



ECONOMY, TRANSPORT AND ENVIRONMENT SCRUTINY COMMITTEE

WEDNESDAY, 18 MARCH 2015

10.00 am COMMITTEE ROOM, COUNTY HALL, LEWES

MEMBERSHIP - Councillor Richard Stogdon (Chair)
Councillors Mike Pursglove (Vice Chair), Claire Dowling, John Hodges,
Pat Rodohan, Rosalyn St. Pierre and Barry Taylor

A G E N D A

- 1 Minutes of the meetings held on 19 November 2014 and 12 December 2014 (*Pages 3 - 26*)
- 2 Apologies for absence
- 3 Disclosures of interests
Disclosures by all members present of personal interests in matters on the agenda, the nature of any interest and whether the member regards the interest as prejudicial under the terms of the Code of Conduct.
- 4 Urgent items
Notification of items which the Chair considers to be urgent and proposes to take at the appropriate part of the agenda. Any members who wish to raise urgent items are asked, wherever possible, to notify the Chair before the start of the meeting. In so doing, they must state the special circumstances which they consider justify the matter being considered urgent.
- 5 Review of East Sussex County Council's Dutch Elm Disease Strategy - report by Director of Communities, Economy and Transport (*Pages 27 - 64*)
- 6 Progressing as a strategic commissioning authority: rights of way and countryside site management functions - Report by Director of Communities, Economy and Transport (*Pages 65 - 68*)
- 7 Reconciling Policy, Performance and Resources 2015/16 - report by Chief Executive (*Pages 69 - 72*)
- 8 Scrutiny committee future work programme (*Pages 73 - 78*)
- 9 Forward Plan (*Pages 79 - 84*)
The Forward Plan for the period to 30 June 2015. The Committee is asked to make comments or request further information.
- 10 Any other items previously notified under agenda item 4

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10 March 2015

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SCRUTINY COMMITTEE FOR ECONOMY, TRANSPORT AND ENVIRONMENT

MINUTES of a meeting of the Scrutiny Committee for Economy, Transport and Environment held at County Hall, Lewes on 19 November 2014.

PRESENT: Councillors Richard Stogdon (Chair), Frank Carstairs (substituting for Cllr. Mike Pursglove), Claire Dowling, John Hodges, Pat Rodohan, Rosalyn St. Pierre and Barry Taylor.

LEAD MEMBERS: Councillors Carl Maynard (Lead Member for Transport and Environment) and Rupert Simmons (Lead Member for Economy).

ALSO PRESENT: Rupert Clubb, Director Communities, Economy and Transport; Karl Taylor, Assistant Director Operations; Tony Cook, Head of Planning; Sarah Iles, Team Manager Planning Policy & Development. Alexandra Doyle, Department of Energy & Climate Change; Michael Turner, Environment Agency; Tony Almond, Health & Safety Executive.

Scrutiny Lead Officer: Martin Jenks

22. MINUTES OF LAST MEETING

22.1 The minutes of the meeting held on Monday 10 September 2014 were agreed.

22.2 RESOLVED – to approve as a correct record the minutes of the meeting held on 10 September 2014.

23. APOLOGIES FOR ABSENCE

23.1 Apologies for absence were received from Councillor Mike Pursglove.

24. DECLARATIONS OF INTEREST

24.1 None.

25. URGENT MATTERS

25.1 None notified.

26. SHALE GAS AND OIL EXPLORATION – PRESENTATION ON IMPACTS AND REGULATORY ARRANGEMENTS.

26.1 The Director for Communities, Economy and Transport introduced the report. Shale gas and oil is part of the energy mix of the United Kingdom (UK). The UK is a net importer of gas with 80% being consumed by domestic users for heating and cooking. Energy security is becoming a key issue and this is where onshore unconventional oil and gas energy supplies could play a significant role.

26.2 The Head of Planning outlined East Sussex County Council's (ESCC) position as the planning regulator for oil and gas developments in its role as the waste and minerals planning authority. The South Downs National Park Authority is also a waste and minerals authority and will determine any planning applications within the boundary of the National Park that are in East Sussex. Planning policy WMP16 is the relevant planning policy within the Local Plan.

26.3 There are no existing permissions for gas or oil exploration or production in East Sussex. There are no current applications or requests for pre-application advice. Cuadrilla has recently given up a large petroleum exploration licence and only 1.2% of the County's land area (approximately 27km²) is within a current petroleum exploration licence. The Weald Basin has little shale gas potential. There is a limited potential for shale oil in East Sussex, but the areas to the west of the County have a higher potential for shale oil.

Presentation by Alex Doyle, Department of Energy and Climate Change (DECC)

26.4 The role of the Office of Unconventional Gas and Oil is to promote exploration, develop regulation policy, and to ensure public engagement. Gas is used for power generation and for domestic use. There is a gap between the amount of gas produced domestically and the current demand, which has to be met by importing gas. The Government considers shale gas to be important to the security of UK energy supplies and the economic benefits that it can have e.g. increased employment.

26.5 The British Geological Survey report on the Weald Basin Shale rocks indicates there are prospective reserves in the deeper shale rocks around Mid Sussex. These are classed as 'unconventional' sources of oil and gas because they are bound within the shale deposits and are not free flowing like conventional oil and gas fields. In order for the gas or oil to be extracted from shale rock, techniques such as hydraulic fracturing need to be used to release the gas or oil.

26.6 There will be local impacts from the exploration and production of shale gas and oil. The UK Onshore Operators Group, which represents the industry, has agreed a Community Engagement Charter. It has also agreed to give the local community £100,000 at the exploration stage for each well site and 1% of revenues for each well in production. The percentage contribution from revenues has been set in advance of knowing what the viability of the onshore industry will be and may be revised at a later date.

Exploration

26.7 At present the industry is at the exploratory stage, where it is seeking to establish what potential the gas and oil bearing shale rocks have. DECC awards petroleum exploration licences to companies in an application process every 2-3 years. The most recent petroleum exploration licencing round closed on the 28 October 2014 and the results will be announced in early 2015. As part of the licence application process, DECC checks the financial viability and technical competence of each company applying for a licence.

28.8 Once the petroleum licences have been allocated, planning permission and other licences have to be obtained. The exploration stage can last up to six months. If a well goes into production, it could be operational for a period up to 20 years. Well decommissioning and restoration can take place at any stage.

How Safe is Hydraulic Fracturing?

26.9 There are two key independent reports that look at the safety of hydraulic fracturing and the impact on health. The Royal Society and Royal Academy of Engineering Report “Shale gas extraction in the UK: a review of hydraulic fracturing” published in June 2012, looked at the experience in the United States of hydraulic fracturing. It concluded that the risks from hydraulic fracturing could be managed (i.e. they were low) if the operations were well run, used best practice, and were regulated properly. Most of the recommendations from this report were implemented by DECC.

26.10 The Public Health England report “Review of the Potential Public Health Impacts of Exposures to Chemical and Radioactive Pollutants as a Result of the Shale Gas Extraction Process” June 2014 came to a similar conclusion that the risk from hydraulic fracturing was low, provided best practice techniques are adopted and there is robust regulation. The main risks were from operational failures and a weak regulatory system.

How is Hydraulic Fracturing Regulated?

26.11 The regulation process starts with DECC awarding petroleum exploration licences. The operator then must seek planning permission and obtain the relevant licences/permits from the Environment Agency (EA). The operator will also have to obtain approvals from the Health & Safety Executive (HSE) for the well design, well construction, and the safety of drilling operations. If the operator plans to use hydraulic fracturing, they will also have to submit a fracturing plan. Once all these permissions and approvals are in place DECC will issue a well consent.

26.12 DECC has developed a regulatory “road map” (available on the DECC web site) to help operators and members of the public understand the regulatory process. DECC continues to work on the regulatory process and encourages companies to talk to regulators, planning authorities and local communities at the earliest possible stage.

26.13 In response to the issues that arose in Lancashire, DECC has introduced a “Traffic Light” seismic monitoring system which is very stringent. Where there are no seismic effects from hydraulic fracturing, operations can proceed (Green). Where earth tremors are experienced up to 0.5 on the European Macroseismic Scale (EMS), operations can proceed with caution and increased monitoring (Amber). If earth tremors exceed 0.5 on the EMS scale, operations must cease immediately (Red).

Impact on Climate Change

26.14 A number of studies have been carried out to look at the impact on climate change of shale gas. Emissions from shale gas will come under the CO₂ climate change targets. The early monitoring of sites has shown that CO₂ emissions from shale gas sites are very slightly higher than they are from natural gas sites, but are lower than imported liquid natural gas (LNG). Electricity generation from gas has a significantly lower CO₂ footprint than the use of coal. The Government also remains committed to the use of renewable sources of energy with significant investment in this sector.

Government Efforts to Promote Development

26.15 The UK Government is taking a number of steps to promote the development of the onshore shale gas and oil industry. These include:

- The 14th licensing round for petroleum exploration licences which includes DECC conducting a Strategic Environmental Assessment (SEA).
- A lower tax of 30% on shale gas to encourage the development of the industry.
- The retention of business rates for shale gas production sites by local authorities.

- Changes to access rights outlined in the Infrastructure Bill currently going through Parliament, so that companies have a right of access below 300 metres. Any surface development and access will still be subject to land owner agreement.

Conclusion

26.16 The Government believes that the UK needs shale gas to bridge energy supply requirements whilst low carbon alternatives are developed. Shale gas provides potential energy security, economic growth, job creation and tax revenues. The industry is subject to robust regulation and green house gas emissions are lower than imported liquid natural gas and coal fired energy generation.

Presentation by Michael Turner, Environment Agency (EA)

26.17 The Environment Agency (EA) is the environmental regulator for the onshore oil and gas industry. The EA's role is to manage risks that arise from exploration and production. This is achieved through a system of permits and active monitoring of the permit conditions. The permits apply to conventional and unconventional oil and gas exploration/production.

26.18 The EA has a history of regulation in Sussex that includes conventional wells. It has also had the experience of regulating Wytch Farm in Dorset. This site was developed in the 1970's using hydraulic fracturing techniques.

26.19 If an operator wants to drill for oil or gas they need to obtain a range of permits, depending on the location and the type of operation. For example, there may be naturally occurring radioactive materials that are released as a result of the drilling. If above the permitted level, the resultant waste will require a permit and a safe means of disposal. Similarly if flaring is necessary, a separate permit will be required. Before a well goes into production an operations permit is needed.

26.20 The permitting process is similar to the planning process. There is a pre-application phase when the operator can discuss their proposals. There is a consultation phase before permits are issued, the determination and issue of permits, followed by a process where permits are surrendered once operations have ceased. There are two types of permit, one with standard conditions and a bespoke permit with non standard conditions.

26.21 The permit conditions are designed to control the potential impact on land, air quality, water quality and people. The permit conditions cover things such as:

- Drilling additives, technical assessment
- Well design, groundwater protection
- Surface operations, including the use of an impermeable membrane
- Surface water drainage
- Storage of materials on site e.g. chemicals and fuels
- Environmental monitoring
- Flaring (using best available techniques) rather than venting

26.22 The principle responsibility for monitoring the permit conditions rests with the operator, but EA also carries out check monitoring. They undertake joint site visits with the Health and Safety Executive (HSE) and carry out deeper audits of operations. EA also works with partner organisations such as the planning authority. It will liaise with the local community and follow up any reports of pollution.

26.23 Operators tend to apply for planning permission before applying for permits. The EA is a statutory consultee in the planning process and this ensures there are no gaps or overlaps in the regulatory process. The EA are happy to give advice to Planning Officers and attend Planning Committees. The EA believes the risks from hydraulic fracturing can be managed through permits and robust monitoring.

26.24 At present there is no hydraulic fracturing planned or taking place in East Sussex. It is more likely that exploration will take place for conventional oil.

Presentation by Tony Almond, Health and Safety Executive (HSE)

Regulatory Regime

26.25 The Health and Safety Executive (HSE) regulates all health and safety in the UK. It regulates the onshore and offshore oil and gas industries and has many years of regulation experience. The HSE works very closely with the EA to regulate the onshore oil and gas industry. The UK has a very robust regulatory regime, probably tougher than anywhere else.

26.26 The main risk is the loss of well integrity. Therefore the construction of the well is very important. The HSE looks at the construction of the well and the work place safety issues. It does this through the Health & Safety at Work Act (1974) and two other sets of regulations:

- The Borehole Sites and Operations Regulations 1995.
- The Offshore Installations and Wells (Design and Construction etc.) Regulations 1996.

The HSE can enter a site at any time without notice to carry out an inspection. It can issue improvement notices, stop notices and prosecute operators.

Regulatory Approach

26.27 The HSE works with operators to set industry standards on the best available techniques. It looks at individual wells and adopts a lifecycle approach to regulating wells. It jointly regulates well operations with the EA and entered a memorandum of understanding with them in 2012.

26.28 Before any work starts on site the operator has to provide the HSE with a range of information on:

- Well design, drilling muds, fracking fluids and all equipment on site.
- Details of the well borehole design including the three levels of casing.
- The geology and how the design of the well has taken into account the risks presented by the geology.

26.29 Once construction has started, the operator has to provide weekly reports including details of the depth and diameter of the well; the depth and diameter of the casing; the pressure of the drill fluid and its density; and details of any work carried out since the last report. When a well is de-commissioned, the operator has the responsibility to provide a similar weekly report throughout the process.

26.30 In addition, the operator has to appoint an independent well examiner from a separate company. The independent well examiner's role is to ensure that the operator complies with the regulations and best practice throughout the lifecycle of the well.

QUESTIONS

Economic Benefits

Question: Are the economic benefits from shale gas in the UK overstated and is it economically viable?

26.31 The economic benefits will depend on the size of the resource. Current estimates are based on the British Geological Survey report, but more exploration is needed to prove the size of the resource and hence the economic viability. The Institute of Directors and Ernst Young are working on a scenario to calculate the economic benefits. If the shale gas industry can be established the Government expects there will be economic benefits, but this depends on how the industry grows.

Exploration Activity

Question: How much exploration is currently underway?

26.32 There are a number of planning applications in Lancashire. There are likely to be approximately 10 wells in the next few years. There is no exploration currently taking place in East Sussex. There is no conventional oil or gas activity in East Sussex.

Regulation and Planning

Question: What happens if planning permission is granted first but permits are refused?

26.33 In these circumstances, the development will not go ahead. Usually EA's comments would be included within the planning permission as a statutory consultee. Permits tend to be more detailed and it is the operators risk if they cannot get the relevant permits. A permit can change the detail of the way operators run a development, so it would be preferable for the planning permission and permitting processes to be carried out at the same time.

Question: As planning authority, how can ESCC be sure of the quality of the operator?

26.34 DECC has issued national planning guidance to assist local authorities and ESCC should assume that the other agencies will fulfil their role in checking the competence of the operator. DECC will be able to assist ESCC if a planning application is made and help to explain the role of each of the bodies to the public. DECC will also check that all bodies are meeting their responsibilities.

Question: Does ESCC have sufficient capacity and technical expertise to deal with a planning application for shale gas or oil exploration?

26.35 Yes the department has appropriate capability to deal with planning issues locally, but will apply to have additional resources e.g. services of consultants, if necessary.

Question: Is hydraulic fracturing safe?

26.36 DECC does not want to overstate the case for hydraulic fracturing, but the UK has over 50 years regulatory experience from onshore and offshore operations. The UK has one of the most stringent regulatory regimes and has a good track record. The Royal Society & Royal Academy of Engineering, and, Public Health England Reports suggest risks from hydraulic fracturing can be managed and will be low, if best practice is adopted and operations are well run.

Risks and Impacts from Exploration and Production

Question: What fluids are used, and is there a risk they can migrate away from the well head?

26.37 The mixture of fluids used for hydraulic fracturing will vary, depending on the site conditions. They are usually largely water, with sand and a lubricating chemical additive. The EA will pre-approve the mixture or reject it prior to drilling starting on site. There is the potential for the operator to recycle hydraulic fracturing fluids and drilling mud on site. If the water use on site is more than 20 mega litres per day, the operator will need an abstraction permit, if it is using a local water source. If the water comes from a water company, it will be included in the existing water company abstraction permit. The water use for a hydraulically fractured well is less than the summer water use for an average golf course.

26.38 The monitoring of the potential for fluids to leak from a well head will depend on the hydrology of the area. Wells are lined with a triple casing that will go down as far as there is a risk to permeable geology. Unconventional oil and gas sources can be very deep and the overlying Weald clay also acts as a confining layer. The risks of drilling in shallower levels for conventional oil and gas are higher, but there are risks from any borehole. If there was a potential risk of fluids migrating from a well head, then EA would be unlikely to issue a permit. In addition, EA will not permit drilling through a drinking water aquifer.

Question: Do sites have to be bunded?

26.39 The well head has to have an impermeable membrane drained to a sealed tank. So yes, sites do have to be bunded to prevent ground and ground water contamination.

Question: What happens if the well casing fails and the gas or oils leaks and there is an explosion/fire?

26.40 Hydraulic fractured wells do not have a huge amount of pressure, so it is likely to be a limited type of incident, confined to the well head itself. This might result in the release of fluids into the environment. The operator is required to liaise with the emergency services and have an emergency plan in place.

Question: Would local authorities be liable for the cost of dealing with an emergency?

26.41 The liability for meeting the costs of an emergency rests with the operator. The operator is required to have sufficient insurance to cover all liabilities. So the financial liability for dealing with emergencies does not rest with local authorities. DECC is looking at the issue of what happens if companies go bankrupt, or a successor company/well owner cannot be found, in the case of abandoned wells.

Question: What are the impacts of developing a well on the local community?

26.42 Usually the well head is 1-2 hectares in size and can be developed successfully in environmentally sensitive areas e.g. Wytch Farm is in a Site of Special Scientific Interest (SSSI) and an Area of Outstanding Natural Beauty (AONB). There are a number of impacts associated with well development which will vary depending on the site and the availability of utilities e.g. water and power supply etc. They include:

- Site construction – installing permeable membrane, concrete pad, fencing etc. including transport of equipment and materials onto site.
- Drilling – There will be a number of weeks of drilling noise, vehicle movements for equipment transport etc.
- Hydraulic Fracturing – this may take 1-2 days and will require significant quantities of water and additives, which may result in more traffic.
- End of Drilling Phase – Removal on equipment from site (drilling head, storage tanks etc.)
- Production Phase – For gas the well head is quite small and ongoing production infrastructure needs can be quite low. In addition the gas or oil produced will need to be taken off site.

26.43 The period of intense activity at a well site tends to be a number of months, but is usually less than a year. The construction phase usually lasts between 6 weeks and 3 months. The length of time will depend on each site. The operator will provide details of the planned length of activity to the planning authority when it applies for planning permission.

Seismic Monitoring

Question: How do you know whether earthquakes are due to hydraulic fracturing or naturally occurring?

26.44 In the case in Lancashire, DECC used a number of experts to look at the seismic monitoring data that the operator had collected. In this case there was little doubt that the seismic activity was due to hydraulic fracturing operations, which produced tremors of between 1.5 and 2.3 on the EMS scale. This was due to an existing fault in the rocks slipping. Tremors associated with hydraulic fracturing are usually below the level anyone would notice and lower than coal production induced seismic activity.

Question: What is the insurance companies' view of the risk from earthquakes and will the Government underwrite the costs?

26.45 The operator will be responsible for the risk and payments for any damage.

Question: How will this affect individual's insurance premiums?

26.46 The Association of British Insurers (ABI) view is that the risk is low and does not need to be specifically covered in policies.

Question: What is the expected impact on premiums?

26.47 This is something that DECC can ask the Association of British Insurers (ABI).

Abandonment of Wells

Question: What are the ongoing monitoring arrangements once a well has been plugged and sealed?

26.48 The long term monitoring of a well is carried out by EA, but there may be a need for post abandonment monitoring of wells. This is something that EA is reviewing. The review is looking at all previously abandoned wells and the arrangements that have been made. The operator has to prove there is no residual risk to the environment as part of the de-commissioning process.

26.49 There is an independent piece of research being led by Newcastle University and Durham University by ReFINE (Researching Fracking in Europe) which is looking at abandoned wells and well design to reduce the need for ongoing monitoring. Usually when a well is sealed the concrete plug goes down many hundreds of metres.

26.50 RESOLVED: - It was resolved to note the information on the impacts of shale oil and gas exploration.

27. RECONCILING POLICY, PERFORMANCE AND RESOURCES (RPPR)

27.1 The Director of Communities, Economy and Transport introduced the report and outlined the financial challenges facing the department and the authority in coming years. The medium term financial plan has sought to save £60m across the Council. When thinking about the RPPR process, it is important to put it in the context of the Council's four cross-cutting priority outcomes. In this respect, the work of the RPPR Board is really important and significant.

Communities, Economy and Transport (CET) Budget Position

27.2 The CET department's revenue budget is similar in size to the Children's Services budget if you exclude school budgets. The Adult Social Care & Community Safety department tends to have the largest budget of all the departments. The CET budget has some constraints, namely the:

- Waste disposal private finance initiative (PFI) contract £25m
- Concessionary bus travel scheme £8m
- Highways contract costs £12m

27.3 The RPPR Board will meet on the 15th December 2014 and all Committee members will participate in the Board. At the RPPR Board Committee members will be able to review:

- Progress with the current year's budget savings.
- Any modifications to the 2015/16 budget.
- Possible implications for the years following 2016/17.

27.4 The Committee would like to see a range of options presented for planned savings where this is possible. The Committee can challenge the savings proposals, but will have to find alternative savings within the final year of the 3 year savings plan. There is also a corporate context to the savings plan, and the department cannot 'shunt' savings to other departments.

27.5 CET has sought to work with other departments and partners when looking to make savings. The Transport Hub is an example of this where school transport is being managed on behalf of Children's Services. This has led to the reduction in the use of more expensive forms of transport such as Taxi's, and a reduction in costs for the authority as a whole. The department is in discussion with partners such as Parish Council's and others through the Strengthening Local Relationships (SLR) meetings and the Community Self Serve initiative.

27.6 The CET department has already made significant savings and cost reductions through the Transformation programme and other initiatives. The department has worked to reduce the staff management overhead and the commissioning process for services incorporates zero based budgeting.

27.7 The Scrutiny Committee is invited to submit further ideas for savings at the RPPR Board meeting for the department to consider.

RPPR Review Board

27.8 The Committee agreed to convene a Scrutiny Review Board to consider the portfolio and savings plans. All Committee members will participate in the Board, which will be held on Monday 15th December 2014 following the Lead Member meeting.

27.9 RESOLVED: - It was resolved:

- 1) To note the report and;
- 2) Establish an RPPR Review Board.

28 SCRUTINY WORK PROGRAMME

28.1 RESOLVED: To amend the scrutiny work programme to include the following items:

MEETING TO BE HELD ON 18 MARCH 2015

Dutch Elm Disease Strategy Update.

A monitoring report to review how well the 'prioritised approach' strategy, endorsed by the Scrutiny Committee in March 2013, is working.

Safer Streets

A report on the Safer Streets initiative led by the Public Health department, which links to the Killed and Seriously Injured (KSI) performance targets and wider road safety issues.

Reconciling Policy, Performance and Resources (RPPR).

The Committee will review their input into the RPPR process, and make recommendations for improvements for the future RPP&R process.

MEETING TO BE HELD ON 1 JULY 2015

Scrutiny Review of School Crossing Patrol Alternative Funding

Update report on the progress in implementing the recommendations of the review.

POTENTIAL FUTURE ITEMS

28.2 The Committee discussed the following as subject as a potential future item for inclusion in the work programme:

Economic Development

A detailed appraisal of the impact and overall effectiveness of the Rural Growth and Employment Fund (RuGEF), ESCC Capital Budget for Growth, and Regional Growth Fund (RGF) programmes, looking at how different businesses have benefitted and the effectiveness of the programme.

Superfast Broadband Project

The Committee discussed receiving a report on the progress of the Superfast Broadband project, examining take up and the next stages of the project.

29. FORWARD PLAN

29.1 The Committee considered the Forward Plan for the period 1 November 2014 to 28 February 2015. Requests for information should be raised with the listed contact officer, and any scrutiny issues with the Members Services Manager.

30. URGENT ITEMS

30.1 No urgent items were raised for discussion.

31. NEXT MEETING

31.1 The meeting ended at 12:45 pm.

The next meeting of the Committee will be held on Wednesday 18 March 2015.

COUNCILLOR RICHARD STOGDON
CHAIR

SCRUTINY COMMITTEE FOR ECONOMY, TRANSPORT AND ENVIRONMENT

MINUTES of a special meeting of the Scrutiny Committee for Economy, Transport and Environment held at County Hall, Lewes on 12 December 2014.

PRESENT: Councillors Richard Stogdon (Chair), Mike Pursglove (Vice Chair), Angharad Davies (substituting for Claire Dowling), John Hodges, Rosalyn St. Pierre and Barry Taylor.

LEAD MEMBERS: Councillor Carl Maynard (Lead Member for Transport and Environment)

ALSO PRESENT: Rupert Clubb, Director Communities, Economy and Transport; Karl Taylor, Assistant Director Operations; Nick Skelton, Head of Transport & Operational Services; Neil Maguire, Public Transport Service Manager; Sue Buxton, Principal Transport Officer; Rebekah Herring, Solicitor; and Alastair Mackie, Peter Brett Associates (PBA).

Councillor Ruth O’Keeffe

Scrutiny Lead Officer: Martin Jenks

32. APOLOGIES FOR ABSENCE

32.1 Apologies for absence were received from Councillor Claire Dowling.

33. DECLARATIONS OF INTEREST

33.1 None.

34. URGENT MATTERS

34.1 None.

35. ESCC PUBLIC TRANSPORT STRATEGIC COMMISSIONING STRATEGY AND REFORMULATED SUPPORTED BUS NETWORK

Introduction

35.1 The Chair introduced the report to be made by the Director of Communities, Economy and Transport to Cabinet. The Director reminded members of the context of this report and the need to meet the savings target that has been agreed as part of the three year savings plan. The County Council may have to find an additional estimated savings of £70 - £90 million in the years up to 2020. Members were reminded that it is important not to lose sight of these financial challenges. The savings to be found from the proposed reformulated supported bus network (RSBN) are for the 2015/16 financial year.

35.2 The purpose of considering the report at this meeting is to agree comments on the proposals to go to Cabinet, and which will be taken into account as part of Cabinet’s decision. The Committee’s comments should be focussed on anything over and above what has already been considered as part of the Members Advisory Group (MAG).

Consultation Process

35.3 The Public Transport Team (PTT) has been following the corporate strategic commissioning process since the last Cabinet Report in December 2013. The process has identified the transport needs and has also enabled a consideration of any gaps in meeting those needs. The draft Strategic Commissioning Strategy ensures the best outcomes for East Sussex Residents.

35.4 The PTT has worked with the Scrutiny Committee and the Members Advisory Group (MAG) throughout the process, has shared the findings from the consultation and confirmed that there will be no changes to the priorities contained in the draft Strategy as a result. The proposed reformulated supported bus network (RSBN) has changed as a result of the findings from the Equalities Impact Assessment (EqIA) and the public consultation.

35.5 The PTT undertook a twelve week consultation following a robust process and was carried out at a formative stage in the decision making process. There were over 3600 responses, which included 14 petitions (one of which had over 6800 signatures).

35.6 On-bus surveys were undertaken on an 18 month rolling programme before the public consultation. The on-bus surveys involved a surveyor interviewing all the passengers on the bus at the time of the survey. Surveys were carried out throughout the year to build up an accurate picture of bus use. They showed that education journeys were the primary use of supported buses and that shopping journeys were the second most popular use. However, bus use does vary slightly across the County. This is detailed in the technical appendix (appendix 3) of the report.

35.7 The main consultation findings were:

- Respondents were concerned about the reduction in the options for bus travel and the reduction in frequency of some bus services.
- Although some respondents understood the need for a 30% fare increase, most respondents disagreed with the increase in fares.

35.8 A large number of consultees commented on the proposals through the consultation. However, officers considered that the results demonstrate “want” rather than “need” and therefore did not alter the priorities that were identified in the draft Strategy. Several members of the Committee commented that since the consultation had closed, they had continued to receive comments from residents about the supported bus proposals.

35.9 Nick Skeleton confirmed that Lewes District Council was approached as part of the consultation.

35.10 The Chair invited comments on the consultation process from members of the committee. The comments made are summarised below.

On Bus Surveys

35.11 Cllr St. Pierre suggested that the on bus surveys focussed on passengers to see where they were going. What the on bus surveys did not capture are the views of people who do not use the buses, especially where they do not link up with rail services, or where there are no existing bus services e.g. serving the local GP surgery in her electoral division. She considered that the ESCC consultation was missing that key point.

35.12 Nick Skelton replied the fact that people are not using the bus to get to the GP surgery implies that they have alternative means of getting there and therefore the travel need is being met. ESCC does work with the NHS to see how to facilitate access to medical services. Furthermore, the PTT has looked at linking bus services to train services in Cllr St. Pierre’s electoral division, but this was shown not to be cost effective.

35.13 With regard to the bus services that used to serve the GP's surgery in Cllr St. Pierre's electoral division, if a service ceased, it shall have been for a reason which is likely to have been due to lack of use. When looking at services that have been discontinued it is important to understand the reasons behind the decision to cease the service.

35.14 Cllr Hodges asked on which services the bus surveys were carried out (i.e. from which town to which village and on what dates?). Cllr Hodges found it difficult to reconcile the findings from those surveys with the views expressed at the 21 different public meetings that he has attended. Nick Skelton stated that the on-bus surveys were carried out on all routes across the bus network on an 18 month rolling programme. This ensured that surveys were carried out throughout the year to capture seasonal changes in bus use.

Eastbourne DGH and Conquest Hospital Bus Link

35.15 Cllr Pursglove raised the issue of bus service provision between the two hospitals. Such a service would enable patients to get to the hospitals and would also enable visitors to go and see relatives in the hospitals. This may be financially viable, as people would be more willing to pay for a bus than for a taxi or for parking at the hospital. A shuttle service could also be used to link doctor's surgeries to the hospitals. Cllr Taylor acknowledged that whilst this is an issue, it is not one which should be discussed as part of the proposals for the supported bus network.

35.16 Nick Skelton commented that where a service does not exist already, this indicates that people are meeting the relevant transport need in other ways. With restricted financial resources, it was not possible for the proposed reformulated supported bus network to look at services that are not already being provided. Alastair Mackie (PBA) indicated that research into this issue has shown that travel from surgery to surgery is not particularly useful for people as they do not tend to travel to numerous surgeries or between GP and hospital. The travel need is to get people from home to the local GP and back again.

35.17 Rupert Clubb re-iterated Alistair Mackie's point that very few people travel between the two hospital sites. The rationalisation of services between Eastbourne and Hastings was a decision taken by the East Sussex Hospitals Trust (ESHT) and it is an issue for ESHT to resolve for example, by paying for a shuttle bus service. There are examples where Health Trusts have paid for this service (Hayward's Heath) and therefore it is ESHT who should take the lead and work out how to pay for such a service. This issue has recently been the subject of a report to the Lead Member for Resources following on from a resolution of Eastbourne Borough Council. Members of the PTT will work with the ESHT to help them put in place a solution for this issue.

Commissioning Strategy Priorities - Impact on Off Peak Use and Shift Workers

35.18 Cllr Davies was concerned that there was an oversight in relation to priority 2 of the Commissioning Strategy and that the Members Advisory Group (MAG) had made a mistake in agreeing priority 2 as it only focusses on "peak times" access to employment. The reduction in frequency to 2 hourly during off peak times will have a negative impact on shift workers.

35.19 Councillor Hodges and Councillor O'Keeffe supported this point. Cllr Hodges was concerned about the impact on shift workers as many businesses operate 24 hours a day. Cllr O'Keeffe expressed concerns that as a large proportion of trips were for shopping purposes, a reduction in off peak services would lead to a reduction in shopping trips. The reduction in bus frequency may make some bus services less financially viable. Cllr O'Keeffe acknowledged that she had not initially thought the impact on shoppers would be an issue, but now thinks there will be a problem because of the number of people that have raised it with her.

35.20 Nick Skelton replied that the majority of the services on the current supported bus network do not help shift workers as they only operate between 08.00 and 18.00. So it is unlikely that shift workers would be relying on supported bus services due to the way the supported bus network is currently formulated.

35.21 Cllr Davies stated that she believes that shift workers do currently use the hourly services and that they can cope with a 1 hourly service but would not be able to rely on 2 hourly bus services. She repeated her question whether a two hourly service saved enough money to justify its impact.

35.22 Nick Skelton responded that a significant part of the savings, which has enabled retaining a five day a week service, has been as a result of reducing to a two hourly frequency. This is because bus operators can use resources (buses and drivers) more efficiently and can for example, have one driver and one bus serving two routes. The savings from this aspect of the proposals are really significant.

35.23 The Public Transport Team (PTT) has undertaken further detailed analysis of the impact on the economy, medical trips, the environment, and any potential conflict with the LTP. The Committee's discussion of these issues is detailed below. These points are also addressed in appendix 1 of the Cabinet report and the Technical Appendices of the Strategy (appendix 3).

Impact on the Local Economy

35.24 The Public Transport Team (PTT) has considered the impact of the proposed reformulated supported bus network in detail. Where services are lost it is believed people will find other ways of meeting their transport needs and plan their journeys to adjust to the reduction in frequency of some services. From the analysis that has been done, the team concludes that the impact on the economy is likely to be minimal.

35.25 The Strategy acknowledges that it is important to ensure that people can still get to work and so priority 2 reflects this by ensuring that facilities are in place so that people can travel to work at the beginning and end of the working day.

35.26 The overall spend in the local economy generated by use of the supported bus network is estimated to be around £19.6million. This figure will largely be maintained, and it is likely to be the incidental spend that will be lost as a result of journeys not being made. The anticipated loss of income is £165,000 of the overall £19.6million.

Bus Journey Incidental Spend and Reverse Spend in the Local Economy

35.27 Referring to estimates, Cllr St. Pierre asked what "incidental spend" means, and how the local economy will broadly stay the same. Alastair Mackie (PBA) told the Committee that the figures were calculated using national averages based on research carried out by Leeds University, which estimates that the typical spend per passenger using a bus for shopping is £30 per trip. This was applied to the percentage of trips made for shopping on the East Sussex supported bus network to give the £19.6million figure.

35.28 Cllr St. Pierre suggested that in her electoral division the proposed reduction in bus frequencies (from 7 days per week to 2 days per week) will impact on students and twilight workers who currently go into Lewes to get the bus and spend money, while they are waiting. If people cannot use the bus to get to work or college anymore they will not go into Lewes and the local economy will lose income.

35.29 Alastair Mackie (PBA) replied, saying that what Cllr St. Pierre was referring to is the incidental spend, as opposed to bus users travelling specifically for the purpose of shopping. It was agreed that some of that incidental spend will be lost as a result of the changed network but this is estimated to be £165,000 out of £19.6million. For those making dedicated shopping trips, it is likely that they will make alternative arrangements, if

they cannot use the bus service. Some will alter the timing of their trip to fit in with when they can use the bus. Some will make fewer trips, but will spend more on each trip as their shopping requirements will stay the same.

35.30 Cllr St. Pierre raised the issue of reverse spend, where people travel out from urban areas into rural areas for leisure purposes. For example, walkers who go out and spend money in the pubs. They will be unable to travel by bus for their organised walks and so this money will be lost to the local economy. Rupert Clubb responded that committed groups of walkers will continue to organise walks, but may need to alter their route to somewhere they can access by bus. It is likely that such reverse spend will not be lost to the local economy.

Impact on Local Businesses

35.31 Cllr Hodges stated that he has already made written representations and has responded to the consultation and so he has not laboured the point in meetings, but he considered that there should have been a much more detailed analysis of how the projected changes would affect businesses. The existing analysis does not include consideration of the importance of getting staff to work outside peak hours. He considered a huge amount of money shall be lost to the local economy.

35.32 Cllr Hodges stated that the PTT should consider what it means to businesses that cannot get staff to work outside peak hours. Productivity and outputs shall be reduced, impacting on their ability to repay loans funded on the basis of previous projections.

35.33 Cllr Stogdon considered that questions based on generalised assertions were insufficiently detailed. If Members wished officers to respond at meetings, detailed and specific examples need to be provided to officers in advance.

35.34 Cllr Hodges asked for clarification of Cllr Stogdon's point and asked if officers would be allowed to answer his question. Cllr Stogdon clarified that for officers to properly deal with a point, it needed to be based on detailed evidence and examples.

35.35 Cllr Hodges stated that in order for the decision that is to be taken on the supported bus network proposals to be fair, ESCC needs to have taken into account every business's views.

35.36 Rupert Clubb responded that the consultation carried out by the PTT was fair. Businesses were invited to comment through the consultation, but ESCC cannot force people to respond to consultations. The current supported bus network is used by around 7,500 passengers per day. It is anticipated that the future usage will still be over 7000 passengers per day. This is a fall of just over 7% of an East Sussex population of approximately 435,000. In this context, 500 passengers is a relatively small number.

35.37 Rupert Clubb stated that he understood elected Member's views that if one passenger is affected then that is one passenger too many. However, Members should note that this decision was being made against a background of limited financial resources and in that context a relatively small number of people will be affected.

35.38 Nick Skelton added that the on-bus passenger surveys show that 9% of passengers use bus services for employment, which is a relatively small number and that priority 2 of the Commissioning Strategy is intended to safeguard respondents' ability to get to and from work during peak times. The majority of services on the supported network currently finish at 6pm and so would not aid shift workers at the moment. Therefore there is unlikely to be a significant impact on them due to the proposed changes to the supported bus network.

35.39 Cllr Hodges acknowledged that there was an element of truth in what Nick Skelton had said, but he was not talking about people who finish at 2am or 3am in the morning. He was referring to shift workers, who finish during normal work time and who need to get home after they have finished their shift during the off peak time period.

35.40 Cllr Hodges referred to one business example impacted by the proposals, which he had mentioned to the Karl Taylor during the consultation, concerning a proposed investment of £0.5million of funding in a new visitor centre for Hastings Country Park. The Country Park is now going to lose visitors on their busiest day, which is a Sunday, because there will be no Sunday bus service, and this is an example of the sort of thing that can affect businesses.

35.41 Nick Skelton re-iterated that the existing services stop at 6pm in the vast majority of cases and so those people who would need to travel after 6pm would not be using supported busses, in any event. The changes under discussion would result in the loss of 2 Saturday services, 2 evening services and 5 Sunday services. This is a low number of services and many of the ones that might have been reduced have been commercialised.

35.42 Cllr Hodges stated he thought that the proposals do impact on part time workers. Rupert Clubb responded that if those services are not there at present, then the changes that are being proposed to the network will not impact on part time workers in the way that Cllr Hodges is suggesting. People who need to get back from work, by a taxi if needed, are doing that now, and so the changes made to the reformulated supported bus network (RSBN) are not going to impact on those existing travel habits.

Impact on medical trips

35.43 Nick Skelton stated that an analysis of the proposals indicates that 85% of people will have access to a 5 or 6 day a week bus service, which operates on a two hourly frequency or better. Approximately 5% of journeys on the supported network are made for the purpose of attending medical appointments. This equates to approximately 400 people per day. It is estimated that 25 medical journeys a day will be lost due to the proposed changes.

35.44 However, 9 out of the 12 routes that will be affected do have access to alternative public transport. This issue was identified in the Equalities Impact Assessment (EqIA). Consequently the proposed funding for Dial-a-Ride services is to be increased to provide Dial-a-Ride services on at least 3 days per week. The PTT has also worked with the providers of these services which will result in Dial-a-Ride services being available on 4 to 6 days per week (depending on the part of the County you are in).

35.45 Furthermore, there are opportunities through the NHS for patients to choose the days they attend medical appointments, especially for routine non-emergency appointments (which tend to be the high percentage of appointments accessed by bus).

35.46 Cllr O’Keeffe told the Committee that she has had a volume of correspondence on this issue, where her residents were saying that although ‘choose and book’ theoretically existed, it was not working in practice. In her view, the issue of medical appointments is affecting more people. At the very least it suggests that ESCC should be working with the health service as there is a growing demand for transport for medical trips.

35.47 Cllr Davies suggested that the NHS services are required to be flexible with appointments. It is the responsibility of the patient to explain that they can only attend on certain days if they are restricted by the availability of bus travel, and then the NHS has a duty to be flexible with the appointment.

35.48 Cllr Hodges expressed his gratitude for the commercialisation of the 20, 22, and 26 bus services which serve the Conquest hospital. However, the 28 Sunday service is being lost which serves the West Hill and the eastern end of The Ridge in Hastings. This would cause a problem getting to the Conquest hospital on a Sunday.

35.49 Alastair Mackie (PBA) told the Committee that the figures for medical appointments were estimates based on a relatively small number of journeys. It was therefore harder to produce estimates that will not vary. The travel patterns for medical appointments are not so predictable but the overall number of people using the bus for this purpose is considered to be relatively low.

35.50 Cllr Hodges considered that ESCC should look wider than patients, and it should also look at the travel needs of the staff who work at the hospitals.

35.51 Cllr St. Pierre suggested that if the on bus survey was carried out in the summer, fewer people would be ill at that time. Cllr St. Pierre is very concerned about 2 day per week bus services in her electoral division. Clinics are not flexible at all, for example, the cancer clinic is run on a specific day and there is no scope to change it. Therefore, if someone in her electoral division cannot get a bus on that particular day, they cannot access the clinic.

35.52 Cllr St. Pierre stated that there are different dial-a-ride services throughout the County, some supported and others not. There are 5000 people living in the villages north of Lewes. Could ESCC guarantee that there will be sufficient availability of Dial-a-Ride services for all those people?

35.53 Nick Skelton replied that the on-bus surveys are carried out on a rolling 18 month programme which means they are carried out throughout the year during all seasons. There are some services which it is proposed will run on 2 or 3 days per week, but in the majority of cases the frequency will stay at 5 or 6 days per week, but on a 2 hourly frequency.

Environmental Impact

35.54 An analysis of the proposed reformulated support bus network has been undertaken and it is estimated 93% of the current users of the network will continue to use it. This means that there will be just under 500 people who may no longer use the bus, which indicates that the environmental impact will be negligible. There is no conflict between the Strategy and the Local transport Plan (LTP).

Road Congestion

35.55 Cllr Hodges stated that the environmental impact people are concerned about is not air quality, but the quantity of vehicles that will be on the road. For example, 26% of traffic from the link road will be diverted on to The Ridge and ESCC should not add to this due to people no longer being able to use buses. In terms of the LTP conflict, Cllr Hodges considered that ESCC have let businesses down as they may have set up their businesses in remote locations on the basis that there would be support from public transport.

35.56 Cllr Taylor's view was that the evidence does not indicate that changing the RSNB will automatically create additional congestion and traffic on the roads. The number of people using the affected services by definition is low, and therefore should not translate into a lot more cars on the road.

35.57 Cllr St. Pierre thought that the impact will not be spread evenly across the County because not all routes are being cut. The impacts will be localised where services are reduced (e.g. the impact on the A27 and earwig corner, if 15 people no longer use a bus then there will be 15 more cars on the road). At pinch points on the road network there could be a significant impact.

35.58 Cllr St. Pierre also asked if the PTT had considered the impacts on road accidents and particularly the number of KSI (killed and seriously injured) accidents. Rupert Clubb stated that there is no evidence of a link between KSI's and the proposed changes in bus services.

Impact of Proposed Fare Increases

35.59 Cllr O'Keeffe commented that it is not just the proposed cuts to bus services that need to be considered, but also the impact of fare rises. This might change the cost benefit analysis for some people in favour of using a car, and lead to more car use.

35.60 Nick Skelton responded that the impact will be spread out over the whole day. In terms of the costs aspect, the County Council's officers and consultants have looked at how this would affect passenger numbers. The demand for bus services is fairly inelastic, (i.e. they are not very sensitive to price changes). Over half of the people using a supported bus service do not pay a fare, either because they have a concessionary bus pass, or are school children who have a freedom pass or a free pass. Furthermore the increase in fares will not apply to season tickets and would only affect the daily fare rates.

35.61 Cllr O'Keeffe asked if the fare increases were likely to discourage the people who are actually putting money into the bus network. Nick Skeleton responded that it is estimated that 93% of passengers will continue to use the supported network, and therefore there will be little impact on the number of fare paying passengers.

Subsidy Levels

35.62 The proposed reformulated supported bus network (RSBN) would see a significant reduction in the level of net subsidy and average subsidy per passenger. The current subsidy ranges between 6p and £11.97 per passenger. The subsidy level for the proposed RSBN ranges between 2p and £4.83 per passenger. Overall the net passenger subsidy on the proposed reformulated supported bus network will be lower, with the average net subsidy decreasing from 81p per passenger to 59p per passenger.

35.63 Cllr Hodges asked how a route which was previously subsidised could be become commercially viable, and how close some of the other routes are to becoming commercially viable.

35.64 Nick Skelton told the Committee that the commercialisation of 23 routes has saved the Council £190,000, which is a smaller part of the overall saving. Furthermore, operators can decide to commercialise a service at any point in time. Those services that have a low net subsidy have tended to be the ones that have been commercialised. The PTT has a history of working with providers to get to a position where subsidised services become increasing financially viable, and will continue to work to commercialise services where possible.

35.65 Cllr Hodges asked if ESCC was subsidising bus competition. Nick Skelton replied that ESCC does not subsidise bus competition and that all bus provision is de-regulated. Neil Maguire clarified that any operator can run a route. E.g. in Eastbourne there were two companies (Renown and Eastbourne Buses) running the same route. Arguably if there are enough bus passengers then a bus company will operate a service. However, ESCC does not fund services where there is competition as this would suggest the route is commercially viable.

35.66 Cllr St. Pierre asked whether, if a company approaches the PTT with a new route, the County Council can stop them from running a route. Neil Maguire replied that any operator is free to start running a service after 56 days notice. Unfortunately, they can also stop running a service after 56 days notice.

Dial-a-Ride Services

35.67 Cllr St. Pierre asked what the subsidy was for Dial-a-Ride bus services. Alastair Mackie (PBA) said the subsidy is calculated in exactly the same way as the subsidy for all other services / passengers. There is typically a higher subsidy per passenger for dial-a-ride because of the lower number of users. As an example they are:

Eastbourne	£4.76 per passenger.
Lewes	£3.68 per passenger.
Seaford	£1.47 per passenger.

35.68 Cllr St. Pierre suggested that given the subsidy levels for Dial-a-Ride services, ESCC could be subsidising additional bus routes instead, which would be of wider application and would be available at specific publicised times. Nick Skeleton responded that when looking at the decision about the supported bus network, it was the annual costs of running a bus service, rather than the per passenger subsidy, that were important. Whilst the subsidy per passenger for Dial-a-Ride may be higher, the costs over the year are much lower than providing a five day per week bus service. Cllr St. Pierre said that she did not agree with Nick Skelton's comments.

35.69 Cllr Taylor asked if Dial-a-Ride services were only available to elderly and disabled people in East Sussex, who cannot access alternative modes of public transport. Neil Maguire said that Dial-a-Ride is a generic term. It is transport for people who cannot use ordinary public transport. However, this can be for a variety of reasons and would include anyone that could not use other public transport.

Alternative transport models and funding options

35.70 Nick Skeleton outlined the funding applications that the department had made which included the successful applications that had secured additional funding for the bus network.

35.71 Cllr Hodges asked if a local authority other than the County Council was entitled to bid for a grant under the Better Bus Area fund. Neil Maguire confirmed that only the local transport authority (i.e. the County Council) could apply to this fund, which also had to be made in partnership with a bus company.

The Amended Reformulated Supported Bus Network

35.72 The PTT believe that the proposed reformulated supported bus network (RSBN) will meet the priority needs outlined in the Commissioning Strategy. In the revised network, Dial-a-Ride services will now operate 4-6 days a week and some of the school services will remain 'open door' services accessible to the whole community.

35.73 The bus services offered by the proposed RSBN have improved. Of the current 101 subsidised services, 90 will continue and 23 routes have been commercialised, with only 7 routes changing to a 2-3 day service off peak. The number of routes affected has decreased since the consultation was undertaken. Now only 2 evening, 2 Saturday and 5 Sunday services will be withdrawn.

35.74 Members of the Committee asked a number of questions on specific routes as detailed below (see appendix 4 page 93 for details of commercialised routes).

- Cllr Hodges asked if the service 344 Hastings to Rye service will be commercialised for 6 days per week from 9-5. Neil Maguire responded that the proposal is for an hourly service Monday to Saturday.
- Cllr Hodges asked if there are any proposals to re-engage with providers in the future in a further effort to get more services commercialised. Nick Skelton said the PTT currently works with providers on an ongoing basis to commercialise routes wherever possible and that this practice will continue in the future.
- Cllr Hodges asked if the PTT could let him know what it would cost to keep the Sunday service on the 344 and 28 services in Hastings. Neil Maguire agreed that that he will send the costs to Cllr Hodges.
- Cllr O’Keeffe asked for clarification with regard to route 127 of what “will remain the same” means in the presentation for commercialised services. Does that mean will stay the same as the existing levels, or will stay the same as what had been proposed in the RSN?

Neil Maguire replied that Compass had said that they would be prepared to commercialise routes based on a 2 hourly service, but that if Cabinet said 2 hourly was not acceptable and it was to be provided on an hourly frequency, they would stand back (in other words they would not commercialise on a one hourly basis). It would therefore cost ESCC to provide the service. Routes 121 and 123 will change from hourly to 2 hourly under the proposed commercialisation. Routes 340, 341 and 344 will continue hourly, Monday to Saturday.

- Cllr Hodges asked if a two hourly service cost twice as much as a one hour service and vice versa. Nick Skelton replied that there is no “one size fits all” approach to valuing the services. They are not expecting any additional announcements of commercialised services but could not rule it out completely.
- Cllr St. Pierre asked about the 125 Barcombe service. It seems to be serving some communities 5 days per week but only going to Barcombe 3 days per week, is this right?

Neil Maguire said that the 125 service is complicated as it serves two communities. There was a tender proposal for 5 days per week at the same price as 2 days per week. Therefore, there would still be a Barcombe service 5 days per week. Lewes to Alfriston would be provided 6 days per week by Compass on a commercial basis.

- Cllr Taylor asked if the PTT have secured assurances from the commercial providers that where they are commercialising a route they will do it over a long period of time. In other words, if they are no longer viable will those services simply stop.

Neil Maguire said that this has been a very important part of the discussions. It was very important that the proposals they received were viable. They are as confident as they can be that all the routes which have been commercialised are sound proposals.

35.75 Cllr Maynard assured the Committee that there is a constant dialogue with commercial providers to seek changes to existing services and establish commercially viable new services. Elected Members are encouraged to contact the Passenger Transport Team (PTT) with any specific enquiries.

36. URGENT ITEMS

36.1 No urgent items were raised for discussion.

36. NEXT MEETING

36.1 The meeting ended at 16.30.

The next meeting of the Committee will be held on Wednesday 18 March 2015.

COUNCILLOR RICHARD STOGDON
CHAIR

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Report to: Scrutiny Committee for Economy, Transport and Environment

Date of meeting: 18 March 2015

By: Director of Communities, Economy and Transport

Title: Review of East Sussex County Council's Dutch Elm Disease Strategy

Purpose: To review the Dutch Elm Disease Strategy adopted in 2013

RECOMMENDATIONS: It is recommended that Scrutiny Committee:

- (1) Continues to support the prioritised approach to sanitation felling;**
 - (2) Notes that the County Council will increase the contribution requested from private landowners to 75%; and**
 - (3) Requests another progress report in March 2017 to further consider whether the sanitation programme is continuing to deliver the outcomes as currently predicted**
-

1 Background

1.1. A Scrutiny Committee review of trees and woodland policy took place in March 2012. In March 2013 Scrutiny Committee endorsed a new prioritised strategy to managing Dutch Elm Disease (DED) because the evidence indicated that this would provide the most effective means of maintaining a significant population of English Elm at least cost to the Council. The scientific evidence for this conclusion is included at Appendix 1. The strategy, which has been updated to reflect the delivery of the DED programme since 2013, is included at Appendix 2.

1.2 This report reviews whether:

- the strategy for managing DED is working as was predicted in the evidence presented in 2013; and;
- maintaining the DED sanitation programme remains a better option than stopping the programme.

2 Supporting information

2.1 The strategy in Appendix 2 explains that the objectives of the DED sanitation programme are to:

- Ensure the long-term survival of a significant population of mature English Elm, which is the largest remaining population of English Elm in the world and makes an important contribution to the local landscape and, therefore, to making East Sussex an attractive place to live and work;
- Assist in managing DED on the highway, which the Council is required to do under the Highways Act 1980 (section 154), and on County Council land (e.g. schools), when it poses a health and safety risk.
- Ensure the most cost effective approach.

2.2 The 2013 strategy was largely based on modelling work carried out for the Council by the University of Cambridge, set out in Appendix 1. This work concluded that the prioritised approach to controlling DED would be expected to be less costly in the short and medium term than stopping the sanitation programme because fewer trees would need to be felled than if DED was allowed to spread unchecked, as this would increase the number of trees that would need to be felled for health and safety reasons on the highway and on corporate land.

2.3 The table below updates the figures provided to Scrutiny Committee in March 2013 and shows how the prioritised approach is working in practice (ie. row 3), compared with how it was predicted to work by the modelling work carried out by the University of Cambridge (ie. row 2). These figures are explained in more detail on pages 3-6 of Appendix 2.

Approach	Total number of healthy elm after 10 years	Total number of healthy elm after 25 years	Number of elms felled over 10 years	Number of elms felled over 25 years	Cost over 10 years	Cost over 25 years
1. No control	7,000	6,000	5,210	5,210	£1,228,050	£1,228,050
2. Prioritised (modelled)	14,000	14,500	6,500	16,250	£591,100	£1,477,750
3. Prioritised (actual)	14,000	14,500	7,410	10,560	£659,410	£1,235,140

2.4 As reported in 2013, the complex epidemiology of DED means that the figures in the table above are based on a number of assumptions, therefore should only be taken as an indication of the direction of travel. Furthermore, on the basis of 3 years of practical data it is too early to draw any detailed or final conclusions. Nevertheless, some key indications can be reported:

- i) The prioritised approach remains a less costly option to the Council than stopping the sanitation programme over 10 years, but after approximately 24 years the prioritised approach begins to exceed the cost of stopping the programme;
- ii) The number of trees that would be expected to be felled over the first 10 years of a prioritised approach is only slightly above the numbers predicted in the model, which suggests both that the model captured the key features of DED spread in East Sussex, and that the prioritised approach is working as expected; and
- iii) Costs are likely to be higher in the short term and lower in the longer term than predicted.

2.5 In 2014 the Council, working in partnership with the Conservation Foundation charity, secured £27,500 towards the cost of sanitation felling up to December 2015. To secure a more stable contribution to future costs it is proposed that private landowners are asked to increase their contribution towards the cost of sanitation felling on their land from 50% to 75%, from April 2015. This carries a risk that fewer landowners may be able or willing to contribute to the cost of felling, but reduces increased costs in the short term.

3 Conclusion and reasons for recommendations

3.1 It is recommended that Scrutiny Committee continues to support the prioritised approach to sanitation felling, as the evidence continues to indicate that this provides the most effective means of maintaining a significant population of English Elm. The Committee should note that the Council will increase the contribution requested from private landowners to 75%, to reduce the cost to the Council of running the programme in the short term. It would be appropriate for the Committee to consider the DED Strategy again in March 2017 when there has been further experience gained with the approach to sanitation felling.

RUPERT CLUBB

Director of Communities, Economy and Transport

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LOCAL MEMBERS

Councillors Butler, Buchanan, Howson, Charlton, Lambert, Carstairs, Shing, Shing, Bennett, St Pierre, Pursglove

BACKGROUND DOCUMENTS

Scrutiny Committee review of trees and woodland policy, March 2012:

<http://www.eastsussex.gov.uk/yourcouncil/about/committees/meetingpapers/scrutinytransport/2012/14march.htm>

Appendix 1 – DED strategy

Modelling control of Dutch elm disease in East Sussex

Nik Cunniffe: University of Cambridge

February 2013

1 Introduction

1.1 What is being compared?

Control of Dutch elm is investigated, comparing three potential control strategies.

- **Historical.** Cut down known infected trees that are still alive, but ignore any infected trees that have died.
- **Prioritised.** Cut down any known dead infected trees if they are judged to have died recently enough to be suitable for beetles to breed in, but ignore trees that have been dead for longer than this.
- **None.** Do not cut down any trees.

1.2 How are the strategies compared?

A spatially-explicit stochastic compartmental model of Dutch elm disease in East Sussex is built and parameterised. This mathematical model is used to investigate how the different control strategies fare over ten and twenty-five year time scales, and how key outputs such as the total number of trees lost to disease or control respond to changes in key parameters.

2 Methods

2.1 Host landscape

The host landscape is taken from the GIS data sent by Anthony Becvar on 17th Jan 2013. This is a map showing the position of all known semi-mature, mature and over-mature elms within the East Sussex control zone (see Figure 1), together with metadata detailing whether trees are known to be infected and/or are in “woodland”. There are approximately 16000 trees across the region, of which approximately 4000 are in woodland locations, and of which nearly 700 are known to be infected.

2.2 Host demography

The GIS data set the initial configuration of hosts in the model. However, Dutch elm disease and control both lead to removal of elm trees, and the historical rate of control (≈ 1200 trees removed per year) suggests the current elm population would be totally depleted well within the timescales considered here, even if the only source of tree death were control by East Sussex Council. A simple representation of demography is therefore included in the model, mainly to ensure the pathogen can persist. In particular, every time a host is removed, either because it has been removed by control or because it was killed by the disease long enough ago that it would have become epidemiologically inert, a new host appears as the daughter of a randomly chosen woodland “mother” tree. The position of the daughter tree is chosen uniformly within a circle of radius R_d metres centred on the position of its mother (see also Table 1, in which all parameters are summarised). The mother of this “replacement” tree is chosen randomly out of the set of tree located in woodland across the entire landscape. This means that the local

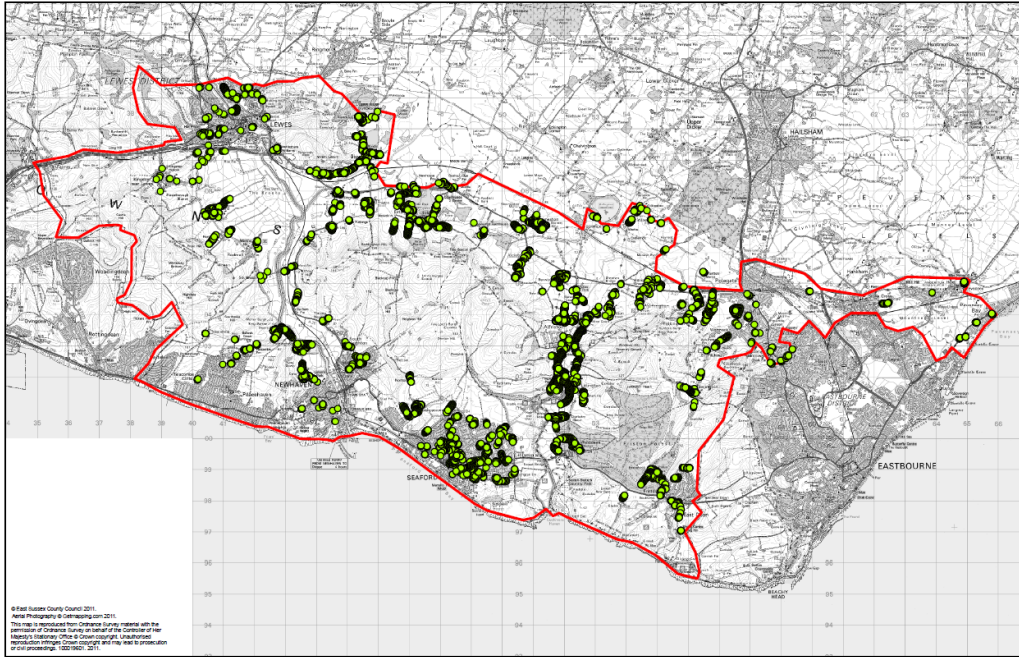


Figure 1: *The East Sussex Dutch elm control zone: note this region excludes a number of nearby areas in which Dutch elm disease is present, e.g. Brighton and Eastbourne, although note that Lewes is included in the zone.*

density of elms across East Sussex changes over time and in each run of the model. However it also avoids the immediate re-infection that would almost certainly follow putting the new tree near the dead tree it replaced. To avoid unrealistically high rates of elm replacement, only up to a maximum of N_{max} rebirths per year are permitted.

2.3 Epidemiological modelling

The modelling concentrates exclusively on semi-mature, mature and over-mature elms. At any time, any single tree can be categorised into one of the following five disjoint epidemiological classes (see also Figure 2)

1. **Susceptible (S)**. Healthy elms that have not been infected.
2. **Exposed (E)**. Very recently infected elms that are still alive, do not show symptoms, and have not yet become infectious.
3. **Live infected (LI)**. Recently infected elms that are still alive, do show symptoms, and are able to infect other trees.
4. **Dead infected (DI)**. Infected elms that have been killed by the pathogen, show extensive symptoms (since they are dead), and are able to infect other trees, primarily by acting as breeding sites for the beetles that vector the spread of the fungus.
5. **Removed (R)**. Elms that have been killed by the pathogen but have been dead for so long that they are no longer a potential beetle breeding ground, and so are epidemiologically inert.

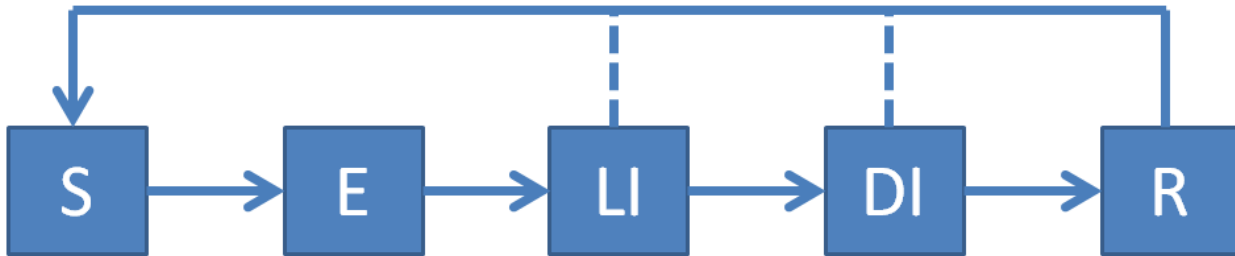


Figure 2: *The structure of the epidemiological model. Lines linking compartments show transitions that can be made by an individual host. Note the influx into the (S)usceptible compartment: this corresponds to a new replacement tree appearing when a tree is removed by entering the (R)emoved compartment (i.e. long dead and epidemiologically inert). The dotted lines indicate that tree replacement may also occur when a detected and infected tree from either of the LI (i.e. live infected) or DI (i.e. dead infected) compartments is cut down, at least when certain types of control are performed.*

In essence the epidemiological modelling fixes the rates of the following transitions between these classes.

1. $S \rightarrow E$. This corresponds to infection, and occurs at a rate which depends on the time of year and on the number and relative positions of other trees that are infected (see below).
2. $E \rightarrow LI$. This corresponds to the onset of infectivity, and takes 50 days on average.
3. $LI \rightarrow DI$. This corresponds to tree death, and takes 400 days on average.
4. $DI \rightarrow R$. This corresponds to trees becoming unsuitable for beetle breeding, and takes 365 days on average.

The rates of the $E \rightarrow LI$, $LI \rightarrow DI$ and $DI \rightarrow R$ transitions are taken directly from Harwood (2011). Note that sojourns are additive, so on average a tree takes approximately 2 years, 3 months or so (i.e. $50 + 400 + 365$ days) from the time it first becomes infected to the time at which it is no longer suitable for beetles to breed in. However, because the model is stochastic, the exact time spent in any class varies from tree to tree and from run of the model to run of the model.

2.3.1 Susceptible to exposed transition (i.e. $S \rightarrow E$)

This transition controls how fast infection spreads. There are three distinct ways in which a susceptible tree can become newly infected (i.e. “exposed”)

1. **LI transmission.** Live trees transmit infection to nearby trees.
2. **DI transmission.** Dead trees transmit infection widely since they act as a home for breeding beetles which go on to infect other trees when they emerge.
3. **External transmission.** Susceptible trees can be infected by beetles that fly in from outside the control zone carrying the pathogen.

In my model the rate at which susceptible tree i becomes exposed is given by

$$\lambda_i = \omega(t) \left(\beta \left(\rho \sum_{j \in \Omega_{LI}} K_{LI}(d_{ij}) + \sum_{j \in \Omega_{DI}} K_{DI}(d_{ij}) \right) + \epsilon \right), \quad (1)$$

where d_{ij} is the distance between tree i and a particular infected tree j , Ω_{LI} is the set of indices of live infected (LI) trees, Ω_{DI} is the set of indices of dead infected (DI) trees and β is the global rate of infection. Note that the infection rate β is the parameter varied to match the historic rate of infection, and so to make my model “match” the spread of the pathogen in East Sussex (see “Estimating the rate of infection”, below). The function $\omega(t)$ is equal to one between the start of April and the end of October and zero otherwise; this ensures that infection only occurs during this part of the year. The parameter ϵ controls the rate at which trees are infected from sources outside the control zone: based on discussions with Anthony, this was set such that an average of 200 trees are infected by this pathway per year¹. This parameter does not vary spatially (e.g. with distance from the edge of the East Sussex control zone) in the model, since I did not have data to parameterise the fall off in rate according to the distance from the edge of the control zone that is almost certainly present in practice.

The two functions K_{LI} and K_{DI} are “dispersal kernels” associated with live and dead trees, respectively, and control how the probability of transmission drops off according to the distance between a pair of hosts. I use the Cauchy kernel to model transmission from DI trees, with

$$K_{DI}(d; \alpha_{DI}) = \frac{1}{1 + \left(\frac{d}{\alpha_{DI}}\right)^2}, \quad (2)$$

and where α_{DI} is a measure of median distance of disease spread (equivalently a median distance of beetle flight), which I take to be 150 m. Although half of all dispersal is within 150m, the Cauchy kernel is a member of the broader class of so-called “thick tailed” power law kernels, and permits occasional dispersal over far longer distances (up to several kilometres). Both the form of this kernel and median dispersal come from Harwood. Transmission from live infected trees is dominated by transmission through a shared vascular system: I model this root to root pathway using the exponential kernel

$$K_{LI}(d; \alpha_{LI}) = \exp\left(-\frac{d}{\alpha_{LI}}\right). \quad (3)$$

Transmission by this route is more spatially restricted, since only nearby pairs of trees are joined by their roots. I take $\alpha_{LI} = 5\text{m}$ as a typical scale for root to root transmission (based on discussions with Anthony).

The final parameter δ controls the relative infectivity of a live vs. a dead infected tree. Again I follow Harwood in setting this so that dead infected trees lead to twice the rate of infection compared to live infected trees (i.e. I take $\delta = 0.5$). However the sharp drop off in the infection kernel of LI trees means that DI trees have many more chances to infect over the entire landscape of trees, and if this is not accounted for the infectivity of LI trees is greatly

¹Strictly speaking, ϵ is a per capita rate set such that 200 trees would be infected if the population were entirely susceptible. Assuming the disease is circulating in East Sussex, there would therefore actually be slightly fewer than 200 primary infections per year (since infection of a tree cannot occur twice in the model).

understated to the extent that LI trees would barely infect at all. I therefore normalise for this by interpreting δ as the relative rate of infection averaged across the entire landscape, and set the parameter ρ in Equation (1)

$$\rho = \delta \left(\frac{\sum_i \sum_{j,j \neq i} K_{DI}(d_{ij})}{\sum_i \sum_{j,j \neq i} K_{LI}(d_{ij})} \right). \quad (4)$$

Note the double sum itself averages over all possible interactions between all pairs of trees.

2.4 Modelling detection, control and the budget

2.4.1 Detection

The “average” tree is examined approximately yearly, and this is ensured in the model as follows.

- At the start of each year the set of all trees is randomly divided into 12 equally-sized groups².
- Trees in group n are examined on day $30(n - 1)$ of the year, i.e.
 - trees in the first group are examined after 0 days;
 - trees in the second group are examined after 30 days;
 - ...
 - trees in the twelfth group are examined after 330 days.

Note that a “year” in the model is actually 360 days long, for simplicity.

- Infected trees are detected with probability $p = 0.9$ on any single round of examination (note the probability of detection is independent of whether the tree is still alive or has died, based on Anthony’s input).

While the mechanism used is admittedly rather simple, it does ensure that all trees are visited every year, and at roughly the correct rate.

2.4.2 Control

Whenever an infected tree is detected as described above, an element is added to the model’s “control list”. This is a list of known infected trees flagged to potentially be removed at some date in the future, kept sorted by date of potential removal. The model continuously checks the earliest element of the control list (i.e. the next control that could be performed). There are three scenarios to be considered.

- **No Control.** Although the control list is checked, it is otherwise entirely ignored, and so no infected trees are cut down.
- **Historic.** Whether or not a particular detected infected tree is added to the control list depends on its status at the time of detection (t_{detect})

²Note the model uses a different partitioning on each year and in each run of the model.

- If the tree has already died by t_{detect} it is ignored and not added to the control list.
- If the tree is still alive at t_{detect} then it is added to the control list.
 - * The tree is flagged to potentially be cut down at some later date;
 - * A delay t_{delay} is chosen according to a sample from the probability distribution shown in Figure 3.
 - * The time of potential control, $t_{control}$, is set to be

$$t_{control} = t_{detection} + t_{delay}. \quad (5)$$

- * If the tree is still alive at $t_{control}$ it is actually removed.
 - * If it has died by $t_{control}$ it is ignored.
- **Prioritised.** Here detected trees are not cut until they have entered the DI class.
 - Both living (LI) and recently dead (DI) trees are added to the control list on first detection
 - * For a LI tree the historical distribution of delay times (see Figure 3) is used to set the time at which it is first considered for potential control.
 - * For a DI tree, control is set to potentially occur at a random time within one month of detection.
 - In either case, at the time of potential control the tree is only cut down if it is dead (i.e. is in class DI).
 - This means that known infected LI trees are not controlled until they die.
 - In particular, after the first examination of a tree that remained LI, it is revisited monthly to check whether it has entered the DI class. Control actually occurs in the first month the tree in question is noticed to be dead.

2.4.3 Budget

The model can represent a fixed budget for cutting trees. In particular, it keeps a running count of the number of trees that have been cut down since the start of January of the current year (say n). This number is reset (i.e. $n = 0$) at the start of each year. The budget then controls the maximal number of trees that can be cut within any single year, say C . At any time a tree would be cut in either the historical or prioritised approach then the following procedure is followed.

- If $n < C$ (i.e. if budget remains)
 - Control happens.
 - The running count n is increased by one.
- If $n = C$ (i.e. if the budget is exhausted)
 - Control does not happen.
 - The running count n is unchanged.

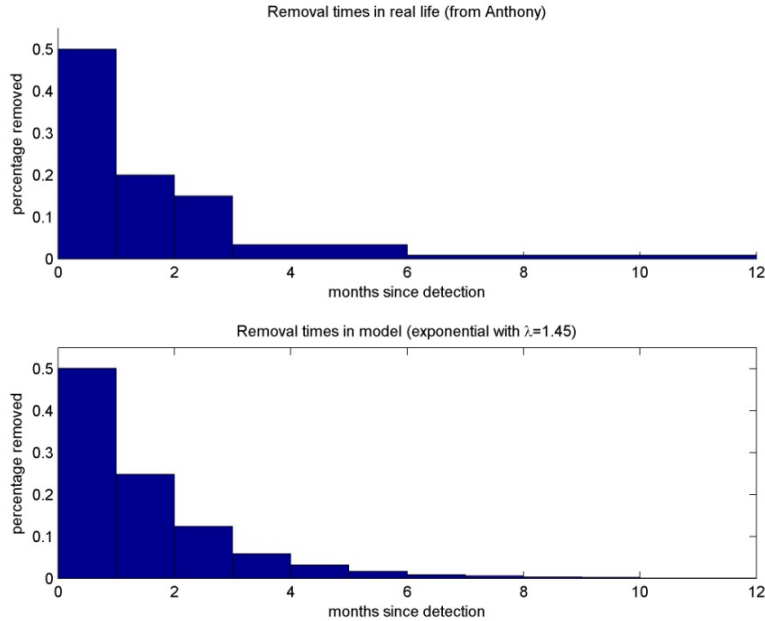


Figure 3: *The distribution used to model the delay between detection and control: the top panel shows the distribution extracted from the data given to us by Anthony; the bottom panel shows the fitted exponential distribution. The inverse scale parameter, $\lambda = 1.45$ is given in months.*

- The tree is added back to the control list with $t_{control}$ some time within the first month of the following year.

Note the consequence of this is that if the budget is wildly inadequate compared to disease spread, control becomes progressively far behind itself, and more and more trees from previous years are accumulated. Note also that detection is unaffected by the budget, which in fact only affects the number of trees that can be removed by control each year.

2.5 Estimating the rate of infection

The single disease spread parameter that is impossible to estimate by looking in the literature is the underlying rate of secondary infection, (i.e. β in Equation 1, the rate at which a single infected tree would infect a susceptible tree at a distance of zero). Data on the number of removals between 2000 and 2011 indicate that approximately 1200 trees were removed per year, and this was used to fit the model. The model was repeatedly run for different values of the parameter β , simulating control under the historical approach, and searching for the value of β that lead to the correct number of tree removals due to control. The best estimate of the infection rate according to this process is $\beta \approx 3.95 \times 10^{-5}$ (see Figure 4). Unless stated otherwise, this value of β is used in all model simulations. Note that this infection rate was estimated in the absence of any budgetary constraint, since if the budget rather than the underlying disease dynamics were responsible for setting the historical rate of removal, it would be impossible to use these data to set a unique value for β (in particular, increases to larger values of β would have no effect on the apparent rate of removal if control were limited, and so

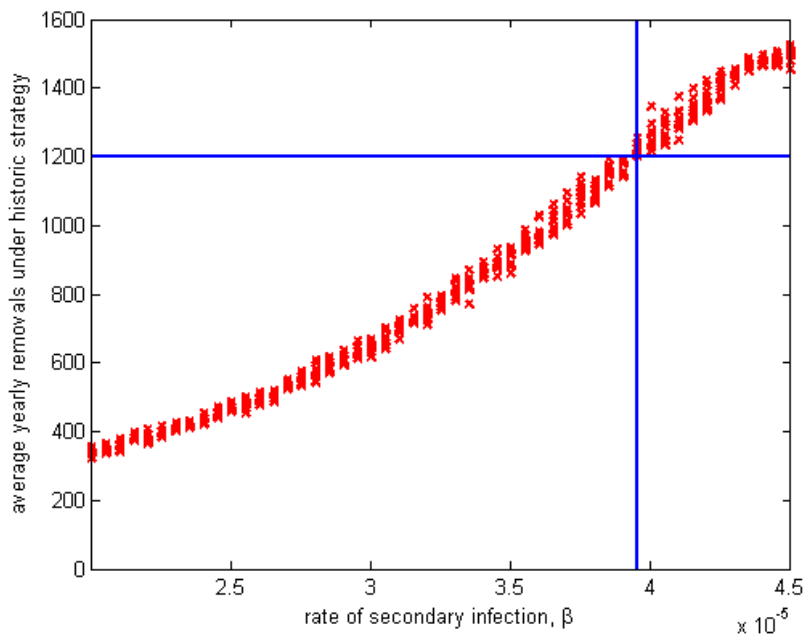


Figure 4: *The average number of trees removed by control per year over twenty-five years under the historical control strategy, showing ten replicates for each value of β . Since records indicate approximately 1200 trees were removed yearly between 2000 and 2011, the best estimate of the infection rate is $\beta \approx 3.95 \times 10^{-5}$.*

it would only be possible to put a lower bound on the parameter's value).

3 Results

The model is used to predict disease dynamics and spatial spread over ten and twenty-five year timescales, after seeding the model with the location of known infected trees.

3.1 Future disease progress

Predictions over ten and twenty-five year timescales under all three control strategies are shown in Figures 5 and 6. These predictions were obtained by averaging over 100 independent replicates of the model for each control. As well as the numbers of trees in each epidemiological compartment, a graph showing the time evolution of $p(\text{Original Alive})$ is presented. This is defined as the probability that any tree from the original cohort has not yet died by any particular time, allowing our attention to be restricted to those trees are currently present (i.e. not to any replacement trees included to keep the elm population size constant).

The most striking conclusion is that the prioritised approach leads to a better outcome than the historical control strategy, and a far better outcome than no control whatsoever, over both timescales considered. Focusing on $p(\text{Original Alive})$ at ten years, an estimate of the

Symbol	Biological meaning	Value	Source
R_d	<i>Regeneration distance.</i> A daughter tree is created within a circle of this radius around a randomly chosen woodland tree whenever a tree is removed.	10m	Anthony
N_{max}	<i>Maximum number of replacements per year.</i> No more than this many replacement trees may be created in a single year.	3000	Fitting
$1/\gamma$	<i>Latent period.</i> (Average) time taken for an exposed tree to first become infectious.	50 days	Harwood
$1/\sigma$	<i>Lifetime of infected tree.</i> (Average) time taken from a tree becoming infectious to it dying.	400 days	Harwood
$1/\mu$	<i>Post-mortality infectious period.</i> (Average) time taken for a dead tree to become unsuitable for beetle breeding.	365 days	Harwood
β	<i>Rate of secondary infection.</i> Sets the rate at which new infections are created.	3.95×10^{-5}	Fitting
ϵ	<i>Rate of primary infection.</i> Sets the rate at which new infections are imported from outside the control zone (≈ 200 per year).	7×10^{-5}	Anthony
δ	<i>Relative infectivity.</i> Controls how much less infective a live tree is compared to a dead elm.	0.5	Harwood
$\omega(t)$	<i>Infection seasonality.</i> Restricts new infections to occur between April and September.	0 or 1	Anthony
$K_{DI}(d; \alpha_{DI})$	<i>Dispersal kernel from dead infected trees.</i> Sets how the probability of infection drops off with distance from dead infected trees.	$\frac{1}{1 + \left(\frac{d}{\alpha_{DI}}\right)^2}$	Harwood
α_{DI}	<i>Scale for dispersal from dead infected trees.</i> Median distance of beetle flight, although occasional infection is possible over much greater ranges.	150m	Harwood
$K_{LI}(d; \alpha_{LI})$	<i>Dispersal kernel from live infected trees.</i> Sets how the probability of infection drops off with distance from infected trees that have not yet died.	$\exp\left(-\frac{d}{\alpha_{LI}}\right)$	Anthony
α_{LI}	<i>Scale for dispersal from live infected trees.</i> Typical scale of root to root transmission.	5m	Anthony
p	<i>Detection probability.</i> The probability of detecting the pathogen on a single visit to an infected tree.	0.9	Anthony
C	<i>Control budget.</i> Sets how many trees can be cut down per year.	n/a	Anthony

Table 1: Table of parameters, symbols and default values used in the simulations.

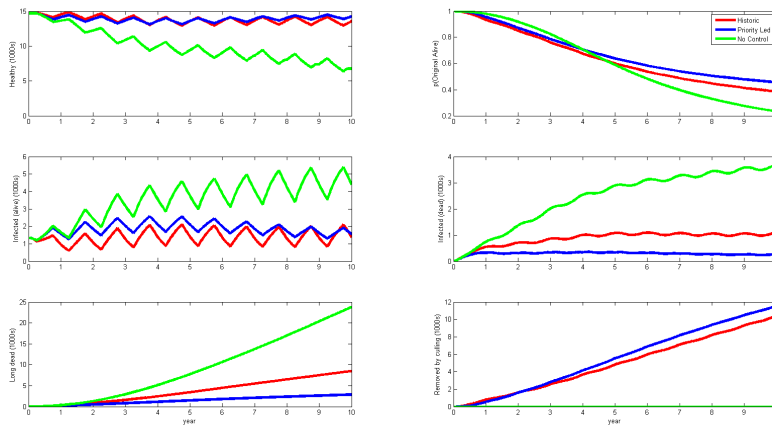


Figure 5: Predictions from the model for the next ten years, showing the number of trees in each of the epidemiological compartments (note that “Infected (alive)” corresponds to the sum $E + LI$). The probability that a single tree from the original cohort remains alive by a given time, $p(\text{Original Alive})$, is shown in the panel on the top right. The “saw tooth” pattern in the graph showing the number of healthy trees is because infection only happens for six months in the year (when there is a net loss of susceptibles due to infection, and so S goes down), while control and so replacement of susceptibles occurs year round (and so with no new infection there is a net gain in S). These fluctuations in the number of healthy trees then go on to drive smaller oscillations in the numbers in all compartments.

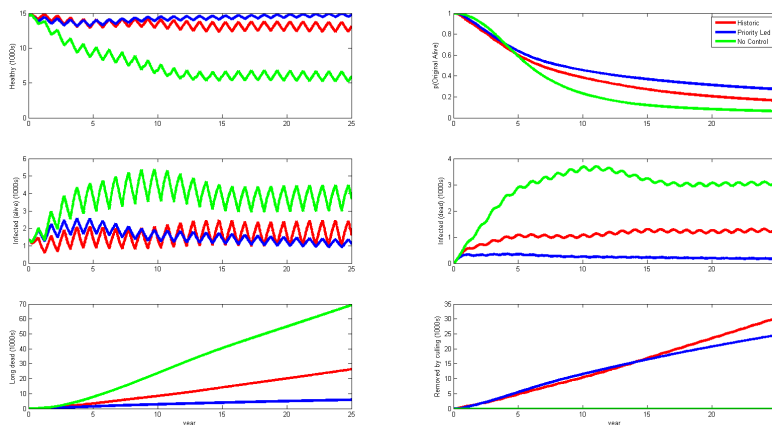


Figure 6: As Figure 5, but showing predictions over a twenty-five year timescale. Note the relative orderings of the success of the three controls remain unchanged.

probability of a randomly-chosen individual tree from the original cohort surviving the next ten years is 0.46 for the prioritised approach, 0.38 for the historic control, and 0.23 if control is not attempted. One way of interpreting this result is to say that a randomly chosen tree is $\frac{0.46-0.38}{0.38} \times 100\% \approx 20\%$ more likely to survive the next ten years if the prioritised approach is adopted instead of the historic control strategy. A similar calculation indicates a tree is 100% more likely to survive under the prioritised approach than with no control: i.e. its chance of survival exactly doubles. The total number of removed trees (i.e. the sum of the number of trees removed by control and the numbers of dead but still infectious and long dead trees) is approximately 5400 fewer using the prioritised approach than under the historic approach, and approximately 12800 fewer than with no control whatsoever. Note that this last calculation uses a slightly different definition of “removed” when compared to the graphs in Figures 5 and 6, since it includes infectious trees (which are dead but not epidemiologically inert), but using either definition of removed leads to the same conclusion.

These calculations can be repeated over the twenty-five year timescale, with broadly similar conclusions. However, as a consequence of the representation of demography in the current version of the model (i.e. immediate replacement of trees up to a hard limit per year, with no regard for the number of mother trees, time of year, any lag before maturity or instantaneous rate of replacement), the calculations over the ten year horizon are potentially much more reliable. I therefore prefer to emphasise results over the ten year timescale, and do so in what follows.

3.2 Maps of disease spread

GIS maps showing the spatial variation in the probability of infection are given in Figures 7 to 12. Note that the maps do not show the probability of infection for individual trees, but instead are a rasterised version of the model’s results. In particular, the average probability of infection within 25m by 25m or within 250m by 250m squares is shown. This was done for two reasons (i) to make the maps easier to interpret (showing individual trees would lead to a huge number of dots on each map, each of which would have to be interrogated to understand the results and would be impossible to assimilate on a hard copy) and (ii) asking the model to correctly predict the disease status of each individual tree ten or even twenty-five years from now is simply asking a little too much and presenting the results in this fashion is misleading; amalgamating the results in space does not overstate the predictive power of the model to the same extent. Effectively, while it is fair to say that the model does a good job of predicting disease status in the future when averaged over the entire ensemble of trees and/or at the 25m by 25m scale, in the light of the paucity of data to parameterise the model, predictions on an individual tree by individual tree basis are probably best avoided. Note that the estimates of infection density are calculated using the infection status of only the original cohort of trees; i.e. replacement trees are ignored in this calculation. This is because maps showing the infection status of trees that do not yet exist are unlikely to be plausible.

3.3 Parameter scans

The model is used to scan over the values of certain epidemiological parameters, to investigate how the different control strategies behave when parameters are altered. This allows the robustness of the predictions to be tested. In each case, for each value of the parameter, ten

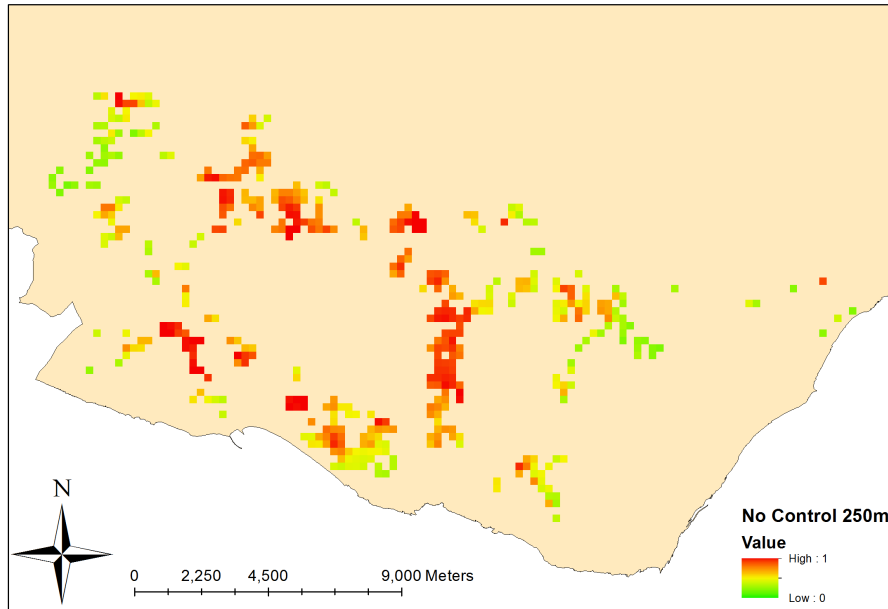


Figure 7: Map showing probability of infection at the 250m by 250m scale after 10 years when there is no control.

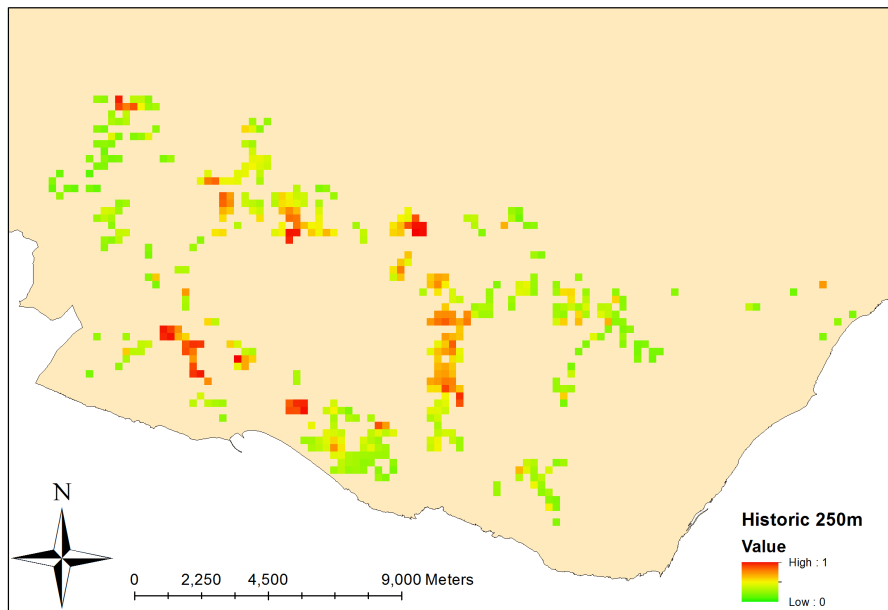


Figure 8: Map showing probability of infection at the 250m by 250m scale after 10 years using the historical approach.

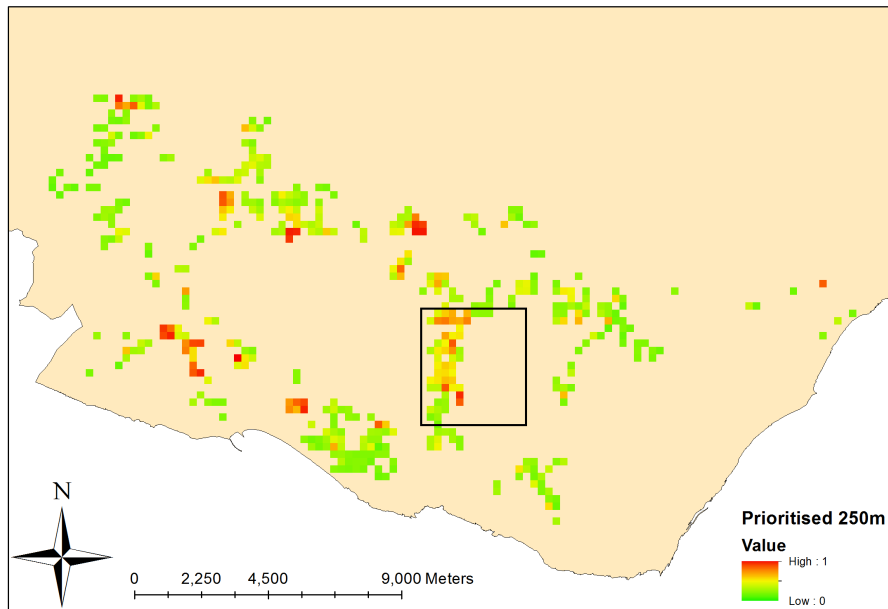


Figure 9: Map showing probability of infection at the 250m by 250m scale after 10 years using the prioritised approach. The black box shows the smaller region that is focused upon at the 25m by 25m scale in Figures 10 to 13

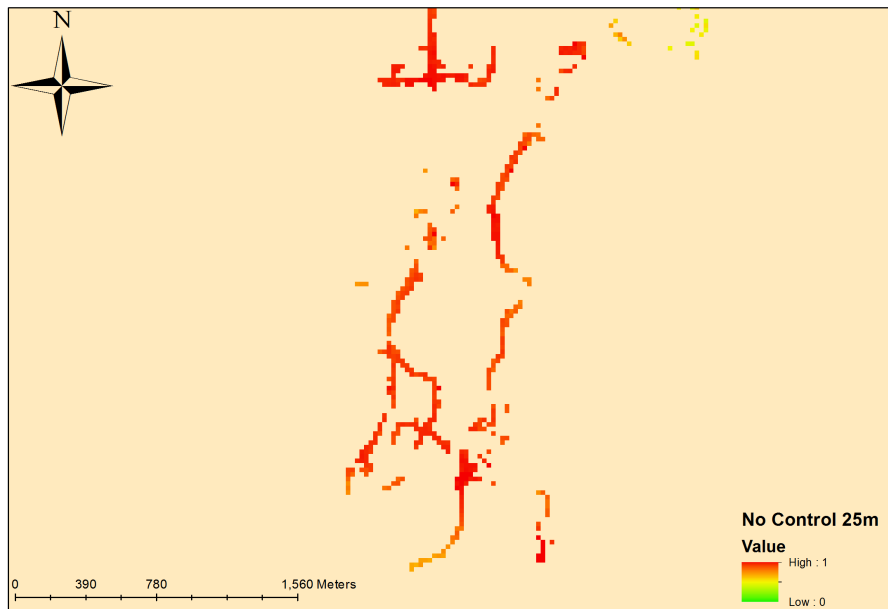


Figure 10: Higher resolution map showing the probability of infection at the 25m by 25m scale for the region highlighted by the black box in Figure 9, after 10 years and when there is no control

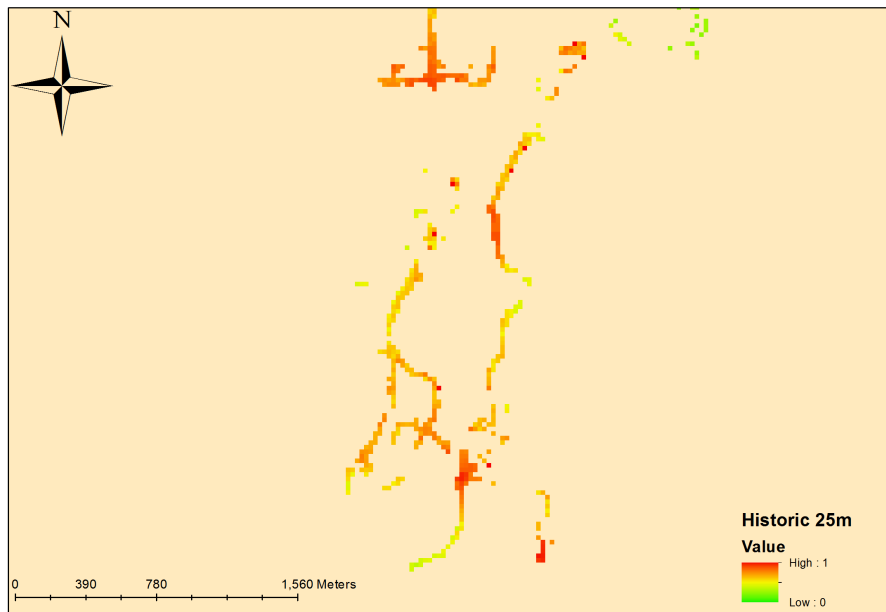


Figure 11: *Higher resolution map showing the probability of infection at the 25m by 25m scale for the region highlighted by the black box in Figure 9, after 10 years using the historic approach*

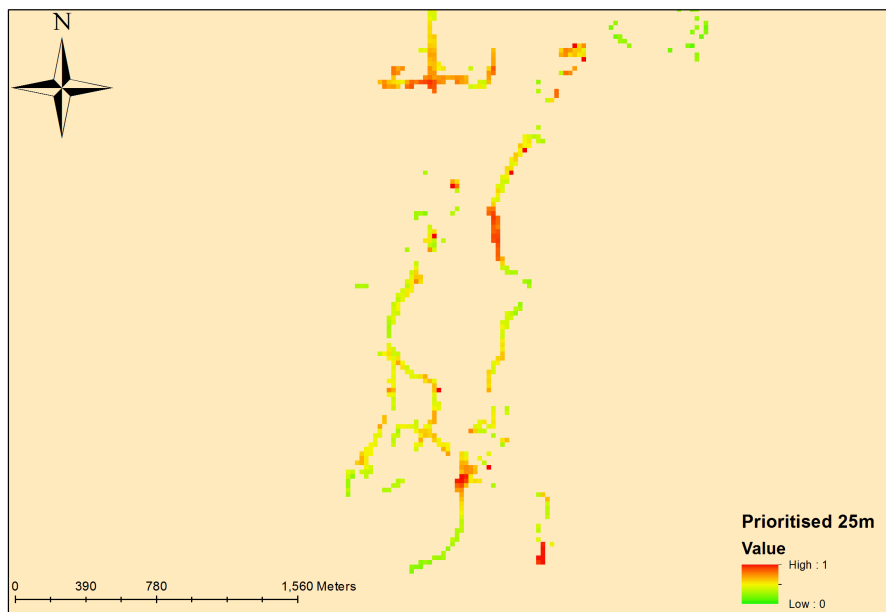


Figure 12: *Higher resolution map showing the probability of infection at the 25m by 25m scale for the region highlighted by the black box in Figure 9, after 10 years using the prioritised approach*

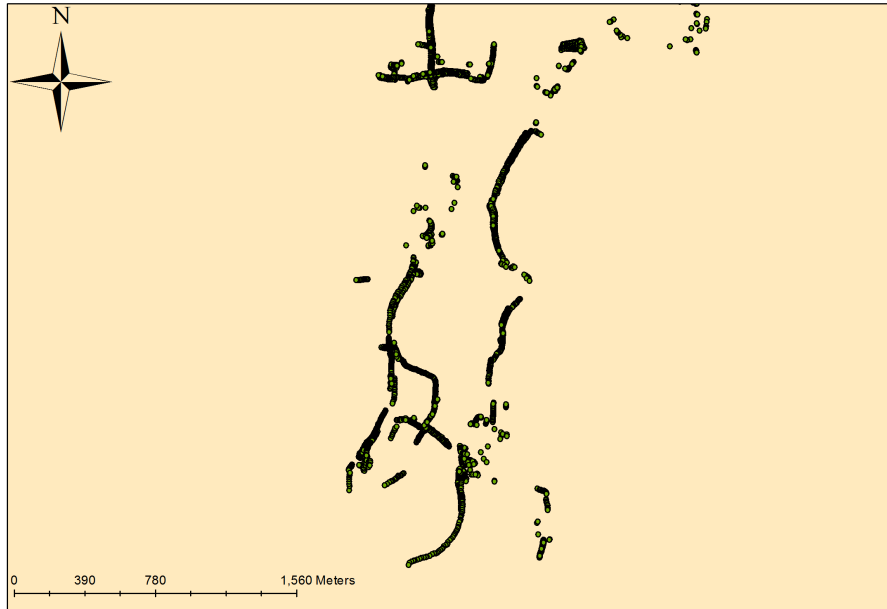


Figure 13: Map showing the location of individual trees in the zoomed in area.

replicates of the model for each control strategy were performed. The results presented focus on the number of tree removals and $p(\text{Original Alive})$, both over the ten year timescale. Note that all other parameters were fixed at the default values, and this means that the effect of one parameter changing in isolation is investigated. This is why the number of removals due to control per year diverges from 1200 in these runs; the model is not refitted each time it is run for each parameter. Instead how any alteration to one epidemiological mechanism can affect the results is considered.

3.3.1 Rate of primary infection (i.e. influx from outside)

The results in Figure 14 show the performance of the control strategies for values of ϵ between $\epsilon = 0$ (i.e. East Sussex is not subject to any influx of infected beetles) and $\epsilon = 14 \times 10^{-5}$ (i.e. there would be approximately 400 infections from outside sources per year). The prioritised approach consistently outperforms the other two control strategies across this entire range of parameters. Comparing $p(\text{Original Alive})$ after ten years for the prioritised approach at $\epsilon = 7 \times 10^{-5}$ and at $\epsilon = 14 \times 10^{-5}$, indicates that if the force of infection from outside the region is doubled from the original value, the probability of a randomly chosen infected tree within the control zone surviving the next ten years is reduced by about 20%. In turn this indicates that the control (or otherwise) adopted outside the East Sussex control zone can have a big impact on disease spread within it, even when intensive control is done inside the zone. Note too that in the absence of the budgetary constraint, the effects of these increases may even be understated. In particular, if it were the case that 400 new infections occurred every year, then up to 1400 removals would be required, and since the budget does not in fact allow this level of intervention, more infection would presumably eventually be present in the long term, since

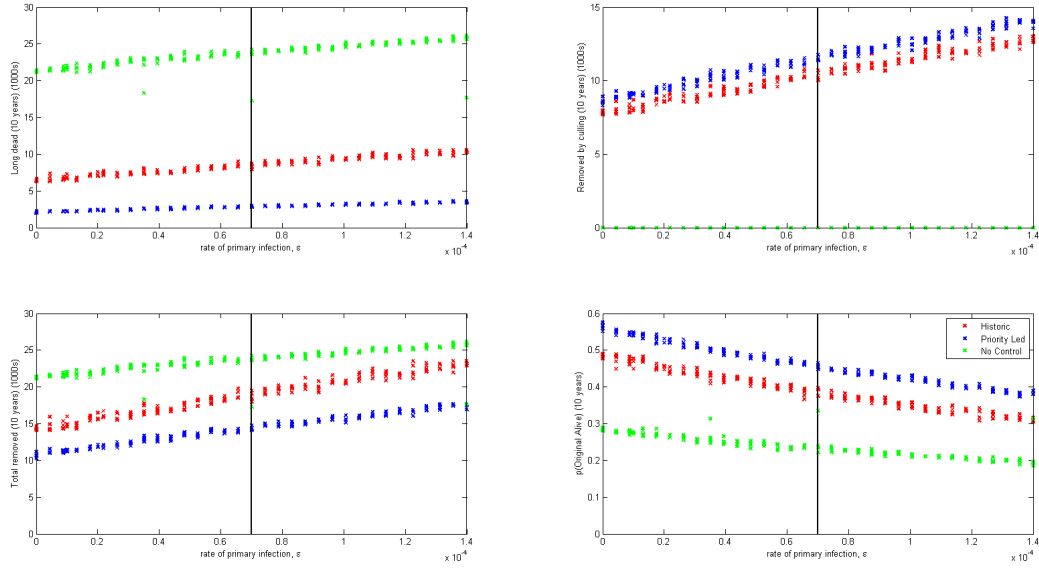


Figure 14: Performance of the model for different values of ϵ , the rate of primary infection (note the parameter is changed to give between 0 and 400 infections from outside sources per year). The black line shows the default value of this parameter (i.e. $\epsilon = 7 \times 10^{-5}$, approx 200 infections per year) as used in all other simulations. The individual graphs show the total number of tree removals of both types after ten years (top row), the total number of removals after ten years (bottom left) and the probability that a randomly chosen tree from the original cohort is alive after ten years (bottom right).

in practice control would not keep up with rates of disease spread.

3.3.2 Rate of secondary infection (i.e. rate of disease spread in East Sussex)

The results in Figure 15 show the performance of the control strategies for values of β between $\beta = 0$ (i.e. infected trees are not at all infectious to other trees within the zone) and $\beta = 8 \times 10^{-5}$ (i.e. the rate of infection between pairs of trees is double the best fitting value). Again the prioritised approach outperforms the other control strategies. The large variation in the number of removals and $p(\text{Original Alive})$ across even this relatively restricted range of values of β indicates this is an important parameter to “get right”, since the rate of disease spread can have a large effect on dynamics. This is of course unsurprising, but does focus our attention on obtaining more concrete data on disease spread to parameterise the model. Note there is still some loss of trees to disease when the secondary infection rate is set to zero. This is due to (i) primary infection from outside, (ii) the loss of those trees which are initially infected at the start of the simulation.

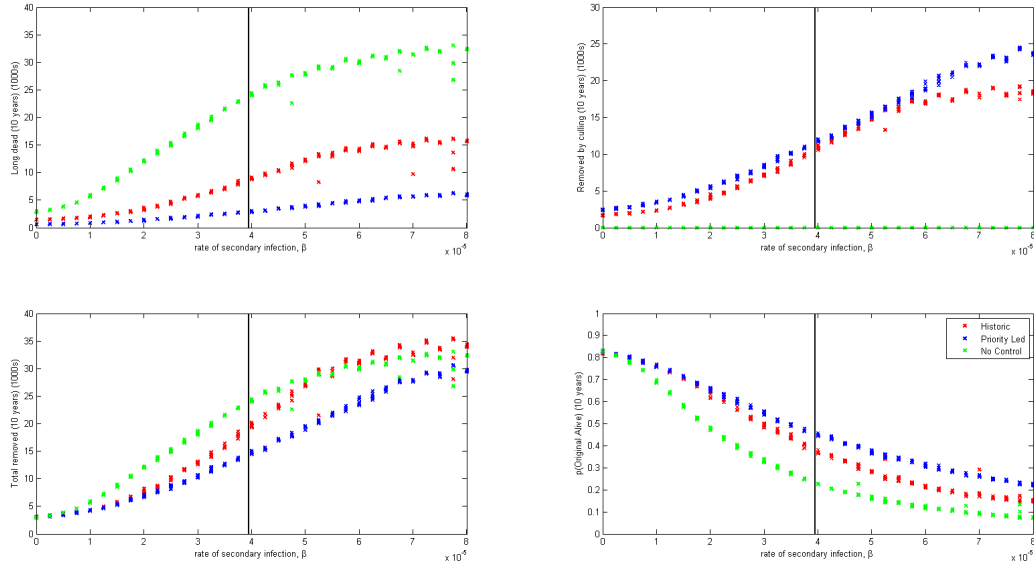


Figure 15: Performance of the model for different values of β , the rate of secondary infection. The black line shows the default value of this parameter (i.e. $\beta = 3.95 \times 10^{-5}$) as used in all other simulations. The individual graphs are as described in Figure 14.

3.3.3 Relative infectivity (i.e. how infectious a living tree is compared to a dead one)

The results in Figure 14 show the performance of the control strategies for values of the relative infectivity δ between 0 (i.e. live trees are not infectious) to $\delta = 1$ (i.e. live trees are just as infectious as dead trees). As before the prioritised approach performs best, with the difference between strategies increasing as δ becomes smaller (i.e. as live trees become less infectious in relative terms). This is reassuring, since the only source of information on this key parameter is Harwood, and intuitively the value $\delta = 0.5$ taken in that paper seems rather large, indicating that live trees are half as infectious as dead ones (note the value of this parameter comes from fitting the Harwood model to data rather than due to input from a biologist). For small values of δ ($\delta < 0.3$ or so) even the number of removals by culling is smaller under the prioritised approach than the historic one (for the default parameters the historic approach leads to slightly fewer removals by control intervention, but far more deaths of trees overall). Again this is expected; if live infected trees are in fact relatively unimportant epidemiologically-speaking, focusing efforts on dead trees becomes an even better idea.

3.3.4 Maximum number of trees that can be cut down per year (i.e. the budget)

Note that scans over the first three parameters were performed assuming no budgetary constraint. This allows us to focus on the underlying result, avoiding the difficulties in interpretation associated with interactions between a parameter changing and the budget being exceeded. However here the effects of a restricted budget are assessed. Figure 17 shows the results, in particular examining what happens if the number of removals per year is restricted. The most

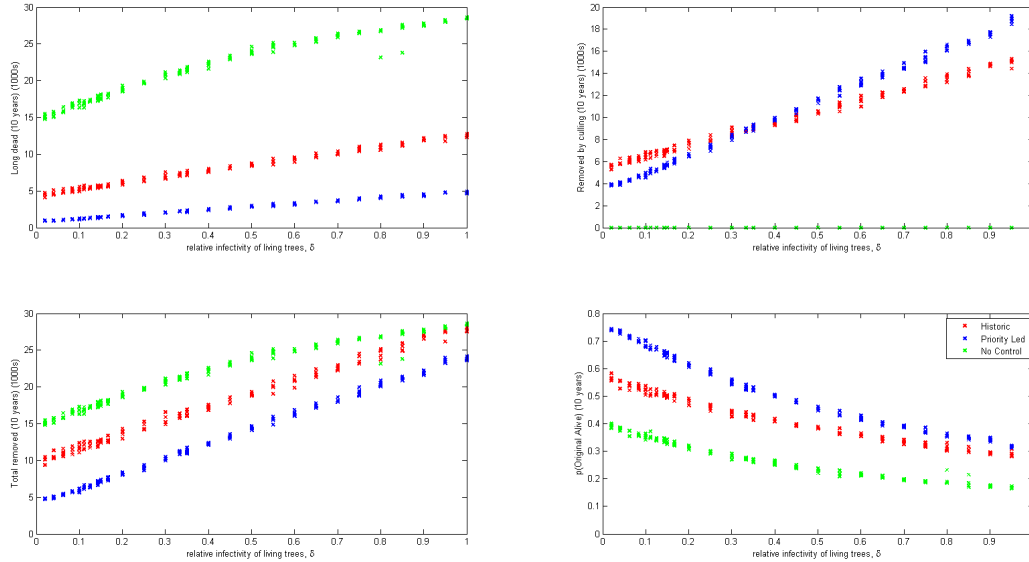


Figure 16: Performance of the model for different values of δ , the relative infectivity of live vs. dead infected trees. The black line shows the default value of this parameter (i.e. $\delta = 0.5$, i.e. live trees are half as infectious as dead ones) as used in all other simulations. The individual graphs are as described in Figure 14.

striking conclusion is that, in effect, “you get what you pay for”: if the budget is reduced then more trees die. Note that the manner in which the responses flatten off for $C > 1200$ is because of how the model is fitted.

For the default parameters no more than 1200 trees to remove under either strategy are actually found across the landscape per year, and so even if the budget is increased, it cannot be used. We know that this does not happen in reality, and so these results do not necessarily indicate that an increased budget would be of no use. Indeed as I understand it, the budget was prematurely exhausted last year, perhaps due to an additional influx of disease from outside the control zone and/or more new susceptibles being born and leading to faster spread because there are more host trees to spread through and/or environmental conditions causing faster spread. However, since none of the effects were explicitly included in the model, nor in the model fitting, which concentrated on matching a “steady state” of disease spread, consequence(s) cannot be felt in the model’s results. In reality a backlog in infection would lead to more secondary infection in the next year, and this in turn would lead to even more detections the year after, leading to an ever bigger backlog, and with insufficient budget the disease would probably increasingly get out of control. However, we did not have sufficient data to allow us to fit the model to this situation.

4 Discussion

Clearly the most important result is that the prioritised approach to control leads to fewer losses of trees overall than the historic strategy, and far fewer losses than not controlling at

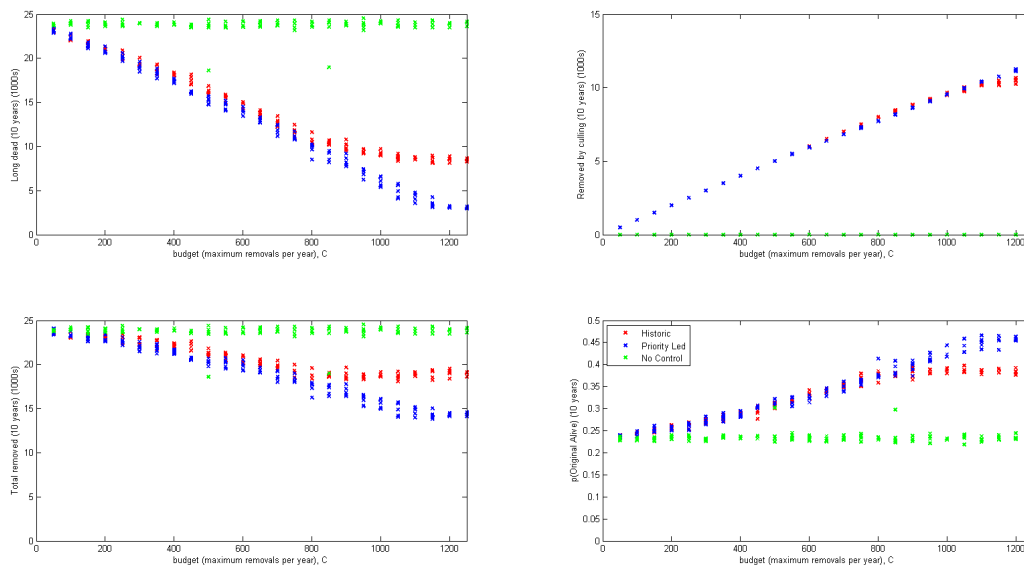


Figure 17: Performance of the model for different values of C , the maximum number of removals allowed per year by the budget. There is no black line, since other simulations assume the budget is unlimited. The individual graphs are as described in Figure 14.

all. Confidence in this is undoubtedly increased by the robustness of this conclusion to changes in epidemiological parameters. It is therefore fair to say – inasmuch as it is supported by the results of a relatively simple model of the type presented here – that the prioritised approach is sensible.

Nevertheless, it should be noted that there are a number of potential sources of error that could mean the conclusion is incorrect. They are summarised in the following section, in estimated order of importance. Improving these aspects of the model, together with investigating any elements of the results presented here that are particularly interesting to stakeholders in East Sussex, would form the basis of any future work.

4.1 Potential sources of inaccuracy

4.1.1 Host demography

Fundamental to any prediction of epidemiological dynamics over long time scales or when there is a large number of tree deaths is the replenishment of susceptible hosts that is necessary for pathogen persistence. However, here the treatment of this has been very simple. Certainly the predicted number of tree removals is almost certainly too large, particularly when no control is attempted. This is because our demographic assumption leads to an excessively large rate of tree replacement over East Sussex, and in turn a very fast cycling of disease. However, elm demography is complex, and data to parameterise a more realistic model (e.g. involving a juvenile class) are few. A careful consideration of demography was therefore not possible in this project. Epidemiological intuition suggest this is the most important omission.

4.1.2 Lack of data

The data available to parameterise the model was extremely limited, and basically boiled down to a table showing the number of removed trees between 2000 and 2011. There were no quantitative data concerning the spatial scale of disease spread, the times taken to transit the various epidemiological compartments, the density of beetles or influx rates of disease from outside the system. This meant we were forced to parameterise with information taken from the literature, and often these numbers were not finely resolved or were not directly applicable to the situation in East Sussex. This lack of data had a particular effect on how our model behaved when the budget was increased, as described in Section 3.3.4. Given the aims of the project, our lack of knowledge surrounding the relative infectivity of live and dead trees was also very concerning. It may in fact be useful to use the meetings planned via project partners at York and FERA to try to establish a consensus among stakeholders concerning this key parameter before going forward with the modelling.

4.1.3 Treatment of vector behaviour and density

The model does not track the density of beetle vectors, instead effectively assuming the density is proportional to the number of infected trees. This simplifies the modelling, and the same assumption was made in both the Harwood paper and the Swinton and Gilligan papers, but it presumably restricts the model's predictive power. It also means the treatment of environmental drives is necessarily in turn itself rather simple (in the model disease can spread between April and September, but between these months it is always spreading at the same rate, independent of e.g. temperature). The main reason this assumption was made was lack of concrete data on vector density. However, were more data available, it would be interesting to include it in the next iteration of the model.

4.1.4 Treatment of detection and control

Although the model faithfully represents the fundamental principles underlying both detection and the two types of control (i.e. trees are visited approximately once per year and the prioritised and historical approaches target dead and live trees, respectively), what actually happens in East Sussex is undoubtedly "richer" than the simple approach adopted in the model. This may be a fertile area of future study. Particularly interesting might be a "mixed" strategy which targets the two classes of infectious hosts to different extents (which could of course depend on the current status of the epidemic and/or the budget remaining and/or the position over the landscape). However, to do this would probably require a more careful treatment of what happens when the budget is exceeded, together with a better understanding of what causes this to happen as well as extensive discussions with staff members to better understand their behaviour, so was outside the scope of this initial investigation.

Acknowledgements

I thank Anthony Becvar for the benefits of his extensive insight into the biology of Dutch elm disease and past and present controls adopted in East Sussex, James Elderfield for assistance

with programming, Ben Price for assistance with initial literature review and data processing, and James Cox and Matt Castle for assistance with GIS.

References

Harwood, T.D., Tomlinsons, I., Potter, C.A. and Knight, J.D. (2011) “Dutch elm disease revisited: past, present and future management in Great Britain”. *Plant Pathology*. 60:545-555.

Swinton, J.A. and Gilligan C.A. (1996) “Dutch elm disease and the future of the elm in the U.K.: a quantitative analysis”. *Philosophical Transactions of the Royal Society London, Series B*. 351:605-615.

Swinton J.A. and Gilligan C.A. (1999) “Selecting hyperparasites for biocontrol of Dutch elm disease in stochastic spatially-extended epidemics” *Proceedings of the Royal Society, Series B*. 266:437-445.

Swinton J.A. and Gilligan C.A. (1999) “A modelling approach to the epidemiology of Dutch elm disease” in *The Elms: Breeding, Conservation and Disease Management* (Editor C Dunn).

Appendix 2 – DED modelling report

Appendix 2 - ESCC Dutch Elm Disease Strategy (2015)

Background:

The East Sussex Dutch elm disease (DED) control zone holds the world's largest population of English elm. Together with other varieties of elm, there is a total population of approximately 18,500 mature trees in East Sussex. This is approximately 2% of the total number of trees found outside woodland in East Sussex.

Elm trees are concentrated in particular areas, notably the coastal towns and relatively low-lying clay soils behind the Downs and along the valleys running through the Downs, due to factors such as soil and climate. Consequently, whilst the total number of Elm trees is relatively small, they often make up a significant percentage of the tree species within the areas in which they are found. Elms have survived in these areas due to natural protection from the sea and the Downs and from the DED control programme.

DED is estimated to have killed approximately 25 million elms in the UK since the late 1960s. ESCC established a DED control programme in 1971. The South Downs Joint Committee then managed the programme for the area between Brighton and Eastbourne for most of its existence, on behalf of ESCC. ESCC subsequently took over the delivery of the programme from April 2011, when the South Downs National Park Authority came into being.

DED is caused by a fungus which is transmitted from tree to tree by two types of elm bark beetle, or via interconnecting roots between 2 or more trees. The fungus causes elms to block their own water conduction system in an attempt to cut off the spread of infection, resulting in wilting and death of the foliage and the slow death of infected limbs. Symptoms first appear in early spring/early summer (depending on the weather) and last until the trees shed their leaves in the autumn. The beetles tend to move between trees when the temperature is between 16-20°C, hence the spring-autumn period has tended to be the operational DED 'season', with trees that are suitable for breeding needing to be of a suitable size (about 15 years old) and condition; the condition being vital to the beetles' breeding success.

Currently, there are no means to eradicate DED, which means that a programme to manage the spread of DED is an open-ended commitment. The most effective means of containing the disease is through a combination of methods to minimise the beetle population. The main action is to fell infected trees, or parts of trees, and burn these to prevent further spread of the disease. Trunk girdling can also prevent the spread of the disease via the roots. Treating with a vaccine, which is not yet registered for use in the UK, may be possible in future but is expensive and treatment must take place every year to be successful.

The Dutch Elm Disease (Local Authorities) Order 1984 empowers, but does not require, Local Authorities to serve notice on owners of diseased trees, requiring the owner to carry out felling and appropriate disposal. Should this

not happen in the time period advised, the Order permits an appropriate officer to serve notice before entering private land to enable the sanitation felling or other work considered necessary for the control of DED to be carried out, with the costs recoverable from the landowner. ESCC has not yet had to invoke this Order.

In 2012 ETE Scrutiny Committee recommended that a review of the current approach to managing DED be carried out to:

- 1) provide an up-to-date evidence-based decision as to whether to carry on the sanitation programme;
- 2) if the decision is to maintain the sanitation programme then develop a strategy with key partners to ensure that the approach is:
 - a) financially sustainable;
 - b) likely to be effective in the long term.

This strategy was developed in response to the recommendation from Scrutiny, and has been updated in January 2015 to provide evidence of progress in delivering the strategy.

What is it we're trying to achieve?

The objectives of the DED sanitation programme are to:

- 1) ensure the long-term survival of a significant population of mature English elm, which make an important contribution to the local landscape and provide a habitat to priority species (e.g. butterflies (red data list – white hairstreak) and 200 species of lichen (red data list – orange fruited elm-lichen and 5 others)). The Sussex elm population is considered by Natural England to be of regional importance, with Brighton & Hove housing the National Elm Collection. In addition, all public bodies have a general duty to have regard to biodiversity in all of their work (the Natural Environment and Rural Communities Act, 2006).
- 2) Assist in managing DED on the highway, just as any other land owner is required to do under the Highways Act 1980 (section 154), and on ESCC land (eg. schools), when it poses a health and safety risk.
- 3) Ensure the most cost effective approach.

What is the best way of doing it?

In 2012/13 ESCC worked with DEFRA's Food and Environment Research Agency (FERA) and the Department of Plant Sciences at the University of Cambridge to compare the effectiveness of:

- a) stopping the DED sanitation programme;
- b) returning to how the programme was delivered prior to ESCC taking it back in-house in April 2011, and;

c) continuing with the prioritised approach to felling adopted by ESCC in 2012.

The report by the University of Cambridge is included as Appendix 1. The main conclusions are that the prioritised approach to control leads to a larger healthy population and reduced felling costs in the future.

Table 1, below, compares the costs and effectiveness of stopping the sanitation programme with continuing to deliver a prioritised approach to felling diseased trees. Tables 2 to 6 provide a more detailed breakdown of these costs, while figure 1 provides a visual representation of the numbers of trees felled shown in table 1. The main conclusions from the tables and figures are that:

- 1) stopping the sanitation programme is more costly over the short and medium term than maintaining the programme.
- 2) the prioritised approach to sanitation enables a larger population of healthy mature elm trees to survive, because fewer trees would become infected and require felling. This, in turn, would be expected to lead to a gradual reduction in felling costs.

These conclusions are similar to those reached in the report to Scrutiny in March 2013.

Table 1. Comparison of the costs & effectiveness of the different approaches to DED.

Approach	Total number of healthy elm after 10 years	Total number of healthy elm after 25 years	Number of elm felled over 10 years	Number of elm felled over 25 years	Cost over 10 years	Cost over 25 years
1. No control	7,000 (1)	6,000 (1)	5,210 (2a)	5,210 (2a)	£1,228,050 (3a)	£1,228,050 (3a)
2. Prioritised (modelled)	14,000 (1)	14,500 (1)	6,500 (2b)	16,250 (2b)	£591,100 (3b)	£1,477,750 (3c)
3. Prioritised (forecast)	14,000 (1)	14,500 (1)	7,410 (2c)	10,560 (2d)	£659,410 (3d)	£1,235,140 (3e)

Explanatory notes:

- 1) 'Total number of healthy elm after 10 years' and 'after 25 years': the data are taken from figure 5 of Appendix 1 (ie. the independent modelling report).
- 2) 'Number of elm felled over 10 years' and 'over 25 years':
 - a. The 'no control' approach: the data are taken from figure 6 of Appendix 1. The assumption is that no trees require felling after 7 years. This may be an underestimate, as elm will continue to grow and become infected after 7 years, though at a lower rate than during the initial 7 years.

- b. The 'prioritised (modelled)' approach: the data for the number of trees felled over 10 years and 25 years is taken from figure 6 of Appendix 1.
- c. The 'prioritised (forecasted)' approach – 10 years: the actual number of trees felled in 2012, 2013 and 2014 showed an average reduction of 20% per year. It's been assumed that this 20% p.a. rate of reduction will continue during the first 10 years of the prioritised approach. This is subject to considerable uncertainty, for example due to the unknown rate of DED infection entering the control zone from adjacent areas.
- d. The 'prioritised (forecasted)' approach – 25 years: it's not currently possible to eradicate DED. However, the only DED control programme that has been operating for a number of years is in Amsterdam, where a relatively stable felling figure of about 0.5% per year of the total elm population has been reached. Whilst there are significant differences between Amsterdam and rural East Sussex there is no reason to believe that the principle of establishing a more stable and lower level of annual felling cannot be achieved in East Sussex. We have assumed that we might achieve a stable felling rate of 1.5% of the total Elm population after 10 years of operating a prioritised approach. This is an assumption, which can only be tested in practice.

3) Costs over 10 years' and '25 years':

- a. The 'no control' approach: for the sake of consistency, the costs have been kept the same as those presented to Scrutiny in 2013, and are summarised in table 2, below. It's assumed that there would be no further costs beyond the first 7 years, therefore the costs for 10 years and the costs for 25 years are the same.

Table 2 – Costs for 'no control over 7 years'.

Cost item	No. felled	Cost per tree (£)	Total cost (£)
ESCC street trees	2,048	460	942,080
ESCC highway trees	2,631	60	157,860
ESCC estate trees	531	60	31,860
DED Officer salary (£27.5K p.a.)			96,250
		Total:	1,228,050

- b. The 'prioritised (modelled)' approach - over 10 years: for the sake of consistency, the costs have been kept the same as those presented to Scrutiny in 2013 and are summarised in table 3, below. We have assumed that 40%, rather than 50%, of the cost of felling trees is recovered from private landowners because not all landowners are able or willing to pay.

Table 3 – Prioritised (modelled) approach over 10 years.

Cost item	No. felled	Cost per tree (£)	Total cost (£)
ESCC street trees	170	460	78,200
ESCC highway trees	930	60	55,800
ESCC estate trees	175	60	10,500
Private trees	5,200	33	171,600
DED Officer salary (£27.5K p.a.)			275,000
		Total:	591,100

c. The ‘prioritised (modelled)’ approach – over 25 years: for the sake of consistency, the costs have also been kept the same as those presented to Scrutiny in 2013 and are summarised in table 4, below.

Table 4 – Prioritised (modelled) approach over 25 years.

Cost item	No. felled	Cost per tree (£)	Total cost (£)
ESCC street trees	425	460	195,500
ESCC highway trees	2325	60	139,500
ESCC estate trees	438	60	26,280
Private trees	13000	33	429,000
DED Officer salary (£27.5K p.a.)			687,500
		Total:	1,477,780

d. The ‘prioritised (forecasted)’ approach – over 10 years: the costs over 10 years have been based on the average of the actual number of trees felled and the actual costs incurred during 2012, 2013 and 2014, which have then been projected forward for the subsequent 7 years. These are summarised in table 5, below.

Table 5 – Prioritised (forecasted) approach over 10 years.

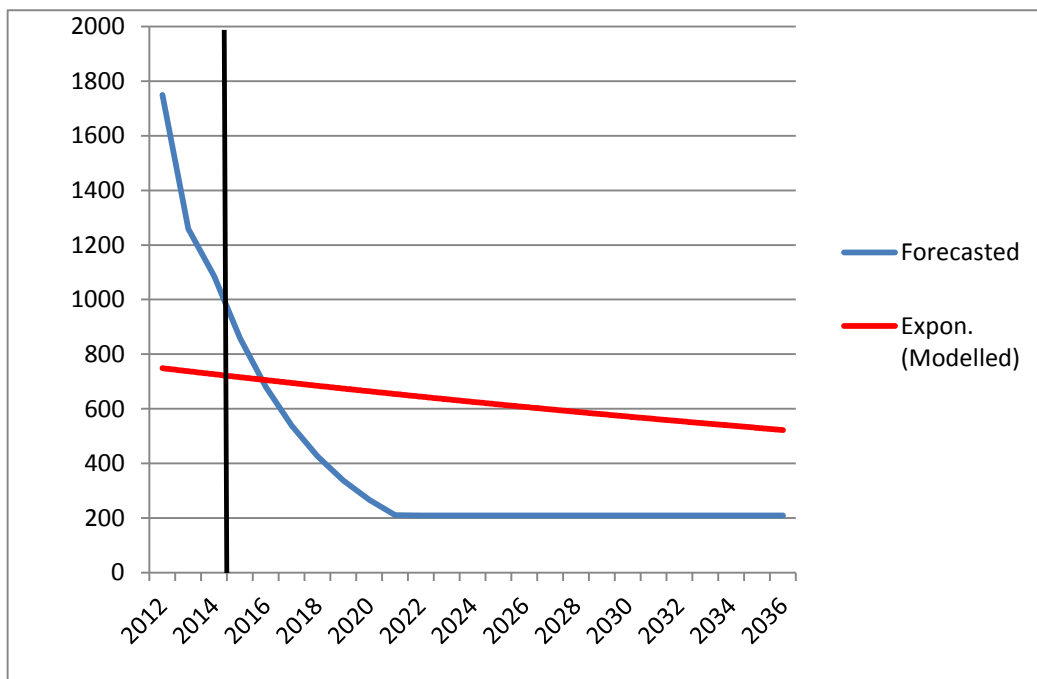
Cost item	No. felled	Cost per tree (£)	Total cost (£)
ESCC street trees	220	460	101,200
ESCC highway trees	2005	60	90,225
ESCC estate trees	234	60	11,232
Private trees	4,966	33	181,756
DED Officer salary (£27.5K p.a.)			275,000
		Total:	659,410

- e. The 'prioritised (forecasted)' approach – over 25 years: the costs over the first 10 years are the same as set out in 3 d) above. For the subsequent 15 years, and as explained in 2 d) above, it's been assumed that a relatively stable level of tree felling may become established, with approximately 215 trees needing to be felled each year.

Table 6 – Prioritised (forecasted) approach over 25 years.

Cost item	No. felled	Cost per tree (£)	Total cost (£)
ESCC street trees	313	460	143,980
ESCC highway trees	2,858	60	128,610
ESCC estate trees	334	60	16,032
Private trees	7,077	33	259,018
DED Officer salary (£27.5K p.a.)			687,500
		Total:	1,235,140

Figure 1. Comparison of the predicted number of trees felled over 25 years when forecast and modelled.



It's important to note that the limited data kept on the historic sanitation programme and the complex epidemiology of DED mean that the conclusions from the modelling work are based on a number of assumptions, for instance the rate of spread of infection. In addition, it's not possible to include an assessment of some factors, for instance the predicted effect of climate change and water stress, or the predicted effects of other tree diseases. Therefore, whilst independent experts in the field (eg. from the Forestry Commission) conclude that the modelling work is based on the most up-to-date knowledge of the disease and draws a reasonable set of conclusions to help inform the strategy for DED control going forward, the conclusions are in indication of the direction of travel rather than a set of firm figures.

The DED control strategy 2015 onwards

To achieve the objectives set out on page 2, the key deliverable of the sanitation programme continues to be to reduce the beetle population by continuing with the prioritised approach to sanitation felling within the existing control zone covered by the Dutch Elm Disease (Local Authorities) Order 1984. This will entail:

- 1) Removing trees containing grubs (brood trees) or in condition to contain grubs (host trees).
- 2) Using host trees spotted late in the season as trap trees, which will be felled during colder weather.

In 2014 The Conservation Foundation obtained £27,500 from the Heritage Lottery Fund for the sanitation felling of priority elm up to December 2015. In addition, the Foundation has obtained external funding to pay for:

- Organising an elm planting programme with resistant elm in the Cuckmere Valley during winter 2014 and winter 2015 for Parish Councils, schools and other community groups.
- Organising walks and workshops for the general public, community groups and associations and schools to highlight the elms significance in the local landscape and the industries and biodiversity it has supported and continues to support.
- Creating an “Elm Spotting App”, which allows the public to note the site and condition of elm in the area, and send the information to a map based database, which is checked and overseen by the ESCC DED Officer.
- Creating an educational DVD to be sent to schools all over the country regarding elm and its disease management.

The following sections set out the current control strategy:

1. Finance

- Maintain the current ESCC budget level at approximately £100,000 p.a., and reduce this budget incrementally once the priority approach is clearly delivering a lower and more stable felling regime.
- Seek to raise the contribution to felling costs on private land from private land owners to 75% of the actual costs (including public bodies). Keep this rate under review.
- Deal appropriately with private individuals who are unable or unwilling to contribute to the costs, on a case-by-case basis.
- Draw down external funding from HLF until December 2015 and seek other funding sources.

2. Control zone

- Maintain the current control zone boundary, shown in figure 2, below.
- Keep a check on areas on the periphery of the control zone where Elm are present, to avoid 'flare-ups' that could affect our programme. This may entail felling trees that pose a significant threat to important areas on the edge of the control zone.

3. Spotting

- Maintain a volunteer database across the control zone.
- Hold registration/training sessions early in the season.
- Use volunteers to help mapping of elms.
- Phase in the use of the "Elm Spotting App", created by the HLF project.

4. Contractors

- We will use a number of local and/or regional contractors, procured in accordance with Standing Orders to ensure value for money, to ensure a wide spread of continuous work can occur across the control zone.
- Contractors retendered for the DED contract early in 2014. Retendering to occur every three years.
- Contractors work will be monitored routinely.
- Where possible, keep contractors working in areas they know or where land owners know them.
- Use larger, less local contractors to cover extra workload and more specific jobs, e.g. requiring specialist work, machinery or legislation.

5. Felling process

- Prioritise felling of trees currently being used as a breeding habitat within the shortest period of time possible.
- Prioritise felling of trees able to be used as a breeding or over-wintering habitat during that season within the shortest period of time possible (unless trees can be used as 'trap trees' (i.e. to 'trap' breeding beetles).
- Prioritise felling trees depending on the risk they pose, for instance in reducing the risk of infection to health Elm populations in Eastbourne and Brighton & Hove.
- Assess any site risks before work is commissioned and monitor hazards, e.g. before and after photos, photos of buildings or other risks, check contractors risk assessments.
- Figure 2 sets out the steps in the control process.

6. Surveying and mapping

- Continue to survey and map trees between the B2124 and A27 to decide if boundary readjustment is necessary (see point 2 of control zone paragraph).

7. Communications

- Use the media to actively promote the control programme.
- Issue standard press releases and offering suitable news and feature stories linked to our key messages.

- Engender a sense of personal and community responsibility and encourage residents and staff to get involved with protecting the elm population of East Sussex by:
 - Promoting our website and Facebook page
 - Promoting the contact centre
 - Using the intranet and departmental newsletters
 - Using the East Sussex Elms Facebook site
 - Providing members with written or verbal briefings
- Exercise control over the tone of media coverage and combat myths about the control of Dutch elm disease.
- Key spokespeople:
 - East Sussex County Council Lead Cabinet Member for Transport and Environment, for messages relating to policy.
 - Dutch Elm Disease Officer, for technical messages.

8. Partnership working

- Continue with regular meetings of the Elm Partnership.
- Work with the Conservation Foundation and ESCC external funding team to seek additional funding for sanitation and replacement planting from December 2015.
- Work closely with the South Downs National Park Authority, for assistance regarding the use of volunteers and staff, and potential sources of funding.
- Maintain close links with Plumpton College (e.g. felling, monitoring, volunteers).

9. Monitoring & reporting

- Maintain the existing database with information on each infection site (e.g. land owner name, address, number of trees, quotes, etc).
- Continually assess and monitor contractor's work throughout season.
- Provide an annual report on progress with implementing this strategy, covering:
 - Numbers of trees felled and at what cost
 - Changes in the total elm population
 - Review of the assumptions made above, to incorporate relevant new evidence.

10. Other tree diseases

- Remain on Kent County Council's Ash Die-Back (ADB) Strategic Coordinating Group (SCG).
- Update ESCC departments with strategic policies formed by the SCG.
- There is currently no national or regional programme to manage the spread of ADB. To date, there has been only limited damage caused by its spread.
- Acute Oak Decline and Sudden Oak Death are not prevalent in East Sussex but are being managed further north (Suffolk, Norfolk, Midlands).

11. Risks

Risk	Potential impact	Measure to address the risk
Beetle population increases as elm population increases	Increased beetle population can increase the amount of infection that can occur annually due to more potential breeding ground in mature elms.	The prioritised approach aims to reduce the potential breeding ground directly by felling elms that are host or brood trees.
Length of season increases due to climate change	Warmer and earlier springs could see beetle emergence before budgets are decided allowing the disease to begin spreading earlier. A longer DED 'season' can increase the number of breeding cycles the beetles successfully complete, increasing beetle population during the season and number of infections.	Having enough budget to be able to clear all brood tree back log will reduce the emerging population and resulting infection. By prioritised targeting, monitoring and felling of brood and host trees, breeding cycles can be reduced.
Disease spread by storing and transporting diseased wood	Unknown beetle breeding sites cause 'flare ups' in infection that are unpredicted. This could be in high priority areas of significant landscape value elms. Large stores of brood wood can create vast amounts of new infection, increasing annual costs. Transporting brood wood from areas of high infection to areas of low infection will increase costs. If infection is spread to areas where money has already been spent on clearing infection there is an added cost.	Careful monitoring by the DED Officer will help reduce the potential occurrence of infected log piles. Education of the public through the communication plan will also help reduce this means of infection. Checks on contractors facilities and methods should occur through the season to ensure they are not part of the problem.

12. Replanting

- Donate elm saplings to schools, parish councils and community groups via the HLF project during winter 2014 and 2015.
- As no replanting scheme has ever been part of the disease control programme, if project planting is successful, look for future funding to roll out to whole control zone.

13. Key lessons

- Further public education of the prioritised approach is required to allow it to progress smoothly.
- Monitoring of trees throughout the year is paramount to ensure that they are felled in a timely fashion to avoid unnecessary felling and to avoid a brood emerging before felling can be completed.

- Look into felling only brood trees during the spring and summer and felling host trees during winter months.

Figure 2. DED Control Zone.

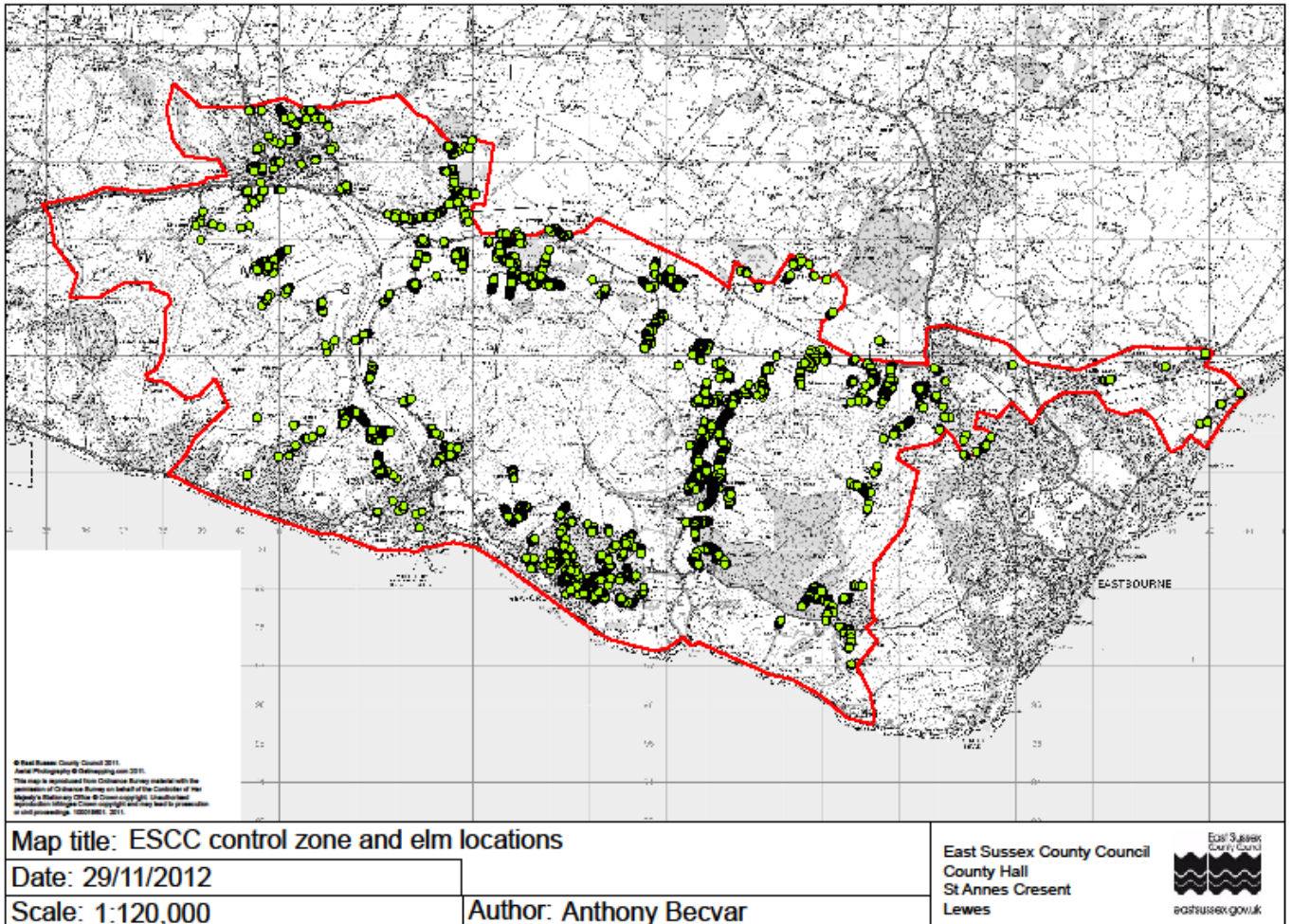
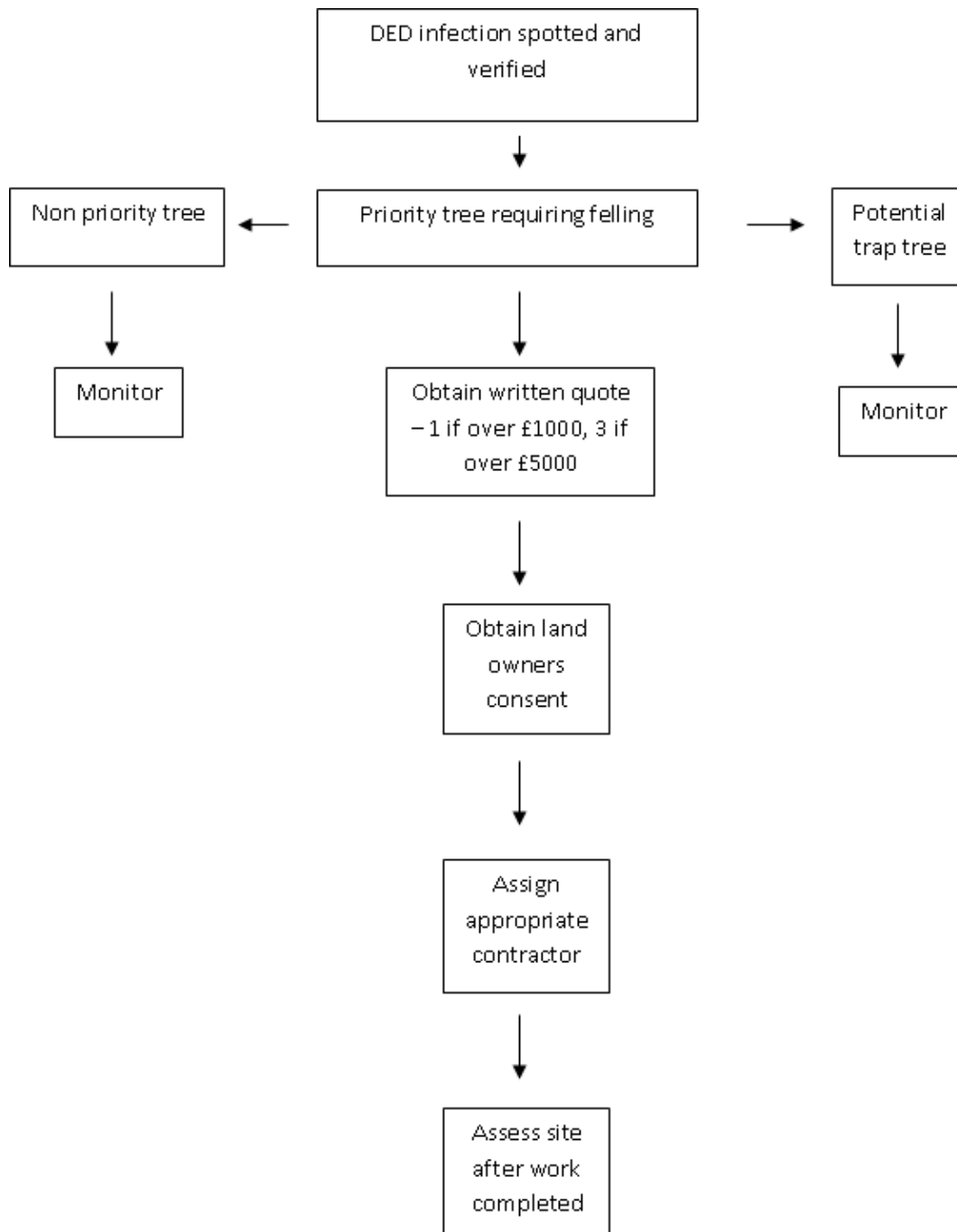


Figure 3. Steps in the DED control process.



Report to: Scrutiny Committee for Economy, Transport and Environment

Date of meeting: 18 March 2015

By: Director of Communities, Economy and Transport

Title: Progressing as a strategic commissioning authority: rights of way and countryside site management functions

Purpose: To update Scrutiny on the development of the commissioning strategy for our RoW and countryside management functions and to seek Scrutiny's views on its involvement with this project.

RECOMMENDATIONS: Scrutiny is recommended to:

- 1) Note the progress on the development of a commissioning strategy for rights of way and countryside management; and
 - 2) Approve the creation of a Scrutiny Committee Reference Group and nominate attendees, or agree other suitable arrangements for Scrutiny involvement.
-

1. Background

1.1. The County Council, as Highway Authority, has a statutory duty to ensure that the rights of way (RoW) network of 2,000 miles is accessible and maintained. The County Council also has a duty to conserve the wildlife value of 10 countryside sites. This includes Country Parks and Local Nature Reserves and ensuring safe access for the public.

1.2. The Authority's RoW and Countryside Management functions are delivered by two teams; the RoW and Countryside Maintenance team (RoWCM), and the RoW Access (RoWA) team. The RoWCM team undertake maintenance on the RoW network and countryside sites. They oversee the management of the capital bridge/surfacing programme and 10 countryside sites and consist of 16.8 full time equivalent (FTE) posts (four of which are funded from the capital budget). The RoWA team consists of 9.6 FTE and leads on a range of functions including prioritising maintenance work, managing volunteers and handling enquiries from the public. The team is also responsible for the Common Land, Town and Village Green and Definitive Map caseload as well as public inquiries.

1.3. Strategic commissioning is an operating principle of the County Council that will be applied to all business planning activity. In autumn 2014 a project manager was appointed to develop the commissioning strategy for how rights of way and countryside sites are managed. This will look at how the County Council will secure the best outcomes for residents through understanding long term need, matching supply with need and making the most effective use of all available resources.

1.4. The County Council is consulting a range of stakeholders including residents, volunteer groups, Parish and Town Councils, landowners, local businesses and partner organisations to understand the need for rights of way and countryside sites in East Sussex. The importance of rights of way and countryside sites in contributing to health benefits and economic growth via tourism will also be explored.

1.5. This report summarises the initial findings of the consultation, sets out the timetable for the development of the strategy and proposes the creation of a Scrutiny Committee Reference Group. If this is not approved it is proposed other suitable arrangements for the involvement of the Scrutiny Committee in the development of the commissioning strategy are agreed.

2. Supporting information

2.1. The service operates well, in an effective and efficient manner with a low unit cost. Both teams benefit from strong leadership and committed staff. This is demonstrated by the changes applied since the Scrutiny Review of countryside management in 2007 as well as the service and peer reviews in subsequent years.

2.2. The application of the strategic commissioning framework will bring together lessons learned from the reviews with a clear understanding of long term need to secure the best outcomes for residents. Strategic commissioning delivers two key outputs:

- A strategy. This clearly sets out the vision and prioritised outcomes which are based on the long term need of residents in the county.
- A delivery model. This identifies the most effective use of resources to meet the need detailed in the strategy.

2.3. A timetable for the development of the strategy has been agreed with the Project Board.

Action	Deadline
Data gathering and analysis	April 2015
Draft strategy	August 2015
Submit draft strategy to Cabinet	October 2015
Public consultation on strategy	February 2016
Strategy finalised and submitted to Cabinet	April 2016

2.4. To understand the long term need for our rights of way and countryside sites in East Sussex four areas will be investigated, these are:

- Usage. Explored via data on the Monitor of Engagement with the Natural Environment (MENE) and our own consultations with residents.
- Health benefits. Investigated with Public Health specialists.
- Involvement. Understanding the plans of the broad range of stakeholders who are involved through our survey and engagement events.
- Tourism. Investigating the financial relevance of RoW and our countryside sites to the economic growth of the county.

2.5. The consultation on usage ended on 20 February and with over 800 responses. It is too early to have a full report on the findings, however an initial review of the data shows that:

- 98% of respondents have used a rights of way (RoW) in the last two years
- Key reasons for using RoW and countryside sites regularly are to get fresh air, relax, exercise and enjoy scenery and walking. In addition 6% of those asked used RoW as it is the shortest route to their destination.
- A main reason to use RoW and countryside sites over other outdoor facilities are the scenery and wildlife. Easier access would encourage some to use them more.
- The regularity of visits to RoW is varied, from daily to yearly, whereas it is more common for visits to countryside sites to be a few times a year.
- 83% of those asked said that they felt countryside sites were important for wildlife conservation as well as human use.

A full report will be issued in April.

2.6. The consultation on stakeholder involvement also ended on 20 February and received over 110 responses. A full report will be issued in April but an initial assessment of the data shows that:

- A range of stakeholders have responded from across the public, private and voluntary sectors. A high proportion of respondents are from parish and town councils and voluntary associations.
- The area that demonstrated the highest involvement from stakeholders was RoW (by foot), with 68%.

- A significant number (85%) had regular involvement to enjoy the countryside while only 26% had regular involvement that was business related.
- Education, health/exercise and conservation were rated as more important reasons to have access to the countryside than tourism and local business.
- The key issues that encourage rights of way and countryside site use are condition (60%) and time available (54%).
- A large proportion of respondents felt named and regular contact with County Council Officers and clear procedures would help them meet their objectives.

2.7. As the information from the analysis stage is gathered it is proposed that a Members Advisory Group is created to inform the development of the strategy in the planning stage.

3. Conclusions and reasons for recommendations

3.1. Over the last five years the rights of way and countryside management functions have streamlined and improved in response to the changing budgets and requirements. In applying the strategic commissioning approach a strategy will be developed that puts long term need at the heart of future plans. This will secure the best outcomes through matching supply with need and making the most effective use of all available resources.

3.2. It is recommended that a Scrutiny Committee Reference Group is created, or other suitable arrangements agreed, to inform the development of the strategy at the next stage.

RUPERT CLUBB

Director of Communities, Economy and Transport

Contact Officer: Alice Henderson

Tel. No. 01273 481804

Email: alice.henderson@eastsussex.gov.uk

LOCAL MEMBERS

All

BACKGROUND DOCUMENTS

None

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Report to: **Scrutiny Committee for Economy, Transport and Environment**

Date of meeting: **18 March 2015**

By: **Chief Executive**

Title: **Reconciling Policy, Performance and Resources 2015/16**

Purpose: **To review scrutiny's input into the Reconciling Policy, Performance and Resources (RPPR) process during 2014/2015.**

RECOMMENDATIONS

The Committee is recommended to:

- 1) Review its input into the Reconciling Policy, Performance and Resources process and;**
 - 2) Identify any lessons for improvement for the process in future.**
-

1 Background

1.1 Reconciling Policy, Performance and Resources (i.e. aligning the Council's budget setting process with service delivery plans) has established an effective and transparent business planning process. A Medium Term Financial Plan (MTFP) has been produced and the 2015/16 round represents year three, of the three year savings plan.

1.2 Scrutiny committees actively engage in the process, firstly to allow them to bring the experience they have gained through their work to bear and, secondly, to help inform their future work programmes.

2 Reconciling Policy, Performance and Resources (RPPR) and scrutiny in East Sussex

2.1 In September 2014 each scrutiny committee considered extracts from the *State of the County* report and the departmental savings and Portfolio Plans. Requests for further information or reports were made to help the scrutiny committee evaluate proposals made in the respective Portfolio Plans.

2.2 The scrutiny committees established scrutiny boards to provide a more detailed input into the RPPR process. These met in December 2014 to consider the draft portfolio plans and the impact of proposed savings. The boards:

- considered any amendments to the Portfolio Plans and how they were being delivered against the proposed key areas of budget spend for the coming year;
- assessed the potential impact of these savings on services provided to East Sussex County Council customers.

2.3 Appendix 1 summarises the comments and recommendations made by the Economy, Transport and Environment Scrutiny Committee RPPR board to Cabinet.

3. Conclusion and reasons for recommendations

3.1 The committee is recommended to review its input into the 2015/16 RPPR process and in particular to establish whether there are lessons for improvement for the future.

BECKY SHAW
Chief Executive

Contact Officer: Martin Jenks
Tel. No. 01273 481327
Email: martin.jenks@eastsussex.gov.uk

LOCAL MEMBERS

All.

BACKGROUND DOCUMENTS

None.

Overview and Scrutiny: Reconciling Policy, Performance and Resources (RPPR) boards 2014/15

This is a summary of the outcomes, observations and findings of the scrutiny RPPR Board held in December 2014.

All the scrutiny boards considered draft Portfolio Plans and savings plans and attempted to assess the impact of both any significant budget cuts facing the County Council over the coming years and activities where savings were not necessarily being proposed but which accounted for significant use of resources.

Scrutiny boards commented on the plans being put in place and the means being proposed to protect front line services as far as practicable.

Economy, Transport & Environment

RPPR Board on 15 December 2014

Board: Councillors Richard Stogdon (Chair), Mike Pursglove (Vice Chair), Claire Dowling, John Hodges, Pat Rodohan, Rosalyn St. Pierre and Barry Taylor.

Lead Member: Councillor Maynard

Observers: Councillor Ensor.

Key messages to Cabinet:

1. The department will achieve the savings required for 2014/15 and is largely on target to achieve the savings for 2015/16.
2. Some Highways savings, which are linked to the re-procurement of the Highways contract, may be delayed (previously reported to Cabinet) and those savings dependent on a decision on the Reformulated Supported Bus Network (RSBN) may also be subject to change.

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Economy, Transport and Environment (ETE) Scrutiny Committee



Future work at a glance

Updated: March 2015

This list is updated after each meeting of the scrutiny committee
Follow us on Twitter for updates: @ESCCScrutiny

Items that appear regularly at committee	
<p>The Council's Forward Plan</p> <p>Page 71</p>	<p>The latest version of the Council's Forward Plan is included on each scrutiny committee agenda. This document lists the key County Council decisions that are to be taken within the next few months together with contact information to find out more. It is updated monthly.</p> <p>The Forward Plan helps committee Members identify important issues for more detailed scrutiny <i>before</i> key decisions are taken. This has proved to be significantly more effective than challenging a decision once it has been taken. As a last resort, the call-in procedure is available if scrutiny Members think a Cabinet or Lead Member decision has been taken incorrectly.</p> <p>Requests for further information about individual items on the Forward Plan should be addressed to the listed contact. Possible scrutiny issues should be raised with the scrutiny team or committee Chairman, ideally before a scrutiny committee meeting.</p>
<p>Committee work programme</p>	<p>This provides an opportunity for the committee to review the scrutiny work programme for future meetings and to highlight any additional issues they wish to add to the programme.</p>

Future committee agenda items		Witnesses
18 March 2015		
Dutch Elm Disease Strategy	Dutch Elm Disease Strategy update. To review how well the 'prioritised approach' strategy, endorsed by scrutiny in March 2013, is working.	Assistant Director, Operations / Head of Environment.
Countryside Sites and Rights of Way Commissioning Project	A report on the commissioning project for the management of countryside sites and the services provided by the Rights of Way Team.	Assistant Director, Operations / Head of Transport & Operations Services.
Reconciling Policy, Performance and Resources (RPPR)	Reconciling Policy, Performance and Resources. The Committee will review their input into the RPP&R process, and make recommendations for improvements for the future RPP&R process.	Director of Communities, Economy & Transport / Scrutiny.
1 July 2015		
Scrutiny Review of School Crossing Patrol Alternative Funding	The six month update report on the implementation of the recommendations from the review.	Director of Communities, Economy & Transport.
Safer Streets	A report on the Safer Streets initiative led by the Public Health department and the links to the Killed and Seriously Injured (KSI) performance targets and wider work of the Sussex Safer Roads Partnership (SSRP).	Director of Communities, Economy & Transport / Road Safety Manager and Public Health.
30 September 2015		
Reconciling Policy, Performance and Resources (RPPR)	Reconciling Policy, Performance and Resources. The Committee will start looking at the Department's Portfolio Plan and budget setting process for the 2016/17 financial year and beyond.	Director of Communities, Economy & Transport / Scrutiny.

Future committee agenda items		Witnesses
Further ahead		

Current scrutiny reviews and other work underway	Date to report
<p>Highways contract re-procurement project – this ongoing scrutiny project has been in existence for three years and involves the whole scrutiny committee acting as a reference group (ie. meeting at key stages during the development of the new highways contract model providing valuable observations and recommendations along the way).</p> <p>The Detailed Business Case (DBC) for the re-procurement of the Highways Contract was approved by the Council’s Cabinet on 16 December 2014. The Scrutiny reference group will continue to be involved with this project as it progresses through the various procurement stages.</p>	

<p>Potential future scrutiny work (Proposals and ideas for future scrutiny topics appear here)</p>
<p><u>Economic Development</u> A detailed appraisal of the impact and overall effectiveness of the Rural Growth and Employment Fund (RuGEF), ESCC Capital Budget for Growth, and Regional Growth Fund (RGF) programmes, looking at how different businesses have benefitted and the effectiveness of the programme.</p>

**Potential future scrutiny work
(Proposals and ideas for future scrutiny topics appear here)**

Superfast Broadband Project

A report on the progress of the Superfast Broadband project, examining take up and the next stages of the project.

A27 Improvements

The department is in discussion with the Highways Agency and businesses about improvements to the A27 between Lewes and Polegate. The Council is lobbying for this section of road to be made into a dual carriageway and the Highways Agency is testing a number of options. A briefing report could be brought to the Scrutiny Committee at a future meeting to provide more detail on the proposals.

**Background / information reports available to the Committee
(Items in this list appear on committee agendas when proposed for scrutiny by committee members)**

Date available

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Performance Management

Performance monitoring is an integral part of scrutiny. The committee is alerted to the relevant quarterly **reports** that Cabinet and lead Members receive. Members can then suggest matters for scrutiny to investigate in more detail.

In the performance reports, achievement against individual performance targets is assessed as either 'Red', 'Amber' or 'Green' ('RAG'):

- 'Green' means that the performance measure is on target to be achieved
- 'Amber' means that there is concern about the likelihood of achieving the performance measure by the end of the year
- 'Red' means that the performance measure is assessed as inappropriate or unachievable.

The 'Red' and 'Amber' indicators also include further commentary and the details of any proposed corrective action.

Requests for further information about individual items in the performance reports should be addressed to the listed contact. Possible scrutiny issues should be raised with the scrutiny team or committee Chairman.

Every quarter

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EAST SUSSEX COUNTY COUNCIL'S FORWARD PLAN

The Leader of the County Council is required to publish a forward plan setting out matters which the Leader believes will be the subject of a key decision by the Cabinet or individual Cabinet member in the period covered by the Plan (the subsequent four months). The Council's Constitution states that a key decision is one that involves

(a) expenditure which is, or the making of savings which are, significant having regard to the expenditure of the County Council's budget, namely above £500,000 per annum; or

(b) is significant in terms of its effects on communities living or working in an area comprising two or more electoral divisions.

As a matter of good practice, the Council's Forward Plan includes other items in addition to key decisions that are to be considered by the Cabinet/individual members. This additional information is provided to inform local residents of all matters to be considered, with the exception of issues which are dealt with under the urgency provisions.

For each decision included on the Plan the following information is provided:

- Page 77
- the name of the individual or body that is to make the decision and the date of the meeting
 - the title of the report and decision to be considered
 - groups that will be consulted prior to the decision being taken
 - a list of other appropriate documents
 - the name and telephone number of the contact officer for each item.

The Plan is updated and published every month on the Council's web-site two weeks before the start of the period to be covered.

Meetings of the Cabinet/individual members are open to the public (with the exception of discussion regarding reports which contain exempt/confidential information). Copies of agenda and reports for meetings are available on the web site in advance of meetings. For further details on the time of meetings and general information about the Plan please contact Andy Cottell at County Hall, St Anne's Crescent, Lewes, BN7 1SW, or telephone 01273 481955 or send an e-mail to andy.cottell@eastsussex.gov.uk.

For further detailed information regarding specific issues to be considered by the Cabinet/individual member please contact the named contact officer for the item concerned.

EAST SUSSEX COUNTY COUNCIL

County Hall, St Anne's Crescent, Lewes, BN7 1UE

For copies of reports or other documents please contact the officer listed on the Plan or phone 01273 335138

FORWARD PLAN – EXECUTIVE DECISIONS (including Key Decisions) – 1 March 2015 – 30 June 2015

Additional notices in relation to Key Decisions and/or private decisions are available on the Council's website via the following link:

<http://www.eastsussex.gov.uk/yourcouncil/about/committees/download.htm>

Cabinet membership:

Councillor Keith Glazier - Lead Member for Strategic Management and Economic Development

Councillor David Elkin – Lead Member for Resources

Councillor Chris Dowling – Lead Member for Community Services

Councillor Rupert Simmons – Lead Member for Economy

Councillor Carl Maynard – Lead Member for Transport and Environment

Councillor Bill Bentley – Lead Member for Adult Social Care

Councillor Sylvia Tidy – Lead Member for Children and Families

Councillor Nick Bennett – Lead Member for Learning and School Effectiveness

Date for Decision	Decision Taker	Decision/Key Issue	Decision to be taken wholly or partly in private (P) or Key Decision (KD)	Consultation	List of Documents to be submitted to decision maker	Contact Officer
9 March 2015	Lead Member for Learning and School Effectiveness	Primary School Re-organisation in Crowborough		Local Members	Report, other documents may also be submitted	Gary Langford 01273 481758
	Lead Member for Learning and School Effectiveness	Determination of the admission arrangements following consultation	KD		Report, other documents may also be submitted	Sheila Locke 01273 335771
	Lead Member for Learning and School Effectiveness	Post 16 School transport	KD		Report, other documents may also be submitted	Sheila Locke 01273 335771

	Lead Member for Learning and School Effectiveness	DSG Inter Block Transfer Financial Year 2015-16			Report, other documents may also be submitted	Jon Brown 01273 336935
10 March 2015	Cabinet	Waste Operational Savings Programme	KD P		Report, other documents may also be submitted	Stephen Potter 01273 336520
	Cabinet	South East Business Services business case	KD		Report, other documents may also be submitted	Elizabeth Owen
	Cabinet	Council Monitoring – Quarter 3 2014/15			Report, other documents may also be submitted	Jane Mackney 01273 482146
	Cabinet	SE7 Update			Report, other documents may also be submitted	Lee Banner 01273 481857
Page 79	Cabinet	To consider recommendations of the South East Local Enterprise Partnership's ('SELEP') Board following consideration by the Board of their recently completed Delivery Review.			Report, other documents may also be submitted	James Harris 01273 482158
12 March 2015	Lead Member for Adult Social Care	To consider the report in relation to the Care Act implementation			Report, other documents may also be submitted	Kirstie Battrick 01273 482016
23 March 2015	Lead Member for Transport and Environment	Capital Programme for Local Transport Improvements 2015-16	KD		Report, other documents may also be submitted	Mark Valleley 01273 482237
	Lead Member for Transport and Environment	<u>Allocation of the 2015/16 Community Match Funding to a number of community led local transport schemes</u>			Report, other documents may also be submitted	Sarah Valentine 01273 335724
	Lead Member for Transport and Environment	Provision of an on street advisory disabled bay, Gladstone Terrace, Hastings		Local Member	Report, other documents may also be submitted	Claire Peedell 01424 726347
	Lead Member for Transport	To approve the detailed design and construction of a pedestrian crossing on Victoria Drive		Local Member	Report, other documents may also be submitted	Alan Cook 01273 482263

	and Environment	Eastbourne			be submitted	
24 March 2015	Lead Member for Resources	To declare the former care home, Homefield Place, Seaford, surplus to the Council's requirements		Local Member	Report, other documents may also be submitted	Roger Simmons 01273 335522
	Lead Member for Resources	Transaction at Dunbar Drive, Hailsham	KD	Local Member	Report, other documents may also be submitted	Roger Simmons 01273 335522
20 April 2015	Lead Member for Learning and School Effectiveness	Primary School age range changes	KD		Report, other documents may also be submitted	Gary Langford 01273 481758
	Lead Member for Learning and School Effectiveness	To review the impact of the Home to School Transport Policy change			Report, other documents may also be submitted	Lou Carter 01273 482809
21 April 2015	Cabinet	External Audit Plan 2014/15			Report, other documents may also be submitted	Ola Owolabi 01273 482017
Page 80	Cabinet	<u>Better Care Fund Section 75 Pooled Budget Agreement</u>			Report, other documents may also be submitted	Kirstie Battrick 01273 482016
27 April 2014	Lead Member for Transport and Environment	<u>Provision of an on-street advisory disabled parking bay for No 16, Robin Close, Eastbourne</u>		Local Member	Report, other documents may also be submitted	Victoria Bartholomew 01424 724284
	Lead Member for Transport and Environment	Petition to introduce traffic calming measures in St Philips Avenue, Eastbourne.		Local Member	Report, other documents may also be submitted	Alan Chanamoto 01273 337121
11 May 2015	Lead member for Learning and School Effectiveness	<u>To consider the consultation on Discretionary Transport</u>	KD		Report, other documents may also be submitted	Sara Candler 01273 336670
	Lead member for Learning and School Effectiveness	Primary school re-organisation in Crowborough (determination of statutory proposal)		Local Members	Report, other documents may also be submitted	Gary Langford 01273 481758

2 June 2015	Cabinet	Treasury management annual report			Report, other documents may also be submitted	Ola Owolabi 01273 482014
16 June 2015	Lead Member for Resources	Annual Write off of debts	P KD		Report, other documents may also be submitted	Janyce Danielczyk 01273 481893
22 June 2015	Lead Member for Transport and Environment	To consider the identified sites in Bexhill where formal parking restrictions have been requested and identify the most appropriate way to take them forward	KD	Local Members	Report, other documents may also be submitted	Brian Banks 01424 724558
	Lead Member for Transport and Environment	To consider Road Safety Priorities	KD		Report, other documents may also be submitted	Brian Banks 01424 724558
29 June 2015	Cabinet	Internal Audit Strategy 2015/16			Report, other documents may also be submitted	Russell Banks 01273 481447
Page 81	Cabinet	Internal Audit Services – Annual Report and Opinion 2014/15			Report, other documents may also be submitted	Russell Banks 01273 481447
	Cabinet	Ashdown Forest Trust Fund 2014/15			Report, other documents may also be submitted	Marie Nickalls 01273 337649
	Cabinet	Quarter 4 – Council Monitoring			Report, other documents may also be submitted	Jane Mackney 01273 482146
	Cabinet	State of the County			Report, other documents may also be submitted	Jane Mackney 01273 482146
	Cabinet	Health and Wellbeing Annual Strategy			Report, other documents may also be submitted	Sarah Feather 01273 335712
	Cabinet	South East 7			Report, other documents may also be submitted	Lee Banner 01273 482857
21 July 2015	Cabinet	South East Business Services (SEBS)			Report, other documents may also be submitted	

12 October 2015	Lead Member for Learning and School Effectiveness	Consultation on Discretionary Home to School Transport, final decision	KD		Report, other documents may also be submitted	Sara Candler 01273 336672
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