

Management Plan for the Laverstock Water Meadows

(Devenish Bradshaw Charitable Trust)

January 2022 – February 2027

(David Burton with contributions from Simon Browning)

Revised from A Management Plan for the Laverstock Water Meadows January 2021 – February 2026

1. Site description and physical features

Location

1.1 The Devenish Bradshaw Water Meadows lie to the north east of Salisbury City centre in the parish of Laverstock & Ford (SU 1542 3036). The River Bourne is a chalk stream tributary of the Hampshire Avon and supports a variety of river life and runs along the majority of the eastern side of the meadows. The site is bounded by a tarmac footpath and cycleway to the north separating it from the remainder of the northern extent of Laverstock water meadows (owned by a private landowner). The north western boundary of the site is formed by a railway bank owned and managed by Network Rail. The south western boundary is bordered by River Bourne Community Farm CIC on land leased to the Community Interest Company by Laverstock & Ford Parish Council (LFPC) on a long-term basis and by allotments owned and managed by Salisbury City Council (SCC).



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The approximate extent of land outlined in blue is owned and managed by the Devenish Bradshaw Trust as of January 2021.

available at https://www.streetmap.co.uk/street/CHURCH_ROAD_in_LAVERSTOCK_in_ SALISBURY_in_SP1_527267_242521.htm accessed on 1st February 2021

Tenure

1.2 The water meadows were formerly owned by local landowner Peter Bialek and leased to the River Bourne Community Farm. The 53 acres were then purchased by the Devenish Bradshaw Charitable Trust through means of a charitable donation from Mr. Peter Bradshaw. A further 3 acres of made up land with an agricultural barn and river frontage were purchased in February 2021. This generous gesture by Mr. Bradshaw prevents any future adverse development of the land and secures it as an important green corridor between the suburbs of Salisbury and Laverstock.

The farm business tenancy formerly held between the River Bourne Community Farm and Mr. Peter Bialek was subsequently transferred to the Devenish Bradshaw Charitable Trust. In 2020 it was agreed that the operational partnership between the Community Farm and the Devenish Bradshaw Charitable Trust would be best served by the Devenish Bradshaw Charitable Trust (The Trust) managing the Higher Tier Agreement on the water meadows and any subsequent grant funded projects in-house. The River Bourne Community Farm (The Farm) will continue to take a proactive role in land management on the water meadows through a Memorandum of Agreement between the Farm and The Trust (See Appendix 1).

Devenish Bradshaw Trustees: Jane Wilkinson (Chair), Simon Browning, David Burton, Sue Gallagher, Samantha Lane, Ben Parker, Duncan Scott. Amy Cooper has volunteered to become a Trustee in early 2022.

Devenish Bradshaw Trust Specialist Advisers: Ruth Boyes (Risk Assessment), Peter Sainsbury (Education), Penny Theobald (Biodiversity).

Other rights

1.3 A bridleway exists along Cow Lane from Riverside Road (LAFO15 and SALS20) to the London Road A30. Fishing rights on the River Bourne are held by Salisbury and District Angling Society.

Designations

1.4 The section of the River Bourne which flows by the Laverstock water meadows forms part of the Hampshire Avon System Site of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC). The Hampshire Avon carries these nature conservation designations in recognition of it being one of the UK's best examples of a chalk stream river system, supporting a diverse plant community, invertebrate, fish and bird life. The SSSI/SAC Unit for our section of the River Bourne is noted as a potential salmon spawning ground and is frequented by other fish species found in chalk streams including European eels, bullheads, and brook lamprey. It is also home to the rare Desmoulin's whorl snail (See SAC description and SSSI citation in the Annex or Appendix?).

The SSSI Unit is currently in unfavourable condition due to water abstraction, diffuse pollution from agriculture, sewage and the presence of invasive non-natives species (Himalayan balsam). Other reported issues include: the dumping of grass cuttings and soil dressing from gardens and amenity grasslands, disturbance by dogs exercising in the river and the excessive removal of fallen branches and tree trunks from the river.

The wet willow woodland is in good condition with a large number of dead standing and fallen timber typical of this habitat and this supports a wealth of wildlife. There is an artificial otter holt constructed within the woodland and otters are now frequently observed on the river.

River Avon System SSSI - RIVER BOURNE (FORMERLY UNIT 43) (010)

| Staff member responsib le: | DIANNE MATTHEWS | | | |
|---|---|------------------------------|-----------------|--|
| Unit ld: | 1025261 | | | |
| Unit area (ha): | 5.7432 | | | |
| Unit Status: | Live | Gridref: | SU 160 316 | |
| Main habitat: | RIVERS AND STREAMS | | | |
| SITE CHECK: | | | | |
| Date of last site check: | | Checked by: | | |
| Comment: | | | | |
| Condition and Comments (click for history): | <u>Unfavourable - No change</u> | Assessed by: | DIANNE MATTHEWS | |
| Last assessed: | 01/04/2009 | Last assessment field visit: | 01/04/2009 | |
| ISA Survey: | View Surveys | | | |
| | | Last CSM assessment: | 01/04/2009 | |
| Estimated year unit will go Favourable: | | Confidence in estimate: | | |
| Reason for adverse con dition: | FRESHWATER - INVASIVE FRESHWATER SPECIES, FRESHWATER - WATER ABSTRACTION, FRESHWATER POLLUTION - WATER POLLUTION - DISCHARGE, | | | |

From Magic Map SSSI Unit Information Layer accessed February 2021 http://designatedsites.naturalengland.org.uk/UnitDetail.aspx?UnitId=1025261

Geology and topography

1.5 The water meadows lie on chalk overlain by superficial river deposits forming a stony loam soil rich in organic matter. The majority of the land is flat or gently sloping. The south east of the site built up with artificial material (building rubble from Salisbury) to form a dry, free draining field (Barn Field).



The flood plain of the River Bourne at Laverstock available at https://riverlevels.uk/flood-warning-river-bourne-and-tributaries#.X_HpANj7TIU accessed 31st January 2021

Soils and vegetation

1.7 The water meadows are composed of alluvial soils with high organic topsoils which can be very acid compared to the chalky mineral alluvial soils.

The meadows support small populations of a wide variety of native plant life: marsh orchid, water avens, brooklime, lady's smock, comfrey, water forget-me-not, hemlock water dropwort, wild angelica, meadowsweet, ragged robin, marsh marigold, meadow vetchling, silverweed, purple loosestrife, yellow loosestrife, marsh birdsfoot trefoil, watercress, water crowfoot, fleabane, teasel, round-leaved fluellen, weasel snout, yarrow, gallant soldiers, mayweed. In addition, invasive non-native species of wildflower are present – monkey flower and Himalayan balsam.

History and Archaeological Interest

1.8

Water meadows have been described as 'one of the greatest achievements of English agriculture'. They are an important part of our cultural and agricultural heritage – painted by John Constable, described by Thomas Hardy and vital to the economy of many river valleys for over four hundred years (Historic England, 2017).

Little remains of the infrastructure associated with the meadows use as floated meadows. The remains of a brick bridge and the ditches that drained the water, used to warm and fertilise the grassland are in place and provide valuable wildlife habitat in their relict state.

A local amateur historian, John Loades, has recently carried out historic map analysis which shows that only Narrow Field, River Meadow and the northern section of Bridge Field are likely to have been floated. Interestingly from an ecological perspective these fields currently have the lowest floristic diversity present in the sward. The earlier field boundaries and numerous drainage ditches of the non-floated meadows can still be identified.

Archaeological remains found on the water meadows along the tree line in Narrow Field point to the area being used as a cache by travellers visiting Salisbury during the medieval period.

Public access and use

1.10 A community survey (Community First, 2020) undertaken on behalf of Salisbury Neighbourhood Plan Team revealed the following responses from over 1,000 respondents:

Green Infrastructure

- Overall, survey respondents rated wildlife and biodiversity (1) and managing climate change (2) as most important for green space.
- 62% of survey respondents combined said that the provision of green space in Salisbury was good or excellent for a range of uses. A further 81% (combined) said their access to green space was good or excellent. This suggests that Salisbury residents are broadly satisfied with the provision of and access to green space.
- 54% of survey participants strongly agreed that it is important to ensure public access to rivers in Salisbury does not create undue disturbance for wildlife.
- 83% of survey participants rated their access to open countryside as good or excellent.
- 69% of surveyed residents were in favour of reducing the area of regularly mown grass in parks and public spaces to provide support for wildlife.
- 97% of Salisbury residents agree or strongly agree with tree and shrub planting in parks, open spaces and gardens.

• Survey respondents made a variety of suggestions for improvements to Salisbury's Green Infrastructure which included better walking and cycling routes, green corridors for wildlife and biodiversity and an increase in tree planting.

A similar survey by the Laverstock & Ford Neighbourhood Plan Team (2019) found the *following:*

Multiple reasons for visiting parish green spaces - for relaxation, exercise, scenery and wild life/flowers are most popular

Reasons for visit (% mentions by respondents)

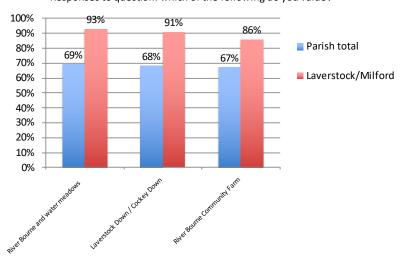
| | All green spaces |
|--|------------------|
| Get out in the fresh/relaxation | 66 |
| | |
| To get some exercise/keep fit | 58 |
| Attractive scenery/views | 56 |
| Like to see the birds/wildlfe/wildflower | 49 |
| Somewhere to take the children | 29 |
| Dog walking | 24 |
| Visit the cafe | 16 |

Reasons for visit are similar to those of respondents in rest of parish

odd formatting in title - something beneath? *Formatting odd below...*

Major individual local green spaces especially valued by Laverstock respondents

Responses to question: which of the following do you value?



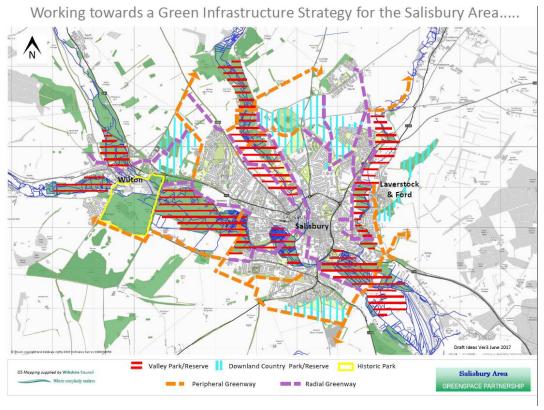
These findings demonstrate that local communities value our current approach to access to the water meadows which reduces impact on wildlife, particularly by the river, while affording opportunities to enjoy the benefits of access to natural greenspaces.

The funding for new permanent livestock netting fencing enables us to more effectively manage access and reduce the negative impacts from dogs on wildlife and livestock. Further grant funding for good quality interpretation and online information will further enhance the visitor experience and reduce disturbance to wildlife and livestock.

In contrast to some sites including Britford water meadows and Harnham water meadows where access is restricted to a single Public Right of Way (PRW), we currently provide permissive access paths in addition to the PRWs. We have also piloted access for dog walkers on the northern meadows of the site.

Unfortunately, the pilot has only been moderately successful with dogs observed scaring herons, egrets and wildfowl on a number of occasions. This demonstrates the need to zone the site with some areas where dog exercise is permitted most of the year including the majority of permissive paths, other areas where dogs need to be kept under close control, areas where dogs need to be on lead and areas where dogs are excluded. We will also continue to keep some fields shut from public access where livestock are present.

These water meadows provide a valuable wildlife corridor and greenspace which is within easy walking distance of larger tracts of greenspace and open countryside to the west (Bishopdown Common, St Marks Path, Castle Hill Country Park, Old Sarum, Hudson's Field and Avon River Greenspaces) and the East (Laverstock Down, Cockey Down and Clarendon).



Salisbury Area Greenspace Partnership proposed Green Infrastructure network for Salisbury setting Laverstock water meadows in context with neighbouring accessible natural greenspaces.

Available at https://www.salisburyareagreenspacepartnership.co.uk/greenspace-asset-mapping accessed 1st February 2021

In 2019 The Devenish Bradshaw Charitable Trust was approached by the Salisbury Cycling Opportunities Group over the possibility of an all-weather cycle path connecting Cow Lane from London Road to the cycle path from Bishopdown to Laverstock. The Trustees formulated a proposed route for the path which would form a hedged green lane on the eastern boundary of Top Field . We agreed the path could be constructed from a mixture of boardwalk and unbound aggregate surfacing and that it should be permissive in nature and owned and managed by the Trust as part of our site access infrastructure.

In 2020 we included the path in our unsuccessful bid the Heritage Green Recovery Challenge Fund. Little progress has been made with resubmission of the bid for the access path in 2021. Issues with the transfer of the Higher Tier agreement from Community Farm to the Trust have caused acute cashflow problems for the Trust and we have focused on managing the resulting delays to our capital works programme. We will revisit the access path project again in 2022.

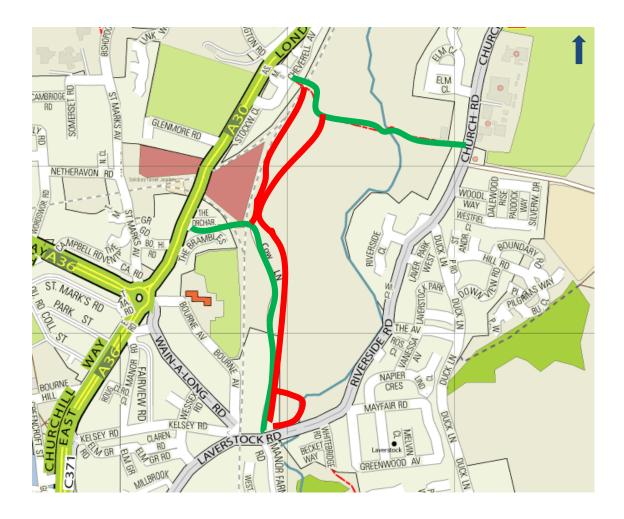
Current access arrangements to other areas identified by the Salisbury Area Greenspace Partnership in their Green Infrastructure analysis (see map above) as "Valley Park/Reserves" include:

- access limited to single public right of ways dissecting the sites with only limited access for educational purposes on the rest of the site Harnham water meadows and Britford water meadows. Repetitive mentioned p9
- zoned access that includes rotational access through the year and some areas with no access along the river Avon Valley Nature Reserve, Whitebridge Spinney (excluding recreational areas) and the riverine section of Castle Hill Country Park.

Now we have the resources to manage access effectively with gated enclosures, through funding from Higher Tier Countryside Stewardship and other grant funds, we can pilot a zoned approach to access on the water meadows and monitor its effectiveness.

The following maps outline access provision in 2021 and planned progress for 2022.

Map of access late 2021



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https://www.streetmap.co.uk/street/CHURCH_ROAD_in_LAVERSTOCK_in_ SALISBURY_in_SP1_527267_242521.htm

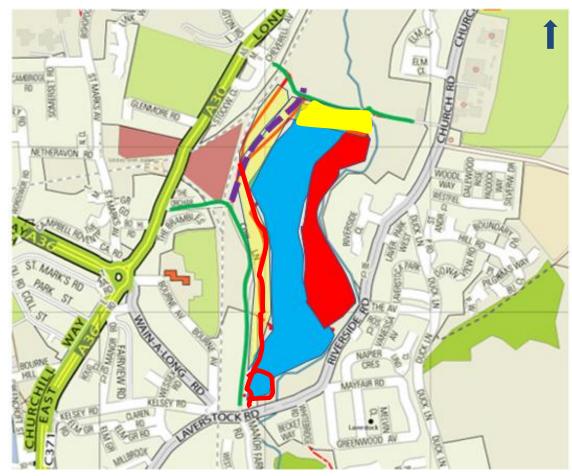
accessed on 1st February 2021

<u>Key</u>

| Permissive Paths | Public Rights of Way | |
|------------------|----------------------|--|

Rest of land has varying degrees of managed access.

Map of proposed access.



©streetmap.co.uk

available at

https://www.streetmap.co.uk/street/CHURCH_ROAD_in_LAVERSTOCK_in_ SALISBURY_in_SP1_527267_242521.htm

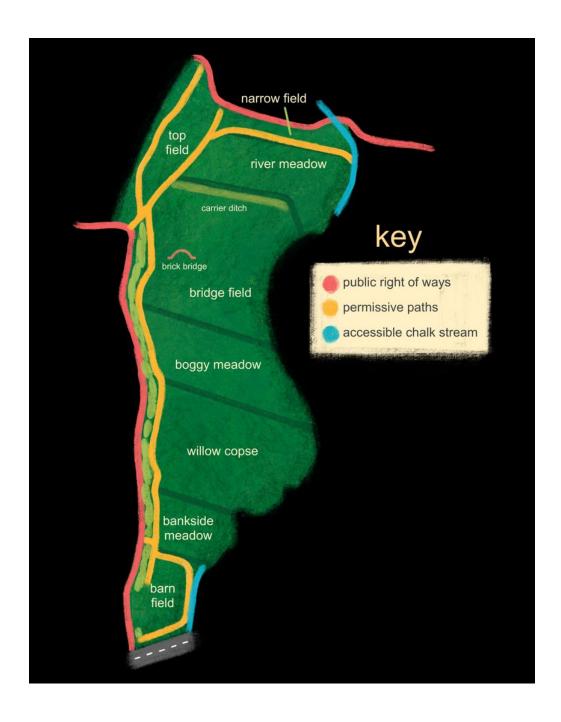
accessed on 1st February 2021

Key

| Permissive Paths | | Public Rights of Way | | | |
|---|---------------------------------------|----------------------|--|--|--|
| Proposed Cycle Path | Proposed additional Permissive Access | | | | |
| | | CANNOT SEE THIS | | | |
| Permissive access through | | | | | |
| year closed for hay making | | | | | |
| Permissive access for par | | | | | |
| under close control and | | | | | |
| Supervised managed access only for educational and research/wildlife survey | | | | | |
| purposes | | | | | |

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An illustrative map was commissioned in late 2021 with engaging names for all the water meadows fields



Past, current and future management

and wet woodland for hunting and fishing. Since the 17th century local farmers harnessed the natural resources of the River Bourne (water, fertilizer and warmth) by diverting the river across the meadows to protect the growing grass from frost and providing it with nutrients and water. The resulting lush pasture was prized because it provided an early Spring grass crop and improved hay crop(s). This floated meadow system fell into disuse as improved farming methods using fodder crops, artificial fertilisers and specially bred grass varieties developed from the 19th century. However, the wet grassland still retains agricultural value for hay and livestock pasture. It will also potentially have increased value with increased floristic diversity both for hay and pasture and a source of wildflower seed for other restoration projects. The current management regime aims to restore the site as a wildflower rich floodplain meadow which will have great agricultural, biodiversity and cultural value.

Future management options that could be considered in the revision of this management plan could include increasing the wet woodland component on the meadows, particularly by the river, and re-wetting some of the meadows to increase the marshland component of the site. This is something that was proposed by consultants working for the Environment Agency in recent years but was not followed through due to lack of funds for the capital works required.

Wildlife

1.12 The River Bourne is a chalk stream. In their 2014 report on England's chalk streams, the World Wildlife Fund for Nature emphasised the importance of the chalk stream as an internationally rare habitat, such that they should be considered as important as the Okavango Delta, the Great Barrier Reef, or the rainforests of the Amazon (WWF 2014). Eighty five percent (224) of these chalk streams are found in England because they only occur where chalk bedrock meets the Earth's surface, making them globally rare.

The Hampshire Avon including the River Bourne make up one of the finest examples of a chalk stream catchment within England and as such are notified as a Special Area of Conservation and a Site of Special Scientific Interest. The Laverstock water meadows include wet woodland and other riverine habitats.

The majority of Laverstock Meadows are designated within the UK Biodiversity Action Plan (2011) as being part of the priority habitat Coastal and Floodplain Wet Grassland. The report noted that 'Much of this Priority Habitat has lost its' botanical species richness and corresponding soil characteristics'. However, the Laverstock Meadows have scattered remnants of characteristic wildflowers present and the right soil conditions to enable the restoration of floristic richness. On this basis The Water meadows have been awarded a

ten-year Higher Tier Countryside Stewardship agreement in 2019 to enhance the wildflower species richness on the majority of Laverstock Meadows. The Higher Tier Agreement was transferred from River Bourne Community Farm to Devenish Bradshaw Charitable Trust in September 2021.

The Laverstock & Ford Parish Newsletter (2019) cited the 2018 River Bourne fish survey undertaken by the Environmental Agency when highlighting the numbers of different fish found immediately downstream of our stretch of the River Bourne. These indicate that salmon, eels and other key fish species that are characteristic of the Hampshire Avon Special Area of Conservation are present albeit at very low numbers

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2016 | 2018 | |
|----------------------------------|------|------|------|------|------|------|------|--|
| Brown / sea trout [Salmo trutta] | 42 | 45 | 36 | 87 | 99 | 53 | 125 | |
| Atlantic salmon [Salmo salar] | 0 | 0 | 0 | 0 | 1 | 1 | 1 | |
| Grayling [Thymallus thymallus] | 1 | 0 | 1 | 18 | 21 | 3 | 2 | |
| European eel [Anguilla anguilla] | 3 | 7 | 5 | 2 | 3 | 6 | 4 | |

The following animals, birds and invertebrates have been observed on the Laverstock water meadows over the past year by members of the public.

Animals

Water vole, otter, field vol.

Bats:- Pipistrelle, Daubenton's, serotine, noctule

Birds

Lapwing, barn owl, little owl, kestrel, sparrow-hawk, hobby, raven, red kite, buzzard, swallow, house martin, swift, reed bunting, jackdaw, starling, snipe, song thrush, mistle thrush, blackbird, robin, tits – great, blue and long-tailed, wren, jay, chiffchaff, kingfisher, bullfinch, chaffinch, goldfinch, greenfinch, sedge warbler, great spotted and green woodpecker, goldcrest, stock dove, fieldfare, redwing, mute swan, mallard, Canada goose, moorhen, grey heron, little egret, lesser whitethroat, Cetti's warbler.

Occasional records – Firecrest (2019), water rail (2018)

Invertebrates

Butterflies: Meadow brown, gatekeeper, brimstone, red admiral, green veined, large and small white, speckled wood, common blue, holly blue, peacock, comma, orange-tip, brown argus, small copper, small tortoiseshell, small & large skipper

Moths: Mint moth, buff footman, cinnabar caterpillars

Dragonflies: broad-bodied chaser, southern hawker, common darter, common damselfly

Grants

1.13 The DBCT meadows currently hold a Defra Higher Tier Countryside Stewardship Agreement (for information see references) and are in receipt of Basic Payment Scheme funding the Higher Tier Agreement runs from 2019 to 2029 with the bulk of Capital grant funding to be completed by February 2022. There is potential to apply for an Environmental Land Management Scheme in 2024 with additional funded capital elements. During the application process for Higher Tier the national heritage of value of the water meadows to be restored to flower rich flood plain meadows was identified. There are less than 3000 ha of this habitat left in the UK following a catastrophic c98 per cent loss due to intensification

of farming practices. The remnants of the ditch infrastructure associated with the use of the water meadows for agriculture by "drowning" them in early spring is also of heritage value, but in contrast with Harnham water meadows, restoration of the infrastructure and reversion to the historic water meadow management is not a priority objective for the Laverstock water meadows Higher Tier Agreement.

The main historic interest of the water meadows are in the northern half of the site and would require purchase of water meadows to the north of the cycle path to attempt reconstruction of a floated water meadow system. This would be a major undertaking and would need some challenging management prescriptions to achieve both demonstration of the historic system and retention of restored floristically diverse wet grassland and riverine habitats. A small area in Narrow Field by the cycle path bridge is being restored to woodland/scrub habitat through a process of re-wilding.

A substantial grant bid (160k) was made at very short notice in partnership with The Farm in the autumn of 2020 to the Heritage Green Recovery Challenge Fund but was unsuccessful. A follow up bid is planned to the Heritage Fund for 2022. The Heritage Fund could potentially fund staff and apprentices/trainees over a three-to-four-year period.

Small grants (1.5k) were awarded by Salisbury and Southern Area Boards in late 2020/early 2021 for our Dog Trails project. The project aims to reduce conflict and maximise positive opportunities with dog walkers who exercise their pets on the water meadows. The on-site signage element of the project is proving largely successful with only one case of a dog inadvertently running into a field with sheep and huge amounts of positive feedback from visitors with dogs. Dog poo has mostly been picked up, in fact less dog poo has been noted left on the cycle path to the north of the site with a new litter bin provided by Laverstock & Ford Parish Council playing a key role along with our positive Dog Trail project signage.

A medium sized grant (10k) was awarded by Hales Waste community grant. This has been invaluable to help us provide access infrastructure and supplement the wildflower enhancement funding from our Higher Tier Agreement. We need to complete all capital works for this grant by March 2022 but are on track to meet this target date with both Community Farm contractors and our volunteer work parties making major contributions.

A combined medium sized grant (3.4k) from Laverstock & Ford Parish Council and Southern Area Board was awarded to 1st Laverstock Scouts to create a Nature Discovery Area between Bankside Field and Barn Field. This project has required hundreds of volunteer hours to complete, but between the Scouts, Cubs, Beavers, our volunteers (including Duke of Edinburgh Award participants) and Community Farm contractors we are on track to complete it in early 2022.

A small grant (1.5k) from Wessex Community foundation to fund an orientation/interpretative board was awarded in mid 2021. On-site and off-site interpretation about the water meadows (signage and web site design) which will be determined in mid-January 2021??update

A Community Foundation fund grant to replace our ageing river dipping platform is being considered in early 2022.

An Expression of Interest to CPRE administered Hedgerow Grant bid was developed to fund a staff member to work with volunteers, farmers and community groups in the Salisbury area but was withdrawn in February 2022 when it became clear CPRE had decided to fund projects with more emphasis on capital and contractor funded hedge work as opposed to project officer facilitated volunteer group activity.

2. Objectives of the Trust

- 1) To preserve, conserve and protect the land known as the Water Meadows, in Laverstock, and its chalk valley riverine habitats.
- 2) To advance the education of the community in Laverstock and the surrounding areas, in agriculture, horticulture and environmentally-based education projects concerning the preservation, conservation and management of the Water Meadows.
- 3) To provide or assist in the provision of facilities for recreation or other leisure time occupation for the benefit of the public in the interest of their social welfare.
- 4) To advance, promote or carry out such other charitable purposes as the charity trustees in their absolute discretion from time to time think fit.

3. Strategic Analysis

A Political, Economic, Social, Technological and Environmental (PESTLE) analysis identifies the following external factors that Devenish Bradshaw Trust needs to take into account when prioritizing the management of Laverstock water meadows.

Political – The Laverstock water meadows are located on the boundary of Laverstock & Ford Parish and Salisbury City Parish. The last year has seen welcome bipartisan support from both Councils in form of small grant contributions to projects on the water meadows. We have also opened conversations with Laverstock & Ford Parish Council into possible additional land purchases in the Parish to meet a demand for allotments by local residents and the urgent need to secure more land of heritage value to complement our existing holding. Prior to this there were several years of acute local political tensions between the two Parishes' local politicians, with attempts made for Laverstock & Ford Parish Council (LFPC) to be subsumed by Salisbury City Council (SCC) and a focus on keeping Parish taxation and corresponding provision of services low by LFPC as compared to SCC. Elements within LFPC attempted to leverage direct management control/standard setting of the operational management of Laverstock water meadows in late 2020. Whilst this unwelcome intervention has now been explained away by LFPC as a "miscommunication", the lessons learnt from local political strife over the first years of the Trust have led to DBCT Trustees passing a Motion that prevents serving Councillors on Parish, Town or Unitary Councils serving on our Board of Trustees. Our established leadership team of Trustees and Specialist Advisers cover the breadth of expertise required to fulfil our charitable objectives.

The national and regional politics of the day are very much supportive of our charitable objectives. The government's 25 Year Environment Plan (2018), Environment Act 2021 and Agriculture Act (2020) will all help increase opportunities to resource our work. The restrictions imposed by the Coronavirus pandemic of 2020 - 2021 have also lead to increased interest in both the social and environmental value of Laverstock water meadows from local communities. The value that local people put on the water meadows and the river for wildlife is filtering into local politics through the Neighbourhood Planning process with both Laverstock & Ford (Laverstock & Ford Neighbourhood Plan Team, 2019) and Salisbury City Neighbourhood Planning community (Community First, 2020) surveys demonstrating public support and interest in places to view and protect nature.

Economic – The local economy includes microbriological research and development (Porton Down), Defence (Boscombe Down and Salisbury Plain) and Tourism and Retail (Salisbury City), Financial Services, House Building, Tourism and Science. Agriculture is also a significant part of the economy particularly the production of combinable crops (cereals and oilseed) and aquaculture (trout farming).

Coronavirus restrictions are driving an increase in dog ownership which will have a bearing on increased pressure and opportunity from dog exercise on the water meadows. According to the Nutrient Management Plan: Hampshire Avon (2015) house building has put increased pressure on the water quality and availability for the River Bourne. The water meadows network of ditches and riverine wetland can play an important role in helping to clean the water and provide refugia for some wildlife species during drought conditions.

Social – The majority of current visitors to the water meadows permissive paths and managed access fields) are exercising their dogs (casual observation – we can conduct observation visitor surveys to check this). The existing cycle path that runs along the northern perimeter of the water meadows is heavily used by school children and also cyclists, joggers and people going for a walk. The northern meadows are frequented by school children from the secondary schools in Laverstock after school.

The project also provides an opportunity for local residents to engage with nature by volunteering their time to undertake some of the practical tasks associated with maintaining and improving the water meadows. Young people are given the opportunity to learn new skills, gain confidence and to develop team working and leadership skills.

The water meadows are also utilized by visitors to River Bourne Community farm who will frequently follow one of the self guide trails which include a walk along the permissive paths of the meadows. The Nursery school based at the farm visit the meadows on most days of the week to enjoy the sensory value of the meadows. The new care farm – the Woodstock Therapeutic Centre for Adults based at the Community Farm also plans to include visits to the water meadows as part of the therapeutic programme for their clients.

The local Watch group and Natural History group visit the water meadows on occasion and the Watch group in particular would be interested in making more use of the water meadows as their biodiversity value increases.

The local Scout group are planning to utilize the water meadows in pursuit of their Environment Badge and have recently begun to use the fire site area in Top Field for fire-lighting activities.

The southern, agriculturally improved meadow is utilised as a car parking area for social events at the Community Farm.

Technological – Social media and online technologies have the potential to enable the Trust to more easily engage with visitors. The Community Farm social media platforms are very effective particularly at raising awareness of animal welfare issues ranging from dog theft to unauthorized killing of chickens. However, the downside of these technologies include potential increased negative impacts of dog exercise by owners attracted to visit the site

and ill informed complaints posted through social media. We have set up our own web-site in 2021 but unique visits are low. We need to focus time and energy on improving our brand profile through the website and potentially a social media presence in 2022. With direct management of the water meadows transferring from the Community Farm to the Trust it will be important to have our own online identity while continuing to promote our close partnership with the Community Farm.

Environmental – The Climate Change emergency and the Biodiversity Crisis both require our attention when formulating management priorities for the water meadows. The water meadows soils and pasture can help lock up carbon from the atmosphere if lightly grazed and cut for hay. Mob grazing techniques in which cattle graze long grass for short periods of time before being moved on to new pasture are particularly effective at locking up carbon and promote good health in cattle but are intensive to manage requiring erection of small electric fenced paddocks. The system of stock netting fields and sub dividing them with temporary electric fences which our graziers currently employ are the next best thing. In 2021 the meadows were relatively heavily stocked to achieve the right conditions to seed them with wildflower rich green hay and some purchased wildflower seed. We will now reduce grazing pressure and hay cutting from 2022 to allow the wildflowers to properly establish throughout the sward by 2023. There are very few wildflower rich wet grasslands left locally with just a small area at Porton meadows further upstream on the River Bourne and less wildflower rich areas on Britford meadows to the south. By re-establishing wildflower rich floodplain meadows on our site we will therefore be making a major contribution to help reverse the loss of local biodiversity. The establishment of a mosaic of scrub and wildflower rich grassland and the retention of old pollards together with dead standing wood and fallen trees will further enhance our contributions to help address the biodiversity crisis. In further revisions of this management plan we should consider setting carbon reduction and biodiversity performance targets.

A key contribution to help tackle environment issues we can make is, according to Richardson (2020), to help connect people with nature and thus encourage them to adopt pro-environmental behaviours. He noted that psychologists have recently identified the following five pathways that are most effective at achieving this aim. Our management, access and educational programmes are closely aligned to these five pathways:

Senses – For example reeds in ditches rustling in the wind, the scent of hawthorn blossom and the feel of log placed as informal seating along a pathway.

Beauty – For example fine looking native breed cattle munching in a field full of wildflowers.

Emotion – For example a sense of peace and calm sitting quietly by the river or under the shelter of old pollarded trees.

Meaning – For example the nature inspired art on display in the Community Farm café. Art = Meaning.

Compassion – For example relating to the rarity of water voles and salmon in the river and butterflies, wild bees and other beneficial insects in the meadows.

Overall, our policy of signage and access infrastructure on the meadows needs to be minimalistic and of the highest quality to engender a positive psychological response from the majority of visitors. We need to work to improve the aesthetic qualities of all entrances to the water meadows and this should be a priority for our volunteer work parties over the coming months. We can utilize social media and web media to promote positive messages about the value of the water meadows to local communities and the environment.

4. Management of the Site

Objective 1 – To preserve, conserve and protect the land known as the Water Meadows, in Laverstock, and its chalk valley riverine habitats

Aims: Actions

To manage each of the habitats present on the meadows to promote their biodiversity. Implement the actions in our Higher Tier Agreement working closely with The Farm, sheep graziers, our volunteer teams, and community organisations carrying out practical conservation work to help achieve the aims of the agreement. See Higher Tier Agreement documents in Annex. — Ongoing.

Woodland

- Encourage the retention of dead standing trees and fallen timber as per the Royal Forestry Society guidance. (See Annex 1) Ongoing.
- Carry out an annual visual health and safety check on all trees near paths following the
 National Tree Safety Group/ Forestry Commission Research (2011) guide Common sense risk
 management of trees to ensure tree safety, and to manage trees to a proportionate level
 to the low risk presented by wind-blown trees and branches to visitors to the site. On going.
- Check paths after storm conditions and temporarily close paths where windblown trees present a medium to high risk to visitors. Ongoing.
- Extend scattered trees and shrubs in water meadows fringing the river this "mantel and saum" type habitat is especially rich for wildlife and also will enhance the landscape value of the site by partially screening the houses in Laverstock and the fringe the river to the east. Completion target early 2022.
- Manage large willows in ditches/riverside through pollarding (as per Higher Tier Agreement) to increase light to ditches Increased light to the temporary pools formed in the ditches will correspond with increased freshwater life. Pollarded trees have high cultural value and will enhance the landscape value of the site. All Higher Tier willows coppice plan to extend coppicing rotation from 2022.

River

- Create buffer strips between grazing meadows and river to reduce disturbance from dogs.
 Completion target early 2022
- Liaise with other local river owners and environmental organizations to promote positive care for the river and reduce negative impacts eg dumping of grass clippings in the river.
 Ongoing.
- Leave fallen trees in the river it is a statutory offence and a potentially damaging operation to remove trees from the river. The Environment Agency will assess fallen trees for potential flood risk and remove them sensitively if required however in the majority of cases on our stretch of the river fallen trees will help slow the river flow and reduce the risk of flooding as well as providing essential habitat for fish, water birds and other river life. Ongoing.

Hedgerows

- Maintain existing hedges and scrub Ongoing.
- Lay short stretches of hedgerow along permissive paths Aim to start late 2022.
- Plant up hedgerows and shelterbelts with native shrubs and trees where necessary.
 Ongoing.
- Leave at least a 2m uncut margin alongside hedgerows when haymaking. Either cut hedge margin in August or bi-annually on rotation Ongoing.
- Manage areas of blackthorn on rotation for brown hairstreak. Trim hedges only once every 3 to 5 years and do not cut all the hedges in any one area in the same year Ongoing.

Objective 2 - To advance the education of the community in Laverstock and the surrounding areas, in agriculture, horticulture and environmentally-based education projects concerning the preservation, conservation and management of the Water Meadows.

Aims: To improve the knowledge of the importance and biodiversity value of downland water meadows to the local community through interpretation and public engagement.

Actions

- Install welcome/information signs at major entry points to the site Completion target early 2022.
- Seek funding for sensitive low-key on-site interpretation highlighting habitats and wildlife supported by the meadows – Completed.
- Put on a programme of events with other local environmental organisations to engage and inform the local community - Deferred due to Coronavirus.
- Produce educational packs designed for different age groups for use by schools and youth groups. Not commenced.
- Encourage schools within walking distance of Laverstock Meadows to include study on the
 Meadows in their curriculum for 2021. On going.

- Encourage schools from further afield that have school visits planned to River Bourne Community Farm to include a visit to the water meadows as part of their day trip. On going.
- Liaise with neighbouring properties over our management of meadows and the river and encourage adoption of positive management practices that enhance the river. Ongoing.

Objective 3 - To provide or assist in the provision of facilities for recreation or other leisure time occupation for the benefit of the public in the interest of their social welfare.

Aims: To promote and sensitively manage public usage of the site

Actions

- Ensure LFPC follow-up on their offer to place two litter bins close to the main entrances to the water meadows Completed.
- Put in grant applications to fund improved access and interpretation infrastructure, potential including a cycle path constructed from board walk and unbound aggregate surfaces. On going.
- Produce a Dog Trails leaflet for the local area.
- Design and pilot signage to inform dog walkers and other visitors when and where they can walk their dogs in grazing meadows depending on grazing regime. Completed

Objective 4 - To advance, promote or carry out such other Charitable Purposes as the charity trustees in their absolute discretion from time to time think fit.

Aims: To ensure the local water meadows or associated land is managed as according to the areas status of SAC, SSSI and/or Protected Habitat

Actions

- Seek to acquire or manage additional water meadows and other high environmental value land within the local area. Ongoing.

5. Work Programme (Actions by year excluding annually repeated actions)

Which are subject to suitable funds being available from grant applications

| Year | 21 | 22 | 23 | 24 | 25 |
|---|----|----|----|----|----|
| Objective 1 | | | | | |
| Deliver remaining Higher Tier Countryside Stewardship | Х | Х | | | |
| capital works: | | | | | |
| Seeding and green hay spreading of flower rich meadows | Х | Х | | | |
| through CS | | | | | |
| Install sheep netting fencing around field parcels | х | Χ | | | |
| Seek additional funding and install riverine buffer strip | Х | Х | | | |
| fencing | | | | | |
| Habitat management of meadows through grazing and hay | Х | Х | Х | Х | Х |
| cutting including strewing of wildflower rich green hay | | | | | |
| Tree survey (inventory and H&S) | Х | Х | Х | Х | Х |
| Pollard ditch willow | Х | Χ | | | |
| Apply for Environmental Land Management Scheme to fund | | | | Х | |
| further enhancements to our existing holding and extended | | | | | |
| holding | | | | | |
| | | | | | |
| Objective 2 | | | | | |
| Install welcome/information signs at major entry points | Х | Χ | | | |
| Seek funding and install access infrastructure | Х | Χ | Х | Х | Х |
| Seek funding for interpretative on-site and off-site | х | Χ | х | Х | х |
| information | | | | | |
| Seek grant funding to employ staff to develop training | х | Χ | х | Х | х |
| events programme and educational packs for schools | | | | | |
| Consult with neighbouring properties | Х | Χ | Х | Х | Х |
| | | | | | |
| Objective 3 | | | | | |
| Liaise with LFPC over bin locations | х | | | | |
| Liaise with LFPC re combined allotments/land with heritage | | Χ | | | |
| value acquisition. | | | | | |
| Liaise with SCC over links to self-guided trails and other | х | Χ | Χ | Χ | Х |
| associated projects. | | | | | |
| Liaise with all managers of greenspace and farmland | х | | | | |
| frequented by dog walkers in the local area and produce | | | | | |
| dog trail leaflet | | | | | |
| Produce signage to inform dog walkers of open meadows | Х | | | | |
| Identify further opportunities to provide enhanced | х | Х | х | Х | Х |
| recreation and leisure time activities - eg cycling trails, | | | | | |
| jogging trails | | | | | |
| | | | | | |
| Objective 4 | | | | | |

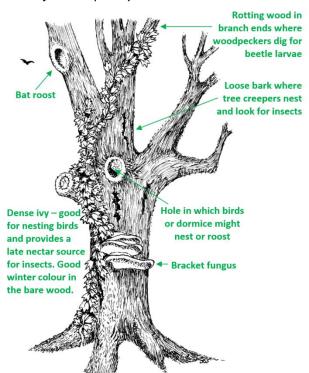
| Acquire additional water meadows and other high value | | х | х | Х | Х |
|---|--|---|---|---|---|
| environmental heritage land | | | | | |
| | | | | | |

Annex 1 - Deadwood and old trees guidance note

Deadwood and old trees

Try to resist the urge to 'tidy up' the wood; dead wood and dying trees are very useful as homes for a large range of wildlife like bats, fungi, lichens and mosses. Around a third of woodland bird species nest in holes in trees, insects such as the rare violet click beetle are found in hollow trees, and birds such as woodpeckers feed by seeking out insects under bark. Dead wood is not a threat to the health of the remaining trees.

Standing dead trees provide a different kind of habitat from dead wood lying on the woodland floor, and it's not just completely dead trees that contribute.



As trees reach old age, rot-holes, hollow trunks and dead branches all start to make these 'veteran' trees more interesting as habitats for wildlife.

If you have very old trees or dead trees in your wood, and they are not posing imminent danger to people or property, i.e. not standing near a footpath, building or road, then leave them to decay naturally. Ancient hollow trees are particularly important features to retain. Even if your wood has no old trees, dead branches in the crowns are a useful habitat and should, if possible, be left. If there is not much fallen dead wood, you could create 'habitat piles' – piles of cut wood stacked in a shady area of the woodland and left to rot away.

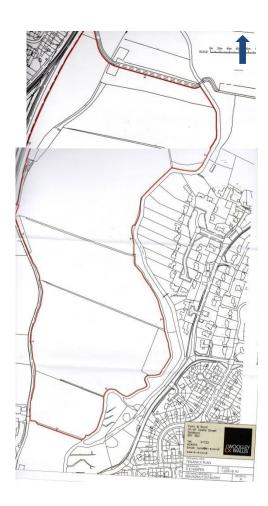
If you really can't resist the urge to tidy up, remember that it's better to stack dead wood into neat piles and leave it in the woodland than to remove it altogether. Of course, these piles should not be your firewood stores because you could burn all the creatures that are sheltering there.

Another feature of woods that many people try to control is ivy on trees. Contrary to popular belief, ivy does not strangle or damage trees, and has particularly high wildlife value. It should be left on the trees to provide nest sites, winter shelter and food for birds and insects.

Remember, you may want to keep your garden 'spick and span' but natural processes are worth encouraging in your wood. Intensive care of a wood is not necessary and may be harmful.

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Annex 2 Red Line Plan



References

25 Year Environment Plan (2018). A Green Future: Our 25 Year Plan to Improve the Environment available at

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69 3158/25-year-environment-plan.pdf accessed $4^{\rm th}$ February 2021

Agriculture Bill (2020)

available at

https://www.legislation.gov.uk/ukpga/2020/21/contents/enacted/data.htm accessed 4th February 2021

Community First (2020)

available at

https://www.salisburycitycouncil.gov.uk/images/SNDP_Community_Survey_Report.pdf accessed 2nd February 2021

Defra Higher Tier Countryside Stewardship Agreement

Available at

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/92 0524/CS_Higher_Tier_2020__cs58_v4.0_.pdf accessed 4th February 2021

Environment Bill (2019-21) Environment Bill, in passage through Parliament. available at

https://services.parliament.uk/Bills/2019-21/environment/documents.html accessed 4th February 2021

Historic England 2017, Conserving Historic Water Meadows. Swindon. Historic England

Laverstock & Ford Neighbourhood Plan Team (2019) available at https://www.lfcnp.co.uk/communities/laverstock/accessed 2nd February 2021

National tree safety group: Common sense risk management of trees (2011) available at

https://ntsgroup.org.uk/wp-content/uploads/2016/06/FCMS025.pdf accessed 4th February 2021

Nutrient Management Plan: Hampshire Avon (2015)

available at

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/42 9214/River_Avon_Nutrient_Management_Plan_FINAL_30th_April_2015.pdf accessed 4th February 2021

Richardson, M. (2020), Applying the Pathways to Nature Connectedness at Societal Scale available at https://findingnature.org.uk/2020/11/17/pathways-societal-scale/ accessed $4^{\rm th}$ February 2021

Salisbury Area Greenspace Partnership available at https://www.salisburyareagreenspacepartnership.co.uk/greenspace-asset-mapping accessed 2nd February 2021

WWF 2014, State of England's Chalk Streams report

WWF 2014 Report: State of England's Chalk Streams

accessed 7th January 2022

The Laverstock & Ford Parish Newsletter (2019) 2018 fish survey river Bourne Bourne at Laverstock, by the Environmental Agency; issue 175 May/June p28

UK Biodiversity Action Plan (2011)

available at

 $https://data.jncc.gov.uk/data/01d6ab5b-6805-4c4c-8d84-16bfebe95d31/UKBAP-BAPHabitats-45-Rivers-2011.pdf\ p5$

accessed 2nd February 2021