



NORTHAM TOWN COUNCIL
TOWN HALL
WINDMILL LANE
NORTHAM
DEVON
EX39 1BY

To: All Members of the Climate Emergency Committee

Town Clerk: Mrs Jane Mills MILCM
Telephone and Fax: 01237 474976
E-mail townclerk@northamtowncouncil.gov.uk

Cc: All Northam Town Councillors

You are hereby summoned to attend a Climate Emergency Committee Meeting on Thursday 13th January 2022 at 6.30pm in the Council Chamber at the Town Hall.

The Agenda for the meeting is set out below.

Members of the public will be admitted at the start of the meeting.

M. J. Mills

Mrs Jane Mills MILCM
Town Clerk

Date of issue: 7th January 2022

The following are Members of the Climate Emergency Committee:

Councillors Hames (Chairman), Newman-McKie (Vice Chair), Chalmers and Laws plus the Mayor, ex-officio (Cllr Mrs Hodson), one vacancy.

All Members of the Council are entitled to attend.

Co-opted Members: Ms P Gibb, Mr T Wiersma (plus vacancy).



Lords of the Manor



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AGENDA

- 1 **Apologies**
- 2 **Chairman's announcements**
- 3 **Declarations of interest:**
Members are reminded that all interests should be declared prior to the item being discussed.
- 4 **To agree the agenda as published**
- 5 **To confirm and sign the minutes of the meeting held on 18th November 2021**
(herewith)
- 6 **To consider Action Points** *(herewith)*
- 7 **Public Participation**
Members of the public are permitted to make representations, answer questions and give evidence in respect of any item of business included in the agenda. Each member of the public is entitled to speak once only in respect of business itemised on the agenda and shall not speak for more than 4 minutes. The period of time which is designated for public participation in accordance with standing orders shall not exceed 20 minutes.
- 8 **To consider applications for co-option to the Committee** *(herewith)*
- 9 **To receive an update on EV charging in the Northam Town area** *(verbal - Cllr Hames)*
- 10 **To receive an update on *Life on the Verge*** *(herewith and verbal from Officer, P Gibb and Cllr Newman-McKie)*
- 11 **To consider the installation of Solar PV and Battery Storage system at Northam Hall** *(previously circulated and herewith)*
- 12 **To consider updating the *draft* Climate Emergency Action Plan** *(herewith)*
- 13 **To receive an update from the LCWIP steering group** *(herewith and verbal – Cllr Hames)*
- 14 **To consider the recommendation from the Town Projects and Asset Management Committee regarding rain water capture at Northam Hall** *(herewith)*

Action points for January 2022

RAG rating:	Green Complete	Amber In progress	Red To start
1. Life on the Verge	1.1 Deputy Town Clerk to arrange the meeting with NHO and Ecologist before the end of December 2021.	Meeting arranged with the Ecologist for 5 th January 2022. To be updated at the meeting. Complete.	
	1.2 Set up working party to review verge locations.	The group met, report at agenda item 10. Complete.	
2. Drafting a Northam Town area Footpath Guide:	2.1 Cllr Hames review the project and make contact with local groups.	Deferred to January 2022 meeting.	
	2.2 Deputy Town Clerk to research App development and liaise with the Ranger at Northam Burrows.	The DTC has made contact with the Burrows Rangers, meeting to be arranged. App development is a specialist skill, which the NTC staff do not have. The project would have to be put in the hands of an App developer. A meeting remains to be confirmed with the Burrows Rangers.	
3. EVs	3.1 Cllr Hames to continue discuss the plans for installing an EV charging network in car-parks across the Town area further with Officers at Torridge District Council.	See agenda item 9	
	3.2 Cllr Hames to request consideration of the installation of EV charge points at Bone Hill be placed on a future Full Council agenda.	Requested to be on the Full Council agenda for January 2022.	

5. Wildflower Planting	5.1 Cllr Newman-McKie and Ms Gibb to communicate with RHS Rosemoor regarding the establishment and maintenance of wild flower areas.	Meeting arranged for the 11 th January 2022. To be updated at the meeting – complete.
	5.2 Cllr Hames to discuss with the County Ecologist the bramble growth on the bank below Windmill Lane which is a Devon County Special Verge.	Deputy Town Clerk discussed the matter with the County Ecologist on the 5 th January 2022, to be updated at the meeting – complete.
6. Committee membership	6.1 Deputy Town Clerk to confirm the co-option process (of a new lay member) with the Town Clerk.	On the agenda, at item 8. Complete.
7. Working with Bideford College on climate-related matters	7.1 To include the matter on the Full Council agenda for consideration.	Request made.
8. Deputy Town Clerk to include the review of the Climate Emergency Action Plan on the December agenda.	December meeting cancelled. Review included on the January 2022 agenda.	Complete, current Plan circulated by email.
9. Town Clerk to include sub-heading lines to identify each project area in the budget.	Request made, individual budget items requested.	Complete.
10. Town Clerk to include the nomination of an elected member on a future Town Council agenda.	Request made for January 2022 agenda.	Complete
11. Deputy Town Clerk to advertise the vacancies for co-opted lay members through the Council's website	Advertisements placed on website, social media and noticeboards	Complete

and social media channels.		
12. Deputy Town Clerk to contact Great Torrington Town Council for advice regarding their experience of preparing wildflower verges.	Contact made with Great Torrington Town Council Officer.	Contact made. Outcome circulated by email.
13. Town Clerk to include on a suitable Town Council agenda, once availability of the representative from the North Devon Biosphere Project had been established.	Request made	Complete
14. Deputy Town Clerk to establish clear estimated costs for the Northam Hall rain water capture project for the next meeting of the Committee.	Costs passed to Town Projects Committee, included on the agenda (item ?) for this meeting.	Complete
15. Deputy Town Clerk to arrange the meeting between the Chairmen of Town Projects & Asset Management and Climate Emergency Committee as soon as possible.	The Chairman of the CE Committee has met with the Chairman of the TP&AM Committee. The outcome will be updated at the meeting.	Complete



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CLIMATE EMERGENCY COMMITTEE CO-OPTION APPLICATION FORM

The Town Council has appointed a Climate Emergency Committee to produce and deliver the Council's Climate Emergency an action plan. The plan will set out measures to reduce carbon emissions from the Council's buildings and activities to become carbon neutral by 2030 and to promote a significant reduction of emissions towards carbon neutrality in the wider community of Northam. The Committee, at full strength, consists of five Councillors and four co-opted members of the public and is supported by the Deputy Town Clerk.

Thank you for telling us you are interested in being co-opted. To help us decide who to co-opt, please indicate below what skills you have under the listed headings.

Please return to the Council by hand or post, to the **Deputy Town Clerk** at **Northam Town Council, Town Hall, Windmill Lane, Northam EX39 1BY**, or by email to (admin@northamtowncouncil.gov.uk).

The information you provide will only be used for the purpose of co-opting members on to the Climate Emergency Committee of Northam Town Council and will only be processed in accordance with our Privacy Notice.

If co-opted, please note that agendas and documents relating to the committee will be sent by email, unless you specifically request otherwise. Any hard copies needed will be mailed to your address given below. Any other correspondence will be sent via e-mail.

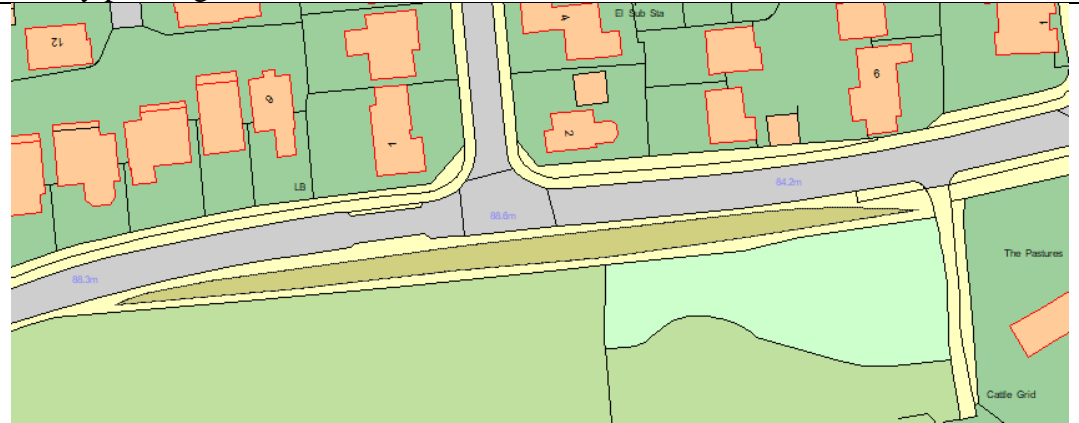
Name	WENDY LO-VEL
Address	LITTLE CREEVE LOWER CREEVE, NORTHAM DEVON EX39 2RH
Telephone Number	01237479730
E-mail Address	wendy.lo-vel@hotmail.com
Signature	Wendy Lo-Vel

Energy	<input checked="" type="checkbox"/>	Water	<input type="checkbox"/>
Transport	<input type="checkbox"/>	Biodiversity	<input checked="" type="checkbox"/>
Food	<input checked="" type="checkbox"/>	Waste	<input type="checkbox"/>

Plans for Life on the Verge.

Locations for application of the project and other pollinator friendly planting:

1. Cornborough Road. The verge running east-west, opposite Armada Way.
This area is to remain un cut, with the mower-width adjacent to the pavement to maintain usable width.



2. Lundy View. The triangle of land with a medium hawthorn, laid to grass (outside number 26).
This area would be managed for wildflowers, starting with a 2m circle around the tree. Yellow Rattle seeds or plugs could be sown. Residents would need to be consulted.



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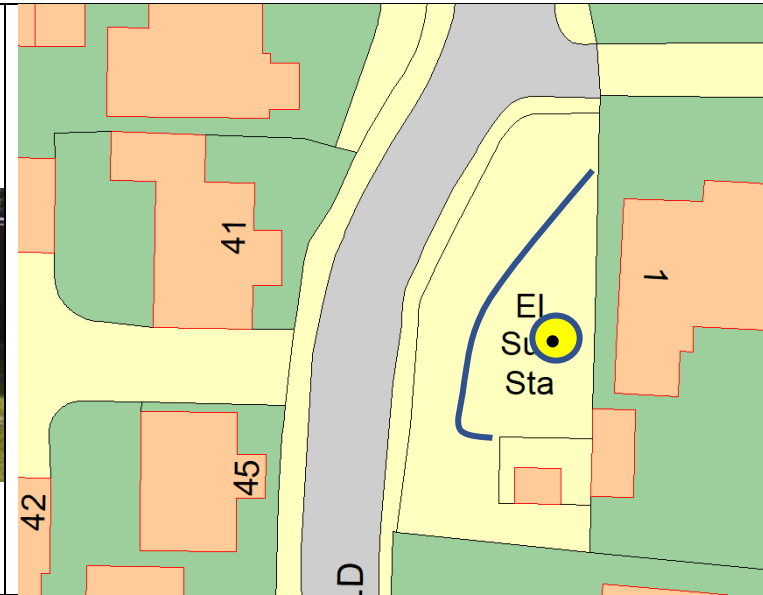


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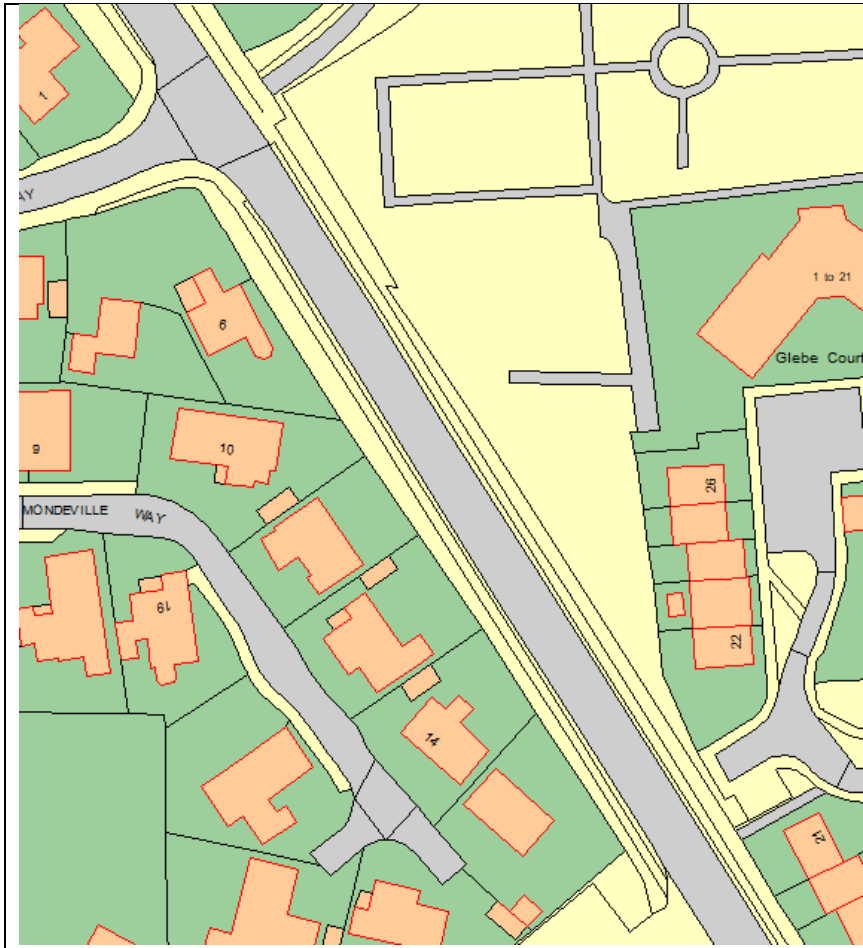
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3. Highfield. The area of land next to the sub-station. The area bordered by the wall, sub-station and blue line would be prepared and planted with wild flowers and bulbs. The tree that can be seen to the left is no longer on the site



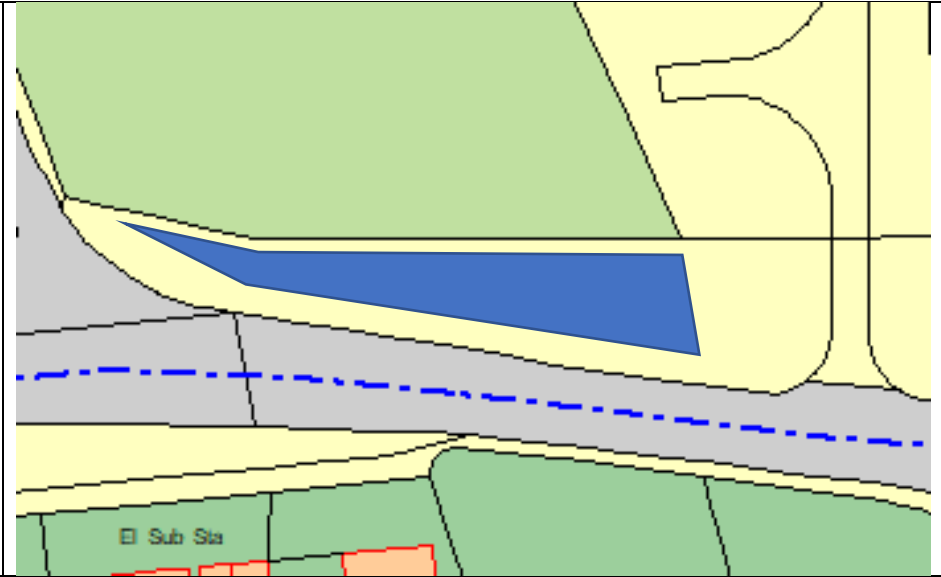
4. Atlantic Way. The stretch from the Health Centre, past Mondeville Way to opposite the junction with Lakenham Hill (western side). The Plan is to plant bulbs along the stretch, on the verge between the pavement and the property boundaries. The verge between the pavement and the road would remain cut.



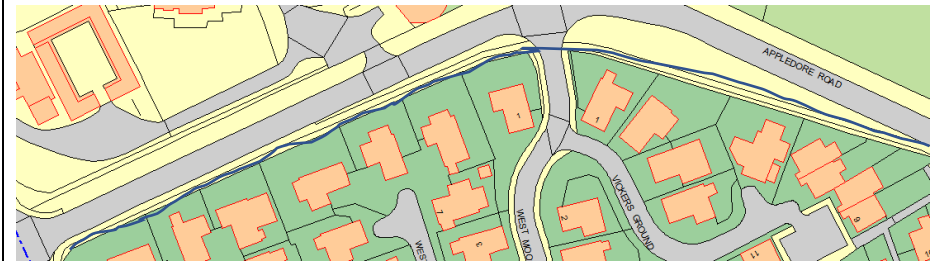


It was noted that the area shown in
to the top of the map above, the corner
Atlantic Way and Lakenham Hill
is identified as a 'Life on the Verge'

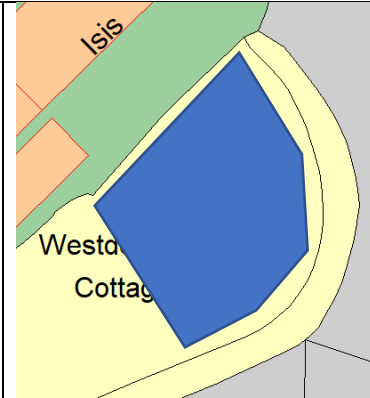
5. Golf Links Road. The area to the east of the entrance to the golf club would be managed for wild flowers. A mower-width would be left along the road edge. The area would be roughly approximate to the blue shape on the plan opposite.



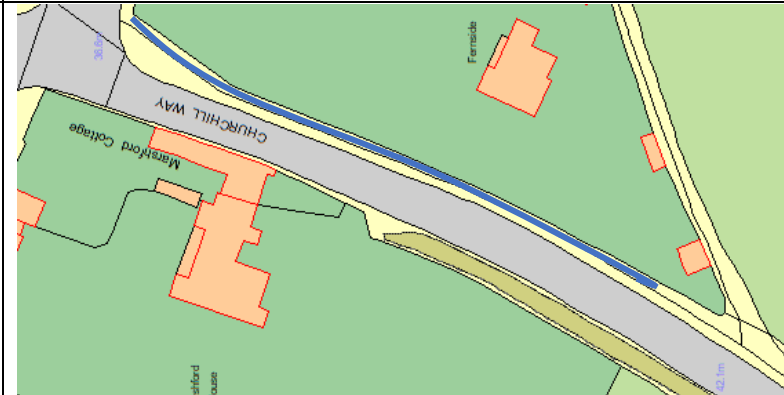
6. Appledore Road. The area between the boundary bank and the pavement would be planted with bulbs. This would stretch from the junction with Sandymere, past West Moor Way to the post box, approximate to the blue line drawn opposite.



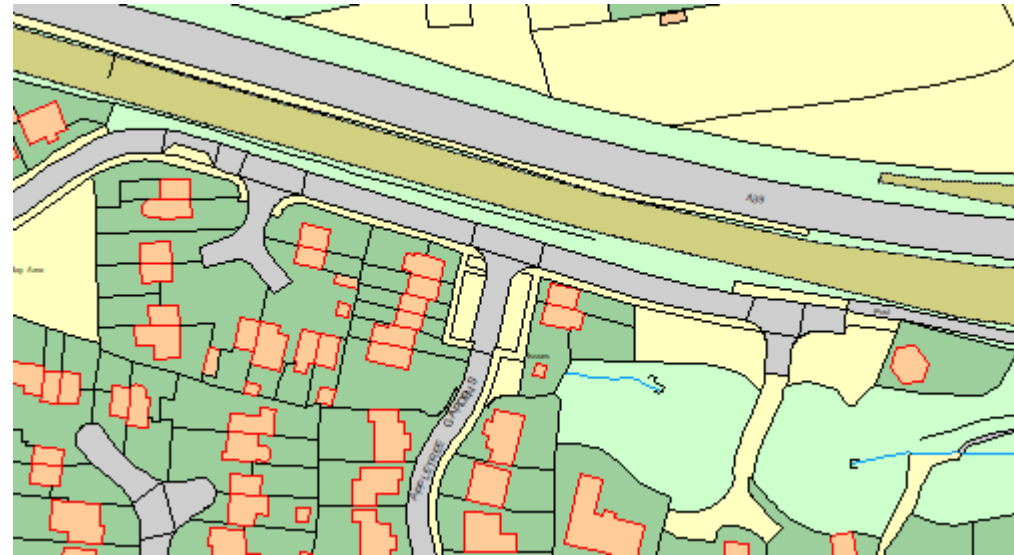
7. Churchfield. The bank facing the estuary would be planted with bulbs, in approximately the area shown opposite.



8. Churchill Way, Primrose Lane and Wooda Road crossroads. It was thought possible to plant the verge on both sides of Primrose Lane, down the lane towards the telegraph poles, with ... primroses. The verge on the eastern side, south from Wooda Road to the brow of the hill could be planted with bulbs. The area would be similar to that marked in blue opposite.



9. Hanson Park. The areas at the end of the road, where it becomes a mixed-use path. The strip along the northern roadside is already left to grow in the season, with a mower-width cut at the road edge. There are two larger areas of grass either side of the entrance on the southern side at the eastern end. The eastern one has been left unmown before but started to grow poplar suckers so is now trimmed regularly. The western section could be left to slowly rewild, mowing only for visibility and close to the road edge. Bluebells could also be planted under the tree cover.



10. Heywood Road. The length of Heywood Road, along both sides, from the A39 roundabout to the junction with Limers Lane needs to be cut for visibility. Planting spring bulbs such as daffodils is considered to be compatible with this management scheme.



Northam Town Council



PREVIOUSLY CIRCULATED

Climate Emergency Committee

15th July 2021

Report author: Guy Langton – Deputy Town Clerk

Agenda item no. 11

Installation of Solar PV cells, battery storage and an EV charger at Northam Hall.

Introduction

1. At the May 2021 meeting of this committee (minute 2105/073), it was resolved to seek three quotes for the installation of solar PV panels, battery storage and a charger for an electric vehicle.
2. The Officer contacted 4 companies, all of whom attended the site accompanied by the Officer. Of those, three had provided quotes at the time of drafting this report.
3. The Officer notes that only 1 of the 4 to attend the Hall entered the Hall's roof space to see the strength of the roof from underneath (Company C), this may be why this



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company was also the only one to suggest mounting the battery in the roof space and the EV charger on the western wall. The Hall's electricity supply enters from the B3236 (Heywood Rd). Company A considered the combined run of cabling to transfer power to the battery and EV charger and return to feed surplus back into the grid, would be add significantly to the installation cost.

4. Companies A & B both suggested mounting the battery underneath the stage, behind the maintenance room and the charger on the wall close to the door to that room. All 3 companies noted that a cable trailing to a charger mounted there would constitute a trip hazard to members of staff passing to access or leave the maintenance room.
5. Companies A & B have provided quotes for 'limpet' surface mounted PV cells. Companies A & C have provided quotes for in-roof mounted PV cells.

Recommendation

6. The Officer recommends the Committee consider the quotes received, the implications of installation. The Officer notes that Companies B & C have provided comprehensive estimates of cost, to include disposal of any tiles removed. The Officer has included a cost per panel and per kW in the table at section 19 on page 4 so a direct comparison
7. Should the decision be made to install the cells and other items, the Officer recommends:
 - a. Confirming the strength of the roof with surveyors prior to any acceptance of quote.
 - b. If Company C is selected, the Officer recommends the re-siting of the accessible spaces along the western boundary of the Hall's car park to enable a dedicated space to be made available for charging any future Council (or private) EV. The spaces would then be allocated (from the Hall end) as follows:
 - i. EV charging space
 - ii. Accessible space
 - iii. Accessible space
 - iv. General space
 - v. General space
 - c. Advice is sought from Torrington District Council as to the planning permissions required.



Benefits

8. Installing solar PV cells on a building can have a number of benefits. Primarily, such installations are ordinarily to reduce the bills of the property on which they are sited. This is not a clear in the case of the Hall.
9. By the nature of its user groups, the Hall has a low-power draw during the day, even when fully occupied, compounded by the need being primarily for light, which is less of a need on a bright day.
10. The installation of these cells would effectively model good behaviour, especially when combined with the charging of a vehicle or tools (when such items were part of the Council's asset list). The Council could display, through its website, a real-time information screen, to show how (for example) the electricity generated and its equivalent in CO₂ reduction.
11. The installation would lead more clearly to the sourcing of a suitable EV for the Council's fleet, at the appropriate time. The same would be the case for electric tools such as strimmers, leaf blowers, hedge trimmers or light mowers.
12. This installation could also enable the Council to replace its gas-powered heating with electrically powered air-source heat pump for the building. Currently, there are grants available for this type of replacement, though the Officer understands that the overall consumption at the Hall is too low.
13. **The project would help the Council achieve its objective of net-zero carbon by 2030.**

Environmental implications

14. The impact of green energy is well understood. Micro-generation¹ is now a key part of the overall plan to decarbonise electricity production nationally.
15. The Council could sign up for one of the schemes that enable others that use EVs, but have no off-street parking, to 'rent' charging space from others locally, thus improving the EV charging infrastructure in the town area.
16. There is an environmental impact involved in the manufacture and installation of the materials. It is generally accepted that the benefits outweigh the negative implications.²

¹ <https://www.westernpower.co.uk/downloads/2807>

² <https://www.renewableenergyhub.co.uk/main/solar-panels/why-are-solar-panels-good-for-the-environment/>

17. There is a visual amenity implication for all Solar PV installations. The in-roof models are considered less obtrusive than Limpet mounted ones.

Financial Implications

18. This is the reason the Committee sought a battery storage device, enabling the stored energy made through the day to be used into the evening and overnight. The estimation of reduction of bills over a normal year was in the region of £500 per annum. Any energy exported would generate an export tariff, though all three companies estimated this to be less than £80 per annum. All companies advised that battery storage could be expanded in the future if needed.

19. The table below gives the detail of the relative costs of each of the schemes, the variance in the number of panels estimated is noteworthy. The only company to internally inspect the roof suggested the smallest number could be supported by the roof without strengthening (which would incur an additional cost).

- a. **Company A did not include the cost of disposal of the roof tiles, which are understood to include asbestos in their manufacture.**

Company	Type of installation	No. panels	Size of system	Battery capacity	Total Cost (ex VAT)	Indicative cost per panel per kW
A	In-roof	16	6.08kW	10kWh	£16,010	£1001 £2,648
A	Limpet	16	6.08kW	10kWh	£14,459	£904 £2,378
B	Limpet	22	7.04kW	13.5kWh	£15,287	£695 £2,172
C	In-roof	12	4.56kW	12.6kWh	£9,533	£794 £2,090

20. There may be an implication for the insurance premium of the Hall, as the insured reinstatement value would need to be increased.

Risk Implications

21. All three companies offer the standard manufacturers' guarantees and warranties on the supplied units, which in all cases are 12 years or more.

Northam Town Council

Draft Climate Emergency Action Plan

(to be reviewed annually)

Version 8

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1. Introduction

Humans have already caused irreversible climate change, the impacts of which are being felt all around the world - for example, melting glaciers causing sea level rise, drought conditions affecting food crops and driving emigration to the cities and beyond, severe flooding in low lying territories reducing food crops and again causing population dispersal, reduction in water supplies and loss of habitats for wildlife leading to species extinction.

Global temperatures have already increased by 1 degree Celsius from pre-industrial levels. To reduce the chance of runaway global heating and limit the effects of climate breakdown it is vital that people reduce their CO₂eq (carbon equivalent) emissions. We should understand what has led us to the climate and ecological emergency we are now facing and then ask what a zero carbon future will look like. However, individuals cannot be expected to make this reduction on their own. Society needs to change its laws, taxation, infrastructure, etc., to make low carbon living easier and the new norm.

Our current plans and actions are not enough. The world is on track to overshoot the Paris Agreement's 1.5 degrees Celsius limit before 2050. The IPCC's Special Report on Global Warming (October 2018), describes the enormous harm that a 2 degrees Celsius rise is likely to cause but states that a limit of 1.5 degrees Celsius may still be possible with ambitious action from national and sub-national authorities, civil society, the private sector, indigenous peoples and local communities.

Local councils around the world have declared a 'climate emergency' and committed resources to address this. All governments (national, regional and local) have a duty to implement policies which limit the impact of climate and environmental breakdown. Towns, cities and local authorities at all tiers are uniquely positioned to lead the world in reducing carbon emissions; Bold climate action can deliver economic benefits in terms of new jobs, economic savings and market opportunities as well as improved personal, social and environmental well-being for people, locally and worldwide.

2. Aims and Vision

In August 2019, Northam Town Council declared a climate emergency and committed to an action plan within six months with the aim of securing net zero carbon emissions relating to the Council's buildings and assets by 2030 and achieving significant reductions in carbon emissions in Northam parish by the same date. A Climate Emergency Sub-Committee was set up consisting of five Councillors and four co-opted members of the public tasked with producing a carbon reduction plan by March 31st 2020 and to report to every meeting of NTC's Town Projects Committee'.

The Council plans to reduce carbon emissions from its buildings and operations through reduction in waste, transport and energy use, planning decisions and policies, provision of food at Council functions, ordering goods and services which do not harm the environment and **looking at** investing in environmentally sustainable funds. The Council also plans measures to increase biodiversity and to reduce water usage. However, if the Council succeeds but the rest of the borough fails to meet these targets then there will be failure overall. The Council's own emissions will be a tiny proportion of that area's total emissions, so it is vitally important to work with large emitting partners in the public and private sector and to engage communities and householders.

Our initial proposals of action to reduce emissions within the Council and in the wider community are set out in Section 4 of the Plan and proposed actions to engage the community in achieving our target are set out in Chapter 5. To achieve our targets, it is vital that we work to the same standards and use the same methodology as other Councils in Devon, tying in with the County Council Climate Emergency Plan.

Our vision is that by coming together to reduce our carbon emissions the lives of local people can be enriched in positive ways. Imagine a future of clean air, of children **playing safely in the open air**, more birdsong and wildlife, thriving local economies and homes and businesses powered by renewable energy. It would be a society of connection, collaboration and community, with a sense of collective purpose.

3. Key Information About Northam Parish



The parish of Northam includes Northam, Appledore, Westward Ho! and Orchard Hill. Northam is mainly a residential area with an historic core of narrow streets, shops and church while Orchard Hill is residential, with housing developments spreading out from an area of large eighteenth and nineteenth century houses.

Appledore is separated by green fields from Northam and lies at the tip of a peninsula at the mouth of the Torridge estuary. The village has a strong visual identity which is formed by old houses on narrow streets and passageways called 'drangs'. It has a rich fishing and ship building tradition.

Westward Ho! was developed by the Victorians as a holiday resort and as well as accommodating extensive residential development still includes the holiday function in modified form.

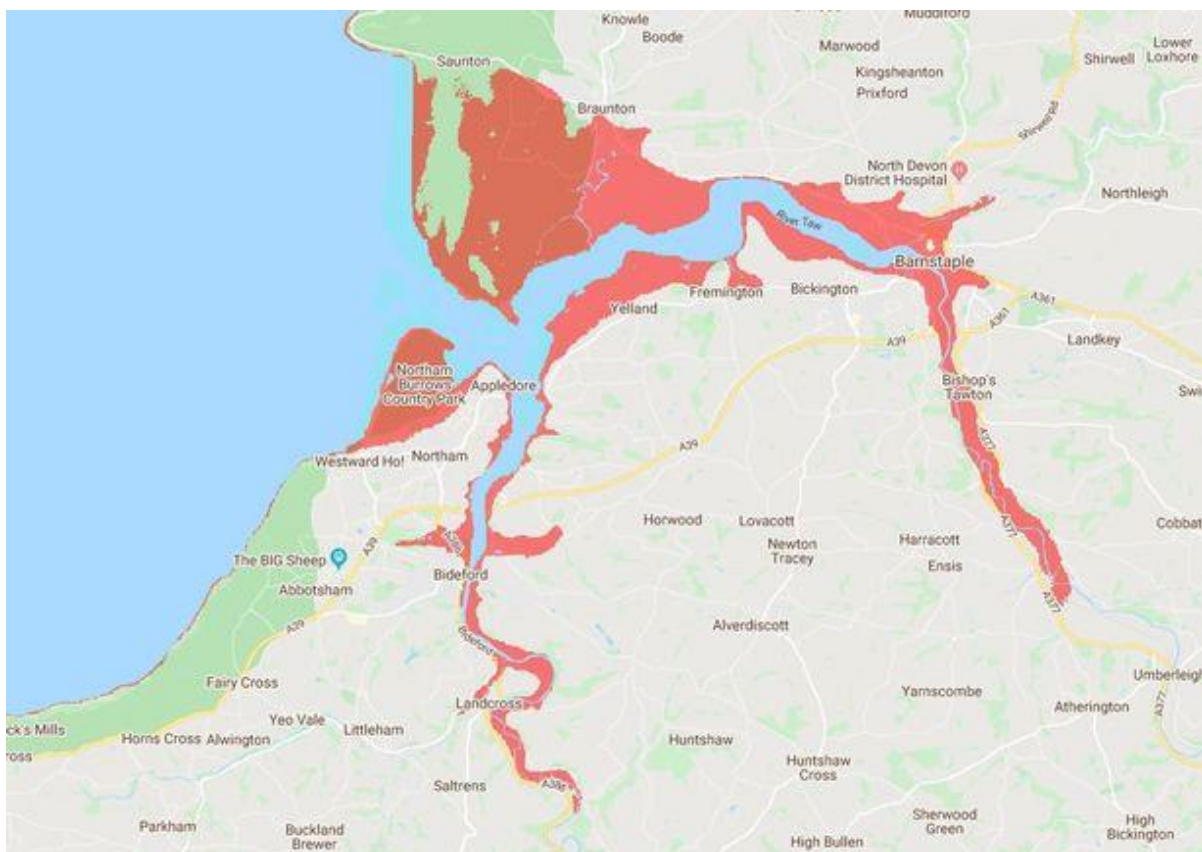
The total population of the parish is around 13,000 which consists of the following age groups (Source: Northam Town Study 2010):

- 0-19 16 %
- 20-39 18.1 %
- 40-59 26.8 %
- 60-79 30.6 %
- 80+ 8.5 %

These figures show there is a significant element of retired people in the parish (more than the Torridge average) while those who are employed or self-employed mainly work outside the area, except those who work locally in the shops, cafes and tourist facilities. Tourism is an important element in the local economy, contributing around £65 million per year in 2007 (source Northam Town Study). Currently the large indoor shipyard at Appledore is closed but it is hoped new work will be taken on soon.

Apart from residential areas the parish is characterised at Westward Ho! by a long sandy beach backed by a pebble ridge. Behind the Ridge lies Northam Burrows which is a grazing common and also a Site of Special Scientific Interest and part of the UNESCO North Devon Biosphere. The Burrows leads to the Torridge Estuary which is also an SSSI.

The main specific climate challenge to the area is future flooding from rising sea levels which will affect Northam Burrows and residential properties at Westward Ho!, exacerbated by the gradual angling in of the Pebble Ridge towards Westward Ho! as identified in the 2007 Pethick Report on the Geomorphology and Management of the Tor and Torridge Estuaries. Smaller coastal strips at Appledore and on the estuary at Northam would also be affected. The following is an Environment Agency map showing predicted flooding in the area by 2050.



Another process likely to impact on the parish is an increase in average temperatures due to global heating which will lead to more frequent drought conditions with serious effect on the quality of grazing on Northam Burrows and other areas in the parish. **and on food supplies.**

4. Action to reduce Emissions

Waste

NTC

More re-use of materials in office, workshop etc; provide re-usable water bottles; paper-saving; double-sided printing; increase recycling (e.g. ink cartridges), facilities for; composting; reduce food waste in office and at functions (do we need to supply food?). How much is repaired and could be? Inculcate awareness of waste reduction in staff and councillors – workshops, training.

Parish

Figures on recycling rate in Northam? How to improve. Emphasise re-use and encourage repair facilities (Men's Sheds?). Put out information on website etc on what can be recycled. Reduction of single use plastics (work with Torrridge single-plastic group). Food waste reduction campaign (e.g. in schools); community composting; set up recycling for hard to recycle materials; arrange for TDC to collect food waste and unshredded paper waste for recycling; recycle ink cartridges to charity; place recycling bins in NTC parks – investigate installation of SMART recycling bins.

COSTINGS NEEDED FOR EACH PROJECT –PUT IN THE PROJECT TABLES

Project	Reduction of Paper Waste
Description	Reduction and re-use of paper, double sided printing, using paper from recycled sources.
Benefits	Financial Savings Carbon Emissions Reduction

Parish

Figures on recycling rate in Northam? How to improve. Emphasise re-use and encourage repair facilities (Men in Sheds?). Reduction of single use plastics (work with Torrridge group). Food waste reduction campaign; community composting; set up recycling for hard to recycle materials.

Project	Organise recycling and composting scheme to enable maintenance men to recycle materials collected as part of their work.
Description	Provide containers at Northam Hall and compost bins at Windmill Lane and Burrough Farm allotments. Install recycle bins at Lords Meadow, Anchor Park and Burrough Farm.
Benefits	Financial Savings Carbon Emissions Reduction

Transport

NTC

Encourage staff and councillor use of bikes (e.g. Cycle to Work scheme), public transport, walking. and car share. Scheme to encourage use of lower emission vehicles (e.g. as at Torrridge) and more environmentally-aware driving habits. Change to electric or other alternative fuel vehicles for maintenance staff; Encourage reduction in staff/councillor travel and

aim to reduce guest travel distance to NTC functions e.g. Mayor's dinner. Build bike track at Lord's Meadow to encourage cycling.

Project	Establish car-sharing scheme for Councillors to attend meetings at Council and elsewhere.
Description	Draw up car sharing scheme to be agreed by participating Councillors and tied in to meeting dates.
Benefits	Financial Savings Carbon Emissions Reduction

Parish

Encourage walking, biking, bus use in parish (e.g. publicise footpath route from Northam to Bideford using coastal path – produce a local footpath guide book - delete this as it is now done), actively push for Kenwith Valley cycle route and investigate funding, (promote cycle route from bridge to Tarka Trail to link with present cycle route down Heywood Road/Limers Lane/ Chircombe Lane (DELETE this as not feasible), encourage/fund bike racks in Westward Ho!, Appledore, Northam car parks and in The Square, Northam; promote car sharing, alternative transport to work places. Promote alternatives to cars at Northam May Fair.

Project	Establish a cycle/walking track from Kenwith Valley to Westward Ho!.
Description	Identify route, obtain costings, seek funding, investigate planning permission.
Benefits	Carbon Emissions Reduction

Project	Install bike racks at Northam Hall, Lords Meadow and Anchor Park. Investigate installation at Seagate car park with agreement of Youngs Brewery.
Description	Identify positions of racks and get costings
Benefits	Carbon Emissions Reduction

Energy

NTC

Fit LED bulbs in office and other NTC buildings; paint walls white for reflected light, introduce strict no light policy when strong sunlight through windows; (minimise decorative lighting e.g. Xmas lights (delete this or turn off overnight) sava plugs; work with Torridge to introduce more efficient, low carbon heating at Town Hall and Northam Hall e.g. heat exchanger; draught excluders on windows, **thermostats**, repair or replace draughty windows in Council chamber, look at lowering ceiling and insulating in Council chamber (e.g. thick curtains); instant hot water units for beverages; low energy computer system, turn off at night; change to renewable energy electricity tariff, purchase or hire lower energy equipment for men at replacement time, investigate solar panels on Town Hall roof, storage and electric vehicle charging point (also at Northam Hall); smart meters in NTC buildings; Skype and Zoom for virtual meetings internally and with other organisations; Community heat pump system based in Lords Meadow.

Project	Install LED lighting throughout the Town Council part of the building.
Description	
Benefits	Financial Savings Carbon Emissions Reduction

Project	Install hot water unit in the kitchen/office instead of kettle for beverages
Description	
Benefits	Financial Savings Carbon Emissions Reduction

Project	Energy conservation measures in Council Chamber (in conjunction with TDC)
Description	Energy saving windows (repair existing?), lower ceiling combined with roof and wall insulation, LED lighting, heat pump for electric heaters, solar energy from roof to be stored by battery.
Benefits	Financial Savings Carbon Emissions Reduction

Project	Investigate heat pumps at Northam Hall to replace gas energy.
Description	To reduce carbon emissions from gas
Benefits	Financial Savings

	Carbon Emissions Reduction
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Parish

Encourage community renewable energy schemes working with Community Energy, work with local schools including contributing funding, publish information on insulation schemes and heating subsidies, hold energy reduction exhibition at libraries, halls, schools – put on website; solar for schools (Salix funding?); negotiate bulk discounts on insulation and sustainable energy systems for households.

Project	Provide grants to local schools for energy reduction projects
Description	Encourage pupils to come up with the ideas
Benefits	Carbon Emissions Reduction

Project	Information display at local libraries and schools
Description	Using Council display boards

Planning

NTC

New-builds by Town Council to be carbon neutral (e.g. new workshop)

Parish

Engage with Torrington District Council to ensure that obligation under NPPF to reduce carbon emissions are being met in the Local Plan (Para 2.7 of the NPPF states that the purpose of planning is 'sustainable development'. Chapter 14, para 148 'contribute to radical reductions in greenhouse gas emissions', para 149 'Plans should take a proactive approach to mitigating and adapting...in line with the objectives of the Climate Change Act.'). Call for renewable energy provisions and energy efficient buildings as part of planning; push for tree planting for development sites and other biodiversity, oppose destruction of wildlife habitats, identify habitats and corridors in Neighbourhood Plan; water-saving to be incorporated in planning applications. Measures in new builds to cope with future intense rainfall and monsoon-like conditions, to include permeable paving and any play areas, rills around each house, green roofs to absorb excess water, large basin/sinks, sustainable drainage systems (SUDs) should be incorporated (and would provide wildlife habitats as well).

Project	Provide comprehensive environmental measures in the Northam Neighbourhood plan.
Description	Measures to include promotion of energy efficient new builds and retro fitting of older properties, renewable energy schemes for buildings, water saving measures, public transport integrated with housing development, work places near to homes, electric charging points in new development, bike parking

	provision, improved footpath networks, retention and increase in biodiversity, protection of 'wild' areas within development zones, protection of wildlife corridors, flood alleviation/protection measures in new builds.
Benefits	Carbon Emissions Reduction

Food

NTC

Provide non-meat options at Council functions; any waste to go to food bank or recycled; minimise meat consumption at Council functions, promote healthy eating. Create more allotment plots?

Parish

Promote local low carbon emission, organic food production and local food markets.

Project	Identify sites for fruit and nut growing e.g. part of Lords Meadow, Anchor Park, possibly verges.
Description	Plant fruit bushes and trees, hazel.
Benefits	Carbon Emissions Reduction

Biodiversity

NTC

On Council land plant more trees, sow more wildflowers, minimise grass cutting, and seek environmentally-friendly alternatives to chemical sprays. Employ community gardener to create and maintain areas of biodiversity in the Parish.

Project	Tree planting at selected areas of Council land i.e. Lords Meadow, Anchor Park and Blackies
Description	
Benefits	Financial Savings Carbon Emissions Reduction

Parish

Grants for tree planting and wildflower meadows on public grassy areas; leave inner areas of wide verges uncut.

Project	With agreement of County Highways adopt a policy of leaving inner parts of
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	verges uncut to promote biodiversity and reduce fuel use.
Description	
Benefits	Financial Savings Carbon Emissions Reduction

Water

NTC

Install water saving taps and cisterns, water butts; mulch, plant drought- tolerant shrubs **in beds, hanging baskets and boats.**

Project	Investigate installation of large raised rainwater tank at Northam Hall to gravity fill the water bowsers.
Description	
Benefits	Mains Water Usage Reduction (in cubic metres?)

Parish

Encourage reduction in water use, water saving.

Procurement

Enforce policy of purchasing environmentally sustainable products and services, prioritising local sources and re-use of materials and repair.

Project	Draw up comprehensive environmental / ethical procurement policy
Description	
Benefits	Carbon Emissions Reduction

Investments

Consider moving Council investments to green accounts **and disengaging** from funds invested in fossil fuels. **Look at Local Government Pension Scheme as an option.**

5. Engaging with the Community

In the wider community, the Council aims to work with local people so that the parish as a whole can achieve significant reductions in carbon emissions and facilitate a shift to a more integrated and environmentally-aware way of living.

The Council could engage with the community through such participatory mechanisms as citizen's assemblies and open space events and should encourage initiatives which build community co-operation and resilience e.g. social enterprises, development of the local economy, local energy schemes, working with local schools to develop projects.

Northam Town Council also recognises that in the light of damaging carbon levels which have already occurred and will occur there is a need to develop with the community a climate emergency plan to enable greater resilience in the face of more extreme weather conditions. For example, it is predicted that the UK will experience periods of much more intense rainfall and monsoon-like conditions leading to flooding. More severe storm conditions and also periods of drought will also be associated with climate change.

Given the above we propose the following strategy:

1. Hold public meetings in the Parish to set out the aims of the Climate Emergency Plan, the vision and the proposed means of achieving them within the Council and in the community and to take on board the public's responses.. **Hand out/deliver survey forms.**
2. **Engage with all areas of the community and as a result** set up an advisory, participatory and all-embracing group to work with the Council to achieve the target of net zero carbon in the community by 2030.
3. Key elements of the work of such a group would be agreement on the sort of low carbon world which is being aimed for by 2030, generation of ideas for action and ways of achieving objectives, provision of information and communication systems, mapping of networks and organizations and assembly of data regarding resources available in the community.
4. Information on available resources (human and otherwise) will be vital to build up community resilience in the face of likely climate-related events such as flooding, storm damage and drought. Such resilience could be promoted and harnessed through the creation of a Northam Emergency Plan involving the establishment of a community network of volunteers.

6. Carbon Audit

To achieve the Council's zero carbon target by 2030 it is necessary to first measure the carbon emissions of the Council in its buildings and activities and then to set yearly targets of carbon reductions. It is generally recommended that emissions reduction should be greater in the earlier years of the Plan.

Regarding carbon emissions in the wider community of Northam parish the Council will draw on available national and local data used by Devon County Council.

1. Council operations and buildings 2018/2019

Target percentage reductions over 11 years

Year	1	2	3	4	5	6	7	8	9	10	11
%	15	15	15	7	7	7	7	7	7	7	6

1. Waste

2. Transport

	Miles	Carbon (kwh)
Councillors		
<i>Claimed</i>	343	30
<i>Meetings?</i>		
Beadle	1,055	90
Staff		
<i>Claimed</i>	1,092	94
<i>Staff/Maint</i>		
<i>Petrol</i>	13,032	1,045
<i>Diesel</i>	2,848	218

3. Energy

	Kwh	Carbon (kwh)
Town Hall*		
Electricity	18,429	1,769
Gas	33,082	1,663
Northam Hall		
Electricity	4,080	392
Gas	3,000	151

(*TDC accounts)

4. Food

5. Investments

6. Procurement

TOTALS

Water in cubic metres?

Biodiversity - percentage increase?

2. Carbon Emissions in Northam Parish

(Pie chart here showing carbon emissions – data to be obtained)

EXAMPLE:

Data below from Stockholm Environment Institute report 2006 (gha is gross hectares indicating ecological footprint per person):

TORRIDGE'S ECOLOGICAL FOOTPRINT = 5.17 gha. / per person (national average 5.4 gha /per person; international average 2.2 gha /per person)

Breakdown as follows:

Food and Drink Food and drink purchased for home consumption, alcoholic drinks purchased in a public house, restaurants and other eating out establishments as well as take-aways. 1.05

Energy Domestic fuel including gas, electricity and other fuels such as oil or bio-fuels 0.99

Capital Investment; Investment in tangible fixed assets such as plant and machinery, transport equipment, dwellings and other buildings and structures 0.76

Travel Car fuel, the impact associated with purchasing and maintaining private vehicles and public transport (bus, train, coach, air travel etc.) 0.71

Consumables Includes durables and non-durables items including newspapers, clothing, appliances, glassware, tools, medical products, audio-visual equipment, personal effects etc. 0.55

Government and Other Includes the resources used by national and local government, universities and colleges and balances the Ecological Footprint by taking out overseas tourists in the UK and changes in stocks 0.40

Services Includes private hospital and education, postal, telephone, water supply, recreation, insurance, financial services etc. 0.24

Housing Building, maintenance and repair of dwellings 0.16

Holiday Activities Any consumption by UK residents overseas, from hotel energy requirements to eating out and shopping 0.33

(NB Figures for food, household energy, transport and consumables.)

7. Resources and Sources

Northam Town Council and Torrington District Council are tying in with the climate action plan of **Devon County Council**. More information can be found on <https://www.devon.gov.uk/energyandclimatechange/strategy/climate-change-strategy>

<https://www.climateemergency.uk/> has many resources including a full list of councils which have declared a Climate Emergency and their targets and motions, some plans, and a Basecamp site for discussion, and sharing resources.

Community Energy England is a not for profit organisation that represents and supports those committed to the community energy sector. Contact info@communityenergyengland.org.

Extinction Rebellion has produced an excellent briefing to make sure that Declarations are meaningful and have teeth. It has sections on energy as well as housing.

Friends of the Earth has a climate action plan for local authorities as part of its Climate Action Groups campaign to mobilise local volunteers around the Climate Emergency planning.

Centre for Sustainable Energy has launched a Climate Emergency Support Programme for local authorities. It is focussing especially on the challenges in two-tier authorities. It is encouraging District Councils to connect with their Town and Parish Council and resourcing those to declare Climate Emergencies and engage their very local communities in solutions that will help the District Council meet their targets.

Green Alliance will be working with three different city councils, to enable the planning process and then to share good practice.

Councillors and council officers can apply to join the **Local Government Association (LGA)** Special Interest group, the Climate Emergency Network, to

support Local Authorities in declaring a Climate Emergency and in preparing and implementing plans to achieve carbon neutral status as quickly as possible

Local Energy Hubs have been set up by BEIS to support local energy initiatives. 'Local energy' refers to all energy projects that are led by local organisations (public, private, third sector) for local benefit. All aspects of collective action to reduce, purchase, manage and generate energy are included within 'local energy.' This includes but goes beyond community energy.

Transition Town initiatives have been working on this agenda for many years. Find your local one at <https://transitionnetwork.org/transition-near-me/>

For positive, practical action to reduce carbon emissions an organisation called **Possible** provides advice and action. Contact wearepossible.org/actions.

There are many places in the UK where strong action is being taken to reduce carbon emissions. For example, **Leeds** has a bold plan which can be found on <https://news.leeds.gov.uk/council-approves-plan-to-more-than-halve-carbon-emissions-by-2025/> and a website <https://www.leedsbyexample.co.uk/>

Campaigning locally against single-use plastic is Plastic Free Torridge on <https://www.facebook.com/plasticfreetorridge/>.

361 Energy is based in North Devon and helps to reduce emissions, providing practical advice. Contact on info@361energy.org.

Appendix

Carbon Reduction Plan:

Year One

Reduce paper waste	Re-use, double side printing, recycled paper, compost shredded paper	March 2020
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Improve recycling	Install recycling bins, compost bins at all NTC premises	June 2020
Establish car sharing scheme	Draw up rota agreed by Cllrs for NTC meeting dates	June 2020
Install bike racks	Identify suitable locations and costings for TP meeting	Sept 2020
Install LED lighting	Initially in all areas at Council Offices which are NTC responsibility	April 2020
Install hot water unit	to provide alternative hot water source to replace kettle use	March 2020
Energy conservation at NTC	With TDC to schedule measures to make Council Chamber efficient	Dec 2020
Tree planting	Plant trees in NTC open spaces. Carbon capture.	March 2020
Information displays	At libraries and local schools	October 2020
Verge planting	Identify verges to remain partly uncut/wildflower planting	October 2020
Rain capture at Northam Hall	Use for filling the water bowsers	April 2020

Year Two

Explore cycle/pedestrian track scheme Kenwith	To link Bideford and Westward Ho!, promoting reduction in car use	March 2021
Investigate heat pumps at Northam Hall	To replace gas which produces carbon emissions	March 2021
Change to environmentally- friendly procurement policy		Jan 2021
Grants/prizes to schools for energy reduction projects		March 2021
Identify sites for fruit and nut growing		Jan 2021

NB All projects to be presented to Town Projects Committee with full costings and carbon reduction figures.

All dates are provisional and indicative only of an intended schedule

To consider the recommendation from the Town Projects and Asset Management Committee regarding rain water capture at Northam Hall, as follows:

2112/890 **To consider an updated report on rainwater storage systems (*herewith*)**
It was **resolved** to recommend to Climate Emergency Committee that it proceeds with the purchase of 3 recycled fruit containers and a submersible pump
Proposed: Cllr Hodson Seconded: Cllr Tisdale (all in favour)
Action Point: advise Climate Emergency of the resolution

Extract from the draft minutes of the Town Projects and Asset Management Committee, 6th December 2021.

The report as submitted to the Town Projects and Asset Management Committee is copied on the following 5 pages.

Northam Town Council



Town Projects and Asset Management Committee 6th December 2021

Report author: *Guy Langton, Deputy Town Clerk*

UPDATED Rain water capture at Northam Hall **Updates included in RED**

Introduction

1. The Committee has resolved to seek the costs of installing a rain water capture system at Northam Hall, to assist with the costs of watering hanging baskets and planters through the season.

Recommendation

2. The Committee consider the content of the report and decide whether to undertake the project through this, or the Climate Emergency Committee.
3. **The Officer considers that other buildings could benefit from similar, though smaller systems, the Pavilion at Westward Ho! Park (in addition to the current system) and any new extension/addition to the facilities at Northam Hall for the maintenance team.**

Environmental implications

4. Installing a rain water capture system would reduce the Council's use of potable water from the mains.
5. Reviewing the last 5 years water bills (note, the Council has a water meter installed at Northam Hall). The bills show the Council has used an average of 15cuM of water a month.
6. Having spoken to the Maintenance Team, the planters and hanging baskets are watered 4 times a week, with 0.5cuM water per watering day. This means approximately 2cuM of potable tap water is used to water planters and hanging baskets each week through at

least the peak of the season, June, July and August, plus parts of May and September, equating to just over a quarter of the year.

7. There is no guarantee of sufficient rainfall leading up to the watering season, or through it. Indeed, significant rainfall should help reduce the need for watering. The Officer could not find the average rainfall for the Northam Area, but the data collected for Exeter is at the end of this paper³. Typically, Exeter would receive less rainfall than the Northam area, not being in a coastal location.
8. The Officer has no exact figures available for the rate at which any water butts would be filled. Using an online tool for calculating the capture, 50mm of rain (less than the average for Exeter in June, July and August), over the approx. 85m² of the rear half of the Hall's roof, would provide 4.25cuM of water to the storage system. **This is around the amount of water needed to fill the containers.**
9. **Optimal rainwater capture (over the summer season) would require 4 IBCs or 3 juice containers.**

Financial Implications

10. Each cuM is just under £2, with a charge levied for 95% of each cuM used as a charge for sewerage, at £3.38/cuM.
11. Over the last approx. 63 months, NTC has paid for (at today's prices) £76 water per calendar month, made up of:
 - a. 912cuM water at an average cost of £29 a month.
 - b. 912cuM wastewater at an average cost of £47 a month.
12. Assuming half of the use at the Hall is by hirers, there is an average cost of £38 a month to water the planters and hanging baskets.
13. **Any water storage units should be located to the rear of the Hall for aesthetic and practical reasons, to re-route the gutter and downpipes from the front of the Hall is not considered viable by the Officer.**
14. **Four decontaminated, re-cycled/re-used IBCs can be purchased for £70 each (£280 total), each IBC holds 1cuM of water (1,000L). Four units would give 4000L water storage. An IBC is approx. 1m wide and would not easily be seen from the Hall windows when looking out.**

³ <https://weather-and-climate.com/average-monthly-precipitation-Rainfall-inches,appledore-devon-gb,United-Kingdom>

15. There is space at the Hall to place four, running from adjacent to the downpipe from the rear of the roof. A total of 4000L of water storage for delivery would be in the region of £65/pair, local is possible (Okehampton, Newton Abbott, Honiton all have local suppliers), depending of where the IBCs were sourced.
16. At the November meeting of this committee, Cllr Hames advised other types of container were available, also re-cycled/re-used, though not decontaminated⁴, 1520L fruit juice containers, at a cost of £130, plus £75 delivery/unit (from the Forest of Dean), so £205 each. The Officer has located a different source of the units at £171 each, which can be collected from Honiton. At 1.8m (6ft approx.), they would not easily be seen from the Hall when looking out.
17. At 1.1m wide, three units could be fitted adjacent to the downpipe from the rear roof, giving approx. 4560L of water storage for £513.
18. The Committee asked for pumps capable of providing a flow rate (pressure) similar to that of mains-supplied water. The Officer has identified mains as a flow rate of 10L/minute to 15L/minute, so a maximum of 900L per hour. The pressure is between 0.8 and 1.3bar, with the aim of 1.0bar.
19. The Officer has identified a Hozelock unit, the Flowmax Collect 2200 7612. This unit is capable of pumping at 1.1bar and 2200L/hr. These pumps are available for approx. £75 each. Only one pump would be needed as it could be moved from tank to tank. For maximum efficiency, two pumps is suggested. Being a sump pump, the water with most debris is not collected. The sump height can be set by the operator.
20. Other fittings required would include a connector arrangement for each barrel to allow water to run from one barrel to another as they fill.
21. The Officer estimates the fittings and pumps would cost, at most, £500. There would also be a cost to lay a suitable base, with a height drop between each one, estimated at £250 for the materials, The slabs removed from the crazy golf at Westward Ho! Park could be re-purposed for this.



⁴ There would be residual fruit juice in the containers, which would need to be washed out.

Unit type	Volume	Cost	Total cost, inc. fittings & pump	Cost/L stored
IBC	4x1000L = 4000L	4x£70 = £280	£1030	£1030/4000 = £0.26/L
Fruit Juice	3x1520L = 4560L	3x£171 = £513	£1263	£1263/4560 = £0.27/L

22. When full, 4cuM would provide over a week's watering.

23. There is no guarantee of sufficient rainfall leading up to the watering season, or through it. Indeed, significant rainfall should help reduce the need for watering. The Officer could not find the average rainfall for the Northam Area, but the data collected for Exeter is at the end of this paper⁵. Typically, Exeter would receive less rainfall than the Northam area, not being in a coastal location.

24. The Officer has no exact figures available for the rate at which any water butts would be filled. Using an online tool for calculating the capture, 50mm of rain (less than the average for Exeter in June, July and August), over the approx. 85m² of the rear half of the Hall's roof, would provide 4.25cuM of water to the storage system. **This is around the amount of water needed to fill the containers.**

25. Between 19th May and 31st August 2021, when the Hall was not open for general hire, the Council was estimated to have used 9cuM of water. As a comparison:

- a. an estimated 6cuM was used from 13th May to 9th August 2020
- b. a confirmed 50cuM was used from 21st May to 28th August 2019

From the above it can be seen there is no immediately clear figure for the use of water at the Hall, given the number of estimated readings.

26. With a estimated watering of 2cuM of water per week, the Council is using approx. 34cuM over the period between late May, June, July, August and early September. Using the estimated roof area (85m²) and the precipitation chart, this gives water capture figures for those months as:

- a. May (assume late May is similar to June) is (50mm/2), 25mm =
2.12cuM
- b. June is 50mm =
4.25cuM
- c. July is 48mm =
4.08cuM
- d. August is 55mm =
4.67cuM

⁵ <https://weather-and-climate.com/average-monthly-precipitation-Rainfall-inches,appledore-devon-gb,United-Kingdom>

- e. September (assume early Sept is similar to August) is (55mm/2), 27.5mm = 2.33cuM
- f. **TOTAL rainfall capture assumed for the average summer season = 17.45cuM**

The captured water can be estimated at approx. half of the water used in watering, 17.45cuM is 51% of 34cuM.

27. It can therefore be assumed that in an average year, the Council could save at least 16.55cuM of water, at current prices this is a saving of £33.10 for the drawn water and £53.14 of unused waste water costs, so just over £86.

Risk Implications

28. There are no identifiable financial or insurance risks to the project, though the Council’s insurers would have to be informed of the addition to the building.

G Langton 30.11.2021

Monthly precipitation - Exeter

The mean monthly precipitation over the year, including rain, snow, hail etc. [Show in Inches](#)

