosystem Resilience Progress Report

Environment (Wales) Act 2016

Monmouthshire County Council

December 2019



Version Control	
Title	Biodiversity and Ecosystem Resilience Progress Report 2019
Purpose	To assess our progress and performance since the Section 6 duty came into force (May 2016) and evaluate how well we have done to help citizens hold us to account on our performance. This plan meets the council's responsibility under the Environment (Wales) Act 2016 to report on the progress it has made in meeting its Nature Recovery Objectives for the preceding reporting period (2017/19).
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1. Introduction & Context

1.1. Reporting structure

This report has been produced in response to the legislative requirement for public authorities to report on progress made under Section 6 of the Environment (Wales) Act 2016. Guidance has been made available by Welsh Government¹ and this has been followed where possible throughout the report. A data gathering exercise and workshop was undertaken to engage with relevant service areas for report preparation. The report considers how the Biodiversity Duty applies to Monmouthshire County Council, how other plans, policies and interrelated commitments have been met, and how we have performed against the objectives of Monmouthshire County Council's Forward Plan for biodiversity, with the use of case studies. Throughout the document we have also acknowledged how work has contributed to the Welsh Government Nature Recovery Action Plan (NRAP) objectives. There is a requirement to report on the plan in 2019 and every three years following this. The plan will be subsequently reviewed and an updated forward plan shall be published by the end of 2020.



*Figure 1 : Abergavenny Castle Meadows is a key site for biodiversity delivery in Monmouthshire, adjacent to the River Usk Special Area of Conservation it provides vital green infrastructure for the people and wildlife of Abergavenny.
Credit: Visit Monmouthshire*

¹ Welsh Government (2019) Guidance for Section 6 – The Biodiversity and Resilience of Ecosystems Duty. Reporting Guidance.

1.2. The Public Authority: Monmouthshire County Council

Monmouthshire County Council is a democratic organisation made of 43 elected councillors which employs around 4,500 officers who are responsible for day to day management & operation of the public body. Monmouthshire County Council falls into Group 3 of the “Types of organisations and possible S6 actions relative to their functions” as given in Figure 3 of the Welsh Government Reporting Guidance (See Appendix 1). This means that the minimum actions that the organisation should be reporting on include: actions related to buildings management, procurement, sustainability, awareness raising, training, or in partnership with other organisations; actions related to grounds management, cascading funding criteria, providing education and training; and, actions related to land management to maintain and enhance biodiversity, and promote the resilience of ecosystems.

1.3. The Spatial Scale of delivery

The county covers approximately 850 km² and has a population of approximately 94,142. It is a rural county with agriculture and forestry shaping the rich biodiversity and the resilience of ecosystems in the landscape. Monmouthshire’s Section 6 duty applies to the whole of the Unitary Authority area including the Monmouthshire part of the Brecon Beacons National Park (BBNP) where Monmouthshire County Council has functions such as waste, grounds maintenance and highways.

Box 1: Environment (Wales) Act 2016 - The Biodiversity and Resilience of Ecosystems Duty

Section 6 of the Environment (Wales) Act 2016 places a duty on public authorities to seek to maintain and enhance biodiversity where it is within the proper exercise of their functions. In doing so, public authorities must seek to promote the resilience of ecosystems. This means that Monmouthshire County Council must take a pro-active approach to improve and not reduce biodiversity when carrying out its functions.

The duty came into force on 21st May 2016 and replaces the earlier *Biodiversity Duty* in the Natural Environment and Rural Communities Act

Figure 2: Slow worms are amongst the Section 7 species that have benefited from closer working practices between Highways Projects and the Biodiversity & Ecology Officers. This individual was rescued during a retaining wall project in Chepstow. Credit: Sali Palmer



1.4. Biodiversity & Ecosystem Resilience Forward Plan

In response to the Environment Act, Monmouthshire County Council prepared and adopted a [Biodiversity and Ecosystem Resilience Forward Plan](#) in March 2017. Monmouthshire County Council has also taken into consideration the functions of individual service areas which could have an impact on Biodiversity & Ecosystem Resilience and the work of other key organisations with whom the council can collaborate with to maximise delivery under the Environment (Wales) Act to develop our commitments under the seven Forward Plan Objectives.

The objectives have been developed to maintain and increase the resilience of our ecosystems by increasing scale and extent, connectivity, condition, diversity, and ability of ecosystems to adapt. All objectives apply to both marine and terrestrial habitats as required by the Environment (Wales) Act.

Guidance published by Welsh Government states that public authorities must take into account relevant evidence when complying with the Section 6 duty including the State of Natural Resources Report (SoNaRR) published by Natural Resources Wales (2016), The Environment (Wales) Act Section 7 lists of habitats and species of principal importance in Wales, and relevant Area Statements currently being prepared by Natural Resources Wales under Section 11 of the Environment (Wales) Act.

Box 2: Monmouthshire County Council Forward Plan Objectives

- Objective 1:** Embed biodiversity throughout decision making at all levels
- Objective 2:** Provide environmental education to raise awareness and encourage action
- Objective 3:** Undertake land management for biodiversity and promote ecosystem resilience
- Objective 4:** Influence land management to improve ecosystem resilience
- Objective 5:** Tackle key pressures on species and habitats
- Objective 6:** Support landscape scale projects and partnerships to maximise delivery
- Objective 7:** Monitor the effectiveness of the plan and review

Box 3: Service Area Action Plans

For key areas of the Council's operations where the potential for an impact on biodiversity is most significant, Service Area Action Plans have been developed. These are continuously being updated as issues and opportunities arise. In some cases, the implementation of elements of work to benefit biodiversity has been integrated into business plans with particular importance in the GI & Countryside plan and Waste & Street Services Business Plan.

1.5. Framework of Governance and support for delivery

Delivery of the Section 6 duty is ultimately the responsibility of the Chief Executive of Monmouthshire County Council however, it is acknowledged that compliance with the Section 6 duty is relevant to all parts of the Council including Elected Members and a Biodiversity Champion who sits on the Council's Cabinet. A major enabler of action is the MonLife grouping of services including the Green Infrastructure (GI) team who prepared the Biodiversity & Ecosystem Resilience Forward Plan, have taken a lead on reporting and will coordinate a review of the Forward Plan in 2020. The Waste & Street Services teams including Grounds Maintenance are critical for making changes to land management. Services such as highways draw on ecological expertise from the GI team and when capacity does not allow this, they use external consultants to support their work and ensure they are complying with legislation.

Volunteers and partnership organisations are recognised as key enablers to biodiversity action. Policy and governance teams support local community groups in grassroots project delivery e.g. community food growing and tree planting.

This Governance and Delivery Structure contributes to the Nature Recovery Plan for Wales (NRAP) Objective:

6: Put in place a framework of governance and support for delivery.



Figure 3: Shared responsibility for Section 6 Delivery at Monmouthshire County Council

Box 4:



MonLife is part of Monmouthshire County Council and delivers leisure, youth and outdoor education, green infrastructure, countryside access, learning, destination management, arts, museums and attractions. Its mission is to promote healthier lives and inspirational experiences, and promote the vibrancy of Monmouthshire as a great place to be.

Box 5: A Local Nature Partnership for Monmouthshire & Newport

The existing Newport Biodiversity Partnership has been in place for approximately 15 years. Whilst a biodiversity partnership previously existed in Monmouthshire between 2005-2013, it no longer meets or operates although some of its functions have been delivered through the Monmouthshire Environmental Partnership Board. Monmouthshire and Newport Councils would now like to share resources to deliver Local Nature Partnership coverage across the two authority areas and the Newport partnership together with key partners in Monmouthshire have agreed to take this forward. Through the Welsh Government *Enabling Natural Resources and Wellbeing (ENRAW)* grant award (via Wales Council for Voluntary Action) a single Local Nature Partnership (LNP) shall be formed and an LNP Coordinator recruited to facilitate action up until the end of June 2022. Whilst Monmouthshire and Newport are very different Authorities they do also have many common habitats, species and socio economic factors that shape their ecosystems resilience and we will look to these commonalities in order to maximise delivery on the landscape scale. Delivery shall also be guided by the Nature Recovery Action Plan for Gwent which is currently being developed by the Resilient Greater Gwent ENRAW grant.

1.6. Well-being Plan & Monmouthshire County Council Corporate Objectives

The Well-being Plan – Our Monmouthshire – produced by the Public Service Board (PSB) in response to the Well-being of Future Generations Act 2015 sets out what public services will work together on to address the things that matter to local communities. The Well-being Plan has been informed by data, research and what the people of Monmouthshire told us as part of the Well-being Assessment.

The Well-being Assessment identified that *Landscape and Countryside* is an important attribute of the County to the residents. This influenced the Objectives developed by the PSB and has resulted in a strong environmental objective (see Figure 4)

Enhancing biodiversity contributes to the attainment of many of the economic, social, environmental and cultural Well-being Objectives and Monmouthshire County Council goals contained within the Monmouthshire Corporate Plan & Well-being Objectives and in turn, the goals have the potential to deliver for biodiversity. Biodiversity action undertaken by Monmouthshire County Council is measured under the following goal:

Maximise the potential of the natural & built environment

Under this goal MCC has committed to delivering GI policy including: ensuring Green Infrastructure (GI) and place making are embedded into new development proposals. Approval and implementation of a GI strategy, including the biodiversity and resilient ecosystems plan, and lead on the Gwent Green Grid Partnership It is recognised that Section 6 and Well-being reporting would benefit from being closely aligned and therefore compliance reporting on the Section 6 duty will be undertaken annually as part of the Annual Corporate Plan report.



Figure 4 Building Sustainable and Resilient Communities
Source: Monmouthshire County Council Corporate Plan

1.7. Five Ways of Working needed for public bodies to meet the Well-being Goals

Prevention:
Adequate processes in place to prevent loss
e.g. training of staff to raise awareness & understanding

Long term:
Reducing decisions that have perceived short term benefits but long term impacts e.g. undertaking conservation land management



Integration:
Complimentary strategy and policy that ensures actions are for common goals e.g. Monmouthshire GI Strategy

Collaboration:
Effective partnerships working on meaningful scales delivering a multidisciplinary approach
e.g. Living Levels Landscape Partnership

Involvement:
Bringing the public along with us through engagement including social media campaigns e.g. Nature Isn't Neat

1.8. Green Infrastructure Strategy

The GI Strategy's priorities for increasing biodiversity in Monmouthshire are set out in section 3 Volume 1 of the report which identifies core aims, objectives and priorities. Strategic Objective 2: **"Enhancing Biodiversity and Increasing Ecosystem Resilience"** highlights the following priorities:

- ❖ Improving ecosystem resilience through improved land management for biodiversity.
- ❖ Promoting actions that work with a range of partners in Monmouthshire to deliver landscape scale interventions delivering multiple benefits (such as improving the habitat condition and connectivity of natural areas on or between protected sites and sites of importance for nature conservation; natural flood risk management opportunities; woodland creation; climate change adaptation and mitigation; and species specific management).
- ❖ Ecosystem services on which the prosperity and well-being of communities in Monmouthshire depend, should be safeguarded and enhanced, by an integrated approach to management of natural resources (as advocated by the GI Action Plan for Pollinators in South East Wales and Bee Friendly Monmouthshire's Hedgerow Manifesto).
- ❖ Increase opportunities for people to engage and reconnect with the intrinsic and cultural value of nature in Monmouthshire to provide health and wellbeing benefits."

Box 6: Green Infrastructure Vision for Monmouthshire

Monmouthshire has a well-connected multifunctional green infrastructure network comprising high quality green spaces and links that offer many benefits for people and wildlife. The network's integrity and connectivity is maintained, protected and enhanced in a planned and managed way, which recognises the interdependency and multi-functionality of landscape, heritage and biodiversity elements.

Investment in green infrastructure underpins the County's ongoing economic, social and environmental success by supporting sustainable growth, improving quality of life and place, delivering ecosystem services and tackling climate change. Monmouthshire is a green and healthy place to live, with an increasingly coherent and resilient ecological network of wildlife habitats, helping conserve biodiversity.

This objective directly contributes on a National, Regional and Local level through :

1. National Well-being Goal 2 (creating ‘A Resilient Wales’ in respect of maintaining a biodiverse natural environment with healthy functioning ecosystems that support social, economic and ecosystem resilience and the capacity to adapt to change) and Goal 3 (creating ‘A Healthier Wales’ in respect of people’s mental well-being by increasing access to nature).
2. Regional – emerging themes and priorities within the South East Area Statement.
3. Local Well-being Objective 3 for enhancing and increasing ecosystem resilience
4. Contributes to all the Monmouthshire Biodiversity and Ecosystem Resilience Forward Plan objectives.

GI Strategy Objective	National Well-being Goals (see Box 3.3)							Local Well-being Objectives (see Box 3.4)				Biodiversity & Resilience Forward Plan Objectives (see Box 3.5)						
	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5	6	7
Objective 2 – Enhance Biodiversity & Increase Ecosystem Resilience																		

Figure 5: Relationship between GI Strategy Objective and well-being goals, local well-being objectives and the Forward Plan

Source: GI Strategy for Monmouthshire

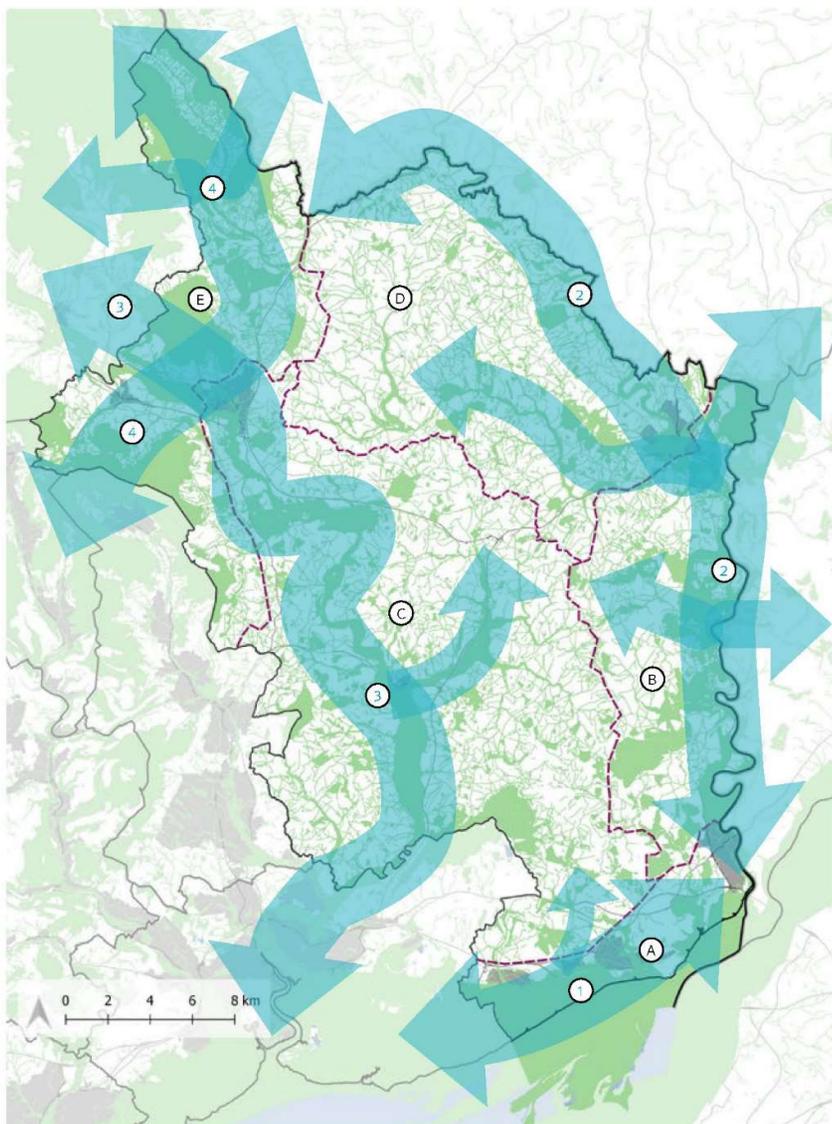


Figure 6: GI Zones and Strategic Corridors

Source: GI Strategy for Monmouthshire

The GI strategy has identified opportunities for enhancing biodiversity and increasing ecosystem resilience, in and around each of the key growth locations in the County, embedding national and local policy in both: the strategic objectives and priorities of the strategy and local delivery where growth is planned.

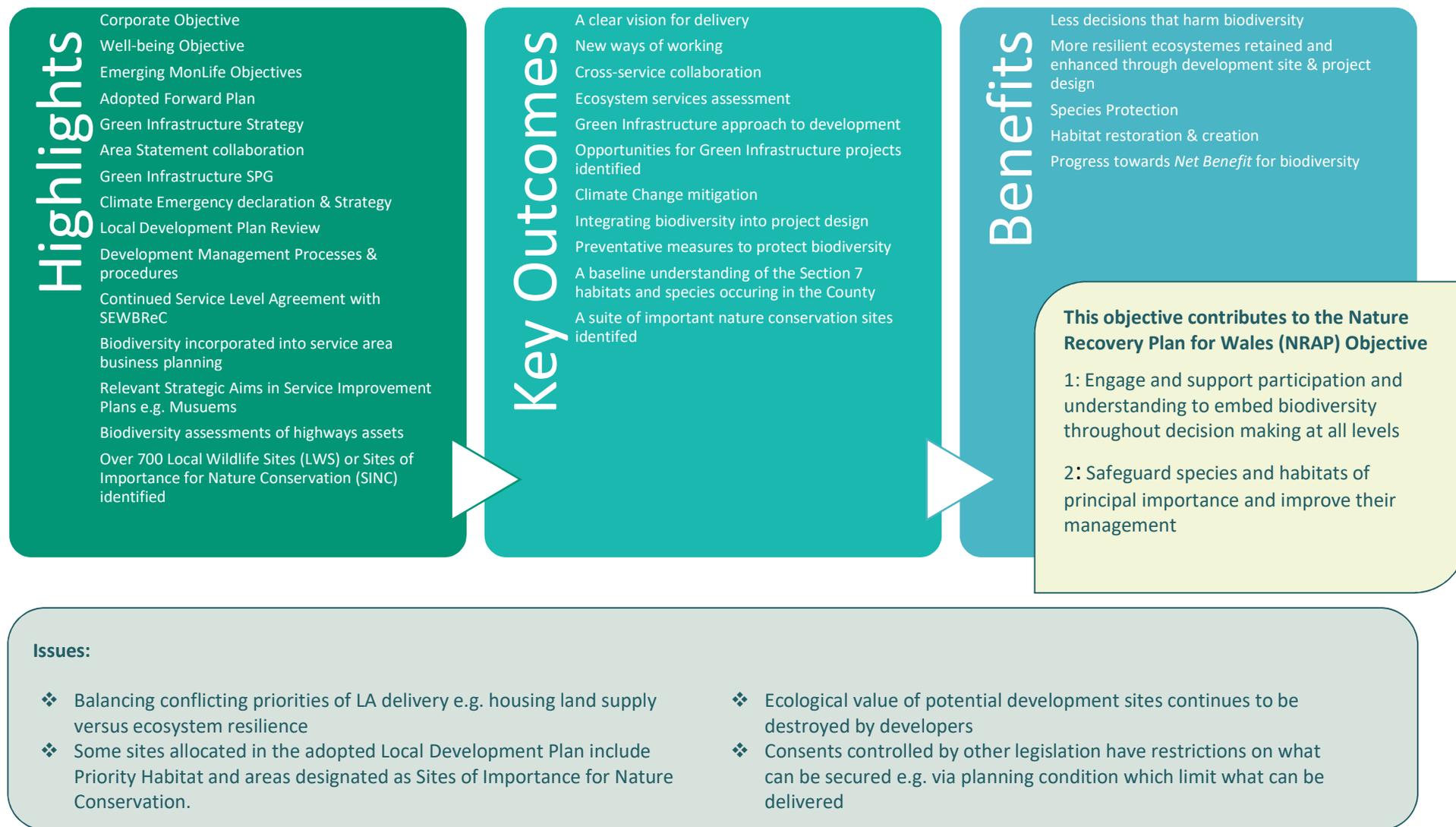
An Ecosystem Service Assessment for each of the 5 GI Zones (Gwent Levels, Wye Valley, Usk Catchment, Wye Catchment, Brecon Beacons Uplands) has been produced and is supported by: a GI Assets Audit highlighting key biodiversity assets and GI Needs and Opportunities for enhancing biodiversity and increasing ecosystem resilience.

Key biodiversity Outcomes and Benefits of the GI Strategy – include all those identified in the MCC forward Plan Objectives 1-5

1. New and collaborative ways of working - An integrated approach to policy development within public bodies and other relevant organisations through a strategic joined up approach i.e. Gwent Green Grid Partnership and development of Regional Green Infrastructure Strategy and collaboration on the SE Wales Area Statement.
2. Shared best practice i.e. Nature Isn't Neat project and GI management plans.
3. Climate Change Mitigation, Engaged Communities and Biodiversity enhancement – i.e. Caldicot Pollinators Project

2. Highlights, key outcomes and issues against MCC Forward Plan Objectives

2.1. Objective 1: Embed biodiversity throughout decision making at all levels



High level decision making such as policy and plan adoption and future spatial planning including the development plan review process are key areas where embedding biodiversity will be vital to meet the Section 6 duty. Four service areas have embedded biodiversity and resilience of ecosystems into business planning including GI & Countryside, Waste & Street Services, Planning Policy and Development Management.

Monmouthshire County Council's Local Development Plan was adopted prior to the Section 6 duty coming into force however, it does include a Green Infrastructure policy that promotes multifunctional connectivity between habitats and the biodiversity policy, Natural Environment 1 (NE1) is closely aligned with Planning Policy Wales 10 which aims to consider the impact on locally designated sites, Section 7 Habitats & Species and result in a net benefit for biodiversity.

The declaration of a Climate Emergency by Monmouthshire County Council in May 2019 and subsequent Strategy adoption has raised the environmental mandate of the Council and commitments around managing green spaces will deliver benefits for biodiversity. Monmouthshire County Council is involved in the collaboration and co-production of the South East Wales Area Statement with Natural Resources Wales.

Objective 1 particularly applies to all types of consents that Monmouthshire County Council issues including planning permission & ordinary watercourse consent. It also applies to decisions taken in relation to procurement, contracts, licences, asset management and wider land management policies such as road verge management.

Monmouthshire has a Sites of Importance for Nature Conservation (SINCs) and Local Wildlife Sites (LWS) system delivered primarily via the Gwent Wildlife Trust in partnership with Natural Resources Wales and Monmouthshire Meadows Group. The designations allow us to identify and monitor Section 7 Priority Habitats in the County, target management advice and ensure that the habitats are adequately considered through the planning process.

The Wye Valley Area of Outstanding Natural Beauty (AONB) Management Plan sets out the vision for the designated AONB and the priorities for its management over a 5 year period. The plan recognises the need to maintain and enhance biodiversity and ecosystems resilience.

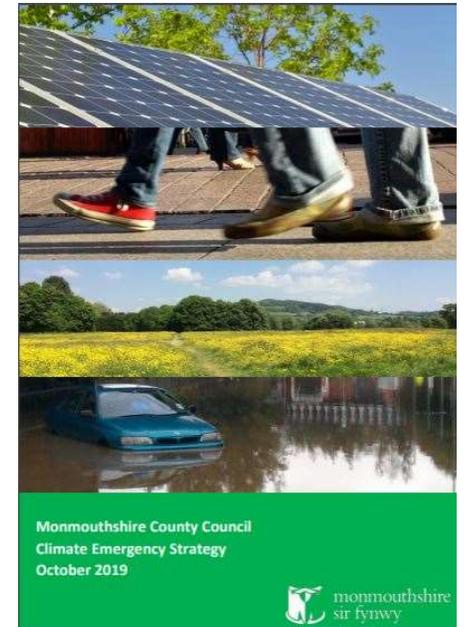


Figure 7: Adopted Climate Emergency Strategy

2.2. Objective 2: Provide environmental education to raise awareness and encourage action



With a now limited staff resource to deliver environmental education, Monmouthshire County Council relies on working with partners and volunteers to reach out to schools and youth groups. The Friends of Castle Meadows have been critical for this delivery for schools in Abergavenny & Llanfoist (see Case Study 1).

The Rural Development Programme pilot project Nature isn't Neat has delivered education, awareness raising at all levels with the aim of encouraging action by Monmouthshire County Council operatives & citizens to enhance opportunities for pollinators (see Case Study 2).

This objective contributes to the Nature Recovery Plan for Wales (NRAP) Objective

- 1: Engage and support participation and understanding to embed biodiversity throughout decision making at all levels
- 2: Safeguard species and habitats of principal importance and improve their management

Other areas of training for Monmouthshire County Council staff included: 1:1 discussions on the Biodiversity Duty during the forward plan preparation; a workshop to key service areas in preparation of reporting; protected species training for key operatives in highways; and, an ongoing programme of training for Development Management including Aderyn training delivered by the South East Wales Biodiversity Record Centre (SEWBReC).



Figure 8: Environmental Education at Castle Meadows with a Young Friends group from Cantref Primary School
Credit: Friends of Castle Meadows

The Youth Service through the Duke of Edinburgh Award scheme have delivered practical nature conservation projects at Gwent Wildlife Trust reserves as well as Himalayan Balsam bashing at Outdoor Education sites.

Monmouthshire Council Senior Leadership Team Events: presentation, workshops and role-play for staff across all council service areas in one day event, delivered by members of the Strategic Leadership team with guest speakers. The event focused on reconnecting with the Council's purpose, values, design principles and priorities within the context of "Compass for Life" philosophy and understanding of the Environment Act Section 6 duty for biodiversity and nature based solutions when considering climate change/carbon reduction and green growth.

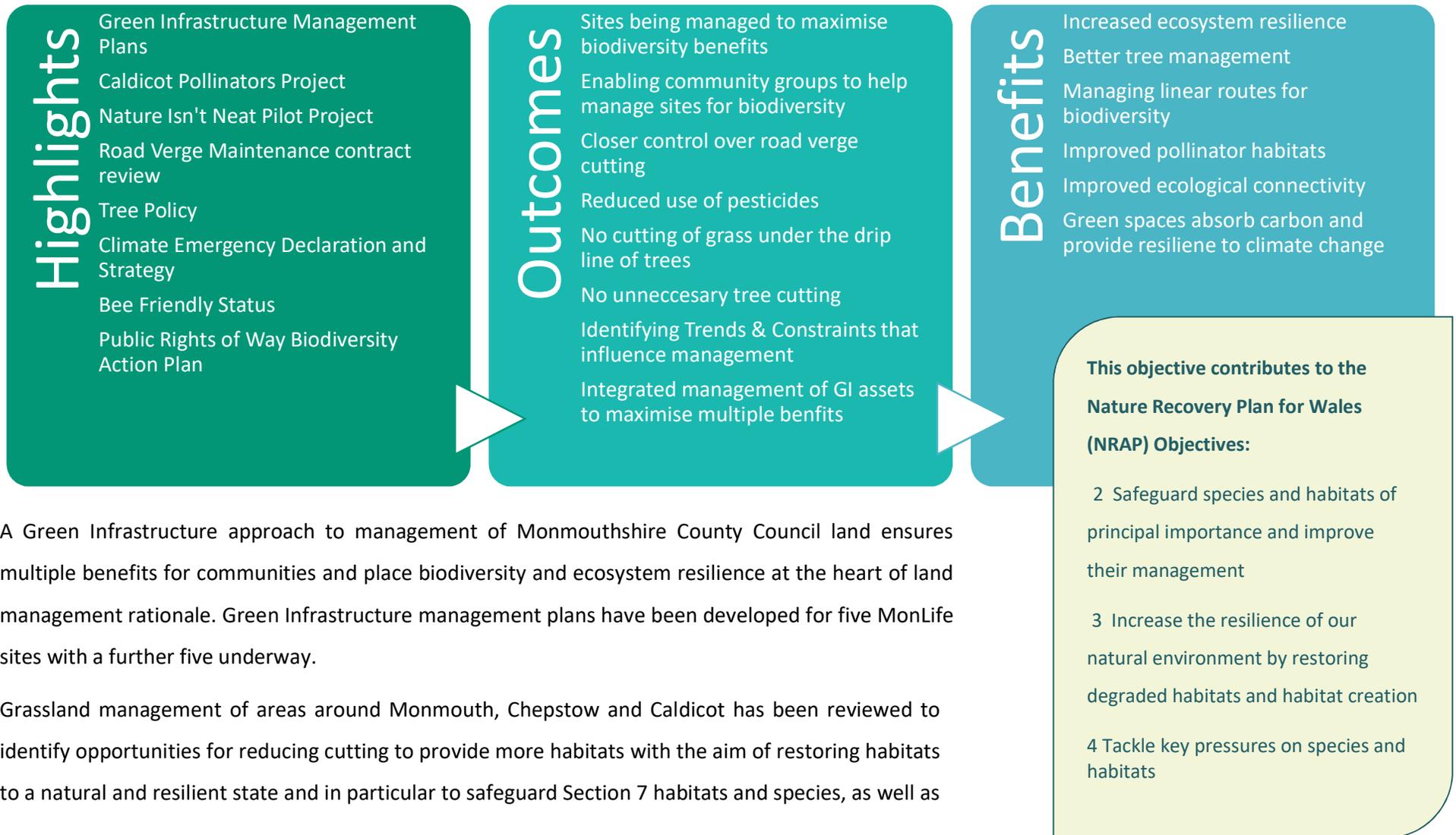
Another critical outreach delivery mechanism is the Living Levels Landscape Partnership Programme which delivers different elements of awareness raising, education, training and liaison through its three work programmes (see Case Study 3). The Landscape Partnership employs a Community Engagement Officer and several other roles that make this possible.

Through the Lower Wye Valley Catchments Partnership; the Area of Outstanding Natural Beauty (AONB) has delivered 20 outreach events through the fifteen-month project including Monmouth show, talks, guided walks, site visits and a Farming Connect event, all related to and raising awareness of invasive species, natural flood management and positive environmental land management.

Issues:

- ❖ Reduced staff resource to deliver environmental education
- ❖ Training is often reactive following an incident where environmental damage has already occurred
- ❖ Landowner liaison is challenging at a time of uncertainty over agricultural policy

2.3. Objective 3: Undertake land management for biodiversity and promote ecosystem resilience



A Green Infrastructure approach to management of Monmouthshire County Council land ensures multiple benefits for communities and place biodiversity and ecosystem resilience at the heart of land management rationale. Green Infrastructure management plans have been developed for five MonLife sites with a further five underway.

Grassland management of areas around Monmouth, Chepstow and Caldicot has been reviewed to identify opportunities for reducing cutting to provide more habitats with the aim of restoring habitats to a natural and resilient state and in particular to safeguard Section 7 habitats and species, as well as

water and carbon storage alongside aesthetic benefits. So far more than 40,000m² has been managed differently with more areas in Abergavenny to be changed in 2020. Pesticide use has also been reviewed and considerably reduced across the authority limiting use to site specific requirements e.g. treatment of invasive species.

We continue to work in partnership with other organisations and volunteers such as Keep Wales Tidy and Friend’s Groups to maintain the local and specialist expertise available and establish ‘buy-in’ of local communities. Tools such as the Green Infrastructure Action Plan for Pollinators in South East Wales provide framework for delivery. Monmouthshire County Council sits on the WG Pollinator Taskforce and has achieved *Caru Gwenyn Bee Friendly* status.

Monmouthshire County Council are a key delivery partner of the ENRAW Resilient Greater Gwent project which will deliver a Sustainable Communities work stream to improve conservation

management skills to enable better management of habitats by enabling community groups to manage council owned land.

Through the implementation of the Climate Emergency Strategy, Monmouthshire County Council will seek to enhance the capacity of natural resources on sites it owns to provide essential ecosystem services such as water management, climate regulation and crop pollination as well as enhancing the environment. This will include restoring habitats and undertaking intelligent tree planting including a commitment to plant 10,000 trees by 2022.



Figure 9: The dandelion is an important species for pollinators in the spring time and is ubiquitous on MCC’s open spaces and along road verges. Delaying cutting of these spaces increases resources for pollinating insects and boosts ecosystem resilience.
Credit: Kate Stinchcombe

Issues:

- ❖ Public perception of land management changes is not always positive
- ❖ Practical challenges of optimum grassland management including removal of cuttings and timing of the works
- ❖ Management changes are not possible where they will incur a cost due to budgetary constraints
- ❖ Conflicts around land use e.g. capital receipts versus ecosystem services
- ❖ Conflicts around tree planting on priority habitats

2.4. Objective 4: Influence land management to improve ecosystem resilience



Positively influencing management undertaken by others can increase the impact Monmouthshire County Council has on improving ecosystem resilience across the region and beyond. Working with external partners and supporting landscape scale projects such as Living Levels, Lower Wye Valley Catchments Partnership and the Resilient Greater Gwent project can increase the scale of the impact.

Development Management will continue to influence land management through a Green Infrastructure (GI) approach to design, development and subsequent management of sites under the GI Policy and Supplementary Planning Guidance. Where land is not being offered for adoption by the LPA and managed via a management company

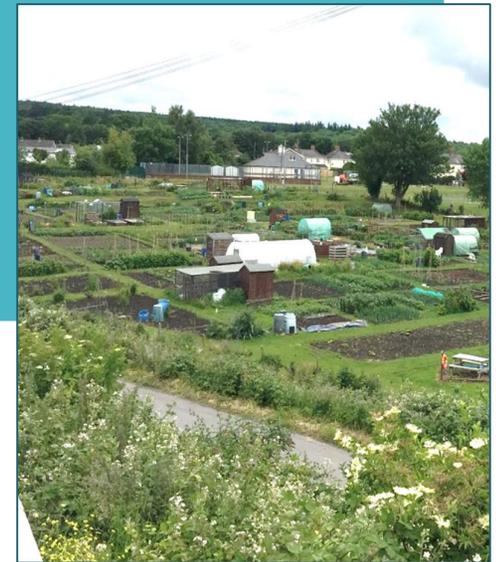


Figure 10: Allotments are important places for wildlife. Monmouthshire County Council are taking steps to reduce plastics and pesticides to improve conditions for pollinators and the wider

GI Management Plans have been secured to ensure GI is maintained and enhanced. To protect priority habitats & species during the construction phase, Development Management and the GI Team secure construction methods and practices to limit impacts. The Rural Development Programme continues to influence land management through projects such as Nature Isn't Neat (see Case Study 1). Monmouthshire County Council estates team are encouraging allotment holders to reduce pesticide use and are looking to have a policy on new allotment sites to prevent pesticide use and reduce plastics.

Monmouthshire County Council will continue to be an exemplar of best practice for management and encourage other Public Authorities to make changes. Subject to the success of our recently submitted ENRaW bid, Monmouthshire County Council will be leading on a Pollinator Friendly Gwent project to promote positive management for pollinators across the region including a cut & collect scheme.

The GI Team work closely with the Welsh Government Land, Nature & Forestry Division on Environmental Impact Assessment (Agriculture) (Wales) Regulations to ensure that Welsh Government have the most up to date information when considering applications such as cultivation of permanent pasture or during enforcement cases when priority habitats have been destroyed.

Working with adjacent landowners e.g. housing associations and private landowners increases positive impacts for biodiversity for example; in Chepstow at Warren Slade Parc Redding Woodland, the GI Team are working with Charter Housing to ensure the site is managed consistently.

Monmouthshire County Council Estates have been working with Monmouthshire Meadows Group and Gwent Wildlife Trust to secure management of the Wet Meadow Local Wildlife Site at Trellech.

This objective contributes to the Nature Recovery Plan for Wales (NRAP) Objective

- 1 Engage and support participation and understanding to embed biodiversity throughout decision making at all levels
- 2 Safeguard species and habitats of principal importance and improve their management
3. Increase the resilience of our natural environment by restoring degraded habitats and habitat creation
- 4 Tackle key pressures on species and habitats

Issues:

- ❖ Influence over County farms is limited by existing tenancy agreements, many of which are lifetime contracts
- ❖ MCC no longer offers financial incentives to small landowners to facilitate positive management of Local Wildlife Sites
- ❖ Sites of SINC / LWS quality are repeatedly destroyed before planning applications are submitted
- ❖ Despite Construction Environmental Management Plans being secured during the planning process, Priority Habitats continue to be irreparably damaged during site development e.g. ancient woodland

2.5. Objective 5: Tackle key pressures on species and habitats



The effects of climate change, pollution, invasive non-native species, tree diseases and inappropriate land management are pressures on Section 7 species and habitats that need to be tackled. A GI approach is being applied to site management by producing management plans of sites managed by MonLife. Through Nature Isn't Neat, we are also working with local schools to identify areas where schools grounds can be managed for pollinators.

Monmouthshire County Council are working with external partners such as Living Levels, Lower Wye Valley Catchments Partnership and Keep Wales Tidy to tackle invasive species throughout the county. The Resilient Greater Gwent ENRAW project will ensure the continuation of this work in partnership with other Local Authorities until 2022.

Monmouthshire County Council voted unanimously in June 2018 to work towards becoming a plastic free county as supported by Surfers Against Sewage. This means we are reducing our single use and unnecessary plastics to an absolute minimum and we support the many community groups who are working hard to make their places plastic free.

In May 2019, Monmouthshire County Council declared a climate emergency, requiring the council to strive to become carbon zero by 2030 and accelerate steps towards reducing the carbon emissions of our own operations to net zero before this date. The Climate Emergency Action Plan outlines the actions that the council will take to achieve this goal.

Some of the initiatives undertaken to reduce and offset carbon include transitioning from a composting solution for the disposal of food waste to Anaerobic Digestion with an energy output, therefore providing offsetting carbon benefit. The new reuse shop at Llanfoist is helping to move waste up the waste hierarchy to reuse from either recycle or energy from waste outcomes. The expected net benefit is a reduction of energy consumption and consequent reduction in CO2 emissions from the transport and processing of waste.



Figure 11: Plastic Free Monmouthshire

Issues:

- ❖ Lack of power to secure a minimum fixed level of GI in all development including green roofs and walls
- ❖ Influence over County farms is limited by existing tenancy agreements, many of which are lifetime contracts.
- ❖ Time lag associated with SuDS legislation means that many developments are still coming forward at Reserved Matters stage with ecologically poor drainage schemes

2.6. Objective 6: Support landscape scale projects and partnerships to maximise delivery



Partnerships support cross-boundary working with neighbouring authorities and organisations, as well as supporting and identifying opportunities for information sharing, best practice, new ways of working and further collaborative works with partners, community groups and volunteers.

Issues:

- ❖ Multiple priorities are a challenge to manage within schemes
- ❖ Funding for landscape scale projects can be challenging to secure

Monmouthshire County Council is involved in several key landscape partnerships that it recognises as an important mechanism for delivery.

There has been a shift to more regional working following the WFG Act, Environment (Wales) Act and the scale of the Area Statement reflecting the South East Wales Area (Gwent). This has stimulated a new partnership through the Gwent Green Grid which includes an integrated approach to policy development within public bodies and other relevant organisations through a strategic joined up approach and the sister project Resilient Greater Gwent which will seek to maintain and enhance biodiversity and promote ecosystems resilience.

The role of the Environment Partnership Board is being reviewed to act as a focus for partnership engagement in the environmental aspects of the Monmouthshire PSB well-being plan, assisting the delivery of the Monmouthshire Climate Emergency Action Plan and providing direction for the authority in the delivery of the Environment Act 2016 and Well-being and Future Generations Act 2015.

This objective contributes to the Nature Recovery Plan for Wales (NRAP) Objectives:

- 1 Engage and support participation and understanding to embed biodiversity throughout decision making at all levels
- 2 Safeguard species and habitats of principal importance and improve their management
- 3 Increase the resilience of our natural environment by restoring degraded habitats and habitat creation
- 6 Put in place a framework of governance and support for delivery.

2.7. Objective 7: Monitor the effectiveness of the plan and review

Forward Plan

- Adopted in 2017
- Objectives agreed
- Service Area Action Plans

Reporting

- By end 2019
- Every 3 years
- Annual reporting as part of the WFG

Review

- By end 2020
- Identify further opportunities
- Review Objectives, Service Area Action Plans
- Publish updated Forward Plan

The Biodiversity & Ecosystems Resilience Forward Plan made a commitment to monitoring and evaluation to inform reporting and review of the plan. However, undertaking specific monitoring and evaluation for each service area's response to the biodiversity duty has not been possible. Despite this we have information from monitoring as part of individual grant schemes and reporting as part of Local Development Plan Annual Monitoring and reporting on Well-being of Future Generations compliance. This taken together with new information from emerging co-produced Area Statements, the Brecon Beacons National Park Nature Recovery Action Plan, and the Nature Recovery Action Plan for Gwent (to be published in 2020) will inform the review of the Forward Plan.

In the review we shall also refer to measures used in the Local Nature Partnership ENRAW grant to measure success alongside the monitoring and evaluation of the Resilient Greater Gwent ENRAW project.

Statutory reporting

Monmouthshire Public Services Board Well-being Plan Annual Report 2019 can be found on the [Monmouthshire County Council website](#) and includes the progress made so far by the PSB to deliver the objectives set out in the well-being plan.

The results of Local Development Plan Annual Monitoring Report (AMR) during 2017-18 and 2018-19 for strategic policy around *Landscape, GI & the Natural Environment* considers a set of Sustainability Appraisal (SA) Monitoring objectives and indicators (See Appendix 2).

This objective contributes to the Nature Recovery Plan for Wales (NRAP) Objectives:

5: Improve our evidence, understanding and monitoring

Analysis of all indicators has been undertaken and is available in AMR on the [Monmouthshire County Council website](#) . Under Indicators 3 *Developments permitted / completed that are within internationally / nationally important nature conservation areas* and 4 *Developments granted permission that cause harm to the overall nature conservation value of locally designated sites*; the AMR suggests the trigger has been met. However, the AMR considered the losses are nonetheless justified within the context and requirements of the LDP policy framework. The AMR states that this indicates that the policy framework relating to nature conservation is functioning effectively in protecting the nature value of locally designated sites.

However, due to the scope of the AMR which only considers indicators for statutory and non-statutory designated sites; the reporting misses the losses of Section 7 Priority Habitats outside of designations which are much more significant (See Case Study 4). Other losses via development which cannot be reported via the AMR include pre-consent site clearance and post consent breaches e.g. clearance of ancient woodland by housing developer.

Funding monitoring & evaluation

The GI Capital Grant, Living Levels Landscape Partnership and Lower Wye Catchments project all have separate monitoring and evaluation recording a range of information.

The GI Capital Grant undertook qualitative reporting addressing specific questions around Biodiversity & Ecosystem Resilience set out by Welsh Government (see Case Study 5).

The Lower Wye Catchments project has recorded quantitative information in its reporting to NRW on grant implementation e.g. volunteer days (see Case Study 6).

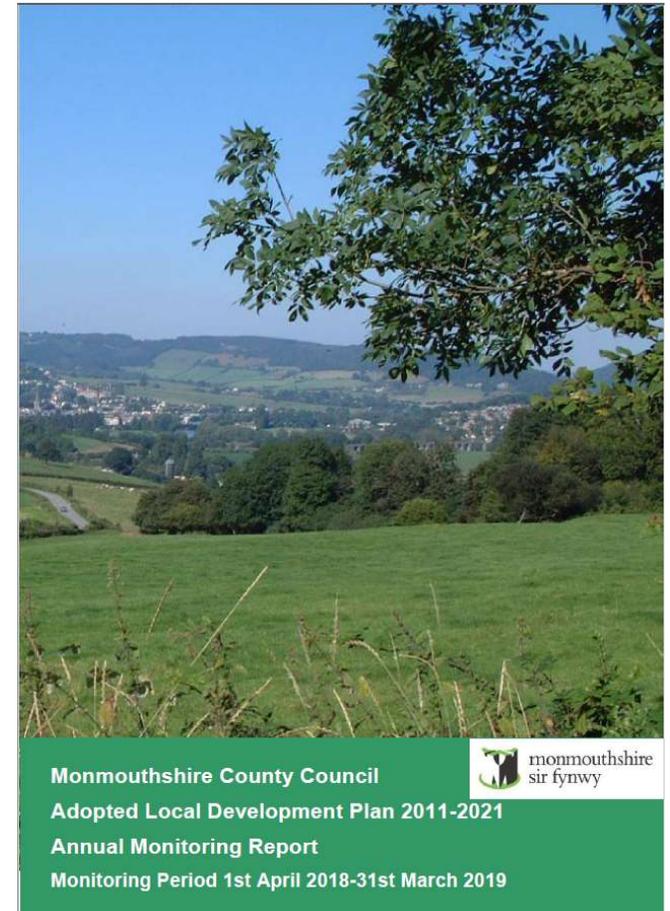


Figure 12: Annual Monitoring Report

3. Case Studies

3.1. Case Study 1: Friends of Castle Meadows

There is an active local volunteer group, the Friends of Castle Meadows (FCM), who assist Monmouthshire County Council with management activity. Their long term vision is:

- ❖ 'To increase, restore and enhance the biodiversity of the Meadows'

The group are very active on the meadows and amongst other things their activities include bulb and tree planting, litter removal and removal of Himalayan balsam (*Impatiens glandulifera*) across the site. They have accomplished a number of tasks across the Meadows, most notably the enhancement of a previously unmanaged copse which includes installing an accessible stone dust path and gates making this an attractive place for users of the Meadows, particularly those with mobility issues.

Their long term management plan aims are to:

- ❖ Improve biodiversity by the creation of a range of habitats, leaving the adjacent scrub areas
- ❖ Plant site specific species around the edges of the wetland areas
- ❖ Have the reens dredged on a rotational basis
- ❖ Encourage agencies to develop a scheme that ensures the large pond (which is important for working with schools) hold water
- ❖ Plan for a structure that will allow less-able individuals to pond-dip

Monmouthshire County Council Service Areas: GI and Countryside, Waste & Street Services & Volunteers

Partner organisations: Keep Wales Tidy, Green Valleys, Gwent Wildlife Trust, Gwent Ornithological Society, Monmouthshire Meadows Group, Abergavenny Community Orchard, Wye and Usk Foundation, Friends of Linda Vista Gardens, Llais y Goedwig, Floodplain Meadows Partnership, Natural Resources Wales, SEWBReC



Figure 5: Volunteers clearing rubbish from the Afon Cibi, a tributary of the River Usk used for kick-sampling and education
Credit: Friends of Castle Meadows

- ❖ Support the maintenance of the organic grazing regime that is already in place and that has resulted in an increase in grassland species diversity
- ❖ Work with the Floodplain Meadows Partnership to inform how the site sward can be improved

They are also involved in delivering the Welsh Government directed Key Stage Two programme of study for science for local schools. MCC have facilitated partnership working between The Friends of Castle Meadows and local school in order to set up a 'Young Friends of Castle Meadows'. The Friends have been providing walks and talks for these groups. The Friends are also active in carrying out Open Air Laboratories (OPAL) surveys and have completed a number of these to date. As part of Monmouthshire County Council's SLA with SEWBReC the Friends took part in an Introduction to Biological Recording course. The Friends are integral to the future management of the Meadows and without their input the management activities outlined in the site management plan would be significantly harder to achieve.



*Figure 6: Young Friends at Castle Meadows
Credit: Friends of Castle Meadows*

3.2. Case Study 2: Nature Isn't Neat

The Nature Isn't Neat (NiN) project is focused in Monmouth Town and will run until June 2020. Delivery is supported by local experts from Bees for Development, Monmouthshire Meadows Group, Bee Friendly Monmouthshire, Transition Monmouth and Monmouth Town Council. This team of people together with MCC's Rural Projects Pollinator Coordinator are ready and willing to help everyone take positive actions to help reverse the decline of pollinators. The project aims to:

- ❖ Encourage and animate stakeholders, including public bodies.
- ❖ Educate and provide training for public body staff.
- ❖ Offer advice and guidance, under the Welsh Government Bee Friendly Initiative to all stakeholders (including applying for Bee Friendly status) that will help achieve the first Bee Friendly Town award.
- ❖ Community awareness raising - Increase the level of public knowledge and support with the development of actions that can reverse the decline of pollinators through activities and resources.

Service Areas : Rural Development Programme, Waste & Street Services, GI & Countryside & Volunteers

Partner organisations: Monmouth Town Council, Bees For Development, Monmouthshire Meadows Group, Gwent Wildlife trust, Transition Monmouth, Bee Friendly Monmouthshire, Welsh Government, Natural Resources Wales



Figure 16: The first of 6 talks to be delivered monthly by the project
Credit: Alison Howard

Key outcomes include:

1. An easily replicated concept that embraces the delivery of national and local biodiversity targets.
2. Strengthened partnership working amongst partners to promote a pollinators led approach.
3. Integrated policy development within Monmouthshire County Council and other relevant organisations in order to adopt a pollinator friendly policy.
 - ✓ Town Council are developing an overarching pollinator policy to show direction, raise awareness and to influence local businesses and agencies.
4. Awareness raising and education to develop a “pollinator campaign” style approach working with Bee Friendly Monmouthshire and other groups.
 - ✓ 2 events hosted by Monmouthshire Housing Association welcomed Nature Isn't Neat into its ranks. More family events to raise awareness of pollinators with a pop-up potting session planned for March.
 - ✓ 6no monthly talks/workshops, focusing on pollinators - October 2019 onwards.
 - ✓ Schools engagement with planned talks/ workshops - winter 2020
5. Change Management practices to embrace a pollinators policy approach through training guidance

<https://www.monmouthshire.gov.uk/app/uploads/2019/09/NiN-training-manual.pdf>

- ✓ Successful changes to management on approximately 12 sites within Monmouth Town leaving the grass to grow longer, cutting less often, (or not at all under tree canopies) collecting cuttings where possible and reducing the use of glyphosates.
- ✓ A local bee expert will be talking to the crews about the need for different habitats and the reasons for changing the way we manage the grass areas



Figure 15: NiN Launch at Monmouth Bee Festival 2019
Credit: Kate Stinchcombe

Cutting regimes to achieve primary objectives

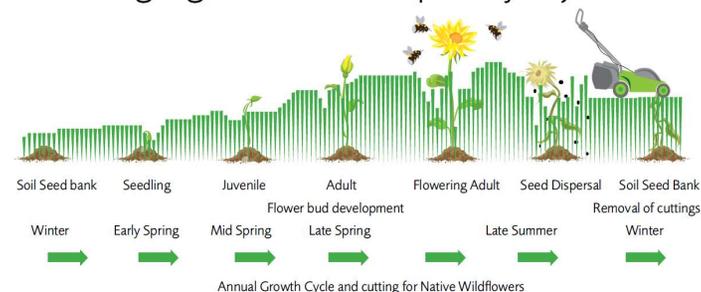


Figure 17: A grass-cutting operatives handbook has been produced to empower operatives to make decisions about pollinator management by outlining key guidelines which they can explain to members of the public when confronted about changes to management practices.

This pilot project is funded from the Welsh Government Rural Communities under the LEADER measure of the Rural Development Programme 2014 – 2020 and we hope to extend the pilot to an additional 5 communities across Gwent via the Welsh Government ENRAW bid from 2020-2023. During winter 19/20 we are using awarded ENRAW grant to deliver advice to schools in Monmouth to improve management for pollinators using the Award Winning Green Infrastructure Action Plan for Pollinators and undertake other land management improvements under the Nature Isn't Neat message.



Figure 18:7 Nature Isn't Neat training for grass cutting teams to support changes to management of open spaces across the County.

Credit: Kate Stinchcombe

3.3. Case Study 3: Living Levels

Monmouthshire County Council Service Areas: GI and Countryside, Waste & Street Services & Volunteers

Partner organisations: RSPB (lead organisation)

Monmouthshire County Council, Cardiff City Council, Newport City Council, Gwent Wildlife Trust, Natural Resources Wales, Buglife, Bumblebee Conservation Trust, Cardiff Story Museum, Gwent Archives, National Trust,



The Living Levels Landscape Partnership (LLLP) has come together to deliver a programme of work which will promote and reconnect people to the heritage, wildlife and wild beauty of the historic landscape of the Gwent Levels.

The Programme seeks to conserve and restore the important natural heritage features of the area, to develop a far greater appreciation of the value of the landscape and finally to inspire people to learn about and participate in the heritage of the Gwent Levels. A £2.5 million grant from the National Lottery Heritage Fund will help lever in further funding and deliver a £4 million scheme by the end of March 2021. Match funding includes funding from the Welsh Government Rural Communities Development Fund under the Rural Development Programme 2014 – 2020

Living Levels covers an area of 225km squared extending from Cardiff and the River Rhymney in the west to Chepstow on the River Wye in Monmouthshire to the east. Predominantly low-lying agricultural land, criss-crossed with an intricate network of drainage channels and field ditches, the project area also includes the inter-tidal zone of saltmarshes, mudflats and sands that are revealed at low tide along the northern coastline of the Severn Estuary within Wales.

Figure 19: 8 Pollinating the Levels project is working with a range of target audiences and stakeholders to conserve and connect pollinators in the Gwent Levels, as well as gather data on pollinator populations and raise awareness about pollinators and the services they provide. Work has been carried out on two MonLife sites to improve the conditions for pollinators including and scrub management at Rogiet Country Park. Credit: Living Levels Landscape Partnership

The scheme is made up of three programmes:

Programme 1 : Conserving & Restoring : The seven projects in this programme area aim to conserve, protect and enhance the Gwent Levels' natural heritage – including its historic landscape features, wildlife and ancient drainage system.

Programme 2: Understanding & Appreciating The ten projects in this programme area aim to make it easier for a wide range of people to access and enjoy the fascinating history and heritage of the Gwent Levels, improving the overall image of the Gwent Levels as a destination to visit and enjoy

Programme 3: Learning & Engaging. The seven projects in this programme aim to provide opportunities for engagement with the landscape as well as provide skills and training in a range of subjects which are linked to the unique heritage and management practices of the Gwent Levels.



Figure 20: The Skills enhancement project is rolling-out skills training courses to help safeguard traditional heritage skills in the Levels. Training opportunities will include: landscape and habitat management, wildlife ID and survey skills, GIS skills, brush cutting, willow-weaving and basket making, putcher fishing, wildlife photography, way-marking and route maintenance, social media, marketing for local businesses. Credit Living Levels Landscape Partnership.

3.4. Case Study 4: Development Management

Monmouthshire County Council Service Areas: GI & Countryside Access, Development Management, Heritage, Planning Policy, Building Control, Highways

Partner organisations: SEWBReC, Association of Local Government Ecologists (ALGE), Planning Officers of South Wales (POSW), Wales Green Infrastructure Forum, Natural Resources Wales, South Wales Landscape Liaison Group



Figure 21: 9 Biodiverse drainage ponds associated a major housing site in Monmouth and public open space
Credit: Kate Stinchcombe

We are proud to have an award winning Green Infrastructure (GI) approach to development management in Monmouthshire that is adopted through our GI Policy and Supplementary Planning Guidance. Through considering GI from the beginning of the process we can reduce the impacts of development on biodiversity and conserve, integrate and improve ecosystem services to deliver multifunctional benefits.

These policies along with our policy for Nature Conservation and Development embed biodiversity through the planning process and will continue to do so through the current LDP Review.

As part of the GI approach, GI Management Plans are secured for development sites to ensure the GI Assets and GI Opportunities of the site are managed and maintained appropriately to improve and promote ecosystem resilience. This is secured either via S106 agreements with the developer which result in our experienced grounds team taking on management or through agreed GI Management Plans with the developer which are then able to be monitored and enforced as a condition of planning. The ways in which the GI & Countryside Access teams engage with other service areas and key partners throughout the development process allow us to contribute to all of the Forward Plan objectives through our delivery.

We have developed processes to ensure that Biodiversity is considered as early on in the process as possible. Development Management Officers have a Biodiversity Checklist to complete for every application which helps them to identify there is likely to be an impact on Biodiversity. Consultations for planning applications are at an all-time high in 2019, this wider consultation is

likely as a result of the high developmental pressures we face in the county and through training with officers to raise awareness of the potential for impacts on biodiversity and the need to consider ecology.

Monmouthshire County Council has a Service Level Agreement with the South East Wales Biodiversity Record Centre (SEWBRc) which screens planning applications via the LERC Wales Aderyn system. We are proud to be one of the only LA's to have maintained an SLA since the record centre started trading in 2005. This service provides Development Management team with an up to date evidence base for decision making.

Monmouthshire County Council have undertaken 34 Habitats Regulation Assessments during the reporting period (14 Tests of Likely Significant, 20 Appropriate Assessments).

Biodiversity and Ecosystem Resilience continue to face threats from development pressures including unfortunately, from destruction pre-planning application. We will continue to work with our partners in Natural Resources Wales, the Gwent Police Rural Crime Team and the Plant Health & Environmental Protection Branch of Welsh Government to protect sites and species and take action on any biodiversity losses. We currently have 8 applications in various stages of the planning process which have Priority Habitats on site at threat of being lost or degraded by development. With the introduction of PPW 10 and the recent "Dear CPO" letter reinforcing this policy and our duties under the Environment (Wales) Act 2016, we hope to see an improving picture where no consents are granted that will detrimentally effect Biodiversity and Ecosystem Resilience.

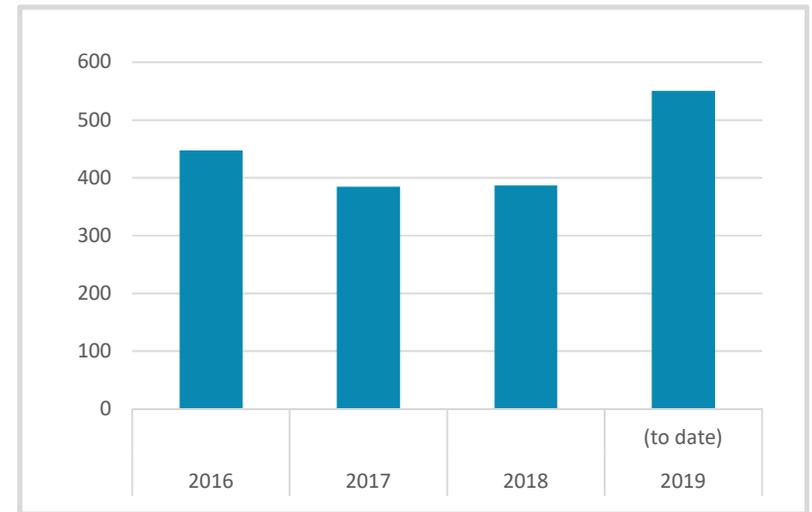


Figure 22: Number of Development Management Consultations received since 2016 (up to 10/12/19)



Figure 23: Major development site where part of a SINC was lost but management for the remaining has been secured via a GI Management Plan
Credit: Stacey Delbridge

Reporting Year	SINC affected(m ²)	SINC Habitat Type	Priority Habitat affected (m ²)	Priority Habitat Type	Pre-development/unauthorised clearance
2016/17	1900	H20 (H5 calcareous grassland/scrub/water feature)	17000	Woodland Lowland Meadow	Development site with A 'good' probable breeding population of Slow worm – mitigation area destroyed during construction. Development site with veteran trees and woodland understorey habitats to be retained subsequently cleared during construction
2017/18	4805	Riverine Woodland	1323	Hedgerow Woodland	Pre-clearance of 4805 of woodland to create a farm track replanting secured via planning condition for 192 trees. Hedgerow clearance was a late amendment to a housing application. Extension of curtilage (garden) into woodland resulted in pre-clearance of woodland and subsequent prosecution and replant notice by NRW
2018/19	905	Woodland Neutral Grassland	4900	Lowland Meadow Woodland Hedgerow	6600m ² Priority Habitat –woodland (Compensatory planting being sought). Approximately 25000m ² SINC Grassland Habitats (Action being progressed through EIA Agriculture Regulations

Figure 24: Record of priority habitat losses 2016-2019

3.5. Case Study 5: GI Capital Grant - Caldicot (3 phased project)

Caldicot GI Corridors Project (Phase 1)

Objectives :

Green corridor improvements along entrances/exits of Caldicot as part of a wider scheme of town centre improvements. This will specifically focus on 2 no. gateway improvements (of tree planting and wildflower planting) that will improve first impressions and set a quality standard for green infrastructure that forms part of future continuity projects, supporting and helping deliver the Council's GI Action Plan for Pollinators. Proposals will support volunteering linked to planting, education and interpretation activities.

Monmouthshire County Council Service Areas: Waste & Street Services, GI & Countryside, Development Management, Highways, Community partnership team, Elected Members, Estates & Volunteers

Partner organisations: Caldicot Town Council, Chris Jones Regeneration, Gwent Wildlife Trust, Sustrans, Welsh Government, Members of the public

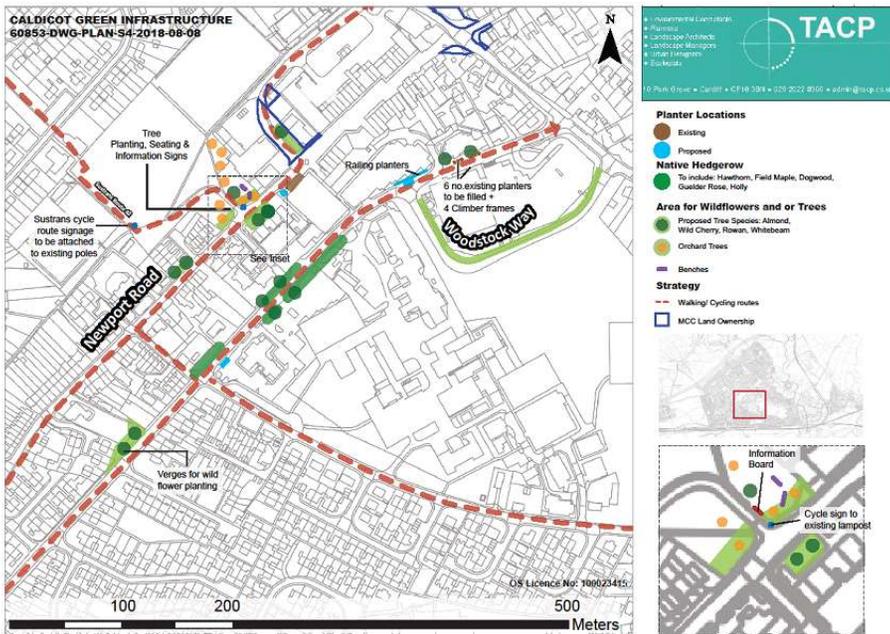


Figure 25: Sketch plan of proposals focused on two corridors – Newport Road and Woodstock Way

Outputs

The table below summaries the monitoring and evaluation outputs, outcomes and impacts for the project.

Challenge	Inputs (What is being delivered?) <i>What resources & activities are needed?</i>	Outputs (How will it be delivered/what are outputs e.g. target groups, trees planted, products developed)	Outcomes (How will this demonstrate that outcomes have been achieved?)	Impacts (What are the Benefits long term?)
PLANNED	<ol style="list-style-type: none"> 1) Caldicot Town Centre Stakeholder Group 2) Capital project expenditure 3) Local environmental groups and volunteers 	<ol style="list-style-type: none"> 1) No of green corridors improved 2) No of trees planted 3) No pollinator projects 	There is an enhanced sense of well-being and better physical perceptions of the town through green infrastructure corridor improvements	Residents and visitors explore and spend greater time in the town, with a reduction in car use for short trips, greater activity and expenditure in the town with local growth and prosperity.
ACTUAL	<ol style="list-style-type: none"> 1) Use of Town Centre regeneration group as a coordinating body 2) £40,000 provided for capital works 3) A local volunteer group has been established which has seen over 100 hours inputted. This is continuing below the life of the grant project as further opportunities are being identified and additional funding opportunities sought. 	<ol style="list-style-type: none"> 1) Delivery of 2 no. corridor enhancements (Woodstock way and Newport Road) with extended areas alongside the school, king George V playing fields, and ground alongside the Caldicot school. 2) 2 total number of plants: <ul style="list-style-type: none"> ▪ 31 trees ▪ 40 fruit trees ▪ 100 bee friendly shrubs ▪ 4 climbing plants ▪ 1685 indigenous hedgerow plants ▪ 8 sacks of daffodils ▪ 20 trays of pollinator friendly bedding plants 3) The whole project has been treated as a pollinator project. 	Whilst too early to measure, the project has received praise in terms of its outputs and perceived benefits for the Town Centre and its community	These will be monitored at a future milestone

Caldicot Pollinators Project (Phase 2)

Objective:

The project shall increase the pollinator value of publicly owned land in Caldicot through: increased food source and improvement of habitat structure and the provision of nesting habitat. In addition the project will complement and contribute to: the GI strategy, the Caldicot GI Corridors project, deliver aspirations in the emerging Caldicot Country Park management plan, together with providing educational information in the form of a leaflet setting out management principles.



Figure 26: Caldicot Green Corridors (credit Phil Sutton); Community planting day in Caldicot (credit Chris Jones); and, extract of Caldicot Castle and Country Park Green Infrastructure Management Plan

Outputs

The table below summaries the monitoring and evaluation outputs, outcomes and impacts for the project.

Challenge	Inputs (What is being delivered?) <i>What resources & activities are needed?</i>	Outputs (How will it be delivered/what are outputs e.g. target groups, trees planted, products developed)	Outcomes (How will this demonstrate that outcomes have been achieved?)	Impacts (What are the Benefits long term?)
PLANNED	<p>1) Botanical assessment areas of Council owned land leading to management recommendations. The Green Infrastructure Action Plan for Pollinators shall be used to make management recommendations based on GI type</p> <p>2) Provide educational information in the form of a leaflet setting out management principles for Caldicot Country Park.</p>	<p>1) Pollinators Assessment and recommendations report</p> <p>2) Purchase of seed, plug plants and any other relevant tools or materials – to be delivered by Grounds Maintenance</p> <p>3) production of Leaflet</p>	<p>1) Increased Flora; and spp diversity</p> <p>2) Better local/ visitor understanding of the management of Caldicot Castle grounds as a key GI asset to the town.</p>	<p>Better long term working practices/management to support a pollinator friendly Caldicot.</p>
ACTUAL	<p>1) GWT appointed to deliver detailed report highlighting key areas for pollinators opportunities throughout the town.</p> <p>2) coordination meetings</p> <p>3) Appointment of Grounds maintenance staff to deliver planting.</p> <p>4) Preparation of material for GI management plan leaflet.</p> <p>5) Appointment of consultant to deliver graphic design.</p>	<p>1) Caldicot Pollinators Report produced</p> <p>2) 17 sites identified</p> <p>3) management recommendations proposed</p> <p>4) GIS database of sites</p> <p>5) Scheme of monitoring</p> <p>6) GI Management Plan leaflet for Caldicot Castle</p>	<p>A clear and integrated approach to the delivery of the Pollinators approach and provision of education tools that will help and support well being opportunities throughout the Town.</p> <p>Tree planting to support climate change mitigation</p> <p>Community ownership through engagement.</p>	<p>Improved management for pollinators & increased sense of responsibility of land managers, operatives and communities (latter through monitoring opportunities for citizen science using scheme of monitoring). Monitoring will continue going forward.</p>

Caldicot Cut and Collect (Phase 3)

Objective :

Purchase of one C1800C Ryetec Contract Flail Mower collector for Green Infrastructure management of grassland of the County's GI Assets – a shared resource between Caldicot Castle team and Grounds Maintenance.

Purchase of the equipment has enabled green infrastructure management improvements of the management of habitats of principal importance (grassland: lowland meadows) and supported the restoration of degraded habitats thereby increasing the resilience of the natural environment.

Outputs

The table below summaries the monitoring and evaluation outputs, outcomes and impacts for the project.

Challenge	Inputs (What is being delivered?) <i>What resources & activities are needed?</i>	Outputs (How will it be delivered/what are outputs e.g. target groups, trees planted, products developed)	Outcomes (How will this demonstrate that outcomes have been achieved?)	Impacts (What are the Benefits long term?)
PLANNED	Purchase of Cut and Collect Flail mower for the management grasslands of principle importance.	One site assessed; Number of cuts recorded and assessed.	Management of key GI assets.	Better long term-management thereby increasing the resilience of the natural environment on the County's GI assets.
ACTUAL	As above	8 sites (13, 975m2) assessed following use of mower.	A clear and integrated approach to the delivery of more sustainable grassland across the councils GI assets delivering Pollinators policy.	As above.

3.6. Case Study 6: Lower Wye Valley Catchment Project

The project takes a catchment approach to natural flood management, covering four tributaries of the Wye between Penallt and St Arvans. The project aims to work with landowners and managers, interested parties and the public to develop practical sustainable solutions which address land management, water run-off, access and invasive weed issues, gaining a better understanding this part of the Wye Valley AONB. Natural Flood Management (NFM) is the principle of working with natural processes to help slow down the flow of water, while improving habitat and water quality through improved soil infiltration. The invasive weeds primarily targeted through this project are Japanese Knotweed, American Skunk Cabbage and Himalayan Balsam, which spread rapidly and are a major problem, especially on riverbanks, suppressing all other plant growth. Control of these species is most effective from the top of river catchments as the seeds easily spread downstream. The project has been grant funded by Natural Resources Wales.

Farm management support (Angidy catchment)

The Wye & Usk Foundation completed 11 farm visits and reports in the catchment as a consultant. Capital works (approx. 10k) agreed and/or now completed on farms. Work has included 960m of riparian fencing across 5 farms to prevent stock access to rivers in order to increase bankside vegetation, improve bank stability and reduce risk of pollution from stock. New downpipes and gutters installed on one farm yard for better manure management while reducing risk of excessive levels of nutrients and sediment entering watercourses. Under sown maize trail carried out across 11 acres to help prevent winter soil erosion and nutrient loss. A key element to the success of the farm advice through the catchment has been building trust and developing relations with the farmers, also

Monmouthshire County Council Service Areas: GI & Countryside Access, Highways Flood Risk Management

Partner organisations: Wye Valley Area of Outstanding Natural Beauty (Lead Organisation), Natural Resources Wales, Woodland Trust, Gwent Wildlife Trust, Monmouthshire Meadows Group, National Farmers Union of Wales, Wye & Usk Foundation



Figure 27: Riparian Fencing

the need to strike a balance between proposing land management works and considering business needs of the farm.

Pilot projects to investigate solutions to long standing access issues: Two consultant reports have been completed, catchment mapping natural flood management opportunities and proposals to identify, locate and map potential track-based measures to improve condition of unclassified highways. Proposals have included cross drains, bunds, swales and path reconstruction, resurface and regrading, along with working with landowners in the higher catchments. These measures would look to reduce the volume and speed of water currently adding to surface erosion and discharging at speed from these routes, blocking culverts and entering watercourses, with the aim of also helping to remove water from the highways, reduce impact and/or push to drains or areas it can infiltrate.

Pilot NFM work

Leaky ditch barriers (x2) have been installed on the Limekiln Brook near Tintern, and the area fenced from cattle. These are designed to reduce the flow of water from the field and along the ditch, reducing the rapid response of the Limekiln Brook under heavy rain conditions, while also creating additional habitat/wet area.



Figure 28: Leaky Dams

A series of leaky dams have been installed in a woodland dingle on the Anghidi Fawr. These are designed to 'Slow the flow' by holding back water during high conditions, but not affecting normal flow. They trap and build up small woody debris and leaf litter over time, while allowing fish to move along the stream. They introduce variability in flow speed and depth within streams and provide variable habitats and food sources. Many invertebrate species are also associated with dead wood and submerged/partially submerged timber which has historically been removed from our stream systems.

Leaky dams are also due to be installed at Ty Mawr (Gwent WT site) where we are waiting for consent to be finalised. Likewise, a site has been identified for similar work in an NRW woodland, we are currently waiting for a permit from NRW and consent from MCC.

Best practice/info sharing events

20 events have been delivered through the fifteen-month project including Monmouth show stall, talks, guided walks, site visits and Farming Connect event, all related to and raising awareness of invasive species, natural flood management and positive environmental land management.

Invasive weed mapping & control

Significant Japanese knotweed (JK) has been treated throughout the project area (Penallt to St Arvans) this Autumn with full budget for this element of the project allocated to contractors. Treated at 9 different locations with patches varying in size from odd plants to dense clumps of 30m x 30m. This has complemented previous and current JK treatment being carried out in Tintern by AONB unit where it has been a huge problem. Himalayan Balsam tackled throughout the Manor and White Brook catchments with over 150 hours volunteer support from the AONB volunteers and The Narth community volunteers. This work has been valuable showing how coordinating work in a small prioritised catchment alongside committed volunteers taking local ownership can prove effective to eliminate the plant locally. However, without major long term funding, local site management such as this appears to be the only option at present, with extent of the plant becoming unmanageable in many areas and not helped by the plants extended flowering season from July to late October. American Skunk Cabbage has also been treated at a site in Whitebrook.



Figure 29: Sharing Best Practice through a visit to a NFM project in Stroud

Appendix 1: Types of organisations and possible s6 actions relative to their functions

Group	Description of organisation relative to biodiversity. Organisations:	Minimum Actions	Examples	NRAP objectives for Action Reporting (see template Annex 1)
1	that own or occupy an office building only and whose functions are not directly connected to biodiversity and/or land management.	Actions related to buildings management, procurement, sustainability, awareness raising, training, or in partnership with other organisations	Commissions, DVLA	NRAP objectives 1, 4, 6
2	that own, occupy or manage land their own buildings and grounds, whose functions are connected with biodiversity and/or land management, or that can influence those who own or manage land.	As per Group 1 above PLUS grounds management, cascading funding criteria, providing education and training	Public Health Wales, Universities, Sport Wales	NRAP objectives 1,4,6 as above NRAP objectives 2, 3, 5 relating to own grounds
3	that own or manage land beyond their own grounds, whether their functions are connected with biodiversity and/or land management or not.	As per Groups 1 and 2 above PLUS land management to maintain and enhance biodiversity, and promote the resilience of ecosystems.	Dŵr Cymru, Local Authorities, NRW, Welsh Government	All NRAP objectives

Appendix 2: Landscape, Green Infrastructure and the Natural Environment Monitoring

- ❖ Aim/Outcome: To protect open space and sites of acknowledged nature conservation and landscape importance
- ❖ Strategic Policy: S13 Landscape, Green Infrastructure and the Natural Environment
- ❖ LDP Objectives Supported: 8
- ❖ Other LDP Policies Supported: LC1-LC6, GI1 & NE1

Indicator Performance	Target (Previous AMR Performance)	Trigger for Further Investigation	Performance 1 April 2018 – 31 March 2019
1. Amount of Greenfield land lost to development which is not allocated in the development plan (includes new built development – housing, employment but excludes agricultural buildings)	Minimise the loss of non-allocated Greenfield land (2014-15: 26 ha) (2015-16: 44.6 ha) (2016-17: 16.5 ha) (2017-18 : 8.98ha)	Any loss of non-allocated Greenfield land in any 1 year	9.71ha
2. Amount of public open space / playing fields lost to development which is not allocated in the development plan	Minimise the loss of open space / playing fields to development that is not allocated in the development plan (2014-15: 1.47ha) (2015-16: 0.76ha) (2016-17: 0) (2017-18:0)	Any loss of open space due to development, not allocated in the development plan in any 1 year	1.74ha
3. Developments permitted / completed that are within internationally / nationally important nature conservation areas	None adversely affected (2014-15: N/A) (2015-16: 0) (2016-17: 0) (2017-18:0)	Recorded damage or fragmentation of designated sites / habitats	1*
4. Developments granted permission that cause harm to the overall nature conservation value of locally designated sites	Minimise developments that would cause harm to the overall nature conservation value of locally designated sites (2014 - 15:N/A) (2015-16:1) (2016-17: 1) (2017-18:1)	1 or 2 developments result in overall harm for 2 consecutive years, or 3 or more developments result in harm in any 1 year	1
5. Number of new developments delivering habitat creation and restoration	Increase number of new developments delivering habitat creation / restoration (2014-15: 1) (2015-16: 1) (2016-17: 0) (2017-18:2)	None	1

*relates to an application for a footbridge over the River Usk that cannot currently be implemented as it has not secured a Flood Risk Activity Permit