

# **EDINBURGH TRAM (LINE TWO) BILL COMMITTEE**

Wednesday 17 November 2004

Session 2

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## EDINBURGH TRAM (LINE TWO) BILL COMMITTEE 8<sup>th</sup> Meeting 2004, Session 2

### CONVENER

\*Bill Aitken (Glasgow) (Con)

### DEPUTY CONVENER

\*Jeremy Purvis (Tweeddale, Ettrick and Lauderdale) (LD)

### COMMITTEE MEMBERS

\*Marilyn Livingstone (Kirkcaldy) (Lab)

\*Kate Maclean (Dundee West) (Lab)

\*Alasdair Morgan (South of Scotland) (SNP)

\*attended

### THE FOLLOWING GAVE EVIDENCE:

Iain Bell (FaberMaunsell Ltd)

David Campbell (Scottish Environment Protection Agency)

Carolyn Clark (Scottish Natural Heritage)

Andy Dunwell (University of Edinburgh Centre for Field Archaeology)

Anne Follin (BAA Edinburgh)

Adrian Hamilton

John Hyde (Anglia Consultants)

Lily Linge (Historic Scotland)

Irene McAllan (West Edinburgh Residents Trams Action Group)

Jacky McKinney (West Edinburgh Residents Trams Action Group)

Judith Sansom

James Truscott (ASH Design and Assessment)

Dr Roddy Yarr (BAA Edinburgh)

### CLERK TO THE COMMITTEE

Graeme Elliott

### LOCATION

Committee Room 1



## Scottish Parliament

### Edinburgh Tram (Line Two) Bill Committee

*Wednesday 17 November 2004*

[THE CONVENER *opened the meeting at 10:00*]

### Edinburgh Tram (Line Two) Bill: Preliminary Stage

**Bill Aitken (Glasgow) (Con):** Good morning, ladies and gentlemen. The only item on the agenda today is the taking of oral evidence. Members have had the opportunity to consider the folder of written evidence from objectors and the promoter. As at the committee's previous meeting, we will have several panels of witnesses before us today. I ask other witnesses and members of the public to bear with us if there is some disruption as witnesses change over in the course of the meeting. We will attempt to get through the evidence taking as quickly as possible.

I draw to the attention of witnesses the fact that the purpose of today's meeting is to study and hear evidence on the environmental statement and its adequacy. Some witnesses will appear before the committee at a later stage as objectors; therefore, there will inevitably be some straying from the purpose of today's meeting on the basis of the evidence that those witnesses will give in the future. However, I ask all those who will give evidence this morning to stay within the constraints of the purpose of today's meeting, which is to assess the adequacy of the environmental statement.

Our first panel is Lily Linge, David Campbell and Carolyn Clark, representing Historic Scotland, the Scottish Environment Protection Agency and Scottish Natural Heritage, respectively. I wish you all good morning and invite you to introduce yourselves and make any opening remarks that you wish. The committee will want to question you in some depth, so your opening remarks may be restricted.

**Lily Linge (Historic Scotland):** I have no opening remarks to make. I am content with what we have said already.

**David Campbell (Scottish Environment Protection Agency):** I have no opening remarks to make. We have made a written submission that is available for comment.

**Carolyn Clark (Scottish Natural Heritage):** Likewise, I have no opening remarks to make and have made a written submission.

**The Convener:** On that basis, we proceed straight away to questioning. We open with a series of questions relating to the Huly Hill scheduled ancient monument. In your written comments on the environmental statement supplementary information that is dated August 2004, you go into some detail on the rescheduling of the monument in Newbridge. Where do matters currently stand on that, and have you had further clarification from the promoter about whether the monument will be directly affected?

**Lily Linge:** The rescheduling is currently going through the legal process and it is as set out in the plans that are appended to our evidence. We have had no further direct contact with the promoter; however, I am aware that there is some evidence from the promoter on the website, which confirms that, on the basis of the evidence that we have given, there is no direct impact on the scheduled monument.

**The Convener:** All right. Assuming that the limits of deviation will not extend into the scheduled area of the monument, is Historic Scotland satisfied that the scheme will have no direct physical impact on the site and that the environmental statement is adequate to allow scrutiny of the proposed environmental impact of line 2?

**Lily Linge:** Yes, we are content that there would be no impact on the site, that being the case.

**The Convener:** As far as the scheme as a whole is concerned, does Historic Scotland consider that no other ancient monuments will be directly impacted upon?

**Lily Linge:** That is the case, yes.

**Jeremy Purvis (Tweeddale, Ettrick and Lauderdale) (LD):** With regard to listed buildings and the world heritage site, in paragraph 32 of your written evidence you quote the environmental statement as saying that it

"will set the minimum standard which will be achieved by the final scheme"

and that,

"where certain matters of detail have still to be finalised these will be subject to Prior Approval by the City of Edinburgh Council"

and the promoter. What level of detail are you looking for and how should that be put together?

**Lily Linge:** Since writing that, we have considered further the interplay of the environmental impact assessment and the prior approval system. I am aware that in evidence to the committee about outline planning permission the analogy was drawn with reserved matters consent. That analogy is useful up to a point, but although it is superficially attractive, the details do

not bear it out. That has a bearing on how the environmental impact assessment is progressed. Outline planning permission and reserved matters consent are part of the same system and are intricately linked.

The planning system in the United Kingdom requires that the environmental statement is produced at the outline stage, because that is the stage at which development consent is granted. Case law states that enough evidence has to be available at that stage to assess the impact such that when it comes to reserved matters consent, the details are tied down into the conditions and there is certainty that the application for consent has been subject to the environmental impact assessment process. The application for consent is not legal if it has not been subject to that process, where EIA is required.

I turn to the private bills process and its relationship to class 29 developments in schedule 1 to the Town and Country Planning (General Permitted Development) (Scotland) Order 1992 (SI 1992/223). The bill is a consent process outwith the planning process. Prior approvals are separate; they are a planning matter and form a different consent process that has nothing to do with the bill process. The relationship between the processes is explained in the paragraph in schedule 1 to the GPDO on class 29 developments. Given that, as far as I am aware, the bill process does not allow for conditions to be attached, there will be nothing with which to tie the later stage—the prior approvals—back into the committee process of considering the bill's principles.

Article 3 of the GPDO introduces the need for an environmental impact assessment where developments are otherwise permitted. The paragraph on class 29 developments states that developments authorised by the private bill process are exempt from the need for EIA, but the guidance that the Executive issued in the circular that came out with the Environmental Impact Assessment (Scotland) Regulations 1999 (SI 1999/1), makes it clear that as a matter of Community law, that has to be interpreted narrowly and does not apply to things that are not in the bill as passed. Accordingly, the need for EIA might have to be reconsidered as part of the prior approval system. That is about the narrow interpretation of Community law.

I realise that all that is complicated and it is not in my written evidence. I would like the opportunity to present further written evidence on it.

**The Convener:** I hear what you are saying, but, for the moment, we are stuck with the procedures that are in force. I assure you that we are acutely aware of the difficulties, but we really must press on with matters relevant to today's meeting.

**Kate Maclean (Dundee West) (Lab):** Could we get that information in writing?

**The Convener:** Yes, we could certainly get it in writing later.

**Jeremy Purvis:** I will come back later to some of the specific elements of street furniture. On an associated element regarding the process, you raise concerns about the status of the design manual in the process. What involvement have you had since the start of the development of the design manual? What role would you like the design manual to have in the process?

**Lily Linge:** We have been fully consulted on the preparation of the design manual to date. We were consulted by the planning authority before the version of the manual that is now before the committee was lodged. We commented at that time, and our comments were no different to those that we have given to the committee. Our concern is that the manual is a draft, which is not finalised. It is full of laudable principles and objectives, which we have no problem with, but there is a big leap between the draft and putting those principles into practice and establishing how they will apply in the passage of the bill.

To go back to what I was talking about earlier, if it transpires that there is a need for environmental assessment to accompany the prior approvals process, that will allow better testing and development of the design manual principles. It will allow them to be included in the actual scheme that is prepared, as opposed to in the hypothetical scheme that may or may not resemble the actual scheme that emerges.

The environmental assessment process is not a bolt-on; it informs the whole process of development and design. Its aim is to produce a better and more environmentally acceptable solution. The mitigation is there—it can be implemented.

**Jeremy Purvis:** Your evidence states:

"We consider that, as a matter of priority, the Bill must include appropriate provision to secure this end."

If you are providing supplementary written evidence, if you could perhaps—

**Lily Linge:** On that point, and in addition to what I said about the environmental impact assessment, we cannot see why it is not possible to introduce the appropriate provision under section 20 of the bill. I could offer a form of words that we think might cover what we require.

**Jeremy Purvis:** If you could add that to your written evidence, we would be grateful.

I return to listed buildings and some of the street furniture around St Andrew Square, St John's

church and the west end. You raise concerns in your evidence about, for example,

“the monument to the 4<sup>th</sup> Earl of Hopetoun ... and the listed police box,”

which, rather alarmingly, you say

“may be directly affected –i.e. demolished/repositioned”.

What further clarification would you want from the promoters on that? What work would be required to bring that about?

**Lily Linge:** We would need to know what the precise position is with regard to those structures and whether or not they are directly affected. If they are to be affected, what mitigation is being offered in relation to their repositioning or, ideally, by way of avoiding that?

**Jeremy Purvis:** Have you not asked the promoters about that previously?

**Lily Linge:** Only in the context that I have just described. It is fair to say that, until we saw the environmental statement, we were not aware that those items were to be affected.

**Jeremy Purvis:** When was that? When did you see it?

**Lily Linge:** We saw the environmental statement only in July this year: a copy was forwarded to us by the clerk to the committee when we were invited to give evidence on the environmental statement.

**Jeremy Purvis:** So, as things stand at the moment, you are not confident that the promoters have responded to your concerns adequately.

**Lily Linge:** I am aware that certain issues were raised in the supplementary response, which is on the website, but I have not been able to check the details of that—I do not know whether or not those issues are covered.

**The Convener:** We will now turn to questions to SEPA, so thank you for your evidence, Ms Linge. Mr Campbell, it is now you who will be answering our questions.

**Alasdair Morgan (South of Scotland) (SNP):** Good morning. In your response to the promoter on 12 March, you commented on the generalised nature of mitigation measures for pollution of groundwater. At this stage of the scheme, is the environmental assessment detailed enough?

10:15

**David Campbell:** It depends on how detailed one wants to be in an environmental assessment and in planning. The environmental assessment indicates that abatement measures will consist of discharging to the foul sewer and to interceptors. Those would be the sort of abatement measures

that we would expect. However, it is only the detailed plans of drainage diagrams that confirm that measures will be put in place to the acceptable level.

**Alasdair Morgan:** But is it what you would expect in an environmental assessment at this stage?

**David Campbell:** It is what we would expect at this stage—statements are being made about the provisions that will be made. We will be more comfortable once we see the detail of how the measures will be installed.

**Alasdair Morgan:** You suggested in your submission that the air quality study was merely a “screening study” and that as such it did not consider the impact on air quality of congestion at junctions. Will you expand on what you mean by that?

**David Campbell:** The impact of the tram on air quality should not be significant because there are no air emissions from a tram. So from that point of view, SEPA would certainly support the proposal. The issue is then how other traffic will be displaced and what impact that will have. Modelling studies are carried out to assess that.

As far as SEPA is concerned, that is a matter for the local authority because it is empowered to deal with local air quality. It will look at the detail of the air quality plans and modelling in much more detail than SEPA would. However, the initial assessment indicated that there would be positive improvements to air quality, which would probably be fairly small, but positive nonetheless, so the proposal would not cause significant deterioration in air quality.

**Alasdair Morgan:** In their response, the promoters said that individual streets in which air quality predictions were made were selected to include those that most closely approached air quality objectives as well as those where the largest change in air quality was predicted. Will you comment on that response? Does it allay any concerns that you have—if indeed you have concerns?

**David Campbell:** We raised a concern in our submission. When comparison was made between lines 1 and 2, it was shown that both lines were supposed to have overall positive effects on air quality and we support that. However, the modelling was carried out by different consultants and when one looks at the results in more detail, one finds that the line 2 modelling indicated that there would be improvements in air quality at Haymarket, whereas the line 1 modelling indicated that there would be slight deterioration in air quality at Haymarket. We flagged that up in our response and we suggested that the promoters should look at those results in

more detail, in conjunction with the local authority, to satisfy themselves that the modelling was robust.

**Alasdair Morgan:** But the promoter responded that that difference arose not because of the different methods employed, but because one assessment was for line 1 alone and the other was for line 2 alone. What do you say to that?

**David Campbell:** I have not seen that response; I would have to look at how the modelling was carried out in more detail.

**Alasdair Morgan:** It is a fairly complicated response; I do not think that I want to get into it. Basically, the promoters said that the assessment for line 1 looked at what the impact of line 1 would be and the assessment for line 2, as I understand it, looked at what the impact of line 2 would be. As each bill deals with a separate line, one would expect different results.

**David Campbell:** Simplistically, I had expected that if both trams separately went along Haymarket, it might be accepted that the results would be similar. However, I understand that the situation is more complex, because different lines may have different displacement, which could explain the difference.

We were raising a question to which we wanted the promoter to give a more detailed response, which I have not seen yet. You say that you have a response, which may answer our question. In any case, it is the local authority that should be satisfied with the modelling, because it has an air quality management plan and is much more aware of what is going on. SEPA just takes an overview.

**The Convener:** We move on to questions to Ms Clark of Scottish Natural Heritage.

**Marilyn Livingstone (Kirkcaldy) (Lab):** Scottish Natural Heritage's evidence says that further information on and studies into badger activity are required, especially to inform decisions on appropriate mitigation measures. I see from the evidence that the promoter has agreed and outlined an additional piece of work, which is scheduled for completion by spring 2005. Will that address your concerns fully?

**Carolyn Clark:** We believe so. We met the promoter in the summer to discuss further survey work and all the bits of stuff on badgers that are needed, such as information on foraging areas, numbers and territories. We have worked in conjunction with the promoter and we have been consulted. We are happy that all the further work will help to define the mitigation for badgers at the time of development.

**Marilyn Livingstone:** Has the promoter said that you will be consulted between now and when the work is produced in spring next year? Will your

views be taken on board and will you be consulted fully, particularly on the enhancement and landscape measures that have been set out in the environmental statement?

**Carolyn Clark:** I know from previous discussions that the promoter is happy to approach us to discuss issues further, whether they involve landscape or other enhancement measures. We are happy to give advice and add to the promoter's plans. In general, we were happy with the landscape plans for the area. Measures for badger habitat enhancement for foraging, for example, will be defined later, as a result of the further work.

**Marilyn Livingstone:** If we proceed on the premise that the work will be completed and that the information that is provided will be acceptable, do you have additional comments on the adequacy of the information in the environmental statement?

**Carolyn Clark:** No. In general, we thought that the environmental statement was quite thorough. It identified the issues that we would normally raise in such situations and identified mitigation and ways to reduce impacts. We were happy that it addressed most concerns and that it went into mitigation quite thoroughly. The environmental statement roughly identified mitigation that would be put in place, but the further survey work is needed to identify exactly what the mitigation should be and where it will be. We are happy that that will be solved in time.

**The Convener:** That is the end of our questioning to Scottish Natural Heritage. No witnesses wish to make further brief points, so I thank them for attending.

The second panel of witnesses comprises West Edinburgh Residents Trams Action Group, which is represented by Jacky McKinney and Irene McAllan; and Mr Adrian Hamilton and Ms Judith Sansom, who are objectors to the bill. Thank you for coming to give evidence to the committee. Clearly, Jacky McKinney enjoyed herself so much last time that she has come back. I welcome especially those witnesses who are here for the first time.

We have visited the two locations that are under discussion this morning and on which you will give evidence. I invite you to make a brief opening statement.

**Adrian Hamilton:** I thank the committee for giving me the opportunity to make a statement and to set out the background to our objection to the proposal.

We first objected to the proposal two or three years ago, long before we were aware that it would affect our property directly. This is definitely



not a case of, "Not in my back yard"; our concerns are of a wider nature. I believe that the project is ill conceived, ill considered and ill managed and that the environmental aspects of the project—visual impact, noise and vibration—have not been considered carefully enough.

I am the managing director of a small Edinburgh-based company of 30 years, which faces between three and five years of major disruption that will seriously affect the business. We are a committed employer and are concerned about the environment. We participate in the Scottish health at work initiative and have purchased two cycles for our employees to use when to do so is convenient. After promoting that activity and trying to help the environment, we find that the cycleways will be restricted. There is also the additional danger in asking employees to cycle around areas of Edinburgh where tramlines will be placed.

When it comes to the environmental aspects of the proposal, Transport Initiatives Edinburgh Ltd has failed miserably to consider viable alternatives and modern technology. Yesterday, Toyota launched a motor car that uses hybrid technology. It has an electric and petrol or diesel engine and is fitted with an intelligent start-stop facility. TIE should consider proposals of that kind long before jumping in at the deep end with a tram proposal. It has not considered future technology, but is relying on technology that is based on 100-year-old principles. TIE claims that trams are non-polluting, but that statement is very misleading.

Closer to home, there are problems with the proposed route from the Gogar roundabout to the airport to Newbridge. We have the farcical situation in which two level-crossings are being considered on that stretch alone. Given the dangers that are associated with level-crossings—as shown by recent events—and the effect that the proposal will have on the environment of the area, it seems to be a retrograde step to introduce two level-crossings in an area where there is already considerable congestion. Traffic will be stopped every five minutes, which will create start-stop pollution, vibration and noise. We currently have backlogs of traffic from Newbridge to the airport with no level-crossings. When we have asked TIE how the level-crossings will work and how they will affect us directly, we have not been given adequate replies.

10:30

Our property, which is based at the second level-crossing on the westbound carriageway, is unique in Edinburgh and the surrounding districts. I have six and a half acres of established garden and grounds that were built, and continue to be used, for the preservation of wildlife. I cannot think

of many places in Edinburgh where one can see red deer living and raising their young, where badgers feed constantly and where there are perhaps another 12 species of animal living happily. For TIE to come and interrupt that through noise, vibration or any other way is wrong and no amount of compensation—should it be available—will make up for that loss to us or to Edinburgh and the surrounding district.

TIE has misled us from the outset. We found out about any effect on our personal property only a few months ago when someone appeared at a door to ask us whether we could tell him where the line was going to run through our property. TIE has been invited to visit the property and has declined. It visited the house but would not visit the exact environment that the line will affect.

Since then, TIE has come up with one or two other possibilities, but the situation is turning out to be confusing rather than enlightening. We must look forward to a transport system that integrates rather than alienates people. I feel that TIE has yet to answer many questions about the environmental effects on Edinburgh and on our property.

**The Convener:** Thank you. A number of the issues that you raised earlier in your address to us will be revisited when we consider the general principles of the bill, so if you are not questioned on those, do not think that we have overlooked them because that is certainly not the case.

**Kate Maclean:** My initial question is for the west Edinburgh residents trams action group. Section 2:1 of your submission is quite a big section about noise and vibration, and how that has been dealt with in the environmental statement. Obviously you are not very happy about it. Could you elaborate on that?

**Jacky McKinney (West Edinburgh Residents Trams Action Group):** At various stages, we asked whether TIE would send out people to conduct noise and vibration checks. It did so, but it appears to us that it did not choose to check the property that is nearest to the proposed line.

TIE has given conflicting views as to what is the nearest property to the line and its distance from the line. One part of the report notes between 15m and 19m and another notes 10m. I think that 10m is probably the more accurate judgment of the two, but the comments on noise and vibration in the TIE statement relate to the 15m to 19m measurements. If the true measurement were used, the negative impacts that TIE reports would be all the more compelling because they would show greater detriment to the residents along the street.

On several occasions we have also asked that—rather than have us sift through the details, which

are confusing, especially to laypersons—TIE break down the noise and vibration effects to show how they will affect Baird Drive. We wanted a hard copy so that we could distribute it in the street and explain it to people who do not, at the moment, grasp the effect that the proposed tram would have. TIE declined to do that and suggested that it would send out a noise and vibration expert to talk to Hazel Young and me.

We felt that it was inappropriate for TIE to send a technical person because we are not technical and, perhaps because of lack of understanding of the issues and a process of Chinese whispers, we might have misrepresented the information that he gave us. We told TIE that although we appreciated the gesture the process would be a waste of time. However, TIE still declined to give us a report that pertained specifically to the impact on Baird Drive. We found that to be distressing because TIE has pointed out clearly that streets at various points along the line, including Baird Drive, will be negatively impacted.

**Kate Maclean:** You have expressed concerns about noise and about the extent to which noise barriers could be installed at Baird Drive without their taking up a great deal of people's back gardens. I can understand why people would not be happy about that. Will you explain a bit more about that? What are your views on the likely impact of noise barriers on the landscape adjacent to Baird Drive and on how long it would take for new landscaping to develop into the sort of mature landscaping that exists at present, which we saw on a site visit a few weeks ago?

**Jacky McKinney:** That is a long question—please refresh my memory if I miss out anything.

We were first told about the barrier that might be constructed should the trams go ahead at a meeting on 19 September. On that evening, a lady who has a young family suggested that the barrier should be one of the first things to be built so that the limits of deviation would not be overstepped. The TIE officials said that that would definitely not happen and that the tramlines would be put in place before a noise barrier was erected. We thought that that was odd, given that TIE had pledged not to overstep the limits of deviation by going into the back gardens at Baird Drive. On Parliament's instruction, a company investigated the strip of land at the back of the gardens and commented that it was a tight space and that it could not understand how the proposed construction would not overstep the mark and go into the gardens. We found that to be extremely worrying.

One of our main concerns about the construction of the tramline is that all the construction will have to be done at night because of the proximity of the area in question to the

existing rail line. TIE says that even when the line is constructed, trees and shrubbery will remain, but in the initial construction the whole embankment will have to be removed, which we find totally unacceptable.

If I had made an opening statement, I would have suggested that the ribbon of land concerned has been targeted time and again. The most recent judicial judgment on the issue, which was passed in 2002, was that it was inappropriate to use the land for the proposed city of Edinburgh rapid transit development. The decision that the CERT proposal could not proceed was not made on the ground that it was inappropriate for Edinburgh or that the transport mechanism was unsuitable, but because of the proposed removal of the embankment and the negative effects on the properties along Baird Drive as a result of shading and loss of visual aspect. The proposed tram development brings all those issues back again. The judicial judgment has already been made, but TIE cannot see beyond that narrow strip of land and seems to have targeted it, much to the distress of the residents of Baird Drive.

**Kate Maclean:** You raise concerns about night-time working. Was that taken into account in the environmental statement?

**Jacky McKinney:** TIE does not allude to that issue much, if at all. I cannot find a specific statement that makes the issue clear. I mentioned the problem of getting information that pertains solely to Baird Drive. At present, the input on Baird Drive is lost in a list of other properties along the line. Because a breakdown has not been supplied, it is difficult for us to understand what the proposals will mean for us. As I said, we are not experts, but it seems that during the construction phase and when the trams are running the maximum number of decibels will be equivalent to a large juggernaut going past the back of the houses. There would be six trams every hour and during the construction phase—which will take months rather than weeks—work will continue throughout the night, when there is less ambient noise to absorb the sound of the work.

We have highlighted our concerns to TIE, and a member of the council—Mr Cliff Hutt—suggested to us that, during the construction phase, the residents of Baird Drive could be bussed out to hotels through the night so that they would not have to put up with the noise. You can imagine how imbecilic that sounded.

**Kate Maclean:** I am sure that there are questions that we can ask the promoters about that, because I would be interested to find out about the discrepancies between distances. I have looked at the environmental statement, and there are discrepancies in respect of statistics that

mention distances of 15m to 19m and a distance of 10m along some areas of the tramline.

**The Convener:** Those figures are very pertinent.

**Kate Maclean:** They are. Another question is why the Edinburgh statistics cannot be broken down into formats that are understandable as they relate to different people.

I will ask Adrian Hamilton and Judith Sansom a similar question about noise because I am interested in that, particularly as it relates to residential amenity. In section 4 of your written statement, you talk about the environmental assessment and the noise of passing trams. Will you expand on that for the committee?

**Adrian Hamilton:** It seems fairly obvious to us. We live very close to the main dual carriageway and therefore have to accept a level of noise from passing traffic, which we do. We are now faced not only with the possibility of noise and vibration from trams every five minutes but, because of the level-crossings, from traffic stopping and starting. There will be additional pollution associated with vehicles stopping every five minutes for perhaps 30 seconds or two minutes at a time. We have not been given much information as to what TIE thinks the noise levels will be, but they will be much higher than we, or anybody, would find acceptable. The tramline will be within metres of our house. There is the highest potential for noise because of the trams and because of the lorries and cars that will stop and start every five minutes. That seems to us to be a crazy situation.

**Kate Maclean:** Thank you very much.

When we get the information about noise levels, it would be useful if we had something by which to judge it. For example, we could have a tape played at the committee so that we can hear what the level means. If somebody says that the noise will be X decibels, I will not know what that means. Such a tape would be useful.

**The Convener:** That is a matter for the consideration stage. We will consider that idea.

**Adrian Hamilton:** You would have to combine that tape with the vibration levels and the starting and stopping. It is not just a matter of noise; there will be a combination of environmental effects from the noise and vibration.

**The Convener:** That, again, is a question for the consideration stage.

From your evidence, it seems that relations between you and TIE have not been entirely constructive. Has TIE provided you with information that shows the effect on traffic and the effects of noise at any stage in your negotiations and relations with the company?

**Adrian Hamilton:** I do not know exactly what information TIE has given us. The situation has gone from our not knowing at the start that we would be affected at all, to pieces of land being mismarked in the negotiations regarding size and parcels of land—TIE did not even know whether they were hills or flat land—to the invitation for us to examine what the line would affect, to TIE's negative response.

Recently—on Monday, I think—we received another letter from TIE, offering us some realignment of the tramline, but that only adds to the confusion because I honestly do not think that TIE knows what it is going to do, so it cannot relate it to us. We feel that we are being misled and not given anything like sufficient information.

**Jeremy Purvis:** The promoter's response says that more information was given to you in March this year, but your evidence is still that the information that has been provided to you is insufficient. Is that correct?

**Adrian Hamilton:** We have tried to hold negotiations with TIE, but we are not getting the response that we would expect.

**Marilyn Livingstone:** I address my question particularly to Mr Hamilton and Ms Sansom. You have commented on a rat-run on the private road at the rear of your property and you said that the promoter has not taken into consideration the displacement of traffic. Can you elaborate on that?

10:45

**Judith Sansom:** I have photographic evidence—from when traffic lights were placed temporarily on the A8 for the Royal Highland Show—of drivers using Norton House Drive to escape the congestion. That happens already without traffic lights. Norton House Drive will become a rat-run. It is a private single-track road that goes up to the hotel, but is already used as an escape route for people who do not want to be on the A8. They go up Norton House Drive and behind the hotel.

**Adrian Hamilton:** Just last evening, at a quarter past six, traffic was stationary from Newbridge to the BP garage at the airport roundabout, and there are no level-crossings there. If there is such congestion at such a time on a normal Tuesday evening, imagine what it would be like if two level-crossings were closed every five minutes; it would be absolutely farcical. We must also take into account the additional traffic that will come from the Royal Bank of Scotland's offices. To avoid paying for the park-and-ride facility at the airport, drivers may come from Newbridge to the airport roundabout, go underneath the A8, back out to Newbridge and park there, get on the tram from Ratho Station to the airport, then get off that and

get on another one to come into the town centre. It is just crazy and does not bear examination.

**The Convener:** That concludes the questioning. However, Miss McKinney referred in written and verbal evidence to a court judgment. The committee might find it helpful to have a copy of that.

**Jacky McKinney:** We can supply that to you; Irene McAllan has a copy. On another point, Kate Maclean asked a long question and I made wee notes. Is it possible to make a comment?

**The Convener:** Let us deal with one thing at a time. It will be helpful if you can provide a copy of the judgment.

**Jacky McKinney:** That is no problem.

**The Convener:** That concludes the questioning. Do any witnesses want to say anything briefly in conclusion?

**Jacky McKinney:** Yes. On the question of the removal of the embankment at the rear of our properties, you will know that it is proposed in the environmental statement that it would take 15 years to bring that view back to how it stands at present. The demographics of the street suggest that it has an elderly population, so that time would represent 15 not very pleasant years at the end of those people's lives. Irene McAllan has been through the CERT process and found that to be distressing. Her being set upon by the tram proposal two years later has meant that she has sold up because she cannot face another fight. The situation is unfair because not everybody in the street has the wherewithal to do that or is fit and able to do it. That is the kind of pressure that the people in the street are feeling.

On noise vibration, when the tram proposals were first brought into the public domain, the trams were set to run from 6 o'clock in the morning until 12 at night. Without so much as a by-your-leave, the proposal is now that they will run from 4 o'clock in the morning until 1 o'clock in the morning in an effort to catch the early airport traffic. We feel that that has been done to try to bump up flimsy financial figures.

On the back of everything else, there is the proposal for increased rail traffic, which again would impact on us through noise and vibration levels. We do not feel that we are having a very good time along there.

We thank you for letting us pass on this information.

**The Convener:** Does anyone else want to say anything?

**Irene McAllan (West Edinburgh Residents Tram Action Group):** I went through all this with the CERT proposal, which was going to be

transformed from a busway to light rail after seven years. Having gone through all that, we now have the same problems involving the same corridor of land and the same impact on our properties. Although I live in an upper flat, we get vibrations from certain trains during the day and at teatime.

The extra traffic at the back of our land will have a great impact on us. We are told that there will be no deviation from the line of fencing at the back of the property, but I do not think that there will be enough room. The felling of all the trees will have an impact on all the properties and on our way of life. We will not be able to use our back gardens for hanging washing, for gardening or for spending time with our families while the work goes on.

**The Convener:** We will consider such matters at the consideration stage of the bill.

**Adrian Hamilton:** I want to conclude by saying that TIE seems to regard the smaller objectors as an obstacle to be cast aside. TIE should take a realistic attitude to people like us; it should treat us with respect and engage in proper discussions with us.

**The Convener:** Thank you all for giving evidence this morning.

We welcome the witnesses on panel 3: Anne Follin and Roderick Yarr, who represent Edinburgh airport and BAA plc—the British Airports Authority.

**Jeremy Purvis:** Your objection raises issues in respect of other projects that are in the pipeline or being developed, such as the airport rail link and the west Edinburgh planning framework, and asks the committee to pay attention to the adequacy of the environmental statement in relation to such projects. Will you expand on how the environmental statement could have incorporated such projects?

**Anne Follin (BAA plc):** I was keen to make a short opening statement, to set the scene. Would that be possible?

**The Convener:** Please go ahead.

**Anne Follin:** Edinburgh airport supports the principle of the tram scheme, but we have concerns about some of the details, including the adequacy of the environmental statement. We are working with TIE to try to resolve our concerns, but some issues about the statement continue to give us concern. I propose to address the key areas and to explain the background to our concerns.

I should have said that I am the planning and development manager for Edinburgh airport. I deal with all planning issues and I have specific responsibility for co-ordinating our responses to the tram and rail schemes. Dr Yarr is BAA's sustainability manager for Scotland; he deals with

all environmental issues for the three Scottish airports that BAA owns.

The key areas that I will highlight are traffic and transport, flooding and bird strike. First, on traffic and transport, all the traffic that comes to the airport uses the A8, which is a dual carriageway, as a previous witness said. The A8 is the main road that accesses Edinburgh from the west—West Lothian, Livingston and so on. At the dumbbell roundabouts half way along the A8, there are slip roads to Eastfield Road, which is the main access road into the airport. Traffic is heavy in the area, particularly at peak times, and the airport is growing rapidly. We are witnessing a year-on-year increase in traffic on the A8 and Eastfield Road.

It is proposed that the tram line would cross Eastfield Road at grade—that is, ground—level, fairly close to the dumbbell roundabout junctions. We would have preferred the environmental statement to have included a detailed traffic management plan that set out the time delays that would be likely and how they might be ameliorated, possible junction improvements and possible alternative routings. No such detailed traffic management plan is attached to the environmental statement.

The environmental statement says that the operational impacts on the road system will be of minor to moderate significance, but without a detailed assessment we cannot see how that conclusion has been arrived at. We are concerned about the growth of the airport in the future—account should be taken of the fact that the airport will grow. We have some schemes to try to improve access to the airport, and we propose to put in a planning application to build a new road from the Gogar roundabout to the airport. That application will, I hope, be submitted in February or March of next year. The white paper on the future of aviation, which was published last December, proposed a direct link to the M8 from the airport, which would fly over the existing A8 to the M8 bypass. However, those schemes are only on paper at the moment and have received no formal approval. They will have to get planning consent in the usual way, but there is no guarantee that planning consent will ever be granted. We have to assess the tram scheme on the basis that Eastfield Road is really our only access to the airport. The committee might want to explore that further, although I was going to mention flooding and bird strikes.

**The Convener:** I should mention that we have before us an additional submission from you—ED2/S2/04/8/2—which deals with a number of those points.

**Jeremy Purvis:** With specific reference to Eastfield Road, you say that you are having

discussions with promoters. Are you satisfied with those discussions?

**Anne Follin:** We have a working relationship and regular meetings with TIE. We have a raft of concerns about the details of the tram proposals. Many of those concerns will be dealt with at a later date. We hope to resolve as many of those issues as possible directly with the promoter. If we get resolution beforehand, we will not need to come to the committee. At the moment, though, those are the outstanding issues as regards the environmental statement.

**Jeremy Purvis:** Had you expected that a traffic management plan would be carried out?

**Anne Follin:** We would have expected it to be carried out as part of the environmental statement, and we are disappointed that it was not. We do not see how a full assessment of the significance of the impact of the tram at all the crossings of the various roads—particularly roads such as Eastfield Road and the A8—can really be made unless a detailed traffic assessment has been undertaken.

**Jeremy Purvis:** I wonder whether you can address my first question, which was more general, regarding your objection to the absence of various proposed developments in the work that is being done in this area. We have gone straight to the specific issue of traffic management—we can understand that, because we know that there are cars on the roads, and we know that those cars will be affected. If we step back, however, to the more general issue of the other proposed schemes, are you saying that you hope that such schemes will be linked in with work that is already being done?

**Anne Follin:** Yes. We are working with TIE, which is promoting the heavy rail link to the airport, and we are considering our own road schemes for the airport. We are trying to consider all the potential surface access issues to the airport. Our key aim is to improve surface access as much as possible, to get people to the airport as quickly as possible, and to get people who are visiting Scotland as quickly as possible from the airport to their destination. We are trying to consider all the schemes together: the rail scheme, the tram scheme and our road schemes. Because the tram scheme came first, the limits of deviation for the tram are now set. To a certain extent that means that the other schemes are hamstrung, because they have to take account of the fixed limits of deviation for the tram, which we have been informed cannot be altered. We will come on to that in our detailed objections, but we are trying to work our road at Gogar around the limits of deviation for the tram and the tram depot.

11:00

**Jeremy Purvis:** Would you have liked outline environmental assessments to be done on those proposed schemes, so that they could be linked in with the environmental aspects of this scheme, or is that not an issue for you?

**Anne Follin:** I do not think that that is a huge issue for us. As you will see when we move on to flooding, we are doing a joint assessment of flooding in relation to trams, roads and the railway.

**Jeremy Purvis:** I am happy for you to touch on your concern about flooding now.

**Anne Follin:** My colleague will make a short statement about flooding.

**Dr Roddy Yarr (BAA plc):** Flooding is an issue for the operation of the airport. In 2000, flooding of the Gogar burn, which passes through the airport, caused considerable damage. We were surprised to find that the environmental statement does not contain a detailed flood risk assessment, especially as significant developments in the area are adding to the rate of run-off into the Gogar burn. The environmental statement does not give us the necessary comfort that the impact of flooding associated with the development would, or even could, be mitigated effectively. That is a concern. As Anne Follin said, we are going to do a joint assessment of the flood risk with the promoter. That is good, but as I understand it the committee will not necessarily see the output and it certainly has not seen the output of the flood risk assessment work that may have been done to inform the environmental statement.

**Jeremy Purvis:** What is the timeframe for the joint assessment?

**Anne Follin:** It was commissioned recently. It is being led by the heavy rail team of TIE, which commissioned Scott Wilson to undertake the work. A lot of data from the various flood risk assessments that we have done on the airport during the past few years to build up our flood defences at the Gogar burn are being used. We are working together and all the information will be pulled together. The assessment will examine the impact of heavy rail, trams and our proposed road from the Gogar roundabout, but we are rather surprised that such an assessment was not done at the outset as part of the environmental statement.

**Jeremy Purvis:** You said that you have a working relationship with TIE. From your perspective, do you understand why that work had not been done? Presumably you asked TIE to do it early on.

**Anne Follin:** The development is huge and I think that there was a difference of opinion about what work was required. We raised questions

about the traffic management plan so that we would know the exact times for crossings of Eastfield Road. TIE's opinion is that trams will not stop the traffic for long at either Eastfield Road or the A8—it is a matter of seconds—but we would have preferred to see a detailed, analytical assessment to back up that opinion. There has been a difference of opinion about the level of detail that is required. We would have preferred to see more detail in certain areas, but TIE does not think that that is necessary.

**Alasdair Morgan:** I do not know whether my question is in order, convener, but I am sure that you will stop me if it is not. What makes you think that the construction of the railway will cause a significant difference to the flooding issue?

**Dr Yarr:** I hope that I can answer that. If you are familiar with the airport's immediate environment, you will know that the Gogar burn passes through the site. As a result of flooding of the burn in 2000, there was damage to certain buildings, such as the Hilton Hotel, which was shut for 6 months at a cost of £1 million, and we implemented a flood prevention scheme. We raised the banks of the Gogar burn to a level that gives us sufficient comfort for certain return periods of potential floods. We heightened the banks to keep the burn within them.

That scheme was designed in consultation with the council, as a planning application. In 2001 the council formalised a piece of work that it had done on the natural flood plain, which is the area outwith the banks that the river will naturally flood. That is the area that is of concern to us regarding this development. I refer the committee to the plan. To the east of where the main access road, Eastfield Road, comes into the airport, is the Gogar burn. There is a bend in it, where it does a left and then goes to the north—are you keeping up with me?

**The Convener:** Yes. We have undertaken a site visit and we are quite familiar with the locus.

**Dr Yarr:** The land to the south of that bend and the land immediately surrounding it to the southern side were designated as what the council terms undeveloped flood plain. That means that it cannot be developed on, as it is meant to flood. The key concern for us is the fact that the environmental statement does not give us the necessary comfort that, if something were to be built on that undeveloped flood plain, there would be enough compensation.

If something is built on a flood plain, the water that is meant to be there has to go somewhere else. If that can be compensated for, by allowing land in other parts to flood, that might be sufficient to accommodate the development. That is the crux of the unsatisfactory ending that you will find in chapter 10 of the environmental statement. There

is a doubt, and the environmental statement says that it may not be possible to mitigate for the development. We—the airport—designed our bank-raising exercise to take account of the undeveloped flood plain. If people start to mess about with that, the question is whether that will have an impact on the ability of our flood protection measures to do the job that they were designed to do.

**Alasdair Morgan:** I presume that either of two things, or a combination of them, would happen. Either the water would be displaced somewhere else and cause you a problem or the tram line would get flooded and cause the trams a problem.

**Dr Yarr:** Correct.

**Jeremy Purvis:** Do you propose to take a road along the route from the Gogar roundabout to the airport?

**Anne Follin:** Yes. The proposed new road will go from the Gogar roundabout to the airport. That is why we need to undertake the joint flood risk assessment to which Roddy Yarr referred. We need to consider the impact of all heavy rail, trams and road traffic on that area and come to a common agreement on the best way to mitigate for the routes going through.

**Jeremy Purvis:** Obviously, there are no cynics in this room, but a cynic might say that you want TIE to part-fund a piece of work that will help you to decide where you will put your road.

**Anne Follin:** No.

**Dr Yarr:** You could take that view, but I do not agree with it.

**Anne Follin:** The flood study that is being undertaken is being funded jointly by TIE rail, TIE tram and the airport. There is no point in any one scheme proposing a solution that floods the other scheme. The right way forward is definitely to undertake the flood assessment for the three surface access routes, so that we can come to a common agreement on the best way of dealing with this. We are now starting that work—that is good—and we think that the study should have been done earlier. If it had been done earlier, it would have been before the committee to be scrutinised and it would have been available to all the other commentators and objectors.

**Jeremy Purvis:** However, if the promoters of a scheme do not believe that their scheme will have an impact but an associated company has other schemes that it wishes to pursue, on which the promoters' scheme might have an impact, it may be fair to say that there is no obligation on the promoter to do work that is not directly associated with its scheme.

**Anne Follin:** No. Absolutely not.

**Dr Yarr:** As I understand it, we are talking about the adequacy of the environmental statement. Because of the strategic nature of developments in the area, we would have expected a much fuller flood risk assessment to be carried out.

**Jeremy Purvis:** The committee has been established to consider one proposal, although I think—the convener may have a different view—that we will come back to the issue in discussion of the general principles of the bill. With regard to the present scheme, we will take that evidence on board under the general principles.

**The Convener:** At a later stage, obviously.

**Alasdair Morgan:** We might expect that a light rail scheme would have significantly less impact on flooding than the embankments and cuttings that are associated with a heavy rail scheme or a dual carriageway. Would that not be a starting point?

**Dr Yarr:** That is a fair point.

**Jeremy Purvis:** You mentioned bird strike. Will you expand on that?

**Anne Follin:** That is relevant in the general field of aerodrome safeguarding, which is the process that ensures the safety of aircraft when they are in the vicinity of an airport by controlling potentially hazardous development and activity around it. That process is included in United Kingdom legislation as an integral part of the planning procedures, and it is set out in directions that are contained in circulars, which are issued under the town and country planning acts. BAA has a safeguarding team based at Gatwick, which deals with safeguarding issues for all seven of our airports in the United Kingdom.

Normally, any development in the vicinity of an airport has to be the subject of a planning application. In the case of Edinburgh airport, a planning application would be made to the City of Edinburgh Council, which has a duty to consult BAA's safeguarding team. That team would review the proposals in the light of potential hazards to aircraft, which could be the height of buildings or whether they are in the flight path. The safeguarding team would also consider an 8-mile or 13km radius of an airport for bird hazard potential. The team would then make recommendations to the local authority about conditions that could be attached to a planning consent.

We are concerned about landscaping in relation to bird hazard. Particular types of shrubs and bushes attract birds and therefore developments around the airport, which include the Royal Bank of Scotland at Gogarburn, are given a consent that has conditions attached to say that they cannot plant certain types of trees, bushes and shrubs in

their landscaping schemes. There is a defined list of what is not allowed.

Our concern is that the procedure for the tram bill falls into class 29 of the general permitted development order, which goes back to what the first witness said. That means that a planning application will not be made in the usual way and therefore that there will not be the usual vehicle whereby our safeguarding team can attach conditions to preclude certain types of bushes and shrubs being planted as part of any landscaping schemes. As the bill process is fairly new in the Scottish Parliament, we hope that it will be possible to lodge some sort of amendment to the bill—perhaps at the prior approval stage—so that we will be able to get some sort of legal protection that will give the airport the same protection that we would have had if the tram scheme had been subject to a planning application.

**The Convener:** Again, that matter will be considered at a different stage.

**Anne Follin:** We raise it now because bird strike is referred to in the ES, which says that it has taken account of the BAA bird policy; it does not say any more than that. That is a very serious issue for us.

**The Convener:** Thank you. Is there anything that you wish to say in conclusion?

**Anne Follin:** No.

**The Convener:** That brings us to the final panel of witnesses who represent the promoter. Before we question them, there will be a five-minute suspension.

11:13

*Meeting suspended.*

11:20

*On resuming—*

**The Convener:** I thank people for their patience. We move on to the fourth panel of witnesses, which comprises Iain Bell, John Hyde, Andy Dunwell and James Truscott, who represent the promoter. Good morning, gentlemen, and thank you for coming. Do you have an opening statement?

**Iain Bell (FaberMaunsell Ltd):** I will give a brief introduction. John Hyde deals with noise and vibration issues, Andy Dunwell deals with heritage matters and James Truscott deals with landscape and visual issues. I managed the EIA, but I am not an expert on water, transport or air quality. Nevertheless, I will endeavour to answer questions on those subjects should they be asked.

**The Convener:** One or two issues have arisen from earlier evidence. Historic Scotland referred to the need for an environmental statement at the prior approval stage and the need for a mechanism to link in the design manual. In due course, will you be able to provide written comments and proposals about Historic Scotland's submission?

**James Truscott (ASH Design & Assessment):** Yes, we could.

**The Convener:** That would be welcome. Several people have referred to the Edinburgh airport rail link and the extent to which a tram proposal is premature, given that the rail link's design has not been firmed up. How flexible is the tram scheme in relation to allowing for the adoption of the likely heavy-rail requirements? To what extent should that have been addressed in further detail in the environmental statement?

**Iain Bell:** The EIA regulations refer to the need to cover cumulative impacts with other developments. However, one can normally do that only when a scheme has been committed to and sufficient information on it is available. When the environmental statement for line 2 was written, we had insufficient information on EARL to cover it and it was not assessed in our environmental statement.

**The Convener:** A witness has suggested in written evidence that the environmental statement did not fully address integrated transport issues. Just before the meeting was suspended, you heard BAA express similar concerns. Do you have any comments on that? Can you allay those worries?

**Iain Bell:** To which schemes was BAA referring?

**The Convener:** BAA was referring to the whole question of integrated transport, particularly in relation to the rail link.

**Iain Bell:** As I said, the assessment covered cumulative impacts. Cumulative impacts are considered in transport planning and modelling, which take into account other developments that are taking place. That is translated into the impact assessment on air quality, for example. To that extent, we cover cumulative impacts with other proposals.

**The Convener:** Have you considered the possibility that the project will jeopardise the new eastern access road?

**Iain Bell:** When the ES was written, we were not aware of the access road, so we could not assess impacts on it. If you are referring to the new access road from Gogar junction to Edinburgh airport, we did not cover it in the ES because we had insufficient information on it.



**The Convener:** Bearing it in mind that some of what we are dealing with is slightly historical, have you any general comments on whether the ES is now as current and comprehensive as it should be?

**Iain Bell:** I would say that our ES was adequate at the time that it was published, although things move on.

**Jeremy Purvis:** For the record, I ask you to clarify the timeframe. There is a difference between not having adequate information about a proposed scheme and not knowing about a proposed scheme. Is it your evidence that in the discussions that you had with the airport before you put together the report you did not know that a scheme was on the cards?

**Iain Bell:** When I scoped the ES and the EIA, I did not know the precise nature of the proposed scheme.

**Jeremy Purvis:** At what stage were you made aware of the proposed road?

**Iain Bell:** It is important to realise that even if an idea is floating around there is no requirement in the EIA regulations to cover the scheme until it has been committed to.

**Jeremy Purvis:** I am aware of that, but my question still stands.

**Iain Bell:** I cannot provide an answer off the top of my head. I would have to check my diary to find out when the information became available.

**Jeremy Purvis:** I would appreciate it if you could do so.

**The Convener:** It has been suggested that the environmental statement could and should have addressed issues of integrated transport in further detail. One comment was made in the context of the tram stop that will be near Haymarket railway station. It has also been suggested that the location of the Gogar depot could prejudice the future construction of the eastern access road, to which I referred earlier. Has the ES addressed those issues adequately? What additional work may be done to assess the environmental impact of any additional construction?

**Iain Bell:** We are returning to the question of the need to have knowledge of committed schemes that can be assessed as part of the ES.

**The Convener:** As I said earlier, I know that to some extent you are dealing with an historical situation. However, we must make a decision based on the current situation. Do you think that additional work on the environmental statement is necessary, so that everything that is put before the committee is current? I am not blaming you for the situation that exists.

**Iain Bell:** We are seeking powers to build tramline 2, rather than powers to build an access road or EARL. The ES covers the powers to build line 2. Other schemes that we do not know about may be proposed between now and the end of the parliamentary session; it is an on-going process. I do not think that for the purpose of the powers that we are seeking to build line 2 TIE needs to provide an impact assessment of the additional developments. The EARL team may need to cover the cumulative impacts of other development as its scheme progresses. It may be more appropriate to consider the combined impacts of line 2 and other developments.

**The Convener:** I hear what you say. We move on to questions on the design manual.

**Jeremy Purvis:** If the witnesses were in the committee room earlier, they will have heard the discussion that took place about the design manual and its position in the process. Can the witnesses expand on the further information that the committee has, given the acknowledgement that the design manual is a working draft? Inevitably, a degree of flexibility is required. However, can the witnesses describe on the record the role of the design manual? How robust will it be? To what extent will it be adhered to as the project develops?

**James Truscott:** The design manual is a commitment by TIE that was produced on its behalf by Gillespies landscape architects and to which we had input. The commitment is demonstrated in several ways. In broad terms, the manual is a strategy. In more detailed terms, it lays out certain design parameters within which any scheme would operate. Those design parameters are laid out in generic guidance on, for example, street furniture, surface finishes and lighting, which will be taken into account during the planning process. We heard earlier that that will not be the normal planning process, but what is called the prior approval process, which is a bit like the detailed design stage in the normal planning process. In that process, the design manual will be used as a touchstone of quality for the finished article. The scheme has to go through that procedure.

The design manual is referred to in the environmental statement as being the main document that will determine the quality of finish in the scheme. However, it is important to note that, in due course, the manual will be tied to the employer's requirements that will be placed on the contractor that constructs the scheme, which will provide another safeguard, depending on how well those requirements are written. The design manual is an important and central document in determining the quality of the finished article.

11:30

**Jeremy Purvis:** We will probably come back to that document in our more detailed consideration of the bill.

Objectors have mentioned the lack of specific information on the trams that will be used. They are concerned about the specifications, the safety aspects and the potential impact on people who have properties near the tramline. What is your response to the request for specific information on the trams that will actually be used on the track?

**James Truscott:** We do not know specifically what sort of tram the contractor will adopt, but in carrying out the environmental assessment, we made an assumption about the size, dimensions and form of the trams that we think will operate, based on the generic tram. Similarly, we worked with a generic tram stop size and mass as the basis for our assessment. However, I stress that we do not know exactly what form the trams will take.

**Jeremy Purvis:** Were the assumptions based on the trams that are used in Nottingham?

**James Truscott:** Certainly such modern trams can give an indication of the trams that may be used, although note that I use the word "may". I have visited the tram system in Nottingham, and the trams there were certainly in my mind as I carried out the assessment work.

**Iain Bell:** We also used a tram for the purposes of the noise assessment.

**John Hyde (Anglia Consultants):** I have been involved with about five or six tram systems up and down the country; all have similar electric vehicles that are two to three units long and of a similar size and shape. The trams vary slightly in appearance, but they are basically the same type of vehicle.

**Jeremy Purvis:** Is there a differential between types of trams with regard to noise and their ability to corner?

**John Hyde:** Those aspects vary very much with wheel size on the different types of tram.

**Jeremy Purvis:** Did you say that they "vary very much"?

**John Hyde:** One factor that the wheel size can affect is the wheel squeal that appears from time to time—it tends to be more pronounced with smaller wheels than with larger ones, but that is a minor detail.

**Jeremy Purvis:** Has information been provided on the variation?

**John Hyde:** The principal noise source is the wheel-rail interface, because that is metal on metal.

**Jeremy Purvis:** Forgive me, but my question is whether, at this stage of the scheme, when you have a degree of ignorance about the trams that will actually be on the track, you know the possible parameters, from tram A to tram G. Objectors are going through the documentation, which is based on an assumption, but is it a middle-ground assumption? What are the parameters?

For example, the design guidelines might say, "It is a typical tram," but there could be a difference of quite a few decibels between different trams, depending on their wheels. Only at the procurement stage, when the tram is bought and put on the tracks, will the local residents know what the noise level will be. How confident are you that the information that you have provided sets out the parameters for the various types of trams that you might buy?

**John Hyde:** The parameters that we are working to are based on existing tram systems and on methodologies that are used for calculating and predicting future tram noise. When we come to a contractual requirement to purchase a system, there will be an opportunity to specify a noise emission level—that has happened with other tram systems—and the vehicle manufacturer will have to ensure that it meets that requirement.

**Kate Maclean:** My question is on the detail in the environmental statement. Some of the objectors seem to perceive that the quality of conclusions is questionable because of the selective nature of the statistics. Earlier, Mr Hamilton referred to places where trams are slow moving or stationary and he mentioned the location of his property in relation to the tramline. At such places the level of noise and vibration could be significantly different from the level at places where trams pass by at speed. In Mr Hamilton's written evidence, which I am sure you have seen, he commented on the air quality study and how that relates to places where trams are slow moving or stationary. Can you assure me that his concern was taken into account in the environmental statement? Obviously, I have not read every page, but I cannot see where it was taken into account—perhaps you can refer me to the relevant part.

**John Hyde:** In general terms, the methodologies that have been used in assessing noise impact are based on standard procedures and on extensive Government research, which defines the units that we use for noise measurement. As you will appreciate, it is difficult to derive a single figure that represents a variation in the level of noise. In Baird Drive there is a background level of about 40dB and a maximum level of 80dB when a train goes past. Because of that continuous variation between 40dB and 80dB it is difficult to conceive a figure that represents the

annoyance factor of the passing trains. The methodology that we use comes up with a single figure, which is based on research and social surveys, to give an indication of the annoyance that the degree of noise is likely to cause.

In the cases of Baird Drive and Glasgow Road we have assessed the baseline noise levels. We took measurements of existing noise levels and the predicted noise levels from trams and added them to the baseline noise levels to see what the effect is likely to be. In nearly all cases, and especially on Glasgow Road, the predicted tram noise alone was less than the existing background noise level, so the impact of the tram noise will be small. The peak noise level of a tram going past is about the same as that of a car. The impact in Glasgow Road is equivalent to adding a few cars to the traffic flow, although the trams will be in the middle of the road so the distance separation and the fact that there will be a carriageway on either side of the tramline will give additional sound protection.

Changes of speed due to intersections will not have a significant effect. Logically, one would think that they would have an effect, but as well as periods of acceleration, which cause increasing noise, there are periods of quiet, when the traffic is stationary. The periods of quiet and the periods of accelerating traffic tend to counterbalance one another to give a noise level that is similar to what we would get if the traffic was moving smoothly.

One would perceive that there is a junction there, but the criteria that are used for measuring the noise impact would produce a similar result to that produced by free-flowing traffic. Coming back to Glasgow Road, vibration from trams is not a major issue these days. If one visits any system around the country and stands 10m or more from a tram, one will not feel any vibration in the ground. The vehicles are well designed, as are the track beds, which can be isolated to prevent the transmission of vibration. I would not expect any vibration from a tram to be perceptible beyond about 10m from the track. On noise, people tend to think of the old London trams rumbling through the streets on rails that are embedded in concrete. That does not apply to the new systems.

**Kate Maclean:** Is air quality taken into account in the environmental statement? Presumably air quality will be affected if the tram is sitting for two minutes, or is slowing down.

**Iain Bell:** It is more the change in traffic than the tram itself that causes the impact on air quality. The air quality assessment is based on the traffic model outputs. Those are fed into an air quality model, which is used to predict the effects on air quality. We assess that the impact on the properties at Glasgow Road would be negligible.

**Kate Maclean:** It is just a general air quality study. It does not take account of differences along the tram route.

**Iain Bell:** It does, indeed, take account of differences, and it covers them fairly comprehensively.

**Marilyn Livingstone:** I would like to pick up on concerns expressed this morning by WERTAG, and by Mr Hamilton and Ms Sansom, who represent residents along the route. My question is a bit longer than I had planned, but I think that you will accept why that is.

On noise, we have heard about displacement traffic. Other members have questioned you about the slowing down of traffic and so on, but we heard specific issues about traffic being displaced on to the small road that runs down to Norton House Hotel. What will be the noise impact there? It is all cumulative for people who live in the area, so the question is reasonable. I wanted to ask about the distance from the properties in Baird Drive. John Hyde talked about 10m.

**John Hyde:** Sorry, that 10m was in a different context.

**Marilyn Livingstone:** I know that it was in a different context, but if residents do not understand what you mean by the distance from their house, and how you are measuring it, it is a big issue. Distance will have a large effect on noise, so the question should be answered. WERTAG raised issues about the distance from properties, about the failure to take account of increasing heavy rail, and about the number of properties affected by noise. I was interested in the point in WERTAG's written evidence about the need for structural testing of the houses as well as testing of noise levels.

There is also a short to medium-term issue on which I would like some specific answers. First, does the ES properly reflect the amount of construction work that is likely to take place at night? Secondly, is it physically possible to reduce the noise by installing barriers before the work is carried out? That summarises WERTAG's argument. Obviously, there are long-term issues, but there are also short-term construction issues. That was quite a long question, but it is important that we get your response on the record.

**John Hyde:** Okay. On the first point, about distances, I believe that the 10m referred not to the distance of the properties from the track, but to the distance of a garden from the track. Obviously the gardens are closer to the track than the properties. The important distance as far as the noise of the work is concerned is the distance from the nearest rail to the façade of the property. That is the distance that we used in the calculations and it was quoted as being between 15m and

19m. It is interesting to note from the tables of results that the difference in noise levels between those two distances was only 1dB. The closest property was at a distance of 14m and we would not expect any increase in noise over what we measured at number 38, which was at a distance of 15m. The small variation in distance would not produce a significant difference in measured noise levels.

11:45

**The Convener:** Unless, of course, one is sitting in the garden on the occasional summer day when one is able to do so.

**John Hyde:** Yes, that is true, but it comes back to the methodology, and the approved methodology for assessing noise impact is to take the measurement at the façade of the building, not in the garden.

The heavy rail movements were fully included in the noise measurements that we made. As I said, the noise levels varied in the back gardens from about 40dB up to 83dB when some trains went past on the heavy rail line. A bad noise problem exists there already and the addition of the tram will increase the problem. Members might have noticed from the environmental statement that our first assessment of unmitigated noise from the tram would have produced an 8dB increase, which would be very noticeable, hence the reason for going into the details of mitigation and the use of barriers and screening to reduce the impact of the tram noise.

As far as the works are concerned, there would definitely be no need to take any land from the rear gardens of the properties—in fact, the limits of deviation would not allow that to happen. All workings would have to be on the embankment, albeit that the embankment might have to be destroyed and rebuilt for the process to take place, so there would be no workings in the gardens of those properties.

That creates an opportunity for some sort of screening during construction, even if it is only temporary screening. I am sure that members are familiar with site hoardings that are used round building sites—those 8ft to 10ft-high sections of solid block board that are used for screening. Something like that would improve the impact of construction noise, both during the day and at night.

As far as I know, most of the construction work would take place during the day, although some activities could take place at night. There is sufficient distance between existing rail activities and the construction areas for most work to take place during the day.

There was a misunderstanding about the number of properties involved and figure 26 referred to the number of blocks on the plan whereas each block represents four properties. That was just a misunderstanding of the numbers and not a point that we would dispute.

On structural problems, it is a requirement for the contractor to undertake a conditions survey before he starts work. That survey would include extensive photographs and examinations of properties to ensure that there were no structural defects before any work started. During the works, that survey could be repeated if anyone had concerns about what was happening to their property. It would be part of the contractor's responsibility to ensure that there was no damage to buildings during construction.

I think that that covers the main points.

**Marilyn Livingstone:** I have two points to make. First, it might be helpful to have further information about the construction work. You are saying that most of the work can be carried out during the day, but some evidence on that would be helpful.

**John Hyde:** That is my understanding, although there will be a need for some night working.

**Marilyn Livingstone:** It would be helpful if you could provide the committee with more detail on that issue.

You did not deal with Mr Hamilton's point about displacement of traffic.

**John Hyde:** We considered what are referred to as the network effects and what traffic on the wider road network would be displaced from the existing main routes to side routes if the tramline were put in place. Most of those displacements were increases and decreases in traffic flows of the order of 5 to 10 per cent, which is not enough to cause a significant change in noise level. We are dealing with a fundamental law of physics. If someone sees an increased number of vehicles, they think that there must be increased noise, but a few extra vehicles do not produce a big increase in noise. Unfortunately, the perception is worse than the physical reality. A change in traffic flow of about 25 per cent is needed to generate a 1dB change in noise. To get a perceptible change in noise—which is generally regarded as being about 3dB—displacement must cause a doubling in traffic flow. The data that I have seen indicate that that did not occur on any of the side streets.

**Alasdair Morgan:** I want to pursue the traffic flows caused by the grade level-crossings on the A8 and the Eastfield Road to the airport. The environmental statement includes figures for future traffic flows on Eastfield Road, but you do not have a figure for the current traffic flow, although

you have a figure for the current traffic flow on the A8. At peak hours, traffic on the road, which is a two-lane dual carriageway, is pretty much nose to tail.

In the environmental statement you say:

"There would be ... inconvenience to users through delays when trams are crossing."

Can you quantify that inconvenience at peak hours? How far back would queues potentially extend? We all know that on a busy motorway there is an effect all the way back if one car brakes. Given the fact that the tram will cross the A8 not far from the Newbridge roundabout, how far do you expect the back-up to extend if traffic lights are installed?

**John Hyde:** I cannot claim to be a traffic congestion expert, but as far as noise is concerned—

**Alasdair Morgan:** I am not particularly interested in noise. The environmental statement says that there would be inconvenience to users. How big would that inconvenience be? How far would the tailback stretch?

**Iain Bell:** That is a fairly specific question, but unfortunately none of us is a transport planner. May we provide you with a written response dealing with the specific location to which you refer?

**Alasdair Morgan:** Okay. Given the fact that this is a transport bill, I am surprised that there is no transport planner here. I am naive in these matters.

Again in relation to the traffic lights on the A8 crossing, you say:

"There are safety issues in relation to the use of a signalised junction on a relatively high speed dual carriageway road."

What are those safety issues?

**Iain Bell:** None of us is a transport planner and we are not the authors of the section to which you refer.

**Alasdair Morgan:** Okay—I will not go any further down that road.

What about the flood assessment to which BAA referred? Effectively, the tramline will cross a flood plain. BAA has planned for the water to do certain things. Will the tramline affect what it does, or will the tram be flooded?

**Iain Bell:** The tram is designed not to be flooded—it will be on a raised embankment. However, as the witnesses from BAA Edinburgh said, that means that the water will have to go somewhere else, unless the effects can be attenuated nearby. We have set limits that are sufficiently wide to allow that to happen. The

technique is to lower ground levels slightly. The amount by which that will be done will depend on the results of the flood risk assessment that will be carried out, as was mentioned earlier.

**Alasdair Morgan:** Why was the flood risk assessment not part of the environmental statement, given that you knew that the tramline would have an impact in that respect?

**Iain Bell:** At the time, we received an indicative flood map from the City of Edinburgh Council. The engineers calculated the limits that they believed were required to ensure that they could compensate for the flood risk. In the ES, we recognised that there was a weakness in that respect. We took a conservative view and said that the negative impact was moderate, although a flood risk assessment would need to be carried out. It is a matter of timing. We need to carry out such an assessment, but we thought that it should be done during the detailed design process. At that stage, we could define precisely or more accurately how we would compensate for the risk. We are now doing that.

**The Convener:** Thank you for your evidence. I take it that you have no closing statement.

**Iain Bell:** No.

**The Convener:** I thank all witnesses and members of the public for their attendance. The committee will meet next week at 9.30. We look forward to seeing those who have a continuing interest in the bill.

*Meeting closed at 11:56.*



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