



LEAD MEMBER FOR TRANSPORT AND ENVIRONMENT

DECISIONS to be made by the Lead Member for Transport and Environment,
Councillor Claire Dowling

MONDAY, 22 NOVEMBER 2021 AT 10.00 AM

VIA MS TEAMS

AGENDA

1. Decisions made by the Lead Cabinet Member on 25 October 2021 (*Pages 3 - 6*)
2. Disclosure of Interests
Disclosure by all Members present of personal interests in matters on the agenda, the nature of any interest and whether the Members regard the interest as prejudicial under the terms of the Code of Conduct.
3. Urgent items
Notification of any items which the Lead Member considers urgent and proposes to take at the appropriate part of the agenda.
4. 40mph speed limit extension on the A2100 London Road, Battle (*Pages 7 - 20*)
Report by the Director of Communities, Economy and Transport
5. Notice of Motion: East Sussex County Council's (ESCC) use of Glyphosate based herbicide to control weeds on the Public Highway and on ESCC property (*Pages 21 - 58*)
Report by the Director of Communities, Economy and Transport
6. Redundant assets of the Library and Information Service (*Pages 59 - 92*)
Report by the Director of Communities, Economy and Transport
7. Any urgent items previously notified under agenda item 3

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12 November 2021

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LEAD MEMBER FOR TRANSPORT AND ENVIRONMENT

DECISIONS made by the Lead Member for Transport and Environment, Councillor Claire Dowling, on 25 October 2021 at County Hall, Lewes

Councillors Godfrey Daniel, Kathryn Field, Ian Hollidge, Stephen Holt, Wendy Maples, Stephen Shing and Colin Swansborough spoke on Item 4 (see minute 19)

Councillor Bob Standley spoke on Items 4 and 5 (see minute 19 and 20)

Councillor Eleanor Kirby-Green spoke on Item 5 (see minute 20)

17. DECISIONS MADE BY THE LEAD CABINET MEMBER ON 20 SEPTEMBER 2021

17.1 The Lead Member approved as a correct record the minutes of the last meeting held on 20 September 2021.

18. REPORTS

18.1 Reports referred to in the minutes below are contained in the minute book.

19. EAST SUSSEX BUS SERVICE IMPROVEMENT PLAN

19.1 The Lead Member considered a report by the Director of Communities, Economy and Transport.

DECISIONS

19.2 The Lead Member RESOLVED to (1) approve the Aims, Objectives and Proposals contained in the draft Bus Service Improvement Plan (BSIP); and

(2) delegate authority to the Director of Communities, Economy and Transport to finalise the BSIP, containing the approved Aims, Objectives and Proposals, for submission to the Department for Transport.

Reasons

19.3 The County Council mission as a local transport authority is to ensure that East Sussex residents and visitors enjoy the highest possible bus services that provide a frequent and comprehensive choice, reduce congestion and make a positive contribution to better air quality and decarbonisation. This mission is supported by our authority's bus operators who will play a key role in delivery.

19.4 The East Sussex BSIP is a highly ambitious plan that seeks to stimulate and drive significant improvements to bus services across the local authority area and the wider region.

20. COMMUNITY MATCH SCHEMES 2021/22

20.1 The Lead Member considered a report by the Director of Communities, Economy and Transport.

DECISIONS

20.2 The Lead Member RESOLVED to (1) Agree that £25,000 of match funding is allocated towards the Burwash Community Match traffic calming scheme for detailed design in 2021/22 and construction in 2022/23;

(2) Agree that £12,500 of match funding is allocated towards the Rotherfield Community Match speed limit scheme for detailed design and construction in 2021/22;

(3) Agree that £17,500 of match funding is allocated towards the Spatham Lane Community Match speed limit scheme for detailed design and construction in 2021/22; and

(4) Delegate authority to the Director of Communities, Economy & Transport to approve the 50% match funding contribution for the schemes in recommendations 1, 2 and 3, up to a maximum contribution of £50,000 once the design and construction costs are known.

Reasons

20.3 There is sufficient funding available to deliver all the applications, and each Community Match Fund contribution is well below the maximum £50,000 threshold. The County Councillor for each of the schemes has indicated their support.

21. PROPOSED INSTALLATION OF AN ADVISORY DISABLED PARKING BAY - JAMES AVENUE, HERSTMONCEUX

21.1 The Lead Member considered a report by the Director of Communities, Economy and Transport.

DECISIONS

21.2 The Lead Member RESOLVED to (1) note the concerns raised by the objectors; and

(2) approve the installation of an advisory disabled parking bay.

Reasons

21.3 The need for the bay has been identified through site assessments and supported by information provided by the applicant who meets all of the criteria requirements as set out in Policy PS5/11.

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Report to:	Lead Member for Transport & Environment
Date of meeting:	22 November 2021
By:	Director of Communities, Economy and Transport
Title:	40mph speed limit extension on the A2100 London Road, Battle
Purpose	To consider a petition for an extended 40mph speed limit on the A2100 London Road, Battle.

Recommendation: The Lead Member is recommended to advise the petitioners that:

- (1) An extension of the 40mph speed limit on the A2100 London Road beyond that agreed for the Lillybank development is not a priority for investigation by the County Council at the present time.**
-

1 Background Information

1.1 At the County Council meeting on 23 July 2021, a petition was presented to the Chairman by Councillor Kathryn Field on behalf of residents concerned about road safety on the A2100 London Road, Battle requesting *“that when the 40mph speed limit is extended to protect the new Lillybank Development, it be extended to a suitable location north of the Canadia Road turning to help protect vulnerable residents from the excessive speeding frequently endangering lives”*. A plan indicating the extent of the proposed speed limit extension and that requested by the petitioners is attached as Appendix A.

1.2 A copy of the petition is available in the Members’ Room. Standing Orders provide that where the Chairman considers it appropriate, petitions are considered by the relevant Committee or Lead Member and a spokesperson for the petitioners is invited to address the Committee. The Chairman has referred this petition to the Lead Member for Transport and Environment.

1.3 The Lillybank Farm development (Millbank Homes, planning application reference RR/2016/725/P) was approved with a Section 106 legal agreement in May 2017. Part of this agreement required an extension to the existing 40mph speed limit on London Road to the north of the proposed access to the development. This measure was, and still is, required to make the access to this development acceptable in highway standards terms.

1.4 A Traffic Regulation Order to implement this 40mph extension was made by the County Council in 2018. However, the construction of the Lillybank Farm development was subsequently paused, it was therefore not necessary to implement the Traffic Regulation Order from 2018 and extend the 40mph speed limit.

1.5 Millwood Homes are now planning to construct the Lillybank housing development and there is a need to implement the 40mph speed limit extension. A new Traffic Regulation Order process will be progressed as the permitted two-year implementation period has been exceeded. The public advertisement stage of the new order is planned for late November 2021.

1.6 When the proposed extension of 177 metres to the 40mph speed limit was advertised as part of the previous Traffic Regulation Order process, there was an objection in that the proposal did not go far enough and should be extended northwards to protect the properties on this section of the A2100 London Road. The objection was reported to the Planning Committee on 25 July 2018, but it was not upheld, and the decision made to proceed with the proposal as advertised. A copy of the Planning Committee Report is attached as Appendix B.

2. Supporting Information

2.1 The introduction of speed limits is a very emotive subject, with many people believing a lower limit will automatically slow traffic down. However, it is recognised nationally that most drivers travel at the speed they consider to be safe for the conditions of the road, based on their assessment of the local environment. There are several factors that are taken into consideration when assessing a length of road for a speed limit, with the predominant factors being the number of properties that are clearly visible to a driver and the average speed of traffic using the road.

2.2 A driver can see a need for a lower speed limit on roads having a high level of visible frontage development along its length. If a road has sporadic development set back and/or screened by vegetation, they will not be able to identify with the lower limit. If the 40mph speed limit was extended to a point beyond the Canadia Road junction, this would extend it by at least 600 metres from the proposed position of the limit agreed for the Lillybank development. As this section of road has very limited development, set back from the road, mostly screened by vegetation and not clearly visible to a motorist, the reasons for the speed limit would not be obvious to a driver. A copy of our approved speed limit policy is attached as Appendix C.

2.3 The research that has been carried out nationally indicates that speed limits that are introduced with signs and lines alone only reduce the average speed of traffic by about 1mph to 2mph and then only when it appears obvious to the driver why the limit has been imposed. Setting a speed limit that is significantly below the speed that most drivers consider appropriate only leads to them being widely ignored. This produces a large margin between the slowest and fastest vehicles which is recognised as a significant contributor to crashes. This can only be addressed with significant engineering measures.

2.4 To assess if a lower speed limit was appropriate, and whether extensive engineering measures would be needed, would require a full investigation and consultation process to be undertaken.

2.5 We presently have very limited resources available for road safety, including the investigation of lower speed limits. The funding that we do have for assessing appropriate speed limits and any associated engineering measures is from a wider road safety project that is targeted at locations that offer the most benefit in terms of their contribution towards casualty reduction. This stretch of the A2100 London Road currently has an excellent safety record with no recorded personal injury crashes in the most recent three-year period (up to 31/08/2021) between Virgins Lane and the end of the footway to the north of Canadia Road.

2.6 Whilst the investigation of a lower speed limit on this section of the A2100 is not a priority for the Road Safety Team, an application through the Community Match Initiative could be considered. It is therefore suggested that the residents contact Battle Town Council to see whether they would support an investigation into the feasibility of a lower speed limit. Details of the Community Match Initiative and the costs associated with a feasibility study and speed surveys can be provided if required.

3 Conclusion and Reasons for Recommendations

3.1 An extension of the 40mph speed limit on the A2100 London Road beyond that which has been agreed for the Lillybank development is not a priority for further investigation by the County Council at the present time due to its lack of visible frontage development and excellent safety record.

RUPERT CLUBB

Director of Communities, Economy and Transport

Contact Officer: Helen Pain

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LOCAL MEMBER

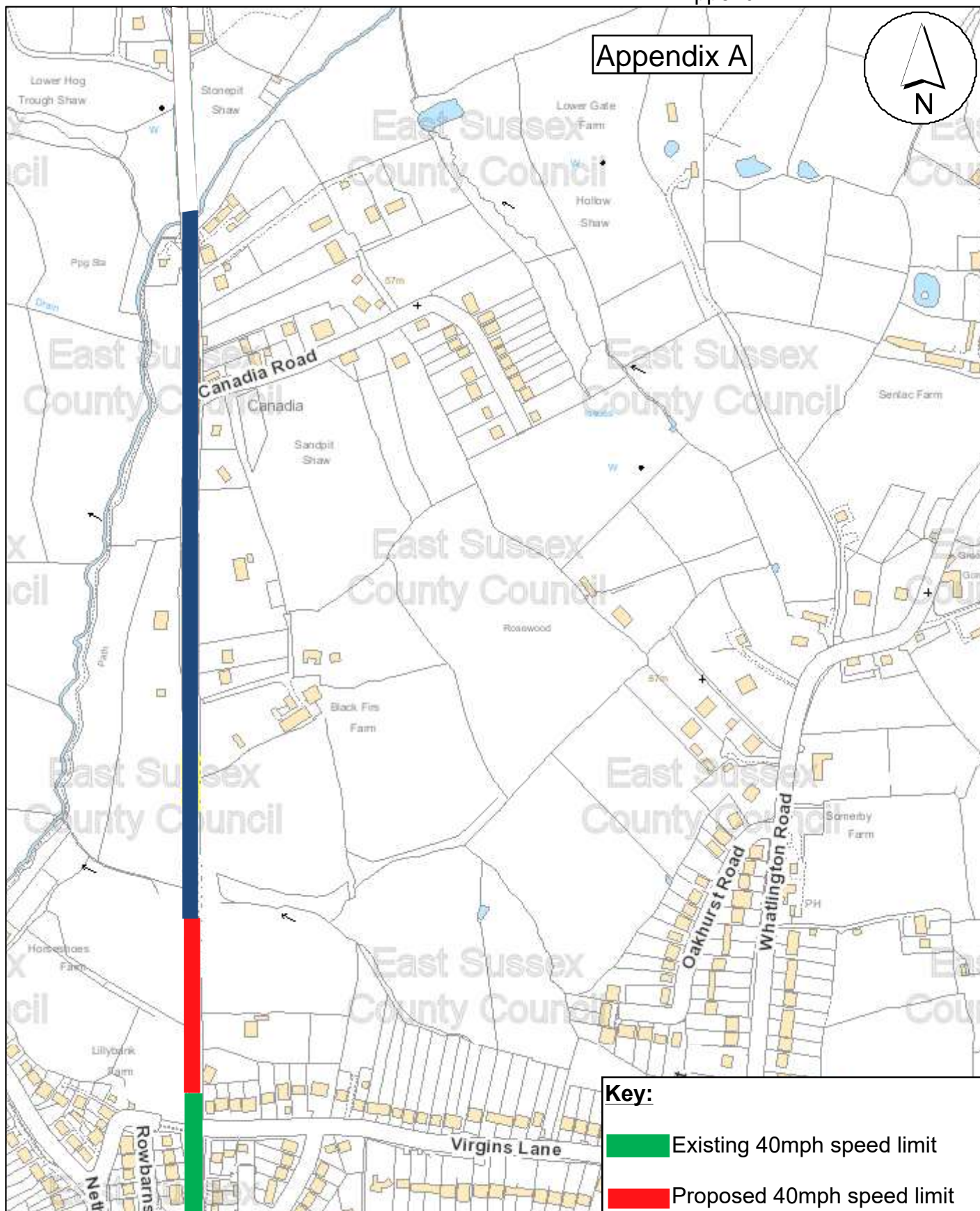
Councillor Kathryn Field


BACKGROUND DOCUMENTS


The submitted petition

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Appendix A

**Key:**
 Existing 40mph speed limit

 Proposed 40mph speed limit extension for Lillybank Farm development

 Requested 40mph speed limit extension

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Map

Petition for 40mph speed limit extension - A2100 London Road, Battle

Scale: 1:5,000**Author:** HSP**Date:** 21/10/2021

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A2100 London Road, Battle. Proposed Traffic Regulation Order

	Agenda Item No.
Committee:	Regulatory Planning Committee
Date:	25th July 2018
Report by:	Director of Communities, Economy and Transport
Title of Report	Traffic Regulation Order – A2100 London Road, Battle
Purpose of Report	To consider the objections received in response to the formal consultation on the draft Traffic Regulation Order associated with the development of Lilybank Farm, London Road, Battle.
Contact Officer:	Jodie Lulham – 01273 337052
Local Member:	Councillor Field

RECOMMENDATION

The Planning Committee is recommended to:

- 1. Not uphold the objections to the draft Order as set out in Appendix 2 of this report**
- 2. Recommend to the Director of Communities, Economy and Transport that the draft Traffic Regulation Order be made as advertised.**

CONSIDERATION BY DIRECTOR OF COMMUNITIES, ECONOMY AND TRANSPORT.**1. Introduction**

1.1 Planning permission at Land to the west of Lillybank Farm, Wattles Wish, TN33 0JG (a residential development of 50 dwellings) under RR/2016/725/P was granted by the Rother District Council Planning Committee in May 2017, subject to the inclusion of a Legal Agreement or Undertaking to provide a contribution of £5000 towards amendments to the Traffic Regulation Order procedure for the reduction of a National speed limit to a 40mph speed limit. The Section 106 Agreement was signed on the 8 November 2017. The proposed speed limit is intended to reduce vehicle speeds at the approach to the new junction, minimising potential for collisions at the proposed site entrance.

1.2 Meetings were held with East Sussex County Council's Road Safety Team, Sussex Police and an officer from the County Council in its capacity as the local Highway Authority to devise a scheme that would ensure highway safety is maintained at the proposed access.

Appendix B

1.3 On the 25th May 2018, the County Council gave notice under the relevant section of the Road Traffic Regulation Act 1984, (as amended), that it was proposing to amend the existing Traffic Regulation Order. A copy of the draft Traffic Regulation Order (TRO) is included in Appendix 1. Copies of the advertised Notice of proposals were placed on posts at the junction with Virgins Lane and London Road and opposite on London Road; a copy of the proposals was also placed on deposit in County Hall reception and at Battle Library for viewing by any member of public. The formal period for representations to be made ended on 19 June 2018.

1.4 Prior to the advertisement of the draft Traffic Regulation Order, copies of the proposals were sent to the relevant District Councillor, County Councillor and statutory consultees including the emergency services. Any objections received during this period were resolved and are reflected in the draft Traffic Regulation Order proposed today.

1.5 The proposals are as follows:

- To extend the 40mph speed limit in the following length of road: A2100 London Road – from a point 203.5 metres north of its junction with Virgins Lane, southwards for a distance of 177 metres.
- The existing 40mph speed limit will remain in force as specified in the Order.

2. Comments and Appraisal

2.1 During the formal consultation period, one item of correspondence was received objecting to the proposals. A full copy of the objection can be found in Appendix 2.

2.2 The grounds for the objection are that:

- The proposal does not extend far enough to the north to include other properties on London Road.
- The footway alongside the northbound carriageway of London Road is narrow and can feel unsafe when cars pass at higher speeds.
- Residents accessing their properties on London Road are overtaken when indicating to leave the highway.
- Exiting properties can be difficult when there is a high volume of traffic using London Road.

2.3 With regard to the public consultation, copies of the public Notice were placed on the affected roads and any affected residents would have been able to view these notices. In addition, the public Notice was advertised in the local newspaper (The Observer) on 25 May 2018. Copies of the proposal were also placed on deposit in County Hall reception and at Battle Library for any member of public to view.

2.4 It is not considered that the objections provide sufficient grounds to warrant the modification or withdrawal of the proposals. A number of concerns were raised on the original planning application with regard to highway safety at the proposed access point. The proposed extension to the 40mph speed limit will, therefore, maintain highway safety and ensure that the access point is policy compliant.

3. Conclusion and reasons for recommendation

3.1 The approach in trying to resolve objection to the Order has been to appraise the concern raised by the objector, balancing this against the need to ensure compliance with the speed limit. On balance, it is felt that the concerns raised by the objector should not be upheld and the proposals should proceed as per the advertised TRO.

3.2 It is therefore recommended for the reasons set out in this report, that the Planning Committee does not uphold the objections, and to recommend to the Director of Communities, Economy and Transport that the draft Order be made as advertised.

RUPERT CLUBB

Director of Communities, Economy and Transport

BACKGROUND DOCUMENTS

None

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EAST SUSSEX COUNTY COUNCIL

LEAD MEMBER – COMMUNITIES AND SAFETY
POLICY SUMMARY

LOCAL SPEED LIMITS	PS05/02
<p>PURPOSE OF POLICY</p> <p>To achieve a safe distribution of speeds consistent with the speed limit that reflects the function of the road and the road environment</p>	
<p>SPECIFIC POLICIES</p> <ol style="list-style-type: none"> 1. On trunk roads, speed limits (in common with other orders regulating traffic) are the responsibility of the Department for Transport (DfT), through its executive agency, Highways England. The County Council has no jurisdiction over this class of road. 2. On all other roads Orders are made by the County Council subject to the statutory requirements for the advertisement of the proposals and considerations of any objections. 3. The principle determinant of a proposed speed limit should be the appearance and character of the road as described in Appendix A. 	
<p>SUPPORTING STATEMENT</p> <p>Adherence to the criteria ensures consistency in the introduction of Local Speed Limits on a countywide basis and supports the work that has been undertaken with neighbouring authorities. It is recognised that, where appropriate, a lower speed limit can assist in the reduction of the number and severity of casualties and help to improve environmental aspects and quality of life for local residents. Reference should always be made to the latest national guidance available.</p>	
<p><u>References – Further Information</u></p> <p>Road Traffic Regulation Act 1984 Department for Transport – Circular Roads 01/2006 Department for Transport – Circular Roads 02/2006 Department for Transport – Traffic Advisor Leaflet 1/04 Department for Transport – Traffic Advisory Leaflet 2/06 Department for Transport- Circular Roads 01/2013 H & T Committee – Agenda Item 10 H & T Committee – Agenda Item 18 Cabinet Committee – Agenda Item 5 Lead Member for Transport and Environment – Agenda Item 11 Lead Member for Communities & Safety– Agenda Item 31</p>	<p><u>Date of Approval</u></p> <p>17.03.1993 19.10.1994 15.11.2000 25.06.2007 16/03/2018</p>

SPECIFIC POLICIES (CONTINUED)

4. Subject to paragraphs 5 and 6 below, villages may be considered for the introduction of a 30 mph speed limit in accordance with recommendations of DfT guidance for setting local speed limits providing that there are 20 or more properties served by private accesses which adjoin the main road (on one or both sides of the road), located over a length of not less than 600 metres, and clearly visible to drivers.
5. Speed limits should be set in accordance with the table below :-

Speed Limit	Average Speed Below
20	24
30	33
40	42
50	52
60	62

6. Where the average speed is above the figures quoted in paragraph 5 for a particular speed limit being investigated then, subject to available resources, either :-
 - a) Where the history of injury crashes at the site justifies the necessary expenditure, engineering measures appropriate to the function of the road should be investigated to reduce vehicle speeds below the figures quoted in paragraph 5 for a particular speed limit. If this can be achieved a Traffic Regulation Order (TRO) for the proposed speed limit may then be made in conjunction with the introduction of engineered measures.
 - b) Where engineering measures are not appropriate due to the function of the road or cannot be justified by the history of crashes a TRO may be considered for a higher limit than that originally proposed which reflects the speed quoted in paragraph 5.

7. 20mph Speed Limits and Zones

20mph speed limits or zones can positively contribute to quality of life and encourage healthier modes of transport such as walking or cycling. They can also help in creating a sense a place, better serving the local communities' needs. However, to ensure that they are effective, they will only be pursued if the following general criteria are met: -

- a) It can be demonstrated that there are clear benefits to be gained in terms of casualty reduction, particularly involving vulnerable road users;
- b) The lower limit is an integral part of either an area wide traffic calming scheme, a School/ Community Safety Zone or a Town Centre Management Scheme; and
- c) The lower limit is effectively self-enforcing

Proposed Speed Limit Criteria – Route Assessment

Below gives an indication of appropriate speed limits, reference should be made to the latest Department for Transport guidance for more detailed information.

SPEED LIMIT/ CHARACTER OF ENVIRONMENT	CHARACTER OF ROAD	TRAFFIC COMPOSITION
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20 mph Speed Limit

Town centres, residential areas, in the vicinity of schools	Constrained in terms of vehicle movement with existing conditions or engineered features influencing vehicle speed with available alternative routes for through traffic	Mean vehicle speed below 24 mph High proportion of vulnerable road users in direct conflict with traffic
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30 mph Speed Limits

Built up areas, visible properties with frontage access, the road giving a clear indication to drivers of the need to reduce speed	Urban streets Roads through villages and identified rural settlements with 20+ visible properties within a 600m length	Mean vehicle speed below 33mph Significant number of vulnerable road users in conflict with vehicular traffic
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40 mph Speed Limits

Less built up areas, set back properties with frontage access indicating to drivers the need to reduce speed	Urban Suburban distributor roads buildings set back from the road Rural Roads through villages and identified rural settlements over a minimum length of 600m	Mean vehicle speed below 42mph Urban Vulnerable road users segregated from road space Rural A noticeable presence of vulnerable road users
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50 mph Speed Limits

Limited frontage development	Higher quality urban distributors with few points of access Low standard classified roads	Mean vehicle speed below 52mph
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60 mph Speed Limits (Dual Carriageways)

Limited frontage development	High standard rural classified roads	Mean vehicle speed below 62mph
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Note: Vulnerable road users include pedestrians (particularly children, the elderly and disabled) and cyclists.

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Report to:	Lead Member for Transport and Environment
Date of meeting:	22 November 2021
By:	Director of Communities, Economy and Transport
Title:	Notice of Motion: East Sussex County Council's (ESCC) use of Glyphosate based herbicide to control weeds on the Public Highway and on ESCC property
Purpose:	To consider and respond to a Notice of Motion calling for the Council to eliminate use of Glyphosate herbicide formulation in weed control and to provide an update on East Sussex County Council's approach to weed management.

RECOMMENDATIONS: The Lead Member is recommended to recommend that the County Council rejects the Motion for the reasons set out in the report.

1 Background Information

1.1 The following Notice of Motion has been submitted by Councillor Maples:

"Motion to eliminate use of glyphosate herbicide formulation in ESCC/Highways' weed control.

It is recognised that there has been reduction in ESCC's use of glyphosate (herbicide) in ESCC green spaces, increased collaboration with local environmentally-concerned groups and coordination with other local authorities, in accord with the County's 2020 Environmental Strategy. However, as has been made excessively clear in the recent IPCC Report, and as the Strategy notes, 'the pace and scale of action needs to be far greater'.

MOTION: East Sussex County Council agrees to request the Cabinet to:

ban the spraying of glyphosate formulation herbicide and other toxic herbicides in its treatment of unwanted foliage on all council owned land and land managed by the County Council from 01 January 2022.

Instead:

- 1. Where safe to do so, plants will be left to grow and die in their natural cycle, supporting wildlife, addressing the Council's particular concern to support pollinators and other invertebrates and in accord with the Council's and the Government's commitment to bio-diversity net gain. This will further enhance East Sussex Highway's agreement to leave agreed wildflower verges uncut/unmown until the end of the flowering season to improve food sources for pollinators in accord with ESCC's well-publicised Environmental Strategy and Sussex Local Nature Partnership.*

2. *Where plants cause a trip hazard for pedestrians, or weaken built structures, alternative prevention and removal processes will be used, to include, as appropriate:*
 - a. *manual and mechanical removal, including lifting at the roots and removal of embedded soil to be replaced where appropriate with low-growth foliage or a growth resistant medium, such as clean sand*
 - b. *mechanical brushing/sweeping, especially to remove unwanted plant seeds and thereby reduce new growth*
 - c. *hot-foam spray application*
 - d. *electrical treatment*
 - e. *strimming.”*

A copy of the Notice of Motion and further supporting information supplied by Councillor Maples is provided at Appendix A.

1.2 In line with County Council practice, the matter has been referred by the Chairman to the Lead Member for Transport and Environment for consideration to provide information and inform debate on the Motion. The Lead Member's recommendation on this Notice of Motion will be reported to the Council at its meeting on 7 December 2021.

Weed Control on Public Highway

1.3 On 28 September 2020, a report on the use of Glyphosate based herbicide to control weeds on the public highway was considered by the Lead Member for Transport and Environment in response to petitions calling on the County Council to ban the use of Glyphosate along Hastings roadsides and green spaces and in Eastbourne, Jevington and Willingdon. The Lead Member resolved to inform the petitioners that East Sussex County Council (ESCC) will continue to safely use a Glyphosate based herbicide until a suitable alternative becomes available and will work with neighbouring authorities to continue exploring alternative options. This report provides an update on the position set out previously in 2020.

1.4 Weed growth in road gullies and channels can slow down and prevent the highway drainage systems from functioning correctly. Weeds can damage paved surfaces, displace kerbstones and crack walls making maintenance difficult and costly. In some circumstances weeds have been considered to have safety implications for pedestrians by causing trip hazards, particularly for older and disabled people, including those with sight loss and/or reduced mobility. Weeds can also give the general perception of untidiness. The Well Managed Highway Infrastructure Code of Practice states that “weed treatment should therefore be undertaken according to traffic and pedestrian usage and to a level of usage that takes account of local concerns. The use of weed-killers should be the minimum compatible with the required results”.

1.5 ESCC Highways carry out one weed spray a year on 3081km of channels, footpaths, central reservations, and traffic islands to manage and maintain vegetation on the highway network, using a herbicide that contains Glyphosate. Spraying is carefully controlled and limited in use to only where weeds are found.

1.6 Alternatives to Glyphosate have and continue to be reviewed internally and externally with relevant stakeholders from neighbouring County Councils, Town Councils and District and Borough Councils.

1.7 ESCC Highways aim to trial potential alternative weed maintenance methods in select areas in 2022 with the aim of working towards introducing new methods as part of the next highways maintenance contract in May 2023.

Weed Control on Other Council Land and Services

1.8 ESCC has a legal duty to control invasive species and at present Glyphosate is used to discharge those duties and the Property team holds a contract with Glendale for grounds maintenance, including all ESCC assets and a number of school sites. 20 litres of Glyphosate per annum is used in weed control for over 150 sites.

1.9 Without suitable weed control, ESCC owned land would be at risk of further invasive weed infestations and the spreading of them. Long shaggy vegetation will also mask Ash die back sapling regrowth along verges and land.

1.10 Currently there is not an equivalent to Glyphosate on the market that provides efficient weed control as required, so a complete ban would not be feasible. However, ESCC Property would support a phased reduction in the use of Glyphosate and continue to monitor other options as they come to the market, as well as options for rewilding to support greater biodiversity. Corporate sites could be used for trialling new methods ahead of the Glyphosate licence coming to an end in 2025, however this would likely incur additional costs for labour and materials.

1.11 There may also be circumstances where ESCC owns the land or property, but it is either leased to third parties or managed by third parties under management agreements which would need to be considered to reflect any restrictions on the use of herbicides.

2 Supporting Information

2.1 ESCC uses a Glyphosate based herbicide from the Health and Safety Executive's (HSE) Pesticides Register of UK Authorised Products and that is suitable for use on highways. To allow time for the development of a new UK active substance renewal program post-Brexit, a three-year extension has been provided by HSE under the new UK pesticides regulation regime. This should apply to Glyphosate meaning that the expiry date for the licence has been extended until at least December 2025 in the UK.

2.2 The total cost of weed control in the Highways contract is approximately £55,000 per year fixed for the period of the current highways contract.

Current Application and Usage

2.3 Glyphosate herbicide is widely used by Local Authorities to manage weeds on the highway network and even authorities that have trialled alternative methods of weed control continue to use Glyphosate in some circumstances.

2.4 The herbicide application in highway maintenance is currently carried out using a bespoke spraying machine based on a mini tractor, with a knapsack sprayer used in the difficult to reach areas. The weed spraying is only carried out by National Proficiency Test Council (NPTC) pesticide application competent operators. The average output is 22km in an 8-hour working day.

2.5 The herbicide is applied to weeds in channels and on footpaths at a ratio of 95% water to 5% herbicide. At this approved rate of application, it is harmless to all mammalian species and birds. It is also approved for use near watercourses.

2.6 The type of spray used enters the plant through its leaves and breaks down the weed's cell structure rather than killing it on contact. The spray makes sure that all parts of the plant are broken down and slows down any regrowth. Once the weeds have been sprayed it can take between 10 and 14 days for the herbicide to take effect.

2.7 Weed spraying is not undertaken on rainy or windy days to reduce wastage and the travel of the herbicide and treatments within high foot traffic or high sensitivity areas, and are carried out in accordance with Guidelines for Herbicide Application in Neighbouring Areas. See Appendix B for full risk assessments and method statements for use of Glyphosate on the highway network.

Alternative Methods of Control

2.8 Alternative methods of controlling weeds on highways have been trialled by a number of other highway authorities including: FoamStream, Hand Weeding, Acetic Acid (Vinegar), and Thermal and Mechanical methods. See Appendix C for further details. All of these alternatives have been found to be either not suitable for the need, less effective and require multiple treatments with variable results or are inefficient for highways use at the present time.

2.9 For example, Sussex Rail (the East Sussex Highways sub-contractor for weed control) provided an estimate for using Foam Stream, a low-pressure process, combining heat with biodegradable foam, in the Hastings area of £90,340 per application. This is five times the current cost for Hastings weed control of approximately £18,000. Kent County Council trialled hot foam (Foam Stream) but noted that it required more frequent visits to effectively treat weeds. It is therefore likely that 2-3 applications would be required in Hastings to have the same effect as the current treatment. The cost therefore would be between £180,000 to £270,000 to treat weeds in Hastings for two or three treatments. Scaling this across the county using this method could cost between £540,000 to £810,000 for two or three treatments respectively. It should also be noted that it is unclear if there is sufficient capacity within this industry at this time to deliver such a large programme of works using this method.

2.10 Acetic Acid and thermal lancing have proved even less effective and produced even worse results than the hot foam method.

2.11 Hand pulling is very labour intensive and generally does not remove the roots meaning rapid regrowth, and whilst no direct figures are currently available for this method, this will have a higher cost per metre than hot foam as productivity will be limited and there are additional costs for collection and disposal.

Proposed Trials for 2022

2.12 However, ESCC is continually exploring options to try and find an alternative to Glyphosate that would be applicable to the highway network and other property assets and is currently exploring three alternative techniques in highways, with the aim to trial them in selected areas for 2022. These include Foam Stream in small select areas, the 'opt out' approach and reactive weeding, see Appendix D for full details on the potential trials.

2.13 In addition, from discussions with other authorities, street cleansing can significantly help reduce weeds by removing the detritus in channels they grow in. Therefore, ESCC is also continuing discussions with District and Borough Councils with the aim to work more closely with street cleansing programmes to reduce weeds where possible on the highway.

2.14 The issue of weed control has recently been discussed at the Place Scrutiny Committee and the Committee may wish to consider the ongoing approach and outcome of any trials in due course.

3 Conclusion and Reasons for Recommendations

3.1 The Council is aware of the concerns about Glyphosate, notes the concerns raised by some councillors and residents and is committed to finding an alternative. Meanwhile we ensure that the authority meets its statutory duties of maintaining a safe and usable highway network. There are also difficulties in implementing a complete ban on the use of herbicides on all Council owned land and land managed by the County Council as outlined in paragraph 1.10 above.

3.2 Therefore, at present the Council will continue to safely use a Glyphosate based herbicide, until a suitable alternative becomes available, as it is the most effective and efficient weed control method as an approved licenced product applied in accordance with best practice. Glyphosate is on the list of the Health and Safety Executive's GB Pesticides Regulation Regime licenced and registered products and ESCC is actively researching alternatives, but at present there is no alternative weed maintenance technique that is economically viable.

3.3 However, the Lead Member is asked to note the proposed trials for alternative weed maintenance techniques in 2022 with the aim of working towards introducing new methods as part of the next highways maintenance contract in 2023. It should also be noted that it may not be possible to eliminate the occasional use of herbicides for non-highways use.

3.4 Therefore the Lead Member is recommended to recommend that the County Council rejects the Notice of Motion.

RUPERT CLUBB

Director of Communities, Economy and Transport

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LOCAL MEMBERS

All

BACKGROUND DOCUMENTS

None

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NOTICE OF MOTION

Motion to eliminate use of glyphosate herbicide formulation in ESCC/Highways' weed control.

It is recognised that there has been reduction in ESCC's use of glyphosate (herbicide) in ESCC green spaces, increased collaboration with local environmentally-concerned groups and coordination with other local authorities, in accord with the County's 2020 Environmental Strategy. However, as has been made excessively clear in the recent IPCC Report, and as the Strategy notes, 'the pace and scale of action needs to be far greater'.¹

MOTION: East Sussex County Council agrees to request the Cabinet to:

ban the spraying of glyphosate formulation herbicide and other toxic herbicides in its treatment of unwanted foliage on all council owned land and land managed by the County Council from 01 January 2022.

Instead:

1. Where safe² to do so, plants will be left to grow and die in their natural cycle, supporting wildlife, addressing the Council's particular concern to support pollinators and other invertebrates and in accord with the Council's and the Government's commitment to bio-diversity net gain. This will further enhance East Sussex Highway's agreement to leave agreed wildflower verges uncut/unmown until the end of the flowering season to improve food sources for pollinators in accord with ESCC's well-publicised Environmental Strategy and Sussex Local Nature Partnership.³

Natural Capital Investment Strategy
Strategic work themes



¹ <https://www.eastsussex.gov.uk/media/15587/east-sussex-environment-strategy-2020.pdf>, p. 4.

² Safe in this context means: not causing trip hazards, not leading to building or pavement degradation.

³ <http://sussexlnp.org.uk/natures-recovery-and-net-gain/>



Main messages



1. Formal commitment to the use of the natural capital approach only where this results in a positive result for nature, and in particular a 'net gain' for biodiversity.
2. **Protect** existing natural capital assets – particularly assets 'at risk'
3. **Enhance** what we have.....improve its condition!
4. **Expand and connect** – enhance natural capital assets via nature recovery network
5. **Invest in natural solutions** – to deliver key benefits/services

2. Where plants cause a trip hazard for pedestrians, or weaken built structures, alternative prevention and removal processes will be used, to include, as appropriate:
 - a. manual and mechanical removal, including lifting at the roots and removal of embedded soil to be replaced where appropriate with low-growth foliage or a growth resistant medium, such as clean sand
 - b. mechanical brushing/sweeping, especially to remove unwanted plant seeds and thereby reduce new growth
 - c. hot-foam spray application
 - d. electrical treatment
 - e. strimming.

Proposer:
Councillor Maples

Seconder:
Councillor Hilton

Dated: 20 September 2021

Background

Glyphosate is a chemical herbicide (a type of pesticide) used to kill unwanted plants. The use of glyphosate and other toxic herbicide formulae compound the biodiversity crisis, brings significant economic and environmental costs.

Glyphosate has been linked to damage to and death of invertebrate species including bees and other important pollinators. It remains in soil and leaches into waterways where it poisons plants and animals. It has been linked to cancer in humans, with its manufacturer Monsanto (now owned by Bayer) subject to now innumerable lawsuits, for which over \$11 billion has been set aside for anticipated pay-outs. Its efficacy (in killing

plants) significantly diminishes over time (average 5-7 years), requiring other methods of weed removal.

In other words: Glyphosate is toxic and disruptive to animal, plant, soil, waterway and human health. It is potentially very expensive should residents or operatives decide to take ESCC to court. Current spraying practices will likely soon become ineffective. There is already evidence in rapid regrowth along treated areas that this is already the case.

Pollinator impact – recent studies

- Flying insects, many of which are pollinators we rely upon to ensure our own food supplies, have reduced by more than 75% over 27 years, even in protected areas.⁴
- Exacerbating biodiversity loss, particularly of pollinators, will be at humans' as well as nature's expense. More than three out of four crops producing seeds or fruits used for human food depend on pollinators.

Graziano da Silva, director-general of the Food and Agriculture Organization from 2012 to 2019 notes,

'The absence of bees and other pollinators would wipe out coffee, apples, almonds, tomatoes, and cocoa, to name just a few of the crops that rely on pollination.'

In South East England's arable farms, the impact of herbicides on pollinators risks lower yields and potential loss of apples, strawberries, raspberries, cherries, and all vine fruits including grapes in our surging viniculture businesses.

- Peer-reviewed scientific research demonstrates that glyphosate has significant negative effects on our most potent pollinators, bees:
 - weakening their gut bacteria leading to 'greater susceptibility to pathogens and malnutrition' and higher bee mortality rate⁵
 - affecting individual bee neuro-pathways, reducing foraging ability
 - reducing water up-take which has a wider effect on the hive: reduced water up-take leads to poor larvae development.⁶
- Peer-reviewed scientific research demonstrates that even where glyphosate does not lead to the immediate death of individual bees, the co-formulants (such as surfactants)

⁴ Caspar A. Hallmann et al, Oct 2017, <https://doi.org/10.1371/journal.pone.0185809>

⁵ Writing in the international, peer-reviewed journal, *Insects*, Farina et al (2019) suggest that honeybees suffer considerable and longterm effects of glyphosate exposure, even where application of glyphosate is not on a primary food source (suggesting application drift) – for instance, studies on organic honey find glyphosate traces. As noted, effects include damage to gut microbiota; in addition, 'GLY negatively affects associative learning processes of foragers, cognitive and sensory abilities of young hive bees and promotes delays in brood development'. Importantly, authors note that due to honeybees' social habits, it is essential to analyse longer-term effects of exposure in situ (i.e. in the hive, not just clinical trials on individual bees).
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6835870/>

⁶ See also footnote 5 (above): Farina et al (2019)
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6835870/>

used in standard commercial and domestic glyphosate products have serious adverse effects, with marked reductions in foraging ability, from climbing, to proboscis motility, to the basic ability to locate food sources.⁷

According to very recent research (Smith, Carmacho and Thakur, 2021), over time,

*glyphosate's environmental accumulation could render insects more susceptible to microbial pathogens due to melanin inhibition, immune impairment, and [as noted above] perturbations in microbiota composition.*⁸

- There is further evidence that glyphosate is toxic to earthworms, another species we rely on to support food production through soil improvement.
- Further evidence still indicates that glyphosate inhibits mycorrhizal fungi. Recent research shows the importance of mycorrhizal fungi to soil health and plant productivity: they are essential for tree health, collecting nutrients and water to feed their host plant and protecting tree roots from harmful fungi and root rot diseases.

We are facing increasing toxicity in our environment, including our food and bodies.

- Glyphosate residues have been found even in organic honey, as pollinators may forage in glyphosate-treated verges, or in nearby non-organic farms.
- A study commissioned by Friends of the Earth, testing across 18 countries found glyphosate in between 10% (Macedonia) and 90% (Malta) of human urine samples. In Great Britain, 70% of human urine samples contained glyphosate.⁹

⁷ Recent research – albeit a single trial in closed, non-typical environment and application (direct spraying of a single bee species) – suggests that other ingredients in glyphosate-based herbicides are responsible for high levels of immediate/short-term morbidity in bee populations (trial resulted in morbidity of 30% to 94% with use of variations of commercially-available 'Round-Up'). Where the 'active' ingredient of glyphosate was removed, a significantly high morbidity from direct application remained. The study concludes that the bees died from the surfactants and/or other undisclosed proprietary co-formulants in the herbicide. Accepting that this is only one study, with an atypical testing regime, used on one species of bee, the trial authors nevertheless argue that until such time as all ingredients are listed, Round-Up and similar herbicide applications should be withdrawn from use in any area likely to be foraged by bees (and by extension other pollinators). It should also be noted that the study was short term and, as the mortality of the bees in the study was so high, longer-term effects to individual bees, or to hives, etc. was not observed.

<https://besjournals.onlinelibrary.wiley.com/doi/10.1111/1365-2664.13867>.

⁸ Smith, Carmacho and Thakur (2021)

<https://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.3001182>

⁹ Friends of the Earth study results released in June 2013 <https://friendsoftheearth.eu/press-release/weed-killer-found-in-human-urine-across-europe/>. The press release from Friends of the Earth notes that: 'Volunteers were all city-dwellers and included vegetarian and non-vegetarian diets. No two samples were tested from the same household. The samples were analysed by Dr Hoppe at Medical Laboratory Bremen in Germany.'

- A larger study with 2000 volunteers in Germany, found traces of glyphosate in 99.6% of urine samples, 3/4 of which were above safety limits, with the highest levels found in children.¹⁰
- The now famous IARC International Agency for Research on Cancer (IARC) of the World Health Organisation (WHO) *Monograph 112* which declares that human indicators and results of animal testing suggest that glyphosate is a probable carcinogen and that, on the precautionary principle, it should be banned.

Continuing use increases wider financial risks as well as baseline costs

- Monsanto (now owned by Bayer) has made a number of pay-outs to individuals whose cancer has been linked to glyphosate exposure. It is worth noting that in the first three of these cases, the plaintiffs were a groundskeeper, a home gardener and two landscape gardeners.¹¹
- In February 2021, Bayer set aside \$2 billion (USD) to manage known upcoming lawsuits, with estimated pay-outs up to \$200,000 each over the next four years.¹² This is in addition to a previous \$9.6 billion (USD) settlement in June 2020 to address 100,000 existing Round-Up related lawsuits in the US.¹³
- As the public's awareness of the risks of glyphosate herbicide exposure increases, it may be only a matter of time before those councils and contractors who persist in using glyphosate may be sued for negligence.
- Where glyphosate is the only or virtually only weed treatment, resistance builds up naturally (see below for details). Over the course of three years or so, particularly where roots and seed are left behind (as per current practice), East Sussex Highways will have created weed specimens that will set down longer, stronger root systems and will have selected for plants that are increasingly glyphosate tolerant. In a few short years, increasing amounts of herbicide, applied more often, will be needed to kill weeds along the same lengths of roads and pavements, thereby increasing both labour and materials costs and, where weeds remain unaffected by herbicide treatment, further damaging built structures and pavements.
- ESCC has to balance demands from residents who believe weeds to be an eyesore, and those who would wish to see a more pollinator-friendly approach. Current

¹⁰ Reporting on a 2016 study conducted by the Heinrich Böll Foundation: <https://www.euractiv.com/section/agriculture-food/news/overwhelming-majority-of-germans-contaminated-by-glyphosate/>

¹¹ Pesticide Action Network, citing US court rulings: [Glyphosate%20Myth%20Buster%20-%20updated%20July%202019.pdf](#)

¹² \$2 billion settlement for non-Hodgkin's lymphoma cases: <https://www.reuters.com/article/us-bayer-glyphosate-idUSKBN2A32MX>

¹³ \$9.6 billion settlement for pending US lawsuits: <https://www.reuters.com/article/us-bayer-glyphosate-idUSKBN2A32MX>

practice provides the worst of both worlds, with glyphosate spray damaging plants and pollinators, and sprayed plants left to go brown and not removed, resulting in continued complaints from residents who would wish for tidier streets and pavements as well as from those preferring ESCC not use herbicide sprays.

What are the options and costs?

With costs of alternative weed-reduction programmes reducing alongside their increased availability, the number of chemical-free local authorities is increasing.

While there are different parameters to be considered in the County, a recent cost analysis by Glastonbury Council suggests – perhaps surprisingly – that, once hot foam equipment is purchased, hot foam becomes the cheapest option:¹⁴

Results of Glastonbury Council's cost analysis of weed control options

	Cost per linear metre
Hand Weeding by contractor	£00.32
Hot water treatment by contractor	£00.26
Glyphosate treatment by contractor	£00.23
Foamstream factoring in costs of diesel, foam, in-house application, van and water. Excluding initial cost of equipment	£00.07

In addition, evidence has accrued of longer-term improved performance, notably of hot water and hot foam.

However, despite apparently high costs, mechanical and manual weeding may prove to be the most effective and, in the longer term, most cost-efficient practices for East Sussex/ES Highways:

1. Across the larger road gutter infrastructure, additional road sweeping with more robust 'weeding' brushes may be the most efficient practice in terms of labour costs; with the added benefits of:
 - a. reducing waterway toxins
 - b. reducing the number of seeds left to germinate
 - c. not selecting for more resistant weeds
 - d. not causing potential illnesses – including non-Hodgkins lymphoma – amongst equipment operators.
2. Hand weeding (including pulling, and the use of hoes and angled scrapers) ensures that visible parts of the weed and, where possible, the roots are removed completely. Where root removal is not possible, the weed is nevertheless weakened (due to lack of sunlight), reducing the need for more regular intervention. Unlike current herbicide treatment practice:
 - a. Seeds are not left to germinate
 - b. Nor are more resistant weeds selected for (see chart below).
 - c. Full removal is longer lasting and reduces building and pavement damage.
 - d. Complaints about 'unsightly' weeds, including those left to go brown, is reduced.

¹⁴ <https://www.pan-uk.org/site/wp-content/uploads/Alternatives-to-herbicides-a-guide-for-the-amenity-sector.pdf>

3. PA6A and PA6WA certification are not required (though non-chemical weed management training would be encouraged), improving the ability of contractors to recruit staff.
4. Where manual/mechanical weeding is the best option, essential equipment such as hoes, strimmers, hedge-trimmers and mechanical brushes are at the lower end of cost.
5. With minimal training, 'accidental' damage to valuable wildflower species should not occur, with plants that provide food for native wildlife species being consumed in a natural cycle (see the Toadflax example below).

Comparison table of alternative approaches to weed control

	Hot foam	Hot water	Brushing	Electricides	Hand weeding
Initial cost	High – for the cost of the machinery if purchasing outright	High – for the cost of the machinery if purchasing outright	Medium – depending on the size of the brushing machine	Medium – one off purchase of Rootwave machine	Low – almost nothing required
Ongoing cost	Medium	Medium	Low	Low	Low
Efficacy	Good	Good	Good	Good	Good
Ease of use	Small amount of initial training required but no certification necessary	Small amount of initial training required but no certification necessary	Small amount of initial training required but no certification necessary	Small amount of initial training required but no certification necessary	Small amount of initial training required but no certification necessary
Noise	High	High	High	Low	Low
Versatility	High – can be used for other purposes such as moss and chewing gum removal. Not always suitable for use in restricted access areas.	High – can be used for other purposes such as moss and chewing gum removal. Not always suitable for use in restricted access areas.	High – can be used for general cleaning of areas as well as weed removal. Different size machines allow access to a wide variety of areas.	Low – really only suited to weed removal, but can be very effective with invasive species and woodier species of plant. Limited to use where a suitable grounding point can be accessed.	Low – really only aimed at weed removal. However, with proper training desirable species can be left to grow while species considered to be 'weeds' can be effectively removed.
Operator Safety	High	High	High	High	High
Environment	Medium – concerns about the use of diesel for powering the machine. Safe to use around aquatic environments.	Medium – concerns about the use of diesel for powering the machine. Safe to use around aquatic environments.	Medium – concerns about the use of petrol for powering some machines. Possibility of damage to particular surfaces with some brush types.	High – safe to use in all environments	High – safe to use in all environments

In short, over the near medium and longer term, using methods other than sprayed herbicide treatment will cost the County *less* than continuing the use of glyphosate spraying.

The following section details reasons why glyphosate may in any case soon be ineffective: to understand this, it is necessary to understand how it is intended to work, in context.

How does glyphosate work, cause problems and fail?

Glyphosate is predominantly used as part of a system of weed-control used by commercial growers who invest in genetically modified (GM) seeds that are glyphosate resistant. Because of this resistance, glyphosate can be widely sprayed across a crop, with the result that only the non-GM plants will be killed (until they too develop resistance).

The recent peer-reviewed study by Johns Hopkins molecular biology researchers, DFQ Smith, et al. (May 2021)¹⁵, explains:

'Glyphosate is commonly applied at concentrations of approximately 28 to 57 mM [33] or in formulations of 360 g/L (2 M), with 720 g (4 mol) per hectare [34]. Glyphosate-based herbicides are sprayed onto crops where the glyphosate is taken up by plant leaves and translocated to growing tissues throughout the plant [35]. Glyphosate is translocated to the roots where it is released into the soil [34]. In total, about 88% of the sprayed glyphosate ends up in the topsoil [36–38]. Less than 1% of [agricultural-use] glyphosate has been shown to enter water bodies, typically following heavy rain, snowmelt, ploughing, or erosion [37], but concentrations from <1 nM to approximately 30 µ M in nearby water have been reported [39]. Further, glyphosate has been shown to enter the air through wind erosion and deposit via rain [40].

*Glyphosate is remarkably stable, with half-life ranging from weeks to years depending on the surrounding microbial populations, which provide the primary mechanism of glyphosate degradation, while temperature, light, acidity, and salinity also play roles in the degradation process. Microbes mostly break down glyphosate into aminomethylphosphonic acid (AMPA), which persists up to 20 times longer than glyphosate and is often found in higher concentrations in topsoil and water [41–45].'*¹⁶

In other words: glyphosate is persistent, working its way through plants, fungi and bacteria, some of which help with degradation (breaking down glyphosate toxicity). Glyphosate nevertheless remains in the soil for weeks or years in its original form and as AMPA, as well as leaching into water (water run-off at the point of application and into ground water as it is absorbed into the soil) and air.

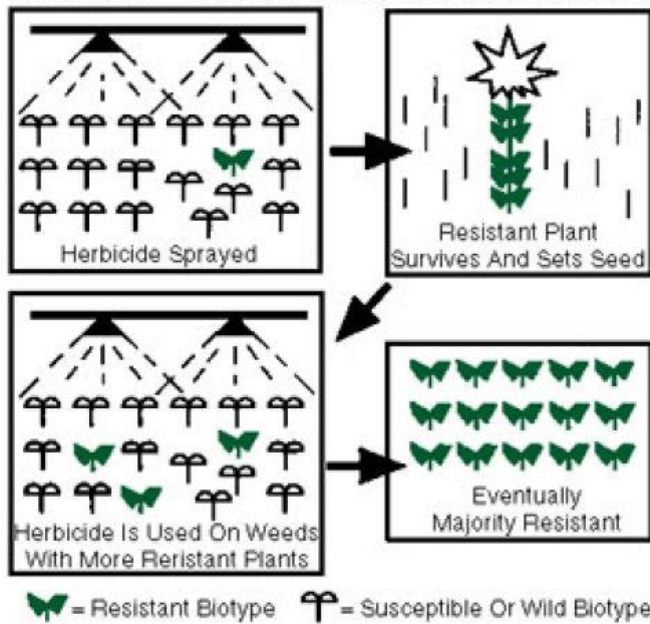
Glyphosate is used prolifically in commercial agriculture, e.g. where GM soy, etc. are bred to be Round-Up (the commercial formulation created by Monsanto) resistant. The non-preferred plants will be killed while the GM soy, hops, grapes, etc. survive. It is important to be clear: crops are still tainted with glyphosate and co-formulants, they just don't die. Eventually, as noted above, 'target' weeds themselves build up tolerance for glyphosate. This leads to farmers increasing the amounts of herbicide used.

This simple chart from a University of Minnesota land managers' programme explains:

¹⁵ <https://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.3001182>

¹⁶ NB, I have left the author's footnotes in the text as live, should you wish to go to the claim source.

How Does Selection For Herbicide Resistance Occur?

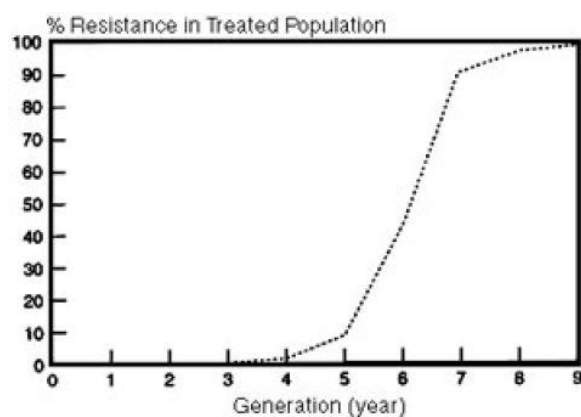


According to UofM, a 'herbicide-resistance problem could develop after repeatedly using a product for more than two years, depending on the proportion of the population initially resistant to an herbicide.'

According to UofM, 17 glyphosate resistant weeds were already identified in the USA as of 2018.¹⁷ With wider application of glyphosate treatment worldwide, resistance will increase.

UofM explains that with repeated use of the same herbicide,

'It's very common to go from excellent control of a particular weed species to very poor control within a growing season. A gradual performance decline is rarely seen.'



¹⁷ <https://extension.umn.edu/herbicide-resistance-management/herbicide-resistant-weeds#selection-intensity%3A-the-key-to-prevention-92896>

Figure 5: Simulated progression: Assumes a 1 in 10 million chance of resistant biotypes, 90 percent weed control and 100,000 seeds per sq. meter.¹⁸ Less effective herbicides, poor application practices, poor post-application removal of seeds and higher incidence of wild resistance will, of course, result in earlier increases in herbicide tolerance.

The recommended practice for weed management is to ‘only use herbicides when necessary’, to rotate practices and to include mechanical weed control (such as hoeing). Importantly, UofM advises its land managers to,

‘Encourage railroads, public utilities, highway departments and similar organizations ... to use vegetation management systems that don’t lead to the selection of herbicide-resistant weeds.’¹⁹

In other words, not to use the same herbicide repeatedly and, wherever possible, to seek alternative – *non-chemical* – means of weed management. There are two reasons for this:

1. This will reduce the burden of resistant weeds on the public utility (over time);
2. Where there is nearby farmland, using more effective measures will eliminate glyphosate-resistant weed-creep (increasing costs to farmers).

Glyphosate myths and facts

There is an abundance of myths about glyphosate, the most unhelpful being that it is ‘safe’.

As far back as 1996, however, Monsanto was ordered by a New York state judge to retract Round-Up advertising that claimed the herbicide was ‘practically non-toxic’, ‘biodegradable’ and ‘environmentally-friendly’. Monsanto also paid \$50,000 plaintiff’s case costs.²⁰

Since then, the evidence of glyphosate’s damage to the environment and to individual and human and animal species has mounted.

Crucially, for ESCC, which in correspondence with residents complaining about the use of glyphosate states that the chemical is ‘deemed safe’, the EU’s 2017 relicensing directive (on which UK government policy is based) did *not* state that glyphosate is ‘safe’. Indeed, the relicensing directive was cautious, only permitting glyphosate’s use with the condition that Member States ‘Minimise the use in public spaces...’²¹ due to concerns about its safety.

Round-Up’s own website warns home gardeners that children and animals should be kept out of the garden during use because of safety concerns. Of course, where glyphosate is sprayed

¹⁸ <https://extension.umn.edu/herbicide-resistance-management/herbicide-resistant-weeds#selection-intensity%3A-the-key-to-prevention-92896>

¹⁹ <https://extension.umn.edu/herbicide-resistance-management/herbicide-resistant-weeds#selection-intensity%3A-the-key-to-prevention-92896>

²⁰ <https://apnews.com/article/d196b9a5bb54637a7b281760b0f7a966>

²¹ Pesticide Action Network, citing EU relicensing agreement: Glyphosate%20Myth%20Buster%20-%20updated%20July%202019.pdf

on neighbourhood streets and pavements, there is no forewarning to keep children and pets indoors. A further warning on the Round-Up website:

*'...If you have treated your garden weeds with a glyphosate-based weedkiller and your pets have escaped into the garden before it has dried, or perhaps a neighbour's cat has popped into your yard at the wrong time (accidents happen), check for any abnormal behaviour or symptoms and contact a veterinarian if need be.'*²²

Abnormal behaviour includes: vomiting, diarrhoea, hyper-salivation, shaking, convulsions. Smaller and more vulnerable animals may die.

Home-gardeners are warned to wear gloves when applying Round-Up and to wash hands afterwards. Of course slow worms, beetles and bees are not able to access soap and water to remove the substance should accidental spraying occur.

Glyphosate spray is considered 'easy to use', but it is less easy to use correctly and safely. This is why operatives are required to undertake PA6A and PA6WA training – for their own safety and to reduce other risks. Other risks include:

- Rain-related mis-timing. Glyphosate is not only less effective if rain occurs within 48 hours of its application; it also leaches into nearby soils and washes off into drains and waterways, posing a threat to soil-based and aquatic life;
- In windy conditions, 'misting' onto nearby foliage;
- Accidental spraying of non-targeted plants;
- Accidental spraying of hidden invertebrates;
- Accidental spraying of animals such as hedgehogs and slow worms;
- Spraying at the 'wrong' time of year, particularly at peak flowering, when insects seeking food will alight on treated plants, due to county-wide schedules.

Despite training (all operatives should have PA6A and PA6WA certificates, updated every three to five years), as the Round-Up website itself notes, 'accidents happen'. Correct and optimum use of glyphosate is actually quite difficult to achieve in the UK where weather conditions are rarely consistently warm, dry and still for the average 48 hours specified post-application best practice.

Then there is cost. Glyphosate is presented by advocates as the most 'cost-effective' system. As the grids above show, however, there are cost-effective alternatives.

Lewes District has banned glyphosate in all but the most extreme cases of invasive species (and even then seeks alternative treatments). This resulted in their contractor purchasing a hot foam system, which is used for Lewes District work 30 days a year and on other contracts the rest of the time. There are fewer weather – and related safety – restrictions for hot foam, so it is a more flexible system than glyphosate.

While hand and mechanical removal are certainly more expensive in the short term, in the longer term, removal of weeds and seeds will reduce their re-establishment. Even where roots are difficult to lift, repeated weeding of stems and leaves weakens the plants.

Ensuring policy coherence, applied in the new Highways maintenance contract

²² <https://rug.hrocdigital.co.uk/news/can-i-use-a-weedkiller-if-i-have-dogs-or-cats>

ESCC has committed to reducing the mowing and strimming of verges as a step towards reducing biodiversity loss, and yet continues to use a herbicide that kills the same insects on paths and kerb edges that it seeks to save on proximate verges. ESCC's Environment Strategy notes that our water is contaminated 'mostly' due to 'historic farming practices' – in other words, the heavy use of chemical fertiliser, pesticides and herbicides:

*the quality of some ground waters, which provide about 70% of drinking water, has decreased due to rising nitrate levels, mostly due to historic farming practices.*²³

This motion will ensure there is coherence between policy and practice.

ES Highways explain that they follow the guidance for application of the product. Unfortunately, this guidance may include phrases such as: 'Treat established perennial weeds at the start of flowering to give best results' (Roundup® Ready-To-Use Label, cited in BES study by Straw, Carpentier and Brown (April 2021)).²⁴ This is, of course, exactly the point at which plants have a high level of attractiveness to pollinators, thereby causing the greatest likelihood of individual poisoning and, in the case of social pollinators such as honeybees, taking toxin-laden pollen back to the hive.

Our unified County should not be pitting town aesthetics against the survival of arable farms, vineyards and orchards. In our towns, insect foraging areas are likely to be road and pavement verges and other 'corridor' grass and wildflower areas. Where there is intentional planting of pollinator-friendly plant species, and accompanying or following spraying of edges, we are effectively luring to their death the very pollinators we are desperate to save.

This latter point is made plainly in correspondence and photos sent in by Lewes resident, Peter Heslip:

We were recently taking small pleasure at the way that highways respected our new wildflower verges. Also how the allotment behind Highdown road has gone pesticide free. But using roundup within the pollinator cachement would seem to undermine all this good work. From the photos below you will observe: 1) the spray is within a foot of many flowers attracting bees who will undoubtedly be exposed to the poison. 2) the spray is not being 'targeted' but rather blanket sprayed right down the road.

For our town is there an option of using the foamstream machine we own more widely across the town? Presumably the two complications are administrative responsibility and cost. But surely with a bit of focussed energy these are not insurmountable?



ESCC is soon to establish a new contract for Highways maintenance, with 'Option B' – a contract that includes all aspects of Highway maintenance provision, including management of pavements, kerbs, gutters and verges – the likely outcome. This is the perfect opportunity to adopt a fit-for-future approach and to proactively seek contractors offering herbicide-free provision. Such provision would reduce the need for PA6A and PA6AW qualified (although these are lifelong qualifications, operatives are legally obliged to retrain every three to five years) and would increase the need for staff trained in wildflower recognition and best soil, water and plant sustainability practice. A number of local organisations might provide training, with ESCC/Highways contractor thus investing in the local economy.

A small but important example of bad practice

Officers and some Members will know Lesley Healey as secretary of Wildflower Lewes. She and the Wildflower Lewes group, in coordination with East Sussex Highways have worked incredibly hard to expand the pollinator friendly areas in Lewes and has collaborated with other wildflower groups across the County. She is enormously generous with her time and knowledge. I was mortified to receive an email from her, having that very day publicly noted ES Highways' more pollinator friendly verge-trimming practices.

Lesley Healey says:

On 24th June, Highways' contractor sprayed glyphosate along Nevill estate pavement margins, including quite large groups of wildflowers that the verge mowers had deliberately left uncut elsewhere.

Today, I discovered these Toadflax Brocade moth caterpillars [image below] clinging to the very ends of dying purple toadflax, looking for food. I rehomed them, of course, onto purple toadflax plants in uncut verges, but these are just a small number of the thousands of animals that have died or will die because you have killed their food plants.

Ironically these are the very animals that would reduce the plants for you, had you left them alone.



Addressing a crisis requires clear leadership and consistent policy

- Increasing numbers of Councils and government bodies at all levels and around the world, have banned or heavily restricted the use of glyphosate, including Lewes District Council. Other weed control practices are being used across the District and LDC's contractor has invested in a hot foam system.
- ESCC has indicated concern regarding the use of glyphosate herbicide treatment, having committed to reducing its use, particularly in green spaces. That reduction is welcome: however, where it continues to be used, it still poses a hazard for animals and people. To ensure consistent environment and biodiversity policy and practice, and to be seen to be coherent, the leadership that decided to decrease glyphosate spraying should simply ban its use altogether.

Where can you find out more?

I am very happy to talk about the different aspects of this Motion with Members, Officers and Staff.

Links for all the articles, chapters and studies cited are provided in the footnotes.

Cllr Dr Wendy E Maples

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Phone: 07769838698

TASK: Specialist Vehicle/Compact Mini Tractor/Knapsack

CLIENT: COSTAIN CONTRACT: Highway Weed-control. SITE: Highway hard surfaces- kerb edges, kerb channels, footways, & associates obstacles

	HAZARD TYPES & CLASSIFICATION OF RISK	Without Controls			EXISTING CONTROL MEASURES/GUIDANCE	With Controls		
		L	C	Total		L	C	Total
1	Poor storage of herbicides Contamination of operator, other employees, client staff, members of the public, pets, other herbicide, vehicles, plant and PPE. Personal injury, pollution	4	3	12	British Standards Inspection Scheme (BASIS) registered & certificate herbicide store under the control of BASIS Storekeepers. Vehicle storage to BASIS standards and ONLY to be used by National Proficiency Test Council (NPTC) certificate competent operators (Pa1, Foundation Module, Pa6a, Knapsack Module, Pa2a, Ground CropSprayer Module).	2	3	6
2	Poor transportation and handling of herbicide Contamination of operator, other employees, client staff, members of the public, pets, other herbicide, vehicles, plant and PPE. Personal injury, pollution	3	4	12	Vehicles with herbicide storage conforming to BASIS requirements. Specialist herbicide bins secured to vehicle body within goods compartment. ONLY to be used by NPTC certificate competent operators, (Pa1, Foundation Module, Pa6a, Knapsack Module, Pa2a, Ground Crop Sprayer Module). Vehicles with bulkhead (vapour, liquid proof screen) between driver and goods compartment. All vehicles to be locked when unattended. Training, briefings and tool box talks	2	4	8
3	Movement of tractor within support vehicle while in transit Tractor ejection through goods compartment rear doors or crashing in to or through front bulkhead. Personal injury to employees, client staff, members of the public.	5	5	25	Prior to vehicle transit tractor always to be secured by the utilisation of the high load capacity webbing straps that are permanently attached to vehicle framework. Training, briefings and tool box talks	2	5	10

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	HAZARD TYPES & CLASSIFICATION OF RISK	Without Controls			EXISTING CONTROL MEASURES/GUIDANCE	With Controls		
		L	C	Total		L	C	Total
4	The loading & unloading of tractor from support vehicle. Tractor wheels coming off ramps when driving out of or reversing in to the support vehicle. Personal injury to operator, other employees, client staff, members of the public.	5	4	20	When driving the tractor from or in to support vehicle the operator shall utilize purpose built wheel guiding, high edged ramps c/w solid fixed mounting points for attachment to the vehicle body floor. Training, briefings and tool box talks	2	4	8
5	The incorrect setting up and preparation for spray operations. Over/under dosing of target with herbicide. Personal injury, contamination. Pollution Person at risk - Operator	5	3	15	ONLY to be carried out by NPTC certificate competent operators, (Pa1, Foundation Module, Pa6a, Knapsack Module, Pa2a, Ground Crop Sprayer Module). Follow appropriate calibration procedures. Spill kits are to be carried at all times on support vehicles for fuel/herbicide spillage Training, briefings and tool box talks	2	3	6
6	The herbicide application operation. Contamination of operator, other employees, client staff, members of the public and pets. Contact with equipment, vehicle, and street-furniture. Personal injury, contamination, impacts	5	4	20	Utilisation of ONLY NPTC certificate competent operators, (Pa1, Foundation Module, Pa6a, Knapsack Module, Pa2a, Ground Crop Sprayer Module). HOLD POINT Operator to be continually aware of their immediate environs, looking ahead to monitor, interrupt and make judgment on the safest and best method of application to satisfy the contract specification. Training, briefings and tool box talks	2	4	8

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	HAZARD TYPES & CLASSIFICATION OF RISK	Without Controls			EXISTING CONTROL MEASURES/GUIDANCE	With Controls		
		L	C	Total		L	C	Total
7	<p>The use of tractor hand-lance</p> <p>Un safe control of tractor.</p> <p>Personal injury to operator, other employees, client staff, members of the public</p>	3	4	12	<p>ONLY experienced NPTC certificate competent operator (Pa1, Foundation Module, Pa6a, Knapsack Module, Pa2a, Ground Crop Sprayer Module) apply herbicide following NPTC protocols/procedures. Hand-lance use should preferably be when the machine is stationary but may be used in certain situations while in motion where a visual risk assessment shows that it is safe to do so.</p> <p>HOLD POINT Check wind strength, public activity</p> <p>The Plant Operator to be continually aware of their immediate environs, looking ahead to monitor, interrupt and make judgment on the safest and best method of application to satisfy the contract specification.</p> <p>The hand lance will only be used to spray around obstacles on the pavement and in the channel while the tractor is moving when the other fixed nozzles are not appropriate. Such obstacles could include parked cars and also when the targeted weed growth within the channel is being shadowed/missed when being treated by a fixed boom nozzle from the pavement.</p> <p>Kerb channel weed growth should preferably be treated by a targeted boom nozzle application from the carriageway. A visual risk assessment must be carried out initially to ascertain plant operator safety from working in live/open traffic before this method of application is adopted. If deemed unsafe treatment to be carried out from the pavement.</p> <p>For a hand-lance to be used safely in motion the situation must comply with the following criteria</p> <ul style="list-style-type: none"> Utilisation of engineering controls for single hand operation. The fixed ball spinning knob on the steering wheel MUST be used when undertaking hand lance application to maintain safe control of plant whilst in motion. Use ONLY when the operational public safety distance on footpaths is maintained at 5m (spray operation to cease until footpath clear). <p>All large obstacles to be treated while the tractor is stationary e.g. Letter boxes, telephone boxes</p> <p>Staff awareness training, briefings and tool box talks.</p>	2	4	8

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	HAZARD TYPES & CLASSIFICATION OF RISK	Without Controls			EXISTING CONTROL MEASURES/GUIDANCE	With Controls		
		L	C	Total		L	C	Total
8	Terrain Overturning on slopes, herbicide movement in spray tank, unbalanced unit. Impacts. Personal injury. Contamination to Operatives	4	4	16	Tractor speed on footpath NEVER to exceed 8kph. Tractor speed on highways NEVER to exceed 12 kph. Tractors ONLY to be operated on flat surfaces. Tractors NEVER to transit across slopes in excess of 1:6. Tractors ONLY to utilise drop down kerb edges to access/egress footways. All pavements WITHOUT DROP DOWN KERBS TO BE LEFT and recorded to be treated at a later date by knapsack. Tractors are restricted to spraying on flat surfaces. Tractor operation under this risk mitigation measure is risk assessed as 'low risk' of overturn. Tractors working under this risk mitigation measure the provision of Roll over Protection/ROPS and the retrospective fitting of lap belts are not fitted. Experienced NPTC certificate competent operators, (Pa1, Foundation Module, Pa6a, Knapsack Module, Pa2a, Ground Crop Sprayer Module). Staff awareness training, briefings and tool box talks.	2	4	8
9	Traffic Impacts-being struck by other vehicles on the road, being struck by vehicles exiting driveways across the pavements. Personal injury to Operatives	4	4	16	Hi-Viz PPE clothing (As specified by client). 2 x Flashing Yellow LED Xenon warning 360-degree Beacon Lightbar Strobe (24 bulbs) and mandatory blue directional arrow and hazard warning signage "weed spraying" fitted to tractors. Illuminated tractor Headlights. HOLD POINT Suitable TM to be in place The Plant Operator to be continually aware of their immediate environs, looking ahead to monitor, interrupt and make judgment on the safest and best method of application to satisfy the contract specification and comply with risk mitigation. Experienced NPTC certificate competent operators, (Pa1, Foundation Module, Pa6a, Knapsack Module, Pa2a, Ground Crop Sprayer Module). Follow Chapter 8 principles	2	4	8

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	HAZARD TYPES & CLASSIFICATION OF RISK	Without Controls			EXISTING CONTROL MEASURES/GUIDANCE	With Controls		
		L	C	Total		L	C	Total
10	Disposal of surplus concentrate or diluted spray mixture Pollution to the environment.	4	2	8	Never mix up more dilute herbicide than you will use up that day, better to be short and finish off with an individual knapsack mix. Any surplus tank mix to be used on the next job All empty containers must be returned back to the depot along with any packaging and disposed of in the skip(s) provided. Any concentrate herbicide not used on a job, must be returned back to the store and booked back on to store stock register All empty containers are to be triple rinsed and returned to depot for the correct disposal. Follow NPTC, (Pa1, Foundation Module, Pa6a, Knapsack Module, Pa2a, Ground Crop Sprayer Module) protocols	2	2	4

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11	Inadequate Personal Protective Equipment (PPE) plus poor maintenance and cleaning of.	5	3	15	<p>SRL free issue PPE.</p> <p>Overalls that conforms to EN471 Class 3:2 for High Visibility. Orange class 3 for the level of conspicuousness to meet the requirement for body coverage at the side of major roads in the UK and level 2 for the degree of reflectivity when carrying out operations adjacent to highway Plus offer no less protection than a single garment coverall and minimise thermal stress to the operator when worn.</p> <p>Hi Vis tabard EN471 Class 2</p> <p>Safety Helmet: EN397 2012</p> <p>PPE to be used with herbicide: Gallup Amenity herbicide</p> <p>Adjuvant: Green Gold oil</p> <p>Concentrate herbicide & adjuvant</p> <p>Boots EN 20345:2004, Herbicide specific Type 3 coveralls, Full face eye protection EN166, protective gloves. EN388:2016, EN420:2003+A1: 2009 and EN374-2:2003</p> <p>Dilute herbicide/adjuvant</p> <p>Boots EN 20345:2004, Herbicide specific Type 3 coveralls, protective gloves. EN388</p> <p>All PPE that is to be cleaned or is damaged is returned to depot for cleaning/replacement from operator's stock</p>	2	3	6
	Personal injury, contamination Operator							

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	HAZARD TYPES & CLASSIFICATION OF RISK	Without Controls			EXISTING CONTROL MEASURES/GUIDANCE	With Controls		
		L	C	Total		L	C	Total
12	Public Interface Potential/perceived spray drift Contamination to general public	4	3	12	Treatment to high sensitivity areas, high foot traffic areas, environs of school etc. to be carried out in accordance with SRL Guidelines Herbicide Application Neighbouring Areas. Treatments to be undertaken early morning/weekends/school holidays etc. If necessary re schedule timing of treatment. Operational public safety distance on footpaths to be maintained at 5m HOLD POINT Operator to be continually aware of their immediate environs, looking ahead to monitor, interrupt and make judgments on the safest and best method of application to satisfy the contract specification. Keep road/footpath accesses as open & clear, stop operations and allow passage of pedestrians. All operatives shall at all times be courteous to all members of the public regardless of their attitudes. If questioned operators should stop, turn off their tractor and provide the main office number for any queries to be answered.	2	3	6

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13	Adverse Weather Conditions Sun burn, dehydration, overheating, cold and wet Herbicide drift, wash off Personal injury to Operative	5	3	15	Sun protection creams must be worn. Staff awareness training, tool box talks. Spraying does not continue in extreme weather. PPE and water is provided (free of charge) and water breaks to be programmed in to the Schedule of Works. Operators to cease application in wet weather and high winds to avoid drift. Follow NPTC guidelines. HOLD POINT To minimise spray drift, low drift nozzles are set at the lowest optimum height and a vegetable oil is added as an approved adjuvant to the formulation to increase droplet size, which also reduces the likelihood of drift. (Avoid spraying in unsuitable weather conditions e.g. When wind speed at nozzle height is greater than scale 2.5 (15km/hour) on the Beaufort scale). Staff awareness training, briefings and tool box talks	2	3	6
	HAZARD TYPES & CLASSIFICATION OF RISK	Without Controls			EXISTING CONTROL MEASURES/GUIDANCE	With Controls		
		L	C	Total		L	C	Total

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14	Safety of herbicide and area of use	4	3	12	<p>SRL only use BASIS certificate advice on herbicide selection.</p> <p>For COSTAIN Herbicide: Gallup Amenity. Application rate as per label Max. 5 ltr per 10000m2 (360g/ltr Glyphosate) Adjuvant: Green Oil. Rate 2% of diluted solution (950g/ltr Rape Seed oil)</p> <p>NPTC certificate competent operators, (Pa1, Foundation Module, Pa6a, Knapsack Module, Pa2a, Ground Crop Sprayer Module). Herbicide application in accordance with product label and compliance with EU sustainable use directive 2009/128/EC, Regulatory Update 42/201.</p> <p>Tractors to spot and sectional spray only. Blanket spraying is NOT acceptable, apart from odd areas where weed growth is overall, for example: Slab/brick set areas with a high percentage of weed growth in cracks</p> <p>Staff awareness training, tool box talks</p> <p>MHSDS and COSHH Assessments are held in vehicle safety file</p>	2	3	6
15	Poor maintenance and checking spray equipment	4	4	16	<p>Complete mini tractor/spray equipment daily check list in accordance with PUWER Regulations.</p> <p>All maintenance to be carried while tractor is turned off. Always ensure all equipment and guards are fixed and secure</p> <p>First Aid kits carried within vehicle & on the tractor. All plant to be checked before use in accordance with Costain's procedures. Faulty plant to be quarantined until repaired and deemed fit for use.</p>	1	4	4
	HAZARD TYPES & CLASSIFICATION OF RISK	Without Controls			EXISTING CONTROL MEASURES/GUIDANCE	With Controls		
		L	C	Total		L	C	Total

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16	Site hazards, slips and trips Personal injury to Operative	3	4	12	Staff awareness induction, training & tool box talks Environmental & H&S Toolbox Talks Directory, S 128 Slips, Trips, Falls and Voids GH02 Underfoot conditions, keep walkways clear.	2	4	8
17	Noise Personal injury, hearing loss to Operative	3	3	9	Ear defenders must be worn as the operation of the tractor has noise levels of between 82 and 84 dB Ear protection provided free of charge Staff awareness training, tool box talks	2	3	6
18	Access Egress: Vehicle and Tractor Personal injury to Operator	3	4	12	Maintain three-point contact at all times while boarding or alighting. A three-point contact means that two hands and one foot are used to position the body for safe boarding or alighting. Two hands are gripping secure hand-holds or handles while one foot is safely supporting the body's weight during boarding or alighting. The three-point contact should be broken only after reaching the desired destination: ground, vehicle cab, stable platform, exit from operational machine to be in a backward motion maintaining the three point contact. Do not enter and exit or ascend and descend moving equipment. While entering or exiting, movement should be slow and steady to avoid injury from slips, falls, and striking other objects.	2	4	8

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19	Manual Handling	3	4	12	Staff Induction, awareness training and tool box talks	2	4	8
	Personal Injury to Operator				Environmental & H&S Toolbox Talks Directory. S003 Manual Handling, SRL Employee Operators Induction Manual HSQE AWARENESS Introduction to Manual Handling <ul style="list-style-type: none"> Mechanical Lifting and Safe Lifting Procedures, if in doubt, stop work and consult appropriate appointed person or Supervisor. Safe Lifting Procedure, always undertake a test lift to assess capability. 			

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Appendix C - Alternative weed maintenance solutions

Foam Stream

Foam Stream is a low-pressure process, combining heat with biodegradable foam. The highest output for Foam Stream is 700m² per hour. This equvalates to 5,600m² per day compared to 35,200m² with Gallup.

One of the main issues the Highways Service would have with Foam Stream is the frequency the device needs to refill with water. And that either a tanker will need to follow the machine, or it will need to go back to a depot to refill.

Negatives	Positives
<ul style="list-style-type: none"> • Frequent need to refill water • The machine is expensive • It is diesel operated (although LPG versions are possibly available) • The machine is large – meaning it is difficult to access some areas. It comes with a 60m hose • It is quite noisy – not appropriate around housing areas • It is quite slow to use and set up 	<ul style="list-style-type: none"> • It does not use chemicals • It can be used all year round • It can also be used for graffiti removal • It is great for killing moss etc on hard surfaces / play area surfacing

Hand Weeding

Hand weeding is an option which requires an increased amount of resource for a slower process. It is also important the whole plant is pulled, if the area is dry it is more likely the plant could snap resulting in the root being left and the weed re-growing quickly.

It can also result in grout being removed, in turn causing trip hazards on the highway.

Negatives	Positives
<ul style="list-style-type: none"> • Increased cost • Increased resource • Slower process • Quicker regrowth • Potential trip hazard 	<ul style="list-style-type: none"> • It does not use chemicals • It can be done all year round • Immediate results

Acetic Acid (Vinegar)

Acetic acid causes rapid breakdown/desiccation of foliage tissue on contact. The acetic herbicides usually consist of between 10-20% vinegar.

Acetic acid (Vinegar) has been tested in a railway environment. It was seen to be effective at 12% concentration but required more treatment and higher doses compared to herbicide use.

From discussions with Kent County Council who trialled the method, they highlighted that it was not a success as it only treated the top growth with several visits, although they found it worked well on moss.

Negatives	Positives
<ul style="list-style-type: none">• Will kill or damage any plants they touch.• Weeds must be small (timing is important – within 2 weeks of germination)• Roots are not killed; repeat applications are needed for larger weeds and perennial weeds• Sharp vinegar odour may be unpleasant• Corrosion of equipment.• Spray drift may damage desirable plants.• Should not be applied to reactive metals.• Spraying masonry sidewalks and structures can cause these surfaces to stain, mottle, harm the finishes or surfaces.• Treatments must be delayed 24-48 hours or more after rain and should not be done any more than every two weeks.• Severe eye / skin irritation, burns, and possible irreversible damage potential. Vinegars with acetic acid concentrations of 11% or greater can burn the skin and cause severe eye injury, including blindness. Prolonged or repeated exposure may cause dermatitis, chronic bronchitis, and erosion of teeth	<ul style="list-style-type: none">• Excellent control when contacting very small annual broadleaf weeds• Rapid kill rate (Over 90% of treated plants should die within 24hours).• Acetic acid products break down quickly in the environment• Most useful for managing weeds in gravel and on patios/sidewalks.• These contact herbicides fit into an integrated pest management program, although weeds require monitoring for best control timing.• Nonselective, but mainly kill broadleaf weeds. Burns back grasses temporarily.

Thermal

Infra-red and Flame treatment heats up the vegetative parts of the plant rapidly and mainly destroy the surface parts of the weed but not affecting the roots. These methods do not require a pesticide specified certificate as listed on the HSE website. However, operatives would need to be trained and competent in the use of these methods and equipment and in particular the health and safety implications.

Weeds vary in their response to such heat control, with newly emerged or small weeds, or weeds with small root reserves, being more likely to be killed by heat, but well-established weeds, perennial weeds and weeds with substantial root systems being less affected.

For the highways service, this method is not something that could be used around parked cars and would not be appropriate in populated urban areas.

Negatives	Positives
<ul style="list-style-type: none">• Tap rooted weeds can re-emerge after approximately two weeks.• Repeated treatments necessary.• Well established weeds less affected.• Not able to treat all areas, e.g., around parked vehicles	<ul style="list-style-type: none">• No pesticide used.

Mechanical

Mechanical methods consist of either brushing/weed ripping, mowing and strimming, can remove the root along with it, but requires cleaning up and sweeping once the work is done. Wire brushes are the most common mechanical method used; however, this requires access which might be challenging in urban areas.

Negatives	Positives
<ul style="list-style-type: none">• Tap rooted weeds can re-emerge after approximately two weeks.• Access to weeds	<ul style="list-style-type: none">• It does not use chemicals• It can be done all year round

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Appendix D – Potential Trials for Highways in 2022

ESCC Highways are currently reviewing the following alternative weed maintenance techniques with the potential to trial in select areas for 2022:

- Foam Stream - Although this will not work as a wider approach, the trial would be undertaken on specific areas where this technique will be most efficient.
- The opt out approach
 - The opt out approach would give streets the option to 'opt out' of weed spraying. This would be done with the expectation that all members of that street agree and that they would in place undertake some sort of weed maintenance. An agreement, or guidance would be included outlining safety and expectations. This would only be an option on cul-de-sacs or residential roads with low-speed limits. This approach is already being used by Manchester City Council and Exeter City Council.
- Reactive Weeding
 - Another option is reactive weed maintenance, rather than programmed works. This would work on the same principle as other highways reactive services, such as potholes, whereby ESCC would only attend to weed control when areas are identified by a highway steward inspection or by customer report. This would require defining when an area becomes a safety issues due to amount or size of weeds. The method of control would vary depending on location.

Note: moving to a reactive approach would lead to a deterioration in asset condition if regular treatment is not undertaken.

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Report to:	Lead Member for Transport and Environment
Date of meeting:	22 November 2021
By:	Director of Communities, Economy and Transport
Title:	Redundant assets of the Library and Information Service
Purpose:	To seek approval to dispose of museum stock previously used by the Schools Library and Museum Service.

RECOMMENDATIONS: The Lead Member is recommended to:

- (1) note that the proposed phased approach to disposal seeks to ensure that as many items as possible are donated to museums, galleries, and schools to maximise their use for educational purposes;**
 - (2) note that following an assessment by the County Archivist, artwork of cultural or historical significance to East Sussex will be relocated to The Keep and available to residents to view; and**
 - (3) approve the disposal of stock from the Schools Library and Museum Service collection.**
-

1 Background Information

1.1. The Schools Library and Museum Service (SLAMS) was a non-statutory service which supported learning within East Sussex and in neighbouring Local Authorities by lending library and museum stock suitable for classroom-based learning. This was a traded service, funded by schools paying for services, either on a subscription or a pay-as you-go basis. However, with fewer schools buying services each year resulting in decreasing income, the decision was taken in the 2018 Libraries Strategic Commissioning Strategy (LSCS) to cease provision as it was no longer financially viable.

1.2. We now offer the more affordable and popular of our charged services to all schools (which include advisory visits, stock selection and the East Sussex Book Award), as well as a free library membership specifically for teachers. In addition, we target schools in areas of need with dedicated free literacy and reading support through outreach activities. This is part of our offer for Children and Young People and allows teachers and children to benefit from the expertise of our librarians.

1.3. SLAMs began in the early 1960's, with most museum items collected during the 1960s and 1970s. A number of items were gifted to the service, and this information is recorded in ledgers. The stock is currently held at Unit D, Ropemaker Park, Hailsham. The LSCS set out that we would offer our museum stock to The Keep as well as local museums and collections, to maximise the number of items that are retained for local access and minimise those that are destroyed.

1.4. As shown in Appendix A there are more than 1,200 items in the collection and these include 875 singular items, 8 diorama and 74 containers holding various discs, artworks, fabrics, and equipment. The items, models, and artefacts all vary in condition due to their nature of use and the ledgers show that 698 were donated. The collection includes fossils as well as taxidermy, educational models, dioramas, tools, jewellery, and textiles.

1.5. The Council does not have the expertise or appropriate facilities to look after these collections in a manner that enables the public to view them. This paper sets out a disposal proposal which prioritises their future care.

2 Supporting Information

2.1. The value and local relevance of the items ranges significantly across the collections. Auctioneers have estimated the total value of all items to be between £20,000 and £50,000. The County Archivist has checked for any items of cultural or historical significance to East Sussex and arranged for the relocation of artwork of local relevance to The Keep.

2.2. The framework for the proposed disposal is a phased approach to enable items of interest to be held in the public domain in future. Local museums and galleries will be offered first refusal, there will be a number of subsequent steps before any items are recycled or destroyed. The proposed disposal phases are:

- **Phase 1** offer local museums, galleries, and schools as well as the High Weald Education Centre the opportunity to take items which add to their collections as a free donation.
- **Phase 2** list the items on the Museum Associations “Find an Object” site (for free).
- **Phase 3** contact known donors to offer first refusal of a free return.
- **Phase 4** sale through an auction house with any income generated being directly reinvested in the Library and Information Service. Where appropriate items will be sold in specialist sales.
- **Phase 5** offer items free to local relevant organisations such as amateur dramatics, historical societies, and charities.
- **Phase 6** items that remain are recycled or destroyed.

2.3. This disposal process provides organisations in the public domain with the opportunity to add to their collections while applying the principles of the Corporate Disposal Policy and making best use of the County Council’s assets.

3 Conclusion and Reasons for Recommendations

3.1. SLAMS ceased in 2018 following a review of the service during the development of the Libraries Strategic Commissioning Strategy, however a range of new services were introduced as part of our Children and Young People offer including a library membership specifically for teachers and targeted librarian outreach to areas of need. Following the closure of SLAMS there are over 1,200 items held at Ropemaker Park without the facilities to maintain the collection in the long term or provide access to the public. Artwork of local significance will be moved to The Keep and a proposed phased disposal approach has been developed. The phased approach prioritises the donation to museums, galleries, and schools to maximise use for educational purposes.

3.2. The Lead Member for Transport and Environment is therefore recommended to agree to the proposals to dispose of the redundant SLAMS stock held at Ropemaker Park.

RUPERT CLUBB

Director of Communities, Economy and Transport

Contact Officer: Alice Henderson
Tel. No. 07876 878374
Email: alice.henderson@eastsussex.gov.uk

LOCAL MEMBERS

All

BACKGROUND DOCUMENTS

None

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Barcode	Title	Class
397451	Abbot and Prioress	260
164940	Rama and Sita puppets	294
164945	Hinduism Box. Ganesha Puppet, Goddess Tara and Mehndi Stencils	294
164952	Hinduism Box. Hanuman Puppet, Garland and Mehndi Stencils	294
164965	Sikhism Box. Five Ks and prayer beads	294
170868	Sikhism Box. Five Ks and prayer beads	294
164998	Sikhism Box. Turban, Khanda Symbol and Prayer Beads	294
170814	Buddha Statue (Seated)	294
170827	Hinduism Box; Hindu Puppet, Aum Symbol and Mehndi Stencil	294
170828	Buddha Mask	294
170892	Hinduism Box. Ganesha Statue, Garland and Mehndi Stencils	294
397346	Buddha (Head) - 12th century	294
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397569	Saxon Coppergate Helmet	941.2
397572	Viking Warship	941.2
397586	Roman Carpenter's Tools	941.2
397588	Roman Carpenter's Tools	941.2
397600	Roman Road Construction	941.2
397617	Saxon King's Palace - TWO PERSON LIFT Model	941.2
397635	Roman Carpenter's Tools	941.2
397652	Roman Hypocaust	941.2
397653	Roman Hypocaust	941.2
398141	Viking Cargo Vessel	941.2
398153	Roman Oil Lamps. 1st-4th century AD.	941.2
398155	Roman Metalwork. 1st-4th century AD.	941.2
398213	Roman Metalwork. 1st-4th century AD.	941.2
398219	Roman Oil Lamps. 1st-4th century AD.	941.2
398224	Roman Metalwork. 1st-4th century AD.	941.2
398230	Roman Oil Lamps. 1st-4th century AD.	941.2
398243	Roman Metalwork. 1st-4th century AD.	941.2
398244	Roman Metalwork. 1st-4th century AD.	941.2
398256	Roman Soldier	941.2
398259	Roman Samian Ware. 1st-2nd century AD.	941.2
398261	Roman Governor and Lady.	941.2
398263	Roman Bireme. Warship with two tiers of oarsmen c 30 BC. - TWO PERSON LIFT	941.2
398264	Roman Bireme. Warship with two tiers of oarsmen c 30 BC. - TWO PERSON LIFT	941.2
398272	Viking Warship	941.2
398278	Roman Oil Lamps. 1st-4th century AD.	941.2
398297	Roman Garrison Gateway 1st century AD	941.2
398313	Roman Cavalry Sports Helmet	941.2
398340	Saxon Shoes	941.2
398776	Roman Cavalry Sports Helmet	941.2
398779	Roman Soldier	941.2
398781	Roman Woman. 1st - 4th centuries AD	941.2
398864	Roman Life	941.2
398865	Roman Villa	941.2
398877	Roman Villa	941.2

398878	Roman Woman. 1st - 4th centuries AD	941.2
398886	Roman Road Construction	941.2
398890	Roman Legionary Helmet	941.2
398896	Saxon Coppergate Helmet	941.2
398907	Viking Spectacled Helmet. 10th century.	941.2
398914	Roman Soldier	941.2
398934	Saxon Shoes	941.2
398937	Saxon Costume	941.2
398944	Saxon Costume	941.2
398958	Roman Oil Lamps. 1st-4th century AD.	941.2
398973	Roman Woman. 1st - 4th centuries AD	941.2
392099	Norman Costume	941.3
397417	Bayeux Tapestry - TWO PERSON LIFT	941.3
397478	Mini Bayeux	941.3
397594	Battle of Hastings - Part 1 of 2. Model	941.3
397596	Bayeux Tapestry - TWO PERSON LIFT	941.3
398314	Norman Costume	941.3
398319	Bayeux Tapestry - TWO PERSON LIFT	941.3
398767	Bayeux Tapestry - TWO PERSON LIFT	941.3
396925	Monastery	941.3
397119	Pageant Wagon. 15th century - Part 1 of 2. Model	941.4
397191	Crusader's Helmet 1290	941.4
397603	Medieval Costume	941.4
397638	Medieval Costume	941.4
392101	Tudor Life	941.5
396929	Elizabethan Costume	941.5
397155	16th Century Model Cannon (Field Gun)	941.5
397466	16th Century Model Cannon (Field Gun)	941.5
397488	Elizabethan House	941.5
397536	Elizabethan Theatre	941.5
397537	Elizabethan Theatre	941.5
397563	Elizabethan Costume	941.5
398150	Elizabethan Sailor	941.5
398282	Elizabethan Costume	941.5
398288	Tudor Life	941.5
398292	Golden Hind	941.5
398293	Golden Hind	941.5
398301	Elizabethan Sailor	941.5
398312	Elizabethan House	941.5
398338	Tudor Life	941.5
398348	16th Century Model Cannon (Field Gun)	941.5
398743	Tudor Life	941.5
398749	Tudor Costume	941.5
398879	Golden Hind	941.5
398909	Tudor Costume	941.5
398931	Tudor Shoes	941.5
398962	Tudor Life	941.5
398969	Tudor Life	941.5
398976	Tudor Life	941.5
397428	Stuart House	941.6

397453	Commonwealth Costume c 1650	941.6
397565	Stuart Costume	941.6
397621	Commonwealth Costume c 1650	941.6
397669	Stuart Costume	941.6
398329	Stuart Shoes	941.6
170811	Restoration Theatre 1665.	941.6
397087	Seaman 1806	941.7
397144	HMS Victory - TWO PERSON LIFT	941.7
397361	HMS Victory - TWO PERSON LIFT	941.7
397447	HMS Victory - small box	941.7
397450	Georgian Costume	941.7
397452	Georgian Costume	941.7
397625	Regency Items 2 of 2	941.7
397640	Regency Items 1 of 2	941.7
170834	Victorian Kitchen Utensils	941.8
170835	Victorian Kitchen Utensils	941.8
170839	Victorian Kitchen Utensils	941.8
170847	Victorian Kitchen Utensils	941.8
170853	Victorian Kitchen Utensils	941.8
170854	19th century food packaging	941.8
170859	Victorian Kitchen Utensils	941.8
170860	19th century food packaging	941.8
170866	19th century food packaging	941.8
170872	19th century food packaging	941.8
170878	Victorian Kitchen Utensils	941.8
170880	Victorian Toys - Zoetrope	941.8
170904	Victorian Toys - Box 1 of 2 - large doll	941.8
170910	Victorian Toys - Box 2 of 2 - 8 assorted toys	941.8
396933	Victorian Woman	941.8
396954	Victorian Costume	941.8
396955	Victorian Policeman	941.8
397067	Victorian Domestic Irons	941.8
397093	Victorian Domestic Irons	941.8
397133	Victorian Minton. Three 19th century plates.	941.8
397134	Victorian Coalport. Three 19th century plates.	941.8
397220	Victorian Babies' Cotton Clothing	941.8
397221	Victorian Children's Cotton Clothing	941.8
397253	Victorian Babies' Cotton Clothing	941.8
397265	Children's clothing	941.8
397268	Beatrice place setting	941.8
397274	Victorian Children's Cotton Clothing	941.8
397280	Victorian Children's Cotton Clothing	941.8
397284	Victorian Toys - Zoetrope	941.8
397291	Victorian Children's Cotton Clothing	941.8
397298	Victorian Carriage Lamp	941.8
397342	Victorian Toys - Stereoscope	941.8
397349	Victorian Country Scene place setting	941.8
397431	Victorian Laundry Utensils	941.8
397439	Victorian Woman - Ivory necessaire	941.8
397441	Victorian Mail Coach driver	941.8

397443	Victorian Housemaid	941.8
397445	Victorian Mail Coach driver	941.8
397480	Victorian Toys - Zoetrope	941.8
397518	Victorian Lady's Sewing Box. 1895.	941.8
397523	Victorian Toys - Zoetrope	941.8
397532	Victorian Children's Cotton Clothing	941.8
397553	Victorian Babies' Cotton Clothing	941.8
397564	Victorian Toys - Stereoscope	941.8
397574	Victorian Laundry Utensils	941.8
397580	Victorian Toys - Stereoscope	941.8
397581	Victorian Woman	941.8
397582	Victorian Laundry Utensils	941.8
397583	Victorian Toys - Stereoscope	941.8
397589	Victorian Woman	941.8
397590	Victorian Woman	941.8
397608	Victorian Woman	941.8
397611	Victorian Costume	941.8
397622	Victorian Toys - Stereoscope	941.8
397624	Victorian Crinoline	941.8
398222	Victorian Royal Mail Coach 1840.	941.8
398322	Victorian Woman	941.8
398738	Victorian Laundry Utensils	941.8
398330	Victorian Toys - Zoetrope	941.8
398727	Victorian Royal Mail Coach 1840.	941.8
398733	Victorian Toys - Zoetrope	941.8
398735	Victorian Housemaid	941.8
398737	Victorian Shoes	941.8
398738	Victorian Laundry Utensils	941.8
398745	Victorian Shoes	941.8
398746	Victorian Children's Cotton Clothing	941.8
398748	Victorian Toys - Stereoscope	941.8
398750	Victorian Toys - Zoetrope	941.8
398752	Victorian Costume	941.8
398759	Victorian Kitchen Utensils	941.8
398766	Victorian Kitchen - TWO PERSON LIFT	941.8
398780	Victorian Puzzle Blocks	941.8
398929	Victorian Puzzle Blocks	941.8
398938	Victorian Laundry Utensils	941.8
398975	Victorian Kitchen - TWO PERSON LIFT	941.8
165318	Anderson Shelter - TWO PERSON LIFT	941.9
170833	Early Electrical Appliances - hairdrier, 3 pin plugs, switch and light fittings	941.9
170840	Early Electrical Appliances - hairdrier, fan, switch and 2 pin plugs	941.9
170865	Early Electrical Appliances - hairdrier, iron, torch and 2 pin plugs	941.9
170871	Early Electrical Appliances - kettle, toaster, hot water bottle, torch, switch	941.9
170877	Early Electrical Appliances - kettle, toaster, iron, torch, light fitting, 3 pin plugs	941.9
397143	Edwardian Costume	941.9
397150	Edwardian Costume	941.9
397444	1920s Costume	941.9
397601	1920s Costume	941.9
397639	World War II Plane. Supermarine Spitfire.	941.9

397641	George V place setting	941.9
397665	Edwardian Woman	941.9
398744	World War II Planes. Messerschmitt 109E and Supermarine Spitfire.	941.9
398874	World War II Planes. Messerschmitt 109E and Supermarine Spitfire.	941.9
397085	Czech Crafts	943
397397	Czech Embroidery	943
396942	Lithuanian and Russian Woodcraft	947
397223	Russian painted clay toys	947
397264	Lithuanian and Russian Woodcraft	947
170829	Wooden Elephant Puppet from Thailand	950
397188	Rangda, Queen of the witches. Painted wooden mask from Bali.	950
RMP 22	Box of south east asia ethnic artefacts	950
RMP 23	Box of south east asia ethnic artefacts	950
RMP 24	Box of south east asia ethnic artefacts	950
397310	Malaya. Utensils, tools and decorative items	950
397494	Rangda, Queen of the witches. Painted wooden mask from Bali.	950
398231	Thai Batik	950
397312	Japan. Domestic and decorative items	952
398323	Japan. Domestic and decorative items	952
RMP 26	Box of ethnic artefacts	952
392097	Banjari Costume	954
396928	Garuda. Wooden mask of a giant eagle that appears in Hindu epic stories.	954
RMP 25	Box of indian puppets	954
396935	Indian Toys	954
396956	Indian String Puppets	954
397152	Indian Block Printed Textiles	954
397235	Festival Jacket from India.	954
397348	Head of an Emperor. 12th century India.	954
397507	Ikat Textiles from India and Java	954
397541	Ikat Textiles from India and Java	954
397544	Festival Jacket from India.	954
397667	Himalayan Pheasant	954
398242	Garuda. Wooden mask of a giant eagle that appears in Hindu epic stories	954
398248	Raksasa. Hindu demon mask	954
398291	Banjari Costume	954
398306	Indian Saris	954
398310	Ganesh Toran / Indian Embroidery	954
398321	Bombay Festival Mask	954
398324	Indian Block Printed Textiles	954
398334	Festival Jacket from India.	954
398343	Festival Jacket from India.	954
398895	Banjari Costume	954
398941	Indian Block Printed Textiles	954
398957	Indian Embroidery	954
399722	Demon Mask from Hindu Mythology - TWO PERSON LIFT	954
164983	Maasai Beadwork: necklace and bracelet	960
164989	Maasai Beadwork: necklace, crown and two bracelets	960
170817	Kente Clothe from Ghana - 3 strips	960
170820	Maasai Beadwork - Display Boards, Three Necklaces and Two Earrings	960
396946	African Masks from the Ivory Coast.	960

170821	African Mask	960
170824	Kenya - Banana Leaf Pictures and children's sandals made from recycled car tyres	960
170825	Maasai Elephant Mask	960
170886	Maasai Beadwork - Display Boards, Three Necklaces, an Armlet and Two Earrings	960
396921	Kenyan Jewellery	960
396923	Kenyan Village Life	960
396931	African Musical Instruments	960
396932	African Musical Instruments	960
396939	African Masks from the Ivory Coast	960
396961	Kenyan Jewellery	960
396977	Adire Cloth from Nigeria.	960
396980	Weaver Bird's Nest from West Africa.	960
397126	Bamum Bronze from Cameroon.	960
397127	Benin Plaque. 16th century.	960
397128	Yoruba Carving from Nigeria.	960
397147	Benin Bronze from Nigeria.	960
397338	Yoruba Bronze from Nigeria.	960
397433	Bamum Bronze from Cameroon.	960
397508	Metal Bar Currency	960
397567	Sawfish from Cameroon.	960
397694	Kenyan Gourd	960
398151	Nigerian Village Life	960
398211	Hausa Robe from Nigeria.	960
398226	Nigerian Village Life	960
398274	Kikuyu Jewellery from Kenya	960
398284	Kenyan Village Life	960
398344	Benin Bronze from Nigeria.	960
398736	Kenyan Gourd	960
398954	Yoruba Bronze from Nigeria.	960
398964	Kikuyu Jewellery from Kenya.	960
RMP 28	African ethnic artefacts	960
RMP 29	African Musical Instruments	960
RMP 27	South American ethnic artefacts	970
170813	Mexico - Day of the Dead Mask	972
170815	Mexico - Day of the Dead Mask	972
170816	Mexico - Day of the Dead Mask	972
392102	Tlaloc. Aztec rain god	972
392108	Mayan Figurine	972
397098	Pre-Aztec Pottery from Mexico. 1100 AD.	972
397297	Mayan Cage Rattle from Mexico. 1000 AD.	972
398225	Mexican Urn. 8th century.	972
398341	Pre-Aztec Pottery from Mexico. 1100 AD.	972
397105	Peru. Decorative and religious objects	980
397112	Pre-Inca Pottery from Peru. 1400 AD.	980
397469	Peru. Decorative and religious objects	980
397474	Pre-Inca Pottery from Peru. 1400 AD.	980
397701	Decorated Gourd from Peru	980
398245	Peru. Decorative and religious objects	980
398911	Peruvian Costume	980
398992	Peruvian Cotton	980

398285	Spirit Catcher from New Guinea	990
397455	Fiji assorted items	990
170822	Aboriginal Dot Painting - Fabric Painting of Kangaroo, Wooden Goanna, Wooden Turtle and three postcards of Aboriginal life	994
170823	Aboriginal Dot Painting - fabric painting, wooden carved goanna and three postcards of Aboriginal life	994
392107	Aboriginal Weapons	994
397376	Aboriginal Weapons	994
397689	Aboriginal Weapons	994
396920	Polar Lands - Inuit Crafts contains walrus tusk - treat as ivory	998
397202	Inuit Crafts	998
164946	Hinduism Box; Krishna, Aum Symbol and Mehndi Stencils	294
398346	Javanese Masks from the Ramayana	294
398970	Sedimentary Rocks.	553
398223	Frog Life History.	597
397294	Green Woodpecker	598
397406	Little Owl	598
397702	Kingfisher	598
398993	Bat skeleton	599
397236	Ear	612
170836	Set of five Stone Age boxes	930
170842	Set of five Stone Age boxes	930
170861	Set of five Stone Age boxes	930
397185	Flint Knapping	930
397187	Flint Tools. Mesolithic and Neolithic.	930
397215	Flint Knapping	930
397288	Stone Age Tools	930
397405	Neanderthal Man. Donated to Ark Castledown Primary school - November 2020	930
397463	Stone Age Tools	930
397479	Bronze Age Implements	930
397492	Flint Tools. Mesolithic and Neolithic.	930
174214	Anglo Saxon pottery	941.2
398296	Pageant Wagon. 15th century - Part 2 of 2. Posters	941.4
397092	Seaman 1806	941.7
396981	Victorian Children's Cotton Clothing	941.8
396957	Aeroplanes of the First World War. Sopwith Camel and Fokker DR1.	941.9
397070	Aeroplanes of the First World War. Sopwith Camel and Fokker DR1.	941.9
397543	Festival Jacket from India.	954
399103	Indian Block Printed Textiles	954
169511	Amazon: small feather head-dresses, wooden mask and flute	980
397359	Principal orders of insects	595
397575	Glastonbury Lake Village	930
397158	Vickers Vimy	380
398254	British Moths and butterflies	595
396959	Rabbit skeleton	599
398212	Bird eating spider	595
item	Amazon Indians photos and info - laminated display	
item	Broken display components	
item	Broken picture frames - 5	
item	Box of empty insect display cases	
item	Tin of light magnesi Oxidum Leve B.P	
item	Broken microscope	

item	Broken gas mask part
item	Box of broken pottery
item	Mini travel iron
item	Empty metal drawer from cabinet
item	Box of boots
item	Broken pottery houses
item	Paper ladies knickers
item	Incomplete human organs model
Diarium	Working on the land
Diarium	The Emporium
Diarium	Victorian Kitchen Display
Diarium	Open Hearth
Diarium	Victorian Laundry
Diarium	Victorian School room - globe
Diarium	Air raid Shelter - 2 x paintings
Lot 1	<u>Sewing and Weaving end of rolling stock</u>
Item	Singer sewing machine in wooden case
Item	Sewing machine
Item	Looms
item	weaving shuttles
item	Sewing machine
Box	Pinking shears, box of buttons, period sewing guide, needlework set in a presentation handbag, womens weekly pattern
items	1 book and 2 instruction manuals
Lot 2	<u>Typwriters</u>
Item	Old typewriters - Royal and Barlock/Underwood/The Armstrong/The Home Blickenderfer
Lot 3	<u>Computing</u>
item	Commodore 64 Computer equipment
item	Cambridge Z88
Lot 4	<u>Books</u>
item	Sussex Book of Revelations - looks like completed for the millenium - in large green holder with wooden attachment to the case
item	Coaching Days of England
item	The Imperial Family Bible - valued at £100
item	Brown envelope of commemorative stamps
item	List of 84 coloured pictures in light blue casing
items	2 x victoria photo albums and 1 x 20th century photo album
item	Large Type Story Prima 2
item	Order of service for the coronation of King Geroge VI and Queen Elizabeth
folder	marked 74/149 inside - class pictures - teaching in practice for infant schools
box folders	Two years in the infant school by Enid Blyton Topics 1-21 and 22-42
Lot 5	<u>Gramophones, Records and Tape Recorders</u>
Boxes	78 rpm audio discs
Item	Audio player, vintage wax drums in yellow plastic box
item	HMV Gramophone
item	Tandberg tape recorder
item	Hacker Record Player
item	Dousona Gramophone
item	Studio By Collaro Record Player - Ferranti
item	Phillips Tape Player
item	1 blue box containing 11 boxes of gramphone needles
Lot 6	<u>Arts Equipment</u>

item	Hot wire sculptor
Lot 7	<u>Telephones</u>
box	12 various phones and mobiles - perspex phone £100
Lot 8	<u>Household Appliances -</u>
box	3 kettles, 1 toaster, 1 hand held vacuum cleaner, electric fire
box	11 irons plus 1 empty travel iron tin ples designs for a gas iron
Lot 9	<u>Lanterns</u>
box	slides
box	6 lanterns and 1 projector
Lot 10	<u>Photographic Equipment</u>
box	12 cameras, 1 bag and 1 box of miscellaneous equipment, 1 telephoto lens, 1 zoom lens, 1 zoom slide duplicator
Lot 11	<u>Militaria</u>
box	Various militaria items
Lot 12	<u>Flags</u>
boxes	Various country flags
Lot 13	<u>Royal Memorabilia</u>
box	Silver Jubilee items, Coronation Souvenir of our King and Queen
Lot 14	<u>Medical Equipment</u>
box	Medical Equipment
Lot 15	<u>Model Wagons</u>
boxes	Wooden hand made model wagons plus
Lot 16	<u>Glass items</u>
box	glass items and bottles
Lot 17	<u>Lamps/Lanterns</u>
box	Lamps and Lanterns
Lot 18	<u>Antique Kitchen Accessories</u>
box	Antique kitchen accessories
Lot 19	<u>Tools</u>
Boxes	Tools
Lot 20	<u>Toys/Games/Puzzles</u>
boxes	Toys, Games and Puzzles
Lot 21	<u>Kitchen items and Cooking Accessories</u>
box	Various kitchen items and Cooking accessories
Lot 22	<u>Ethnic Weaponary</u>
box	Ethnic Weaponary- includes 19th Century sword £80
	Sperm whale bone patu
Lot 23	<u>Printing</u>
trolley	Various printing accessories
Lot 24	<u>Educational</u>
box	Various items including photographs, exercise books, educational aids
Lot 25	<u>Ceramics</u>
box	Various ceramic pots, ceramic tiles, figurine and various china crockery
Lot 26	<u>Newspaper</u>
boxes	Various old original newspapers
Lot 27	<u>Victorian/Edwardian Documents</u>
box	Victorian/Edwardian Magazine/Photos, post cards and printed material
Lot 28	<u>Clothing and Accessories</u>
boxes/cases	Various items of clothing and accessories plus two hat boxes
	Collections of fans - some ivory
	Top hat

Lot 29	<u>Fabric</u>
boxes	Various items of fabric
	Box of lace
Lot 30	<u>Ethnic</u>
boxes	Various items of ethnic origin
Lot 31	<u>South American Artefacts</u>
diarima trolley	South American Artefacts
Lot 32	<u>Paintings and Prints</u>
cages	Various paintings and prints - see paintings tab
Lot 33	<u>Motoring related magazines, photos and accessories plus miscellaneous</u>
box	Box folder with books about roman coins
	5 autocar copies 1962/63. Guide to Beaulieu motor museum. Practical Classics 1998
	2 x driving licence dated 1967/70 and 1966/69
	Car mechanic Magazine 1965
	100 years of pharmacy in Brighton and Hove
	8 motorcycling magazine from 1941
	Simplicity Pattern Book from 1966
	2 Womans Journal 1958 and 1960
	Your guide to decimal currency in the post office 1971
	Womans Magazine Annual 1937
	Ledger No 2 October 1936 to 1939
boxes	Various non related items
Lot 34	<u>Repro archaeologic items</u>
box	Repro archaeologic items
Lot 35	<u>Possible valuable items and sensitive material</u>
box	Repro archaeologic items
	Various educational posters - see posters tab
	Various fine art posters - see posters tab

No.	Details
1	Paula Rego – Young Predators 13/48 pencil signed E
2	Zandra Rhodes – Head with Scribbled Jewels 13/48 pencil signed L
3	Stephen Buckley – Mercer 13/48 pencil signed E
4	Quentin Blake – In the Afternoon 13/48 pencil signed L
5	Gillian Ayres – glass broken in frame 13/48 pencil signed L
6	Susie Allen – Woodcutter cut my shadow 13/48 pencil signed L
7	Norman Ackroyd - It was seven o'clock when we got into our boat 13/48 pencil signed E
8	Richard Allen – The sign of the cross 13/48 pencil signed E
9	Joe Tilson – Liknon 13/48 pencil signed EL
10	David Tindle – Four seasons 13/48 pencil signed E
11	John Bellany – Serendipity 13/48 pencil signed E
12	Patrick Heron – Garden Print 1987 not numbered and not signed L
13	Adrian Berg – W B Yeates Lapis Lazuli 13/48 pencil signed S
14	John Hewitt – Big race winner 13/48 pencil signed E
15	Cecil Collings – Fool carrying a child 13/48 pencil signed E
16	Bill Culbert – Decant 1987 13/48 pencil signed – P
17	2 pieces of black/brown/white printed paper
18	David Gentleman – Windmill Signed Print
19	N P Hare – Towards the Isle of Sheppey – not signed
20	M Edwards – Painting of an oast house
21	M Edwards - Painting of Rye Close
22	M Edwards – Painting of old high street with church
23	J Lewis – cross stitch Polegate Library 1968-1992
25	Guy Lipscombe – yellow car with 5 people inside
26	Guy Lipscombe – Lady with furs entering chauffeured motor vehicle
27	Rowlandson - Introduction to courtship – in Perspex folder
28	Thomas Tegg – A political fair
31	N P Hare – Red ochre rock in Roussilion
33	Ted Avery 1996 Oil on canvas Elm Hill, Norwich, Norfolk
37	Bosco's empire poster
38	Michael Carlo 1976 - Lane 11/26 Limited edition print

39	Alan Lumsden Bank Holiday 30/75
40	Phil Greenwood Snowfield 74/75 limited edition print
42	Queen Victoria Poster
43	G Chere - Late snow 97/250
44	Alisa Kennedy - Tummel Bridge, Perthshire - 27/75
45	Miss E M Dyer - a pastel of The Mill Caldebec Hill, Battle
46	Mary Faux Jackson Hurstpierpoint - picture unsigned of a vase with flowers
47	Micheal Browett Still Life Gouache
48	Ted Avery - Tenterden
49	Ted Avery - Mount Street, Battle
50	Selina Martin - flowers with butterflies
51	Barbara Loftus Fallen Tree
52	Barbara Loftus Fallen Tree with pencil squares 1988 landscape - pencil signed
53	Barbara Loftus 1988 tree with pencil squares routes portrait - pencil signed
54	Barbara Loftus 1988 fallen tree with pencil squares routes landscape- pencil signed
55	Map of Sussex published by Joannes Blaeu in his "Theatrum Orbis Terrarum sive Atlas Novus" 1645
56	Winchelsea watercolour by Charles Gogin
58	Dartmoor N P Hare
76	Map of Sussex
77	The edge of the wood 1959 Ivon Hitchens
78	Shelley Lepper Dawn Wave - Hastings College 15/60
79	Coleshill Park
80	Miriam Button embroidery
81	Old embroidery
82	Ruins of St Peter's church West Out and Remains of St Mary's church in foro
83	Ice Yacht by Michal Oelman
84	The Almonry, Evesham Valerie Thornton
85	Greetings Exchanged Michael Oelman
86	Medieval City No 3 N D'Abeloff
87	Helen Potts 95 melons on a plate
88	Branscombe Phil Greenwood
89	Tortoise I Edward Lear

Barcode	Title	Class	Media
392136	Bridges	380	Photo Pack
392137	Bridges	380	Photo Pack
398590	Canals and Locks	380	Photo Pack
398626	Building the Railways	380	Photo Pack
398627	Building the Railways	380	Photo Pack
398972	Building the Railways	380	Photo Pack
170810	Earth, Sun and Moon	520	Photo Pack
398570	Space Exploration	520	Photo Pack
398606	Earth, Sun and Moon	520	Photo Pack
398760	Lift Off! The Space Shuttle	520	Photo Pack
398762	Earth, Moon and Sun	520	Photo Pack
398774	Earth, Moon and Sun	520	Photo Pack
398775	Lift Off! The Space Shuttle - SHUTTLE LAUNCH POSTER MISSING	520	Photo Pack
398869	Earth, Sun and Moon	520	Photo Pack
398871	Lift Off! The Space Shuttle	520	Photo Pack
398922	Lift Off! The Space Shuttle	520	Photo Pack
398950	Earth, Moon and Sun	520	Photo Pack
398625	Volcanoes	550	Photo Pack
398608	Crystal Photographs	553	Photo Pack
398617	Crystal Photographs	553	Photo Pack
398618	Crystal Photographs	553	Photo Pack
398619	Crystal Photographs	553	Photo Pack
398620	Crystal Photographs	553	Photo Pack
398628	Crystal Photographs	553	Photo Pack
398573	Life Cycles	570	Photo Pack
398575	Life Cycles	570	Photo Pack
398603	Life Cycles	570	Photo Pack
398740	Life Cycles	570	Photo Pack
398612	Kingfisher photographs	598	Photo Pack
398629	Kingfisher photographs	598	Photo Pack
398765	Kingfisher photographs	598	Photo Pack
398609	Sheep and Shepherds: Historical Images	630	Photo Pack

398623	Sheep and Shepherds : Historical Images	630	Photo Pack
392132	Wool	660	Photo Pack
392148	Wool	660	Photo Pack
398888	Wool	660	Photo Pack
392119	Castles from the air	728	Photo Pack
392122	Castles from the air	728	Photo Pack
392141	Castles from the air	728	Photo Pack
392143	Castles from the air	728	Photo Pack
163772	Indonesian Shadow Puppet	745	Poster
398725	Indonesian Shadow Puppet	745	Poster
398782	Indonesian Shadow Puppet	745	Poster
399102	Indonesian Shadow Puppet	745	Poster
398594	World Maps 1482 and 1507	912	Photo Pack
398595	World Maps 1482 and 1507	912	Photo Pack
398599	World Maps 1482 and 1507	912	Photo Pack
398601	World Maps 1482 and 1507	912	Photo Pack
392118	Cave Paintings	930	Photo Pack
392131	Cave Paintings	930	Photo Pack
392155	Itineb and Denytenamun	932	Photo Pack
392156	Itineb and Denytenamun	932	Photo Pack
398422	Itineb and Denytenamun	932	Photo Pack
398574	Golden Mask of Tutankhamun	932	Photo Pack
398578	Itineb and Denytenamun	932	Photo Pack
398580	Itineb and Denytenamun	932	Photo Pack
398584	Itineb and Denytenamun	932	Photo Pack
398585	Itineb and Denytenamun	932	Photo Pack
398586	Itineb and Denytenamun	932	Photo Pack
398596	Itineb and Denytenamun	932	Photo Pack
398597	Itineb and Denytenamun	932	Photo Pack
398602	Itineb and Denytenamun	932	Photo Pack
398739	Golden Mask of Tutankhamun	932	Photo Pack
398773	Itineb and Denytenamun	932	Photo Pack
398948	Itineb and Denytenamun	932	Photo Pack

398949	Itineb and Denytenamun	932	Photo Pack
398951	Golden Mask of Tutankhamun	932	Photo Pack
398926	Thames Panorama 1616	941	Photo Pack
170858	Roman Military Life - 6 posters	941.2	Photo Pack
170864	Roman Military Life - 6 posters	941.2	Photo Pack
170870	Roman Military Life - 6 posters	941.2	Photo Pack
170876	Roman Military Life - 6 posters	941.2	Photo Pack
392116	Viking Ships	941.2	Photo Pack
392134	Viking Ships	941.2	Photo Pack
398353	Viking Ships	941.2	Photo Pack
392115	Domesday Book	941.3	Photo Pack
392127	Domesday Book	941.3	Photo Pack
392129	Domesday Book	941.3	Photo Pack
392154	Battle of Hastings - Part 2 of 2. Photo pack	941.3	Photo Pack
398624	Bayeux Tapestry	941.3	Photo Pack
398633	Bayeux Tapestry	941.3	Photo Pack
392111	Tudor Portrait Gallery	941.5	Photo Pack
392112	Tudor Portrait Gallery	941.5	Photo Pack
392123	Tudor Portrait Gallery	941.5	Photo Pack
392128	Tudor Portrait Gallery	941.5	Photo Pack
392146	Tudor Portrait Gallery	941.5	Photo Pack
392160	Tudor Portrait Gallery	941.5	Photo Pack
398572	Tudor Maps	941.5	Photo Pack
398579	Tudor Maps	941.5	Photo Pack
398598	Tudor Maps - MISSING London map	941.5	Photo Pack
398600	Tudor Maps	941.5	Photo Pack
398604	Tudor Maps - MISSING London map	941.5	Photo Pack
398899	Tudor Portrait Gallery	941.5	Photo Pack
398903	Tudor Portrait Gallery	941.5	Photo Pack
398904	Tudor Portrait Gallery	941.5	Photo Pack
398923	Tudor Maps	941.5	Photo Pack
392109	Victorian Town Life	941.8	Photo Pack
392110	Victorian Portrait Gallery	941.8	Photo Pack

392120	Victorian Portrait Gallery	941.8	Photo Pack
392121	Victorian Portrait Gallery	941.8	Photo Pack
392126	Victorian London	941.8	Photo Pack
392130	Victorian Portrait Gallery	941.8	Photo Pack
392133	Victorian Stagecoach Travel	941.8	Photo Pack
392135	Victorian Portrait Gallery - NOT on display boards MISSING Queen Victoria	941.8	Photo Pack
392147	Victorian Portrait Gallery	941.8	Photo Pack
392149	Victorian London	941.8	Photo Pack
398613	Victorian Journals	941.8	Photo Pack
398621	Victorian Journals	941.8	Photo Pack
398764	Victorian Journals	941.8	Photo Pack
398772	Victorian Stagecoach Travel	941.8	Photo Pack
398867	Victorian Journals	941.8	Photo Pack
398876	Victorian London	941.8	Photo Pack
398971	Victorian Town Life	941.8	Photo Pack
392114	World War II Headlines	941.9	Photo Pack
392140	World War II Headlines	941.9	Photo Pack
392150	20th Century News Review	941.9	Photo Pack
392151	20th Century News Review	941.9	Photo Pack
392152	20th Century News Review	941.9	Photo Pack
392153	20th Century News Review	941.9	Photo Pack
392157	British War Posters 1914-1918	941.9	Photo Pack
392159	World War II Headlines	941.9	Photo Pack
398569	War Posters 1939-1945	941.9	Photo Pack
398577	British War Posters 1914-1918	941.9	Photo Pack
398589	War Posters 1939-1945 - THREE POSTERS MISSING	941.9	Photo Pack
398591	War Posters 1914-1918	941.9	Photo Pack
398592	War Posters 1939-1945	941.9	Photo Pack
398593	War Posters 1939-1945 - 3 POSTERS MISSING	941.9	Photo Pack
398605	War Posters 1939-1945	941.9	Photo Pack
398741	War Posters 1939-1945	941.9	Photo Pack
398755	20th Century News Review	941.9	Photo Pack
398883	War Posters 1939-1945	941.9	Photo Pack

398889	World War II Headlines	941.9	Photo Pack
398897	20th Century News Review	941.9	Photo Pack
398901	World War II Headlines	941.9	Photo Pack
398902	World War II Headlines	941.9	Photo Pack
398919	War Posters 1939-1945	941.9	Photo Pack
398921	War Posters 1939-1945	941.9	Photo Pack
398924	War Posters 1939-1945 - 3 POSTERS MISSING	941.9	Photo Pack
398862	France	944	Photo Pack
392117	Batik Paintings from Indonesia	950	Photo Pack
398582	Thailand	950	Photo Pack
398587	Thailand	950	Photo Pack
398898	Batik Paintings from Indonesia	950	Photo Pack
398857	China	951	Photo Pack
398870	China	951	Photo Pack
398884	China	951	Photo Pack
392144	Japanese Women	952	Photo Pack
398616	Japanese Women	952	Photo Pack
398614	Mesa Verde	970	Photo Pack
398632	Mesa Verde	970	Photo Pack
398872	Canadian Indians II. Musical instruments and toys	971	Photo Pack
398873	Canadian Indians I. Costume and decoration	971	Photo Pack
398770	Mexico	972	Photo Pack
398571	Maori Carving - 1 laminated poster	993	Photo Pack
398581	Maori Carving - 3 laminated posters	993	Photo Pack
398588	Maori Carving - 3 laminated posters	993	Photo Pack
392113	Australian Reptiles	994	Photo Pack
392124	Australian Birds and Mammals - 10 laminted posters	994	Photo Pack
392125	Australian Reptiles - 10 laminated posters	994	Photo Pack
392139	Australian Reptiles - 20 laminated posters	994	Photo Pack
392145	Aboriginal Paintings	994	Photo Pack
398610	Aboriginal Paintings - display case with laminated posters	994	Photo Pack
398763	Aboriginal Paintings - display case with laminated posters	994	Photo Pack
164158	Antarctica - display case	998	Photo Pack

170873	Antarctica display case	998	Photo Pack
398641	Polar Lands - People of the Seal - display case	998	Photo Pack
398784	Polar Lands - People of the Seal - display case	998	Photo Pack
398900	Polar Lands - People of the Seal - display case	998	Photo Pack