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Paul Mees 1961-2013

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This is a special issue to celebrate the life and work of Paul Mees. Paul died at the very early age of 52 in June 2013. His contribution to the world-wide debate around sustainable transport was outstanding and his two books "A very public solution: transport in the dispersed city" (Mees, 2000) and "Transport for suburbia: beyond the automobile age" (Mees, 2009) are full of insights and often quoted. His contribution ranged over traditional academic activities including teaching, researching and publishing but went much wider and embraced campaigning, media activity and an ability to engage with senior public figures in a way that could not be ignored and in a way that exposed the utter wrong-headedness of much Australian and State of Victoria transport policy and spending. Paul was a constant critic of road building in Melbourne, always emphasising the illogicality, fiscal irresponsibility and missed opportunities represented by billions of dollars of budget allocation for road building. His most recent campaigning work focussed on one of many useless highway schemes discussed in this special issue, the East-West link in Melbourne and this is discussed in more detail in the article by Anthony Morton.

Paul's logical, analytical and incisive criticisms of the East-West link are echoed in other articles in this special issue. Alan James discusses the Lancaster Northern Bypass also known as the Heysham M6 Link Road (HM6L) in the UK. He concentrates on the convoluted way in which the road builders, aided by the judiciary and public inquiry inspectors were able to dilute the significance of European law (the Habitats Directive) in pursuit of the road building outcome. His forensic analysis of the steps taken to downgrade the significance of the Habitats Directive highlights the multiple flaws in public policy making, public inquiries and the willingness of courts to check the executive where road building is at stake. This theme is picked up again in William Walton's analysis of the Aberdeen Western Peripheral Route. The Aberdeen road is characterised by seriously defective logic around the case for proceeding with the project, defective public consultation and a clear reluctance

(as in Lancaster) on the part of the courts to exercise one of their main historic and democratic functions which is to check the excesses of the executive and make sure that due process has been followed and the law upheld.

James characterises the Lancaster bypass as "useless" and the use of the word "useless" is based on careful analysis of what it can achieve and the specious arguments on which it is based. Paul Mees would agree.

David Gate discusses the same road and presents a careful documentation of the interaction between residents and those who make decisions. One of the many deeply worrying aspects of road building is its dismissal of local opinion and its imposition of an over-riding road building ideology regardless of cost and logic on those whose lives will be damaged. In the case of the HM6L road the scheme was vigorously pursued at the same time as the local MP opposed the road and the local authority voted in full council to oppose the road. As is often the case in the UK these events work to bring politics into disrepute.

Pat Kinnersly's article on the Westbury Bypass draws attention to the "Zombie Road" phenomenon and the ability of seriously defective road schemes to be killed off (or so it was thought at the time) and to come back to life again. The death of the Westbury bypass in 2009 was a remarkable achievement but it is once again on the agenda and illustrates perfectly the ability of road schemes to remain intact no matter what the result of consultation and democratic decision making may determine. This is a serious matter for the environment, nature, heritage and habitat but also points to a huge democratic deficit and the ability of road schemes to survive changes of government changes of policy and hand-wringing sustainability rhetoric only to be reborn in yet another policy document until the road is actually built. Nothing is allowed to get in the way of road building.

The juxtaposition of glaringly weak justifications for a new road and the strong path

dependency of that road proposal is truly staggering. It will be built. The glaringly weak justification is aided and abetted by truly defective methodologies. High up the list of defectives is cost-benefit analysis which is used to create vastly inflated benefits (very big numbers) on the back of never to be achieved job creation and time savings. The deeply significant insights of Marchetti (2004) into the relationship between time and space and the consumption of distance are simply air-brushed out of the picture. Marchetti showed that even if we do produce time savings through new transport infrastructure projects (and this is often not the case though it is promised) the result is that people consume the time savings as extra distance. They travel further to maintain the same 1.1 hour travel time per day so the whole crumbling edifice of time savings and monetised benefits is completely futile and serves to feed sprawl and longer distances between origins and destinations.

The futility of fuzzy numbers is much bigger than the time savings nonsense. Traffic forecasts are routinely inflated to provide what passes for evidence in favour of road building and to assist the objective of producing a big number in the time savings box. If several hundred thousand people can "save" 5 minutes on every trip every day and we bolt that onto a spurious methodology for valuing time we end up with a big number for the monetary benefits of the road and that is the objective. A decline in car use cannot be allowed to damage the case for a new road so this is also air-brushed out of the picture as it was in Lancaster. Thousands of jobs, in addition to any construction jobs, are proclaimed as a result of road building but road builders are very careful not to put these imaginary numbers to any kind of test 5 years after the road has been built. Paul Mees was acutely aware of all these flaws but he also devoted a great deal of time and effort to point out how public transport could be organised in a much better way to create high quality alternatives to the car. His robust condemnation of useless road building was matched by his careful construction of alternatives and drawing the attention of decision takers to the massive sums of public money been thrown away on road schemes when these

sums could be used to give us all a public transport system as good as Zurich, Vienna or many German cities.

The article by Imran and Stone is partly based on Paul's work applied to the city of Auckland in New Zealand and shows that Paul's ability to condemn stupidity and irrational transport planning was supported by very clear ideas about how we can switch paradigms and get it right. One day we will get it right and a truly excellent public transport system in Melbourne serving all its communities and obviating the need to own a car will be the real monument to his thoughtfulness and insights. In much of Paul's work and in all the articles on road schemes in this special issue there is a common theme. How can we explain the utter stupidity of road building in and around cities when we know they generate extra traffic, do not reduce congestion, add extra noise and air pollution and increase road traffic danger. The final article in this collection (The insanity of normality) addresses this question and takes its title from a well-known Swiss psychotherapist, Arno Gruen. Gruen has written extensively on the "insanity of normality" where he points out how societies are able to develop a strong story line on any subject that is false, full of contradictions and riddled with flaws and claim it is "normal". Those that oppose it or merely point out the inconsistencies are marginalised and isolated and categorised as "insane" (to use Gruen's terminology). The article here applies Gruen's concepts to road traffic danger and points out that the deaths of over 3000 people every day globally in the road traffic environment is an example of what Gruen means by "insane". It should not be happening, we should be aiming to reduce deaths and serious injuries to zero, as is the case in Sweden, and yet the 3000 every day number does not elicit a strong public policy response. It can be reduced but we do not reduce it. We accept it.

It is very clear in the articles in this special issue on road building in Aberdeen, Lancaster, Westbury and Melbourne that the road building option has achieved the status of "normal" and those opposing it are either cranks or deviants who will not accept the huge increases in quality of life,

freedom and movement brought about by the insertion of new roads into the urban environment. We know that road building does not solve the problems that it claims will be solved. We know that it is adding huge amounts of climate damaging carbon when we are repeatedly told we must reduce carbon and we know it bathes whole communities in noise and health damaging air pollution. Yet almost every local authority, regional authority, national government and entities like the European Union allocate billions of dollars, Euros or pounds to road building so who is sane and who is insane? This is exactly what Gruen was talking about when he coined the term "the insanity of normality".

Paul was a truly splendid person and we all miss him terribly. We are at the same time enormously lucky. We have his books, his articles, and the video of his presentation on the East-West link a matter of days before his death (PTUA, 2014) and we have the example of inspired, robust, "tell it as it is" approach to a serious breakdown of human intelligence in a reputedly sane world. It isn't a sane world and all we need do is read Paul's work to be reminded of this and once reminded we can get on with the serious business of ditching the road building paradigm and replacing it with something calm, human scale, ecological, non-threatening, intelligent, enriching, health promoting, child-friendly, deficit-reducing and life affirming. Our task, inspired by Paul, is to create the new "normal".

John Whitelegg
Editor

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Neat, Plausible and Wrong: Melbourne's East West Link

Anthony Morton

Abstract:

The state of Victoria, Australia, has long been a site of tension between an incumbent and powerful road lobby and a community increasingly desirous of non-car transport alternatives. Today there is no greater signifier of this than the East West Link, a proposed 18km motorway in Melbourne estimated to cost \$16 billion. The project is unprecedented both in the haste with which it is being pushed through the planning and pre-construction stages, and the apparent determination of the State Government not to seek any kind of public mandate for the project at a State election. Yet the project has no conventional benefit-cost justification, does not serve a clearly defined demand in the context of Melbourne's travel patterns and trends, and is likely to displace better-justified and more popular public transport projects for many years. Last year, it was the subject of Paul Mees' final public addresses before his untimely death. This article examines the historical background to the East West Link, the arguments put forward for it, and the alternatives that have featured in the ensuing public debate.

Keywords:

Motorways, Melbourne, Transport economics, Transport modelling, Agglomeration benefits, Cost-benefit analysis, Downs-Thompson paradox, predict and provide.

Heysham M6 Link Road

David Gate

Abstract:

The Heysham M6 Link Road is a legacy scheme with a long history, the present version dating from 2004. After a long campaign against it by objectors, including two public inquiries and two legal challenges, it was approved in December 2013.

This article discusses how the promoter, Lancashire County Council, decided on a road solution before it had identified the problem it was intended to solve, refused to listen to objectors, including the Council

(Lancaster) where the scheme is located, and ignored national issues such as the need to reduce emissions.

The justification for the scheme was convincingly disproved during a nine year campaign: it will not relieve congestion, or bring jobs, or regenerate the area; and better, cheaper alternatives exist. The case was further undermined as traffic growth, journey time savings, BCR and new jobs forecasts all reduced significantly.

However, in spite of the convincing case against it, the scheme's long life and the government's obsession with infrastructure spending carried it through.

Keywords:

Legacy scheme, congestion relief, new jobs, scheme costings, alternative measures.

"Is this protester the most hated man in Scotland?": A personal perspective on the legal fight against the Aberdeen Western Peripheral Route

William Walton

Abstract:

On 1st December 2005 the Scottish Transport Minister announced the preferred route for a 46km long Aberdeen bypass in north-east Scotland. The route selected was significantly to the west of the previous preferred semi-circular 'C' shaped route and incorporated an 11.5km long spur to the south. A protest group called RoadSense, chaired by the author, was formed to oppose the scheme and campaign for more sustainable transport alternatives. The group challenged the route in a public inquiry, through complaints to the Scottish Parliament, the compliance committee of the UN Aarhus convention on access to environmental justice and the European Commission and through the Scottish and UK courts. This paper chronicles the campaign, and explains why RoadSense challenged the project and why the courts refused to quash the Scottish Parliament's decision to approve it. It also examines some of the practical difficulties which the group and the author experienced in gaining access to environmental justice and concludes that whilst some progress has been made in this direction it remains

questionable whether Scotland (and hence the UK) is fully compliant with the spirit and the wording of the Aarhus convention.

Key words:

Aberdeen bypass (AWPR), RoadSense, strategic environmental assessment (SEA), public consultation, environmental justice.

The Curse of the Zombie Roads

Patrick Kinnersly

Abstract:

The paper sets out the history of road building along two transport corridors in South West England over the last two decades and seeks explanations for the revival of major highway schemes such as the A350 Westbury Bypass and the A36 Salisbury bypass. Thanks to massive efforts by environmental groups both schemes have been decisively rejected by the planning system and the government. Why have such 'Zombie roads' survived into the 21st Century when the environmental constraints on further increases in road traffic should rule them out of consideration? These leftovers from the road-building boom of the 1990s rely on the transport mythologies of the era of 'Roads for Growth' being revived by the present government's plan to spend £18bn on new roads. The myths have survived - traffic will never stop increasing; the government must predict the growth and provide for it; an absurd cost-benefit appraisal system based on journey time savings can still be relied on to show that even these rejected schemes from the 1990s will be good value for money today. Can such apparently suicidal irrationality be explained by the fears of governments and global corporations that congestion in local surface transport links might one day bring their entire global 'Big transport' network to a grinding halt?

Keywords:

Consultation, climate change, cost-benefit analysis, globalisation, government policy, multi-modal study, railways, roads, Wiltshire.

The Death of the Habitats Directive

Alan James

Abstract:

The European Habitats Directive was published in 1992, to provide a system of strict protection for sites and species of the highest conservation value at a European level. It was required to be transposed into law in every member state of the EU (EEC in 1992). It has been clarified and if anything reinforced by case law and additional guidance since 1992, but remains unchanged in 22 years. However, in Britain in recent years, following a few cases where the Habitats Directive prevented development from going ahead, it appears that scheme promoters increasingly pay lip service to compliance with the Directive but by and large do not follow due process in assessing projects against its requirements, in particular the criteria to be met for derogation from the prohibitions on damage or destruction of protected species and their resting places. Local planning authorities and inquiry inspectors seem reluctant to hold developers to the letter of the strict protection that is at the heart of the Directive. Case law in Britain has delivered mixed outcomes, but the landmark 'Morge' case in the Supreme Court in 2010 acts as a precedent for cases involving protected species, establishing in particular that the views of statutory nature conservation authorities such as Natural England are paramount in planning decisions and in judgements where legal challenges are made. Yet Natural England is under-resourced to make proper assessments of all planning cases that trigger habitats Directive appraisals, and as a government-funded body is not regarded as impartial by most campaigners against development proposals: and ultimately is not infallible.

A further High Court challenge on the Heysham to M6 Link road, which threatened to destroy or damage the resting places of otters, failed in October 2013, and leave to appeal was refused with the dismissive lines that the case for non-compliance with the Habitats Directive was "technical and unmeritorious quibbling". With these words, in the author's view the Habitats Directive lost its effectiveness as a part of the legal framework for development in Britain. This is not to deny that after 22

years the Directive may well be in need of an overhaul: but its core principles and values, as a 'line in the sand' against deterioration and destruction of the most important European sites and species, are as valid and necessary as ever.

Keywords:

Habitats Directive, road scheme, otters, bats, Article 16 derogation, courts, Morge, AWPR, Heysham to M6 Link

Public transport network planning in Auckland, New Zealand

Muhammad Imran and John Stone

Abstract:

This paper explores the potential improvements to public transport patronage in Auckland, New Zealand that could be delivered by using the 'network planning' approach to public transport service design. Analysis of Auckland public transport services shows that a tailor-made approach has been adopted which is responsible for the low patronage levels. However, the city has an appropriate institutional structure and legislative framework which could support the redesign of public transport services to be simple, direct, higher frequency and make use of an integrated fare structure. Auckland land-use planning strategies provide a supportive context for network planning approach and should be used to develop a public engagement process for redesigning the public transport network. The paper concludes that Auckland has considerable potential to achieve higher public transport patronage by redesigning the network.

Keywords:

public transport, network planning, Auckland

The Insanity of Normality: Reconceptualising the Road Safety Debate

Gary Haq, John Whitelegg

Abstract:

Road safety debates have frequently identified the importance of having a system-wide approach to the urgent task of reducing death and injury. The system-wide approach is associated with the Swedish Vision Zero policy and its zero fatality tar-

get. This view has met with citizen support and professional resistance and this paper describes the result of focus group discussions and a survey of professionals to explore these differences. The paper seeks to explain different views and the persistence of death and injury rates in the road traffic environment using the "insanity of normality" thesis produced by the Swiss psycho-therapist, Gruen.

Keywords:

System-design, Vision Zero, ethics, values, psychotherapy, insanity

Death of an Urbanist

Paul Mees (1961-2013)

Brendan Gleeson

Paul Andrew Mees was a scholar of great accomplishment and distinction. His death on 19 June 2013 at the early age of 52 deprives Australia of one of its most fearless and perceptive academic voices. Paul was well known as an activist intellectual whose formidable public voice called many to account, especially the ensemble of public and private interests that have long governed Australia's lamentable transport policy arena. To deploy a well-known axiom, he 'spoke truth to power'; unswervingly, bravely and through recourse to the best available evidence and analysis of urban conditions. Paul was, to say the least, an insistently discomfiting presence in a policy arena otherwise marked by a lazy indifference to the truth and, ultimately, to public interest. His caustic explanation of the urban transport sector is well summarized by Ulrich Beck's memorable term, 'organised irresponsibility'. A particularly telling example that Paul brought to light through scholarship and advocacy was Melbourne's privatised 'public' transport system. He turned the language of the right on itself to describe this system as a rent-seeking muddle that denied the public's right to an effective, sustainable means of conveyance.

Paul's last advocacy, which he continued to his final days, was to oppose Melbourne's ecocidal East-West Link, a vast, catastrophically expensive road scheme that seemingly fails every conceivable planning test. He led criticism with his usual insight and courage. It is lamentable that the Australian planning community has remained so collectively silent in the face of such malign schemes that continue to be inflicted on our cities.

Paul's public influence went far, however, beyond mere criticism. His urban advice was often sought not feared by more enlightened public bodies in Australia and internationally. His expertise was sought from bodies as diverse as the Toronto Transit Commission, New Zealand Transport, ACT Commissioner for Environmental

Sustainability and the Public Works Committee of the Parliament of Queensland. Paul's work on network planning is expressly cited as the inspiration behind the European Union's 2005 'HiTrans' project.

Paul was indisputably one of the greatest urbanists this country has produced and his achievements rank him amongst the foremost of his peers anywhere in the world. In particular, his analysis of the transport dilemmas facing the 'dispersed' low density cities of the western new world is without parallel – both for the quality of the evidence and arguments assembled and for the clarity of the solutions he proposed. Paul's active voice may have been silenced by his death, but the strength and integrity of his scholarship ensures that his influence will remain. In time his legacy will continue to grow as his work becomes better understood and more widely known and engaged – as it surely will.

Paul's scholarship was of the highest standard – analytically, methodologically and conceptually. He was no high level theorist. His contributions were in the field of institutional and political analysis of planning, and of urban conditions generally. Paul was not simply a transport planner, though through his advocacy and scholarly emphasis this casting is understandable. The sweep of his curiosity and ultimately his authority was much wider than that. His legal qualifications and experience expanded his understanding of institutional process, whilst his mathematical prowess enriched his analyses of urban dynamics. Many of us urbanists deferred to his far reaching insights into the wider urban process, with its manifold possibilities and failures.

Paul will be remembered rightly as a great teacher. His pedagogy was marked by a potent mix of bravura, economy, and authority. He was a demanding and uncompromising supervisor of research students in an era that balks at these traditional teaching qualities, to its cost. Ultimately,

there is no greater a legacy that a scholar can leave than that of minds formed and improved through teaching, supervision, counselling and the many enriching acts of collegiality that good academics undertake quietly. This is of more import than the written testament even. The significance and scale of this part of Paul's legacy is already witnessed to by the deluge of public tributes from former students that flowed in the days after his passing.

Paul remained steadfast in his scholarship through to the very last days of his life. The reward for this faithfulness was, as his beloved wife Erica has observed, a remarkable outpouring of what we will come to understand as some of his best work. His great lifeworks, the books *A Very Public Solution* (Mees 2000) and *Transport for Suburbia* (Mees 2010), were supplemented by a series of powerful, perhaps peerless, studies of Australian urban conditions, including a magisterial account of Canberra's planning and development published in this its centenary year (Mees, forthcoming). In these final works Paul was closely assisted by his colleague and co-author Lucy Groenhart. Other senior colleagues provided assistance that helped to ensure the last works were published in his lifetime, which pleased him immensely.

Vale 'Comrade Mees'. We are unlikely to see your kind again, and perhaps we failed to cherish you properly when you were amongst us. Australia is harsh on its critics, and you were an especially potent and unsettling foe of conventional wisdom, and of venal power. As activist scholar you were without peer, but you were scorned by many lesser people. The good city you strove for remains elusive as ever, but you left us stronger for the struggle that seeks it. Still, our hearts are bruised by your parting and our talk is poorer for your silence. *Dominus vobiscum*.

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Paul Mees 1961-2013

Jago Dodson

Paul Mees was one of Australia's most creative and incisive transport and urban planning thinkers and an unrelenting advocate for more effective, sustainable and democratic transport policy and practice. His most significant intellectual contribution, among the many that he offered to scholarship and practice, was in raising the importance of transport policy to the achievement of sustainable urbanisation, and the institutional methods to support this goal, in contrast to prevailing physical determinist assumptions about urban sustainability in which density drives transport behaviour. Mees' contribution to scholarship was also combined with an extraordinary record of civic advocacy on transport issues, especially in his home city of Melbourne in which he was a prominent public figure.

Mees began his professional career as a lawyer, specializing in employment relations, and drawing on his combination of legal studies with mathematical training and a longstanding involvement in formal debating contests. However his interest in environmental and social issues, especially around the car, and frustrated fascination with Melbourne's extensive yet underutilised suburban public transport network drew him away from the legal profession, initially into public advocacy and subsequently academia.

Mees' public advocacy developed through membership and subsequent presidency of Melbourne's Public Transport Users Association (PTUA), a community based body advocating for improved public transport in that city. Prior to Mees' leadership the PTUA had been an important though modest pressure group modeled on the car-oriented Royal Automotive Club. But with his debater's verve and capacity for strategic campaigning Paul elevated the Association as one of the most systematically critical interlocutors of urban transport policy in Melbourne.

Although his election as PTUA President occurred under a Labor Victorian State Government¹, Mees' term, from 1993 to

2001, intersected with the Liberal (Conservative) Victorian government of 1992 to 1999. That administration, led by the abrasive Jeff Kennett, applied a vigorous deregulation and privatization program to the State's public services, including public transport. Kennett also undertook a massive expansion of Melbourne's motorway network primarily via the CityLink tollway project and later Western Ring Road and Scoresby Freeway. Mees' PTUA role saw him regularly addressing Kennett's program via a mix of direct advocacy and campaigning accompanied by prominent private legal suits that tested the validity of the CityLink taxation arrangements. At one point he even 'hid out' in safe houses across Melbourne as private investigators pursued him for a subpoena.

In the early 1990s Mees began lecturing on transport at Melbourne University and started publishing papers that systematically tested assumptions underpinning dominant views about Melbourne's planning (Mees 1993; Mees 1994; Mees 1994). These works reflected his approach of detailed empiricism combined with institutional narrative to understand how transport systems succeed or failed. Much of his early work, including his PhD undertaken during 1994-1997 investigated the processes underpinning urban structure including comparing Melbourne to Toronto (Mees 1994). Mees' doctoral findings that Toronto achieved much higher public transport use rates than Melbourne, despite largely similar urban form and structure, demonstrated the independent influence of transport policy on urban mode share, rather than a dependence on density.

During post-doctoral work at the Australian National University's famed Urban Research Program in Canberra during 1997-1998 Mees adapted his PhD into his first book *A Very Public Solution: Transport in the Dispersed City* (Mees 2000). In this

¹ The youthful Mees' direct style is well captured in a YouTube video of a 1992 TV debate with Victorian Transport Minister Jim Kennan: <http://youtu.be/OLPZy1IFtqE>

text Mees presented the core theoretical innovation on which his insights about urban form and transport policy, and their implications, were founded. The key to meeting the dispersed travel demand found in dispersed suburbia, he argued, was not densification via high-rise development but enabling transit to compete with the car by operating a grid of intersecting transit lines with seamless transfers that served efficiently multiple origins and destinations. A system designed on this basis could achieve a 'network effect' of increasing returns to scale around improved service connectivity. This in turn relied on an array of network coordination techniques such as stable regular timetables, high service frequencies, interconnected modes and fast, direct routes. Such arrangements, which lie at the core of highly successful transit systems, such as Zurich, in turn requires dedicated centralised agencies whose task it is to oversee the entire network and apply these coordination techniques. Ultimately this requires firm and consistent planning. The book captivated its readers. Sir Peter Hall's (2001) review lauded its incisive contribution and the challenge to planning orthodoxy around urban form and structure it offered.

The recognition that persistent planning was needed to solve urban transport ills found a glaring contradiction in the direction of transport policy in Anglophone polities, including Australia and the United Kingdom. Melbourne's public transport networks were privatized by the Kennett government in 1999. For Mees privatization of public transport based on competition between operators and modes impeded achievement of the network effect, which requires dedicated planning agencies. The Melbourne transit privatization program posed both intellectual and practical challenges and generated a stream of new research papers during the early-2000s (Mees 2002; 2005).

From his newly tenured position at the University of Melbourne Paul's advocacy took a fresh turn in 2001 as he relinquished his PTUA presidency for a more direct model of public advocacy. This included leading a dedicated campaign against the Scoresby Freeway in Melbourne's eastern

suburbs as part of a Federal by-election and then a general election. The campaign achieved modest effect though, in what was highly car dependent suburbia and with a strengthening of conservative sentiment nationally. The Public Transport First effort was one of Mees few direct engagements in electoral politics. In 2002 he was invited to stand as a Green candidate for a Victorian seat in the Federal Senate, but declined, citing the distraction from Melbourne urban transport issues and research that parliamentary responsibility might bring.

Mees disdained frequent flying to international conferences and eschewed the self-promotion of global lecturing tours. But during the early 2000s his work (Mees and Dodson 2001) prompted invitations to assist transit advocates and freeway opponents in the New Zealand city of Auckland, one of the most car dependent outside of the USA. His contributions helped to foster a newly vibrant local transport advocacy scene in Auckland and over the past decade the city has begun to transform its neglected public transport networks by applying in practice many of the network planning principles Mees advocated .

The international recognition Mees found in New Zealand was mirrored much further abroad in the mid-2000s via the European Union's Hi-Trans project which produced guidebooks on best practice for public transport network planning (Nielsen et al. 2005). The network effect was canvassed in detail by the Hi-Trans authors as a fundamental principle – though unappreciated prior to Mees - underpinning highly patronized European transit systems. Although these insights are now well used in European transit planning practice, they have only recently begun to be recognized and tentatively applied in the Australian setting.

Mees was among the most prominent public intellectuals in Melbourne. His effort was highlighted in University promotional material and one year he even gained more media mentions than his Vice Chancellor. But in 2007 Mees' public advocacy brought him into uncomfortable contact with the harsher edge of institutional reaction. Comments about the performance

of Victorian transport department officials made at a public forum on Melbourne's urban planning resulted in his University initiating misconduct proceedings. This incident prompted an extraordinary uproar of support among Melbourne's civil society, including from some of Mees' political opponents. The proceedings were withdrawn not before raising profound and troubling questions about academic freedom and advocacy (Farouque 2008). Soon after Mees was welcomed at RMIT University and promoted to Associate Professor in 2012.

In 2010 Mees published *Transport for Suburbia: Beyond the Automobile Age* (Mees 2010), an instant classic, which quickly found a global audience and entry to many teaching text lists. This masterful text further expanded and refined Mees' various insights into the network effect and institutional design, along with a redoubled refutation of the new planning orthodoxy that 'density is destiny' in transport outcomes. Its wry but persistent prose is essential reading to anyone who cares about cities, public transport and the future prospects of dispersed suburbia in an age of climate collapse and energy constraint.

A lasting influence of Mees' efforts on transport policy in Melbourne has been to help foster what is now a robust and active civic conversation about transport policy in the city. A generation of planning students at Melbourne and RMIT universities have been educated under his tutelage and many now hold influential roles as practitioners in government and the private sector. Mees' work has also been immensely esteemed in Australian planning scholarship and will surely resonate in debates here for many years as will the echoes of his generous if sometimes exasperating style of interlocution. His remonstrance that density does not determine transport outcomes will continue to irk entrenched orthodoxies in policy, scholarship and practice alike. Moreover his distinctive model of scholarly erudition and valiant public action deserves much greater emulation.

In all of his scholarship and public advocacy Mees was supported by Erica Cervini, his wife of more than two decades. His

capacity to stir public debate through the media drew in part on Erica's expertise as a journalist while her editor's eye added to the elegance of Mees' persuasive and fluid writing style.

In the Australia Day Honours announced on 26 February 2014 the Commonwealth of Australia awarded Dr Paul Mees a rare posthumous Medal (OAM) of the Order of Australia in the General Division, for "service to public transport and urban planning as an academic and advocate for creating sustainable cities".

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Neat, Plausible and Wrong: Melbourne's East West Link

Anthony Morton

Introduction

Like much of the English-speaking world, the state of Victoria, Australia, has long been a site of tension between an incumbent and powerful road lobby and a community increasingly desirous of non-car transport alternatives (Mees, 2000 and Stone, 2008).

Today there is no greater signifier of this than the East West Link: a proposed 18km motorway in Melbourne, running from east to west through the inner northern and western suburbs (www.linkingmelbourne.vic.gov.au). Its eastern section would run for 5km through the inner north and pass within 3km of Melbourne's Central Business District, and connect the existing Eastern Freeway at the eastern end with the CityLink tollway to the west. This eastern section alone has a current budget cost of \$8 billion. The project's western section would continue a further 13km through the inner west and connect ultimately with the Western Ring Road in Melbourne's western industrial zone, raising the total project cost to an estimated \$16 billion.

While it has been the subject of numerous studies over the years, it was only in 2012 that the Victorian Liberal/National Coalition Government announced its intention to undertake the necessary planning and commence construction, initially for the most contentious eastern section. The project is unprecedented, both in the haste with which it is being pushed through the planning and pre-construction stages, and the apparent determination of the State Government not to seek any kind of public mandate for the project at a State election.

At the previous election in 2010, the Coalition had replaced an incumbent Labor Government on promises to build suburban rail extensions and reform the management of public transport. Curiously, it was Labor and not the Coalition who were making explicit promises on roads, and then only for a more modest 5km version of the project's western section, and a second motorway in the north-eastern suburbs (Victorian Government, 2008). Far from the Coalition Government having an electoral mandate to build the East West Link, the 2010 election result would appear to imply the opposite. Perhaps with this in mind, the government has now made clear that its haste in progressing the planning for the road is aimed at obtain-



Figure 1: Proposed alignment for Melbourne's East West Link, showing its relationship with other key Melbourne roads and the city centre. (Source: Victorian Government (Eddington, 2008), annotations by author.)

ing signed contracts for construction prior to the November 2014 State election, thus binding any subsequently elected government (Tomazin, 2013).

The road has been variously defended by its supporters, from the Victorian Premier down, as a 'congestion buster', a 'game changer' and a 'city shaping' project. The government agency responsible for the project, the Linking Melbourne Authority (LMA), began its evidence to the East West Link panel hearings on 3 March by handing around copies of Edward Glaeser's book *Triumph of the City*. This may seem an odd choice given that Glaeser is no defender of motorway building, particularly in the central areas of established cities. But we might understand this better if we recall that Glaeser's book is intended as an apologia for the economic, social and environmental benefits of concentrating human populations within large, high-density urban areas—even, or perhaps especially, where this comes at the expense of existing low-rise built forms (Glaeser, 2012). LMA's business case for the East West Link relies critically on 'agglomeration benefits' of this kind. It is perhaps hoped that Glaeser's pro-development, deregulationist stance, and his defence of 'urban megaprojects' in particular, will obscure the fact that there is scant evidence that big road projects actually promote urban concentration, and ample evidence that they do the opposite, promoting the sprawl and hollowing-out of urban areas that Glaeser warns against.

It has always been clear that without these crucial 'agglomeration benefits' the East West Link is on very shaky ground financially. All published assessments of the East West Link to date have indicated that on conventional cost-benefit criteria, the project will fail to generate benefits sufficient to cover the sizeable cost of construction. Paul Mees, prior to his untimely death in 2013, repeatedly made the point that the failure to produce a positive benefit-cost ratio should have ruled the project out immediately. Infrastructure Australia, the arms-length Federal Government agency that recommends projects for Federal funding, has for its own part never rated the East West Link higher than the 'Real Potential' cat-

egory, the second of four steps required to fulfil its funding criteria (Infrastructure Australia, 2013). Meanwhile a competing rail project—the Melbourne Metro Tunnel Stage 1—had been assessed in the fourth category 'Ready To Proceed' in 2011, with a conventional benefit-cost ratio of 1.3 (Infrastructure Australia, 2011).

If this road project lacks a conventional benefit-cost justification and is unlikely to produce 'agglomeration benefits' of the sort claimed for it, then perhaps there are some other intangible benefits that might justify why this project is being prioritised ahead of all other transport investment in the state of Victoria. As this article will explain, this is highly unlikely when one considers in detail the claims made, the evidence, and the measures that have been put forward as alternatives in the political debate around this project—measures that Victorians will be unable to afford in future as a consequence of the government's commitment to the road. As Paul Mees might say, the East West Link could be the greatest political folly Victoria has yet seen. Or as H. L. Mencken put it decades ago, "there is always a well-known solution to every human problem—neat, plausible, and wrong" (Mencken, 1917).

Historical Background

Like almost every other major road proposed for Melbourne, the East West Link project has its roots in the Melbourne Transportation Study of 1969. This major planning study was postwar Melbourne's bid at emulating the ambitious American highway plans of the era, and the authorities made a point of engaging for the task the firm of Wilbur Smith and Associates, who had taken the lead in developing such plans ever since producing the first of its kind, the influential Chicago Area Transportation Study of 1956.

In city after city where this computer-driven 'systems approach' had been carried out, the primary study outcome always appeared much the same: a grid of freeways cutting across the urban area, typically with about a five-mile spacing (Mees, 2000). Melbourne's own study likewise proposed a grid comprising well over a dozen freeways with a total length around

500km spread across the entire metropolitan area, with an overall scale and route length similar to that of Los Angeles' well known freeway system. This grid has, with minor modifications, served as the template for major road proposals in Melbourne ever since.

As history tells, the release of the Transportation Study in December 1969 predated by only two months the first wave of political action against freeway-building,

his celebrated 1977 book *Great Cities and Their Traffic*:

[The study is] an unconvincing work presented with all the glib political clichés that one has learned to distrust. It is based on the earlier American transportation study techniques, by now thoroughly discredited...quite clearly it is a road plan, not—as it is called—a comprehensive transport plan.

Victorian Premier Rupert Hamer respond-

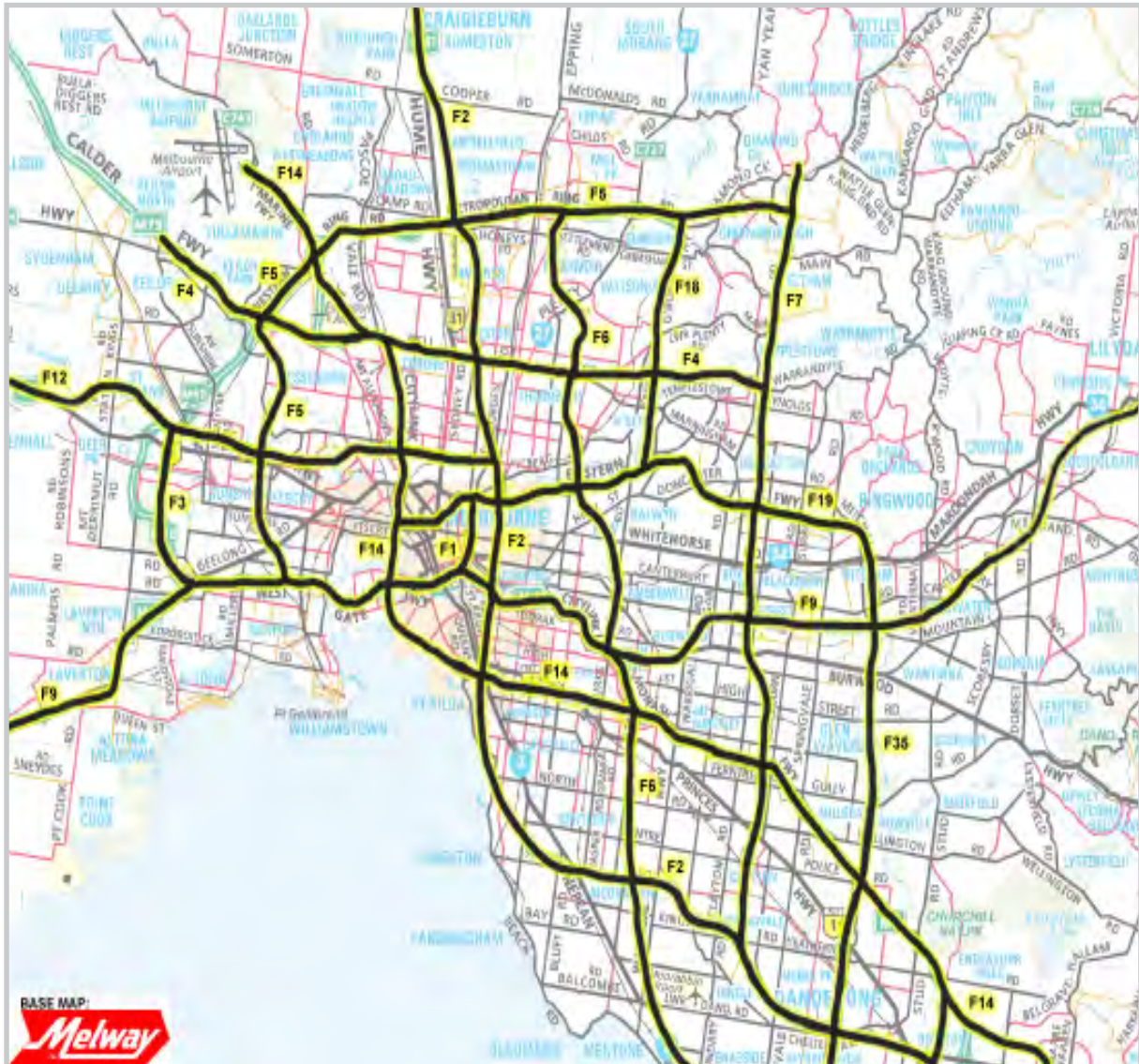


Figure 2: The 1969 freeway plan, overlaid on a recent map of Melbourne. (Artwork by Public Transport Users Association. Base map © Melway Publishing 2002, reproduced from Melway Street Directory Edition 29 with permission.)

when in February 1970 the Governor of Massachusetts declared an embargo on freeways in Boston (Mees, 2000). The revolt soon spread to other cities, and before long Melbourne's own Transportation Plan was the subject of intense criticism. The general view was summed up by British urban geographer J. M. Thomson in

ed in due course to this criticism, excising large parts of the freeway plan the day before announcing an election in 1973 (which the government subsequently won comfortably).

One of those roads removed in 1973 was the inner-city section of a freeway iden-

tified as the F19. The remainder, known as the Eastern Freeway, proceeded to be built in stages and now extends through much of Melbourne's eastern suburbs. Since 2007 it has also connected to another motorway (originally labelled the F35 in the 1969 plan, and now known as EastLink) which proceeds due south and attracts traffic from a large part of Melbourne's south-east. This has expanded the Eastern Freeway's role beyond that of a traffic feeder for the eastern suburbs, so that it serves also as an alternative route from the south-east to the city, bypassing the heavily trafficked motorway that has served that purpose since the 1980s (the Monash Freeway).

These progressive extensions of the Eastern Freeway to the east and south proceeded over decades despite planners' knowledge that the freeway had a deliberately-created 'dead end' in the inner suburb of Clifton Hill, about 5km from the centre of Melbourne. Until the beginning of this century there were actually four such 'dead ends' where radial motorways met the inner city, similar to those still found in London and other European cities. As in those cities, Melbourne's freeway dead-ends came about in recognition of the fact that these roads exist primarily to carry commuters into the city centre, and the central city area has a limited capacity to absorb the resulting traffic. By 'metering' the flow of traffic on approach routes, these dead-ends helped prevent inner-city streets becoming completely overwhelmed with traffic, kept demand for car commuting at a level that city streets could accommodate, and allowed public transport to demonstrate its 'natural advantage' in conveying large numbers of people to and from the city centre.

This all changed when in the late 1990s the Victorian Government built the CityLink motorway. This joined together three of the four dead-ends, to the south and west of the city centre, resuscitating two other inner-city roads excised by Hamer two decades earlier. This was done on the rationale that a 'bypass' route was required for traffic proceeding from one side of the city to the other. Yet as traffic data showed at the time, and as remains true to the present day, the vast majority of traffic

on the three radial motorways joined up by CityLink has its origin or destination in the city centre. Six years after the road opened, Melbourne's Age newspaper reported on traffic studies that showed only 10% of traffic from the south-eastern suburbs used the CityLink route to bypass the city, and only 12% of traffic from the West Gate Bridge to the west used CityLink to cross over to the east (Colebatch, 2006).

Meanwhile, CityLink has had the predicted effect on inner-city traffic. Melbourne's inner-city streets, still relatively free-flowing in the 1990s, are now heavily congested for most of the day. Although traffic volumes have now plateaued and are even in very slight decline (of which more below), annual traffic statistics make clear that one effect of CityLink was to facilitate a rapid increase in traffic in the five years since opening, sufficient to induce stop-start traffic conditions throughout the day on streets that were rarely congested outside peak hours prior to CityLink opening. This is notwithstanding the fact that CityLink, like the East West Link today, was marketed to the public as a 'congestion buster' and as the "Triple By-pass" promising that "traffic will again flow freely in and around the Central Activities District, because there will be far less through traffic using our inner city streets." (Melbourne City Link Authority, 1995)

Even before CityLink opened in 2000, political momentum was building to 'do something' about the one remaining inner-city dead end, at the Eastern Freeway in Clifton Hill. This was always going to be politically contentious, however, because (unlike with CityLink) there is no convenient creek valley or industrial corridor for a new road to follow: the route consists entirely of homes and highly valued parkland. So from the time the first feasibility study was initiated in 1999, the road extension was always referred to as a 'tunnel'—the subtext being that it would be invisible and therefore impose no social or environmental costs to set against its presumed benefits.

The 1999 feasibility study was recast after a change of government, and became the Northern Central City Corridor Study (NCCCS), which appeared in draft form in

2003. This study was notable in that it examined the evidence for travel time and other benefits from the road, and based its conclusions on the evidence rather than any prior conviction on the project's merits. Its key finding was that of all the daily westbound traffic coming off the Eastern Freeway, only 15% continued due west to CityLink or beyond. The majority (about two-thirds) turned south and headed toward the city, matching the long-established pattern observed on Melbourne's radial freeways.

The draft NCCCS accordingly concluded that no case could be made for extending the Eastern Freeway further west, because all this would achieve would be to take the existing 'bottleneck' in Clifton Hill and redistribute it to other northern approaches to the city, without significantly reducing the amount of traffic subject to congestion. In its place, it recommended a suite of local traffic management measures to boost the efficiency of traffic flow on the inner-city road network.

As it happens, the NCCCS never proceeded to a final report: for reasons that remain unclear, the study was shut down after the draft report appeared. The contract for the EastLink motorway was awarded one year later in 2004, and this coincided with the appearance in the media of stories about the masses of traffic EastLink would add to the city end of the Eastern Freeway. Then in 2005 came Melbourne City Council's 'East West Integrated Transport Proposal'. This resuscitated the Eastern Freeway extension in the form we know it today, including the additional 13km section through the western suburbs. It was now suggested this western section was required as an 'alternative' to the congested West Gate Bridge, the principal freeway route from the west. Notwithstanding the negative conclusion from the NCCCS study just two or three years previously, the State Government promptly took up the cause, commissioning in 2006 the East West Link Needs Assessment, more commonly known as the Eddington Report (Eddington, 2008).

Sir Rod Eddington came to the East West Link Needs Assessment fresh from prepar-

ing the Case for Action report for the UK Government (Eddington, 2006). A key theme in that earlier report was emphasising the wider economic benefits that are held to flow from public investment in roads, rail and airports, and a similar emphasis underlay the recommendations of the 2008 Eddington Report for Melbourne. The LMA case for the East West Link draws heavily on the Eddington Report's themes of 'transport connectivity' and 'agglomeration benefits'—themes that now also find their echo in Glaeser's work.

The East West Link was one of three big-ticket projects recommended by Eddington. Another was the Regional Rail Link, a new rail alignment from the west of Melbourne into the city that regional trains could use to bypass the suburban rail network. This 'Tarnit link' was not a major focus of the report, but famously gained \$3.2 billion of Commonwealth funding as a 'shovel ready' economic stimulus project in the wake of the Global Financial Crisis in 2009, despite not being far developed beyond a line on a map at the time (Murphy, 2011). The third major project was the 9km Melbourne Metro rail tunnel, providing an extra suburban train path under the city centre between the inner western and south-eastern suburbs. As previously mentioned, planning for this project was sufficiently well advanced by 2011 that Infrastructure Australia considered it 'Ready to Proceed'.

Both the Regional Rail Link and the Melbourne Metro tunnel have been criticised by public transport advocates, most notably by Mees, on the basis of high budget costs, inconsistent justifications, flawed design, 'mission creep', and a general failure to weigh up the projects against potentially less costly alternatives (Mees, 2008a/b). These objections notwithstanding, the Eddington Report and subsequent assessments by bodies such as Infrastructure Australia have consistently given these projects both a higher benefit-cost ratio and a lower overall cost than the East West Link motorway. It was accordingly not these assessments the Victorian Coalition Government was relying on when it seized on the motorway as its highest transport infrastructure priority.



Figure 3: Trin Warren Tam-Boore (Bellbird waterhole) urban wetland in Royal Park, set to disappear under an East West Link interchange. (Photo by author.)

Examining the Claims

The positive claims made for the East West Link that call for scrutiny are numerous. For the reader's benefit, the various claims are investigated below in four broad categories: economic benefits and cost savings; travel patterns and trends; the adequacy of the road network and role of non-road alternatives; and job creation.

The missing business case for the East West Link

Transport projects are conventionally subjected to a cost-benefit analysis where the costs of construction, land acquisition and associated severance are weighed up against aggregate travel time savings and other 'cash' benefits such as reduced road trauma costs, vehicle operating cost savings and additional public transport revenue. Travel time is usually by far the largest benefit assessed. Reliance of this metric can be justified on the basis that on a strict view, the objective of transport

systems is to promote mobility of the population by increasing the range of destinations accessible in a given time from one's starting point. This strict rationale is invoked, for example, when planners gauge the productivity of the transport system by tallying the number of jobs accessible within half an hour's travel time from various points in the urban area (Victorian Government, 2002, p.24).

The travel time metric is also vulnerable to criticism, most palpably on the questions of how one assigns a dollar value to time savings, and whether a one-minute saving for each of 10 people should really be valued identically to a ten-minute saving for one person. It nonetheless remains the best tool available for quantifying the mobility benefit of a transport system improvement. It also provides a reasonably reliable tool for comparing alternative proposals from a mobility perspective. It is nonetheless true that all conventional benefit-cost ratios ever published for the East West Link as a standalone project

have been less than unity; that is, the conventionally assessed benefits have failed to match the cost of construction, indicating the project is wasteful of public funds. Conversely, when major public transport projects such as the Melbourne Metro tunnel have been assessed on the same basis, the benefit-cost ratio (BCR) calculated has been equal to 1 or greater.

The fiscal weakness of the East West Link was not directly apparent from the Eddington Report, because the costs and benefits were stated for the complete package of road and public transport improvements, and not for the road project alone. However, the consultants' supporting analysis (Meyrick et al, 2008) also provided cost and benefit estimates for the public transport improvements considered alone. As Mees (2008b) pointed out, the figures imply by simple subtraction that the conventional BCR for the road is 0.45, indicating a return to the public of just 45 cents worth of benefit for every dollar spent (see Table 1).

In order to provide a convincing justification for the measures in the Eddington Report, it was necessary to rely on 'wider

pared with Eddington's \$7 billion for the entire project), but provided no other supporting detail. Only when an Infrastructure Australia official was called before a Federal Senate committee was it publicly confirmed that without including the wider benefits, the BCR of the road was still only 0.8—a return of 80 cents per dollar spent (Gordon, 2014).

The 'wider benefits' spoken of for the East West Link are, for the most part, Glaeser's 'agglomeration benefits'. They rely on the ability of improved transport systems to concentrate employment and activities in urban centres. The problem is, of course, that the building of urban motorways is not generally held to promote urban concentration at all. The supporters and opponents of road-building are generally agreed that the effect of building more roads is to de-concentrate urban activities: to put more distance between destinations and promote sprawl, as development relocates to far-flung locations dependent on private car transport. Even where urban areas that have built motorways do achieve beneficial concentration of activities, this concentration cannot be

	Cost (\$bill)	Benefit (\$bill)	BCR
A: Combined package of road and PT improvements	15.0	11.1	0.74
B: Public transport improvements alone	7.9	7.9	1.00
C: East West Link alone (difference A – B)	7.1	3.2	0.45

Table 1: Conventional cost-benefit analysis of measures in Eddington Report

Source: Eddington (2008) and Mees (2008b) drawing on Meyrick et al (2008)

economic benefits' additional to the travel time and cost savings considered in a conventional analysis. But even when these wider benefits were included, they failed to make a break-even case for the road: a calculation similar to the above found the BCR for the road increased to just 0.74 (Mees, 2008b).

The current State Government has made much of having an updated 'business case' for the East West Link that computes a more respectable BCR of 1.4 including 'wider economic benefits'. But this was only made public as a 'short form' 8-page summary document, which confirmed that the construction cost had been reassessed as \$8 billion for the eastern section (com-

said to have been caused by motorway building; at best, the motorways have a neutral influence on the concentrated urban form brought about by other means.

As long as the full business case for the East West Link remains shrouded in secrecy, therefore, there are substantial grounds to doubt that the 'wider benefits' claimed for the road have a basis in reality. And since the project is wholly reliant on these 'wider benefits' to have a chance of returning a public benefit greater than the cost of construction, this should call into question the entire economic justification for the road.

The only way the case for the road might be salvaged is if the cost to the public of building the road were somehow reduced to become less than the quantum of benefit. Accordingly supporters of the road have emphasised the way it is being proposed as a 'public-private partnership' (PPP) and that the State and Federal Governments have so far only committed \$1.5 billion apiece toward the \$8 billion eastern section.

The implication is that the \$5 billion balance will be funded by the private sector at zero cost to the public. But this, to put it mildly, is not how PPPs have worked in the past. Private-sector partners, understandably, are even more anxious than governments to obtain a commercial return on investment; they have learned from high-profile failures of similar toll road operations such as Sydney's Cross City Tunnel. But this financial return does not come out of nowhere: it comes either from the users of the road via tolls, or from the government via availability payments or 'shadow tolls'. Either way, there is a transfer of money from the public as road users or taxpayers to support the private operator, representing once again costs to be offset against travel time savings and other benefits.

Either way, the public still pays the full cost of the road. The one advantage of PPPs—or indeed of direct public borrowing to fund projects—is that the upfront cost of construction is restructured as a stream of future cash flows that can be discounted (as indeed the benefits must also be discounted as they lie in the future). It appears unlikely, however, that a *prima facie* public deficit could be parlayed into a substantial public surplus purely through accounting devices of this kind. It appears particularly unlikely given that long-term observers of PPP projects in Victoria have concluded they can at least double the ultimate cost to the public compared with ordinary deficit financing (Davidson, 2013).

Travel patterns and trends in Melbourne

Economic arguments for the East West Link all rely on assuming the road actually does generate the travel time savings

claimed for it. But in the real world, travel time savings from new urban motorways have been challenged on two grounds: first, that induced travel soon appears to cancel out any time savings gained (SAC-TRA, 1994); and second, that the motorway 'solution' does not even fit the problem planners are trying to solve.

In 2008, Melbourne University's Professor Nick Low observed that "despite many billions of dollars being committed to road building on the basis of aggregate time savings, there has not been a single study of whether time has actually been saved as a result of a particular road, or any other form of transport infrastructure, or whether that time is actually spent productively." This inspired the economist John Odgers, from Melbourne's RMIT University, to make a study of actual travel time savings from the CityLink project. Odgers' conclusion was that there had in fact been a travel time dis-saving from building the road: motorists were spending more time in traffic than before CityLink was built. As he concluded (Odgers, 2009):

[T]hese results suggest that... an increase in average travel speeds has not eventuated in Melbourne's urban road network during the years under review. Indeed, based on the evidence presented and analysed in this paper, one could be led to the conclusion that investments in Melbourne's urban road network have resulted in more time being used by Melbourne's motorists rather than less time. On the basis of the assumptions conventionally used to justify road building, major road infrastructure initiatives have resulted in net economic disbenefits... In closing, perhaps the German word *schlimmbesserung*—meaning an improvement that makes things worse—is an apt descriptor for the massive program of new road construction that has marked Melbourne's solution to its transport challenges over the last several decades.

But quite apart from induced traffic is the question whether the East West Link is actually fit-for-purpose. Like CityLink, it is claimed to be a 'bypass' of the inner city to allow faster travel between the east-

ern and western suburbs. Psychologically, this argument appeals to the 'availability cascade' produced by the long queue that regularly forms at the city end of the Eastern Freeway. The fact this queue points due west, and not toward the city centre where most traffic is headed, actually undermines our rational capacity to apprehend the true traffic patterns in the area, a task that demands 'slow' or 'system 2' thinking (Kahneman, 2011). The idea we are intuitively led to accept instead is that by joining up all the motorways we can confine all the traffic there, and banish all congestion from our arterial roads and residential streets.

Of course, with our system 2 thinking engaged, we know that travellers' final destinations are not on motorways, and we can recall the NCCCS conclusion that true east-west travel only accounts for 15% of traffic coming off the Eastern Freeway and that the freeway's primary role is as a radial commuter route to the city centre. It is unfortunate therefore that road planners have attempted to obscure this conclusion in order to justify the East West Link project.

One way this has been done is using the concept of 'select link analysis', many examples of which are given in Chapter 5 of the Eddington Report. The technique is to choose a single point X on the road network, and then map all the (actual or modelled) journeys that pass by X. The result is a map with lines of varying thickness, thicker lines indicating a larger share of the journeys through X.

Particular attention is drawn to an analysis for Brunswick Road, which runs parallel to the route of the East West Link. The map extends two quite thick lines to the east and west, one onto CityLink and the other toward the Eastern Freeway. Again the clear intention is to suggest a dominant pattern of long-distance east-west travel using Brunswick Road as a 'rat run' between these two motorways (Eddington 2008, chapter 5, pp.123–4). It is suggested the East West Link would absorb this travel, removing it from the local road network.

What is not explicitly pointed out here is that the travel pattern shown is not obtained from real travel surveys, but is actually the output of a computer model—a more sophisticated version of the one Wilbur Smith used in the 1960s. Though the model is validated at a coarse level against real traffic data, such an exercise can only validate the aggregate numbers: it cannot validate the pattern of origins and destinations among individual journeys, unless the real-world data includes origin-destination or number plate surveys (like those undertaken for the NCCCS), and not just vehicle counts. This means the patterns seen will be entirely a function of the assumptions programmed into the model.

Brunswick Road is a local arterial road. It will therefore cater for a sizeable amount of local travel as well as feeding traffic to major routes such as CityLink or the Eastern Freeway. While some Brunswick Road traffic will be seen to travel to CityLink and some traffic will be seen to travel to the Eastern Freeway, it is most likely that, in nearly all cases, this is not the same traffic. For the most part it will be journeys that commence in the suburbs adjoining Brunswick Road itself and head to one of these motorways, or vice versa. The East West Link does not provide an alternative route for such journeys, as it is intended as a cross-city route with few intermediate entry or exit points.

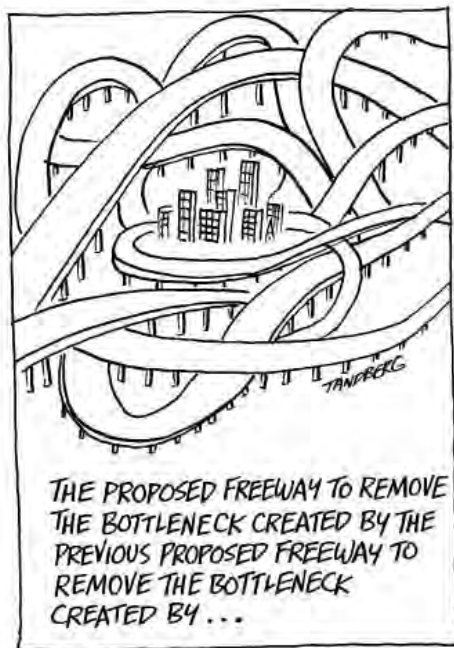
What this all means is that when modelling by East West Link proponents appears to find evidence of large-scale rat running through suburban streets, all they are seeing is their own model's assumptions reflected back in the results. The model has in effect taken some limited observations of local travel within these suburbs and hypothesised patterns of long-distance travel that are consistent with these observations. It repeats the key misapprehension in the case for the EastLink motorway, when congestion on north-south roads in eastern Melbourne was taken as evidence of large amounts of long-distance north-south travel, when in fact it arises from the combined effect of many short-distance local trips (PTUA, 1998).

Also overlooked in the traffic forecasts underlying the case for the East West Link is the fact that the long 20th-century trend for car travel to grow faster than population has actually ceased in much of the western world. Indeed in some cities including Melbourne, car travel per capita has been on a very slight declining trend since about 2004 (Loader, 2013). One way this has been seen to play out is in

the daily traffic statistics for the very east-west roads in Melbourne that are said to be grinding to a halt. As Table 2 shows, many of these roads have seen daily traffic decline by as much as 15% over the decade 2002–2012, and even those whose traffic has increased have seen these increases limited to at most 5% over that time.

	2002	2009	2012
Alexandra Pde near Smith St, eastbound	33,000	32,000	32,000
Alexandra Pde near Smith St, westbound	32,000	30,000	30,000
Alexandra Pde near Nicholson St, eastbound	40,000	37,000	34,000
Alexandra Pde near Nicholson St, westbound	38,000	35,000	34,000
Princes St near Rathdowne St, eastbound	29,000	28,000	28,000
Princes St near Rathdowne St, westbound	33,000	30,000	28,000
College Cres near Swanston St, eastbound	30,000	28,000	28,000
College Cres near Swanston St, westbound	30,000	28,000	28,000
Elliott Ave, eastbound	19,000	18,000	18,000
Elliott Ave, westbound	17,000	17,000	17,000
Victoria Pde near Brunswick St, eastbound	24,000	21,000	22,000
Victoria Pde near Brunswick St, westbound	24,000	21,000	22,000
Brunswick Rd near Lygon St, eastbound	11,000	11,000	11,000
Brunswick Rd near Lygon St, westbound	9,000	8,500	8,500
Bell St near Nicholson St (Coburg), eastbound	22,000	22,000	22,000
Bell St near Nicholson St (Coburg), westbound	25,000	24,000	24,000
Bell St near Albert St (Preston), eastbound	20,000	21,000	21,000
Bell St near Albert St (Preston), westbound	24,000	23,000	24,000

Table 2: Daily traffic volumes on key east-west roads north of Melbourne City, 2002–2012 Source: Vicroads (2013)



The circular logic of freeways. (Cartoon by Ron Tandberg.)

On their face, these statistics do not indicate an urgent problem that is only capable of being solved by a new road. Rather they suggest road traffic in the region is being managed broadly in line with the recommendations of the 2003 draft NC-CCS report. It contrasts with the arterial roads parallel to CityLink, where motorists have seen the playing out of Odgers’ conclusion above, of rising local congestion and travel time dis-savings.

In its essence, the argument made for the East West Link in the Eddington Report and subsequent planning documents is the same one the UK Royal Commission on Environmental Pollution (1995) described as predict and provide:

It has been assumed that there will be a continuing growth in road traffic, and that a continuous programme of building new roads and improving existing roads is required in order to accommodate that growth.

When combined with the reality of induced traffic, 'predict and provide' is self-evidently a policy with perverse consequences. In such a world, new roads provide their own post hoc justification through increased traffic levels (as CityLink did between 2000 and 2004), which in turn support new predictions mandating the provision of further new roads. It has been recognised that to break this vicious cycle, planners must consciously resist the temptation to encourage traffic growth by adding to road capacity in already-congested urban areas. It is especially critical that in those places where a declining trend has established itself—as appears to be the case in inner-northern Melbourne to date—they do not undermine this with contrary policies, based on recycled forecasts of rising traffic that do not reference the facts on the ground.

Road and rail network capacity, and the myth of 'balance'

The above feeds into general arguments about the future capacity of Melbourne's road network, its ability to cope with population growth and the demands of freight transport, and the role of public transport in relieving demands on the road system.

The most popular argument for the western section of the East West Link is the supposed need for an "alternative to the West Gate Bridge" (Victorian Government, 2008). It is frequently suggested that the East West Link would provide 'backup' in the event that an incident closes an existing motorway route. If history is any guide, however, the East West Link will soon enough fill up with its own traffic that will all but prevent it from assuming the additional load diverted from another motorway. It would only reliably function as 'backup' if it were kept closed to traffic until such time as an incident occurred.

Meanwhile, there are actually three major arterial roads to the immediate west of central Melbourne that run parallel to the West Gate Bridge and provide motorists with an alternative right now—a total of six lanes in each direction. The Western Ring Road performs a similar function, but runs further north, requiring motorists to approach the inner area on CityLink and

pay a toll (whereas the West Gate Bridge is toll-free). And that is just on the road network. The western section of the rail network comprises four suburban railway tracks, two freight tracks, and two tracks recently built as part of the Regional Rail Link project. On a conservative estimate these tracks carry some 16,000 passengers in the peak direction in the busiest hour, which is twice as many as drive or are driven over the West Gate Bridge in the same hour.



Figure 4: Footscray railway station in Melbourne's inner west carries twice as many on trains in the busiest hour as drive over the West Gate Bridge in that time. (Photo: Daniel Bowen / PTUA.)

The completion of the Regional Rail Link in 2015 is expected to add capacity to this part of the rail network equivalent to a whole additional West Gate Bridge, with 8,000 or more additional passengers able to be carried. Should the Melbourne Metro tunnel ever be built, one can expect yet another capacity boost of the same magnitude.

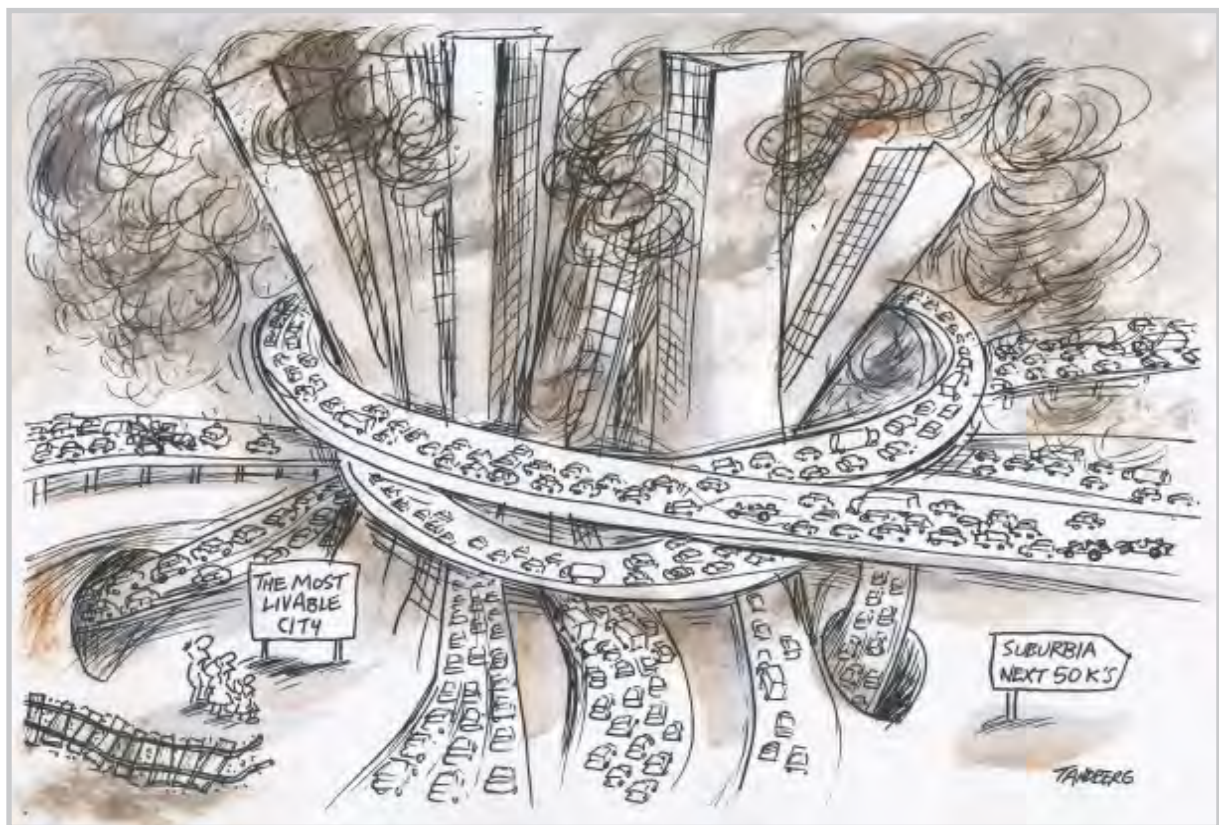
So in reality there are ample 'alternatives' to the West Gate Bridge for passenger transport. The failure to recognise this in the policy debate appears to be down to the unwillingness of politicians and senior planners to learn from the turnaround in public transport use in Melbourne over the past decade. In a panel hearing on 5 March 2014, LMA's chief modeller Michael Veitch remarked that people in the East West Link catchment "are not users of public

transport". This commits what social psychologists call the 'fundamental attribution error'—attributing people's behaviour to the kind of people they are rather than the circumstances in which they find themselves—which is an all too common fallacy in transport planning (Druker, 2010).

The fundamental attribution error is also at the root of the frequent calls for 'balance' in transport planning. This is exemplified by the insistence in the Eddington Report, frequently repeated in newspaper editorials, that the solution to Melbourne's transport problems lies in building big road projects alongside big rail projects. In reality, what this actually entails is building a rail project with a positive return on investment, but then undermining that benefit by building a parallel road project whose own benefits fall short of its costs but which will compete with the rail project for passengers, starving both projects of revenue.

assertion known as the Downs–Thomson Paradox: that the level of service on the road system can depend more on the quality of the alternatives to road travel than on the quality of the road system itself (Thomson, 1977). Improving public transport is actually of benefit to habitual motorists just as much as habitual public transport users, because every new user of public transport is one more traveller not adding to traffic congestion. And if motorists are persuaded to swap some of their car trips for public transport trips, so much the better.

Of course, the ongoing provision of new road capacity on the predict-and-provide model drives the equilibrium in a mutually unsatisfactory direction: it attracts more private car trips on its own account, but also diverts funding from the maintenance and improvement of public transport, making it more likely that people will abandon public transport for car travel. This in turn deprives the public transport



World's most liveable city. (Cartoon by Ron Tandberg.)

In reality, people adjust their use of cars and public transport according to the quality of service available. This was first recognised by the economist Anthony Downs and was developed by Thomson into the

system of revenue, amplifying the vicious cycle. This is yet another reason why road plans on the predict-and-provide model, including all those produced in favour of the East West Link to date, constitute an

outdated and counterproductive approach to urban transport provision.

The equilibrium between use of private cars and use of public transport for passenger travel is also of critical importance to road freight transport. Trucks and vans are an important component of the urban transport task, but freight vehicles generally comprise just 10 per cent of the traffic on any given road. This means that the freight transport problem is really just the passenger transport problem in a new guise. It has been established that building the East West Link will add to traffic on suburban arterial roads: freight is thus likely to only be further impeded by private car traffic as a consequence. Freight transport is best aided by providing alternatives to private cars for passenger travel, so that additional congestion can be avoided.

Jobs and investment

Australia, and the state of Victoria more specifically, has recently suffered a number of high-profile job losses. Australian industry is experiencing a painful transitional phase at present, and this generates much understandable anxiety about ongoing employment prospects for Australian workers, particularly those whose skills are linked to declining manufacturing industries. It is therefore understandable that politicians and union leaders will warm to the prospect of a road project that promises to create 3,200 jobs in construction within 12 months.

Overlooked here, of course, is that spending an equivalent amount of money on any other construction project—or better, a diversified package of projects—would employ the same number of people. Indeed, it is widely argued that public transport infrastructure projects create more jobs per dollar spent, and those jobs include at least some that are long-lasting (such as the people who will operate the new services). The East West Link's eastern stage involves \$2.5 million of spending for every single job created, in a country where the median household income is \$64,000.

The best way to provide secure employment through infrastructure provision is

with a continuous 'pipeline' of well-justified projects in service of a strategic objective. In the Australian transport sector for the past half-century, this meant a pipeline of road projects with steady funding provided virtually as-of-right, with the strategic objective of facilitating more travel by private car at the expense of alternatives. This succeeded in employing a substantial number of people in road engineering and construction. But having recognised the perverse consequences of the predict-and-provide model for road transport, the imperative now is to switch to the alternative: a pipeline of public transport improvements with a dedicated workforce of planners, engineers, construction workers, drivers, and service staff.

There are, indeed, currently hundreds of workers gainfully employed in the construction of the Regional Rail Link project due for completion in 2015. As things stand, the only new jobs on offer for these workers after 2015 is on road projects where their valuable rail-specific experience is likely to atrophy. Rail projects are at least as labour-intensive as road projects and provide an alternative avenue for future employment.

In short, there are alternatives to the East West Link that will employ more people with a more diverse range of skills for longer. It is appropriate that we turn now to consider these alternatives.

Neglected Alternatives

As has been argued, debates about transport futures must always consider the inter-relationship between demand for private car travel and demand for travel by public or active transport, and between road freight and rail freight. The existence of the Downs equilibrium, attested by ample evidence, means that consideration of non-road alternatives to the East West Link cannot be dismissed out of hand, as road proponents have suggested, by stating that people in the road catchment "are not users of public transport".

One consequence of the East West Link being so costly at \$16 billion is that it is likely to crowd out any alternative investment in transport infrastructure: as Mees

said in his final public address, “there will be no money left for any substantial transport projects for Melbourne for at least a generation.” The East West Link therefore exists in direct competition with projects to strengthen and extend the rail network, but also with fixing rural roads and bridges, with providing adequate arterial road networks in the suburbs, and with grade-separating the hundreds of extant road-rail level crossings in Victoria. All such efforts are likely to face severe budget constraints as a consequence of the East West Link proceeding, just as similar efforts did when large sums were diverted to freeway-building in the latter part of the twentieth century.



Figure 5: Local volunteers collect signatures for the City of Yarra’s Trains Not Tollroads campaign in 2013.

The most relevant alternatives to the East West Link, however, must surely be those that tackle the same problems the East West Link purports to solve. In the popular debate surrounding the project, the two such alternatives most commonly mentioned are the Melbourne Metro tunnel and the Doncaster rail extension.

The Melbourne Metro tunnel is put forward almost reflexively as the unique alternative to the East West Link in some quarters, particularly among politicians and commentators. This is likely due less to its specific benefits than to its rhetorical position in the framing of the Melbourne transport debate. The Metro tunnel and the East West Link shared top billing in the 2008 Eddington Report; both have budgets that are unprecedented in size for a single project; both have featured in Victorian Government submissions to Infrastructure Australia at various times; and both are at an advanced stage of planning.

But even on the most cursory analysis, the Metro tunnel only tackles half the East West Link’s rationale: that for the western section. It provides substantial new capacity for travel in the west, and to a lesser extent in the south-east, but none to the east or north-east. It may rightly be called a West Gate Bridge alternative. But for travellers stuck in chronic traffic queues on the Eastern Freeway it is of virtually no relevance.

The Doncaster rail extension is more closely targeted at the Eastern Freeway catchment in Melbourne’s north-eastern suburbs: specifically the City of Manningham, which has long held the distinction of being the only municipality in metropolitan Melbourne to lack any form of rail service. On Census day in 2011, just 12 per cent of Manningham workers travelled to work by public transport, compared to a metropolitan average of 18 per cent, and 20 per cent in the neighbouring City of Whitehorse that is a similar distance from central Melbourne but does have a train line. Conversely, 84 per cent of Manningham workers drove to work compared with 75 per cent in Whitehorse and 78 per cent in Melbourne as a whole.

The Doncaster train line would run along the Eastern Freeway median for at least part of its length before proceeding underground to serve district centres in Manningham. Its potential to increase the mode share for public transport relative to that for car travel is argued by analogy with the Mandurah rail line in Perth, which also runs through low-density ‘freeway suburbs’. Prior to the train line opening in 2008, express bus services ran between Perth and Mandurah carrying 16,000 passengers a day. After 11 weeks of rail operation, the train line on the same route was carrying over 40,000 passengers a day (MacTiernan, 2008). According to statistics published by planning authority TransPerth, the train line now carries up to 75,000 passengers a day.

Critics of the Doncaster rail option point to two major challenges, however. The first is that where the railway runs in the freeway median its stations would be remote from the passenger catchment. This same issue occurs in Perth and in other

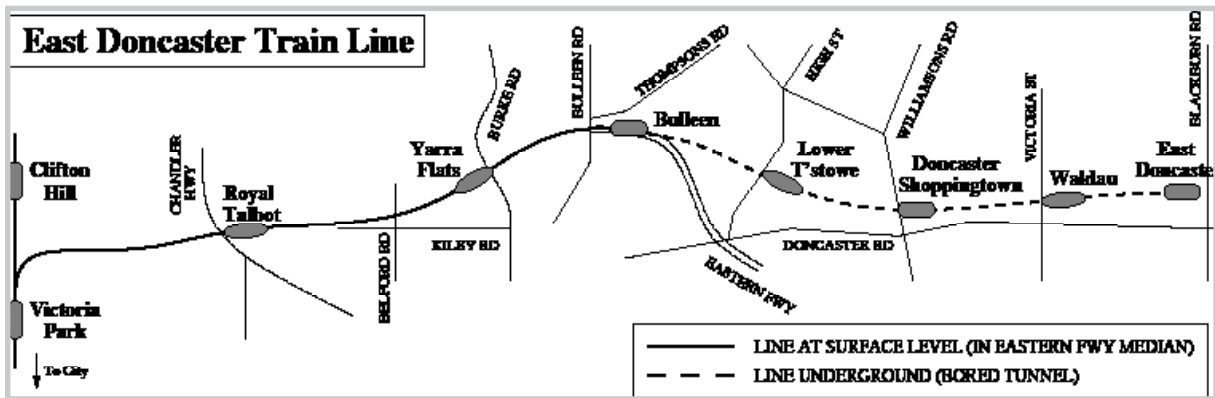


Figure 6: PTUA and allied groups' proposal for the Doncaster rail extension, originally put forward as an alternative to the Eastern Freeway eastward extension in 1990. (Diagram: Tony Morton / PTUA.)

cities, and its solution involves high-quality feeder bus networks, designed according to multimodal network planning principles of the sort described by Mees in his book *Transport for Suburbia* (Mees, 2010). Case studies are cited in this and Mees' earlier work *A Very Public Solution* (Mees, 2000) of cities where more than 70 per cent of suburban train passengers arrive at their station by connecting bus or tram.

The Doncaster line's second point of contention is that on the most affordable plan, Doncaster trains would share the same track as two existing train lines at the city end, as part of the so-called 'Clifton Hill group'. Government planners have long argued that the infrastructure for this group lacks the capacity to carry trains on all three lines. At their busiest, the two existing lines account for a total of 18 trains per hour at present, and the practical capacity of the existing infrastructure (dependent primarily on signalling and station dwell times) is variously assessed as 22 to 24 trains per hour. So it is possible a Doncaster service with 6 trains per hour could be accommodated, but this would leave no room for future patronage growth at peak times.

What this issue highlights is the fundamental importance of bringing Melbourne's relatively outdated and neglected rail infrastructure up to the standard of comparable European cities. Since at least the turn of the century, European cities led by London and Paris have been systematically upgrading their rail signalling and train control systems to allow more trains to run on the same tracks. The state of the art currently is 'radio based' or 'in-cab' signal-

ling, which locates signal aspects (the railway equivalent of traffic lights) in the driver's cabin rather than on fixed trackside infrastructure. This is often combined with a 'moving block' signalling philosophy that allows trains to follow each other in a similar manner to cars on a freeway. These various 'high capacity signalling' solutions have boosted track capacity to between 30 and 33 trains per hour, compared with Melbourne's 22 to 24 trains per hour (and less on suburban sections of the network).

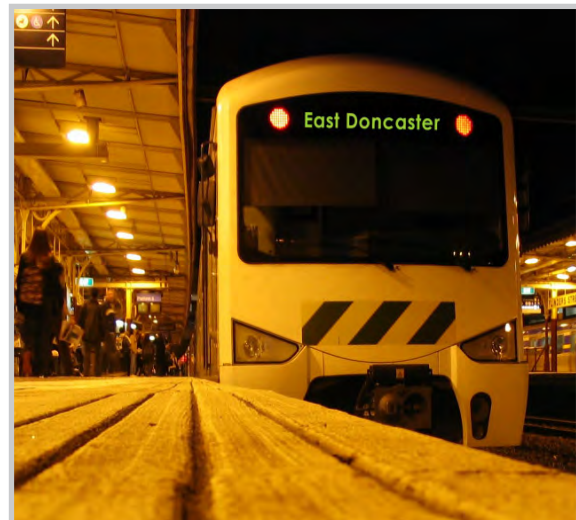


Figure 7: In reality, unfortunately, trains to East Doncaster are still just plans with no funding or political commitment. (Digitally altered photo: Daniel Bowen / PTUA.)

Achieving these sizeable gains in rail system capacity depends on a number of technical factors. It requires in particular that the network be close to fully 'sectorised' (so that trains do not cross each other's path) and ideally fully grade-separated from the road network. Achieving this in

Melbourne's rail network, with its baroque operating practices and abundance of level crossings, will come at substantial cost. But the cost pales in comparison with that of building entire new rail corridors parallel to existing ones, or of providing the road capacity to accommodate the equivalent amount of car travel.

Commentators have pointed to forecasts suggesting Melbourne is set to add another 1.3 million people in the next two decades, a number equivalent to the population of Adelaide or Munich. This suggests there is an imperative to expand the pub-

Melbourne Airport, a major source of such long-distance cross-city travel as does exist) and operational fixes for the rail network, along with an overhaul of suburban bus services, and minor works to improve train-tram and train-bus connections. It is drawn from measures that have succeeded in other cities from Paris to Zurich, and would likely have lasting benefits throughout the metropolitan area that the East West Link would not deliver. Yet all this could still be decades away if the East West Link proceeds.



Figure 8: Local community group protests against drill core sampling for East West Link in Royal Park in 2012. (Photo: Protectors of Public Lands.)

lic transport network significantly within two decades simply to cater for population growth, even without the popular mandate to increase public transport's mode share.

Public transport advocates in Victoria led by the Public Transport Users Association have proposed a package of measures to revitalise Melbourne's public transport. It involves a combination of high-capacity signalling, level crossing grade separation, suburban extensions (including to

Conclusion

The East West Link is a massive backward step in Melbourne's urban transport development, that belies a decade of strong forward momentum in developing public and active transport alternatives. Instead of responding to the evidence on the actual transport problems that demand a solution, and weighing the true benefits and costs against respectable alternative projects, the East West Link is a return to

the discredited approach known as 'predict and provide'.

We now know from worldwide evidence that cities will wind up with as much traffic congestion as they are prepared to pay for in road capacity. By predicting hypothetical increases in traffic and providing new roads to cater for it, cities help bring about the very traffic congestion they forecast. Meanwhile, by monopolising transport budgets, the decisions to build roads deny funding to the public transport alternatives, particularly rail, that actually have a chance at creating the elusive 'agglomeration benefits' and allowing people to be productive in large cities without adding to traffic congestion.

The last word should be that of the late Paul Mees. "We have to stop this mad scheme, this mad scheme that even on the government's own analysis can't produce a proper positive return on investment."

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Heysham M6 Link Road

David Gate

1. Location

The Heysham M6 Link Road (HM6L), also known as the Lancaster Northern Bypass, is a proposed 3 miles (4.8km) of 4-lane dual carriageway in North West England linking Junction 34 of the M6 motorway to an existing "bypass" which runs to the small Lancashire Port of Heysham. A map of the route is at <http://heyshamlink.lancashire.gov.uk/the-route.aspx>

Heysham is not without links already: both a road and a rail link exist. But rather than improve the existing road and rail links, the promoter Lancashire County Council (LCC) has decided that another £129 million link is needed, and official figures claim that it will lead to journey time savings of 5 minutes, at peak times only.

The terrain through which it will run is challenging. It is an area of drumlins left by the last Ice Age. Rather inconveniently, the Ice Age left the drumlins lying in a North-South alignment, whereas the road must run in an East-West direction. But this is no obstacle to the modern road engineer, whose genius will make the road scythe through the drumlins in deep cuttings, soar over the Lancaster Canal, fly over the West Coast Main Line at a height of 49 feet, and continue over the local B road at a height of 26 feet.

This magnificent sight will be enjoyed by residents living close by, at the height of their bedroom windows; quite different from the existing green fields, with their fresh air and birdsong, as the road will run entirely through the North Lancashire Green Belt. It is universally accepted that it is inappropriate development in the Green Belt, and harmful to its purposes, but who should heed this minor planning quibble?

The difficult terrain has led to something of a record: at £129 million for 3 miles of road (£43 million per mile) it enjoys the title of the most expensive local authority road per mile in the UK. It is also in the running for another title: the oldest "legacy" scheme. The road was first mooted in 1948 (some even say 1935), in any case,

long before its bright engineers were born; long before the other Lancaster Bypass (now the M6 motorway) was built, and long before government policy of "predict and provide" was proved misguided, and jettisoned. This ancient origin is claimed as a justification, but to its many opponents it is astonishing that a scheme so much past its sell-by date should still be pursued.

It was originally sold as bypass of Lancaster urban area, but this description was abandoned when it became clear that it would merely shift congestion from one part of the urban area to another. The new name "Link" gave the flattering impression of strategic purpose.

2. History

The present incarnation of the scheme was proposed in 2004, after the County Council rejected a Western Route.

Local residents got together in 2005 and formed Transport Solutions for Lancaster & Morecambe (TSLM), to oppose the scheme and develop instead sustainable transport solutions for the 21st century.

The group, whose supporters numbered around 1,600, mounted a vigorous campaign, with the result that the local MP came out against it; a contentious issue in the 2007 local elections, immediately afterwards Lancaster City Council, the District in which the scheme is located, voted to withdraw its support.

When the County Council gave itself planning permission for the scheme, 2200 people wrote to the Secretary of State asking for the scheme to be "called in" for a Public Inquiry, which was granted in 2007. At the Inquiry, TSLM presented a comprehensive case against the scheme, with colleagues from CPRE and FoE, and allied to the local College of Further Education, through whose grounds and next to whose classroom windows the road would run. However, they failed to convince Inspector Tipping, who in the opinion of objectors consistently approved the promoter's case and not accepting the strength of the evidence presented against the link. In February 2008 the Secretary of State granted planning permission. A local resident, with

help from TSLM, launched a legal challenge to the decision, but this was rejected in the High Court in August 2008.

Next came Programme Entry (PE), the first stage of government funding; TSLM argued against it, including at a meeting with officials from the Department for Transport (DfT) in London; however, PE was granted in 2009. It is unusual, and significant, that it should take 12 months from planning permission (February 2008) to PE (February 2009). Correspondence released under FOI revealed that this time was spent in disagreement between DfT and LCC over such issues as (1) whether Park & Ride (P&R) was integral to the scheme, as LCC had insisted at the Inquiry: DfT said it was not, so they should not fund it; (2) whether LCC could afford to fund the building of P&R and the 24 major structures: LCC said they could not; and (3) whether LCC's methodology (including traffic modelling), which had satisfied the Inspector but contravened DfT guidance (WebTAG), was satisfactory for DfT itself to grant funding: DfT said it was not.

LCC then set about securing the "orders" (Compulsory Purchase and Side Road Orders [CPOs & SROs]), but, on their haste to push them through ahead of local elections in May 2009, they made mistakes and were forced to re-publish them in October 2009. Again, TSLM organised hundreds of objections and raised legal questions with the DfT. The Inquiry was eventually pencilled in for October 2010, but still not confirmed when the General Election of May 2010 intervened.

In June 2010 the new Coalition Government suspended work on all schemes, pending a Comprehensive Spending Review in which the government made clear that substantial cost savings were required for any scheme to proceed. The Inquiry was shelved. Then in October 2010, DfT announced that the scheme would be in the "Supported Pool" of transport schemes, and asked LCC to submit a "Best And Final Funding Bid" (BAFB), which it did in February 2011, claiming to reduce costs by £16 million to £123 million, and increasing LCC's own contribution from £6 million to £12 million.

Most of the savings claimed were dubious: money would be saved by not removing spoil from site, but closer examination revealed that it had never been intended to remove spoil from site anyway. The engineers skilfully engineered contingencies, reserves and risk allowances to present a more favourable financial picture.

The changes meant that the existing planning permission was not valid, so a new application was required. In another instance of extreme dubiety, the scheme was classed as a 'Nationally Significant Infrastructure Project', so an application for a Development Consent Order (DCO) under the new Planning Act (2008) was submitted to a new authority, the Infrastructure Planning Commission (IPC) in March 2011. Accordingly, LCC held "Consultations" in June 2011, although they refused to consult on road type or route. IPC accepted the application in December 2011, and held a Public Examination from April to September 2012. Again, TSLM and colleagues presented a comprehensive case against the scheme. The Examiner listened but did not accept their arguments. The Transport Secretary approved the scheme in March 2013; TSLM challenged the decision in the High Courts, and when this challenge was rejected, applied to the Court of Appeal for permission to appeal. But in November 2013 permission was refused. In December 2013 the Development Consent Order was granted, and in January 2014 work began.

3. Issues of history

From the long history of the scheme, several issues arise.

3.1. LCC decided on the road solution before it decided on the problem.

It was part of the justification of the scheme that it was allegedly first proposed in 1948 or, by some accounts, 1935. Conditions have changed a great deal since then, but it is clear that the proposer decided on a road solution before he decided what problem he was trying to solve.

All DfT guidance is that the promoter should analyse the problem, create a wide range of options as potential solutions to the problem, without prejudice as to

mode, then analyse each of those options and progressively refine them to reach a "preferred" solution, "second best option" and "low cost option". The promoter failed to do this. The "second best option" was an alternative route that the promoter immediately declared "unbuildable" (based on a barrister's judgement), and the "low cost option" was mostly an upgrade of the motorway junction, which should never have been a local authority responsibility, along with a hotchpotch of online measures, which was ill thought through and very easy to reject.

This failure to follow guidance was not just procedural. It was obvious to the local community that its local authority was forcing through an unpopular scheme with inadequate consideration of the alternatives or consultation with the people affected by it. This fuelled the growing opposition to the controversial scheme. At the "consultation" events, the Council officers gave the impression of looking at their shoes in embarrassment, rather than discussing the scheme with disgruntled residents. TSLM's alternative exhibitions, which showed the damage to be wreaked by the scheme, and the possible alternative solutions to the transport problems, were better attended and well-received.

3.2. LCC assumed that everyone wanted a road

The proposer's starting point was that everyone shared their desire for a road solution. At the outset, they referred to

"Problems of a vocal minority who oppose the scheme against the (historical) majority who support the scheme, but remain silent because the County Council are proposing what they require."

They relied on old opinion polls, from 2001 before any detailed plans were published. Residents were asked where they would like the road to go: then they summed those in favour of a Northern and a Western Route to create a majority. Alternative solutions were not presented, much less recommended. Yet the same poll showed only 15% wanted to build roads, whereas 42% wanted to improve public transport and other alternatives to the car.

The promoter's case was always that alternatives had been considered, but rejected. The studies which considered alternatives were very old, and reading them gave the impression that the only reason they had been considered was so that they could be rejected..

3.3. Vote of local councillors ignored

The campaign resulted in the local MP and Lancaster City Council opposing the scheme. It might have been expected that this would cause the promoter to reconsider. It did not.

In 2007 Lancaster City Council at a meeting of the full council voted to oppose the bypass and this became the official policy of the Council. For reasons that are still not fully understood city council officers then prepared a policy document (The Local Development Framework Core Strategy or LDFCS) containing a paragraph supporting the bypass and embedding this support in a key policy document. This policy document went to full council approximately one year later and was approved in a formal vote. Objectors to the bypass referred the matter of an officer report that was contrary to the Council policy to the Ombudsman alleging maladministration. The complaint was rejected.

Further, the Inspector at the Public Inquiry gave no weight to the formal decision of councillors in 2007 when, in the view of objectors, a properly recorded democratic decision should carry a great deal of weight.

3.4. Long Life Confers Benefits

As the scheme wore on, it appeared that its very age became a recommendation in itself.

In 2010, the scheme was changed drastically to save money, and went through the new (IPC) planning process. LCC held new "consultations", which were quite inadequate. They refused to consult on whether a road was needed, or the route it should take. This was in spite of IPC's requirement that they should consult on the whole scheme, and of LCC's own fulsome but ultimately vacuous observation that

new residents to the area needed to be properly consulted for the first time. Yet the IPC accepted the scheme for examination on the grounds that other local authorities, from Merseyside to the Scottish border, had been 'adequately' consulted, even though the local community palpably had not.

The Examiner placed great weight on the fact that scheme was long-running, as did judges in the subsequent legal challenge. In the event, the Examiner listened to all sides but firmly sided with the promoter. It seemed that the long life of the scheme, and the Coalition government's obsession with spending on infrastructure, were decisive.

3.5 National Issues Ignored

The debate around the road was intensely local, although funding was national, and national issues were ignored.

Specifically, Climate Change. It was consistently part of TSLM's case that Climate Change was happening, it was accepted that it was caused by human activity, specifically the emission of greenhouse gases, and the Government had accepted a legally binding obligation to reduce these emissions and set targets to reduce emissions across all sectors including transport.

This road was assessed by its own promoters to be the worst carbon-busting local authority road scheme in the country: not only would emissions not be reduced, they would actually be increased, contrary to Government policy.

The reply of the promoter was that increased emissions were only a small proportion of global emissions. He did not accept his obligation to follow government policy in this. The Examiner agreed that this was a negative aspect of the scheme, but not of sufficient importance to outweigh the scheme benefits. It even became a reason not to pursue a legal challenge on this aspect of the Examiner's decision: TSLM could not challenge him on his stance on climate change, because he agreed with us!

3.6 Damage to Environment Ignored

Local residents found out about the scheme from their own inquiries: they were not told by the County Council, or County Councillors, or City Councillors (who at that point supported it). 1074 homes lie within 200 metres of the scheme.

They were appalled at the proposed damage to the Green Belt, to the fields where children play and people walk their dogs, to Lancaster Canal, whose waters are used by people in boats and whose towpath is enjoyed by walkers and cyclists. They were appalled by the proposed loss of many veteran trees and protected hedgerows, inhabited by wildlife including bats and butterflies, and the damage to the banks of the River Lune, recently repopulated by otters. They feared the loss of species which should be protected by European law. They envisaged the pollution of noise, vibration and exhaust fumes of HGVs, and of the lights on the new road.

This indignation fed into the campaign against the scheme and was the initial motivation of residents and campaigners.

This case was presented at the 2007 Inquiry. The Inspector agreed that the road would indeed have a major adverse impact on the landscape and was inappropriate development in the Green Belt. But he simply ruled that this damage would be outweighed by the claimed benefits. So the damage which appalled so many residents was allowed because a single person sat in judgement and needed to say no more than that, on the balance of probabilities, the benefits would outweigh the harms, without giving reasons.

4. Justification

4.1 Congestion relief

The relief of congestion was originally a main aim of the scheme, and the main reason for it enjoying some local support, but over the years it reduced in importance as it became clear that congestion would not be relieved. Council figures showed that on many roads traffic would rise on the day the Link Road opened. Near the scheme, the road itself would deliver increased

traffic onto many local roads. Even roads at some distance from the scheme would see increases; embarrassingly, the road past Lancaster Town Hall was one such.

The proposer's response was threefold. To the road past Lancaster Town Hall, it added three others to create an imaginary "screenline", which would see a marginal reduction in traffic. One road past an ancient church in the village of Halton would see a 74% increase; here, the proposer carried out a "sensitivity test" (in fact, a reanalysis using more convenient assumptions) to produce a more convenient revised figure of "only" 44%. And overall, the official aim of reducing congestion was downgraded to the more modest aim of reducing congestion only on the two bridges over the River Lune.

The Council never engaged with the concept that building more roads in an urban environment leads to increased traffic and increased car dependency; it never fully accepted that a new road would create induced traffic; it never accepted its responsibility to encourage sustainable transport modes.

4.2 Heysham Port

Another aim was to improve communications between the M6 Motorway and Morecambe and Heysham, including improving the access to Heysham Port.

The port was represented as an expanding concern. However, it is a small player in a highly competitive and volatile market for Irish Sea ferry traffic. It was responsible for only 8% of this market in 2010; its freight declined by 7% from 2000 and 2010, slightly more than the general decline. By far the biggest player in this market is Liverpool, which has massive plans to be bigger still (Liverpool Superport), leading to massive capacity (probably overcapacity) in the Irish Sea market. Ferry companies are notorious for switching ports to gain competitive advantage, and it always seemed unwise to base long-term infrastructure investment decisions on such volatility. The ferry companies certainly think so: when asked to contribute to this scheme by a cost-cutting gov-

ernment in 2010, they, along with all local businesses, refused to do so.

One of the spurious reasons for claiming this local road as nationally significant was that the Port of Heysham was strategically significant for Irish ferry traffic. In fact, a national strategy document had named Birkenhead (adjacent to Liverpool) as the strategic ferry port for Ireland, and Heysham was not even mentioned as a contender.

The rhetoric of improving communications was not matched by the proposer's own forecasts. The time saved on the journey to be relieved by the new road was forecast to be five minutes, at peak times only. The significance of a 5 minute journey time saving on typical long distance HGV journeys to and from the port is trivial. The idea that such traffic, planning a long road and ferry journey to Ireland, would be influenced to favour Heysham by a saving of five minutes, at peak times only, is not credible.

4.3 New Jobs

An important aim was to bring new jobs to the area.

It was calculated in 2005 that the scheme would create 6,014 new jobs in the area. This was achieved by taking the area of development land which was "inaccessible" and would be "opened up" by the new road, and dividing it by a figure for average jobs per square metre. The forecast was widely publicised, to great approval. It was only when TSLM pointed out that a stage in the calculation had been missed, that LCC's consultants realised that they had forgotten to divide the area of land by the average area of buildings placed upon it. The calculation of new jobs should have been based on floorspace area, not total land area. So 4,200 (70%) of the jobs forecast vanished at the click of a calculator, down to only 1,800. This finding was not widely publicised by the red-faced promoter, and had to be wrung out of him by a Freedom of Information request.

Further mistakes in the analysis reduced the number even further, down to 1,026, only 595 of which were in the target Re-

generation Area. As the promoter's hapless expert witness at the Inquiry was forced to admit, "not worth building a road for."

By 2010, the forecast figure was 898. There were changes, because it turned out that much of the development land considered "inaccessible" without a new road, had in the meantime been accessed and developed, clearly without a new road. The "inaccessible" development land had been developed at much the same rate as a business park situated right at Junction 34 of the M6 motorway, which could not possibly be more accessible.

Clearly, the promoter struggled with this justification. His struggle became more acute when he had to recognise the two-way road effect, that roads can take jobs out of an area as well as bring them in. He admitted that this could lead to 1,095 residents losing their jobs.

It appeared that the job forecasts, which had started out so optimistic and unchecked, were entering negative territory.

4.4 Complementary measures

Another aim was to create opportunities for the enhancement of sustainable travel modes.

It was recognised that the scheme itself would not sufficiently relieve congestion, and would need "complementary measures" to do so. Indeed, one of the conditions attached to the planning permission of February 2008 required LCC to draw up an action plan of complementary measures, to be based on a report by Faber Maunsell ("Lancaster District Transport Vision and Strategy"), issued in July 2008. This action plan was never published, and the proposals for complementary measures eventually published in the DCO were slight. The only concrete proposal was for one Park & Ride site at the Junction with the motorway. Rather than a strategy, this was more like a car park. There was no appraisal of its justification or usage, and no coherent strategy for its use: no traffic study, no dedicated lane for buses to access the city, no measures to discourage motorists from driving into the city centre, or provision for ongoing subsidy.

Without such a strategy, experience from other towns indicates that it would prove unattractive, be little used, and may prove unviable.

In its discussion of complementary measures, LCC's Preliminary Environmental Information (May 2011) listed recent developments in improving sustainable transport locally, and offered the hope that, if the scheme produced some temporary traffic reductions, buses and cycling would be more attractive. The only specific proposal was a footway/ cycleway along the route, ideal only for pedestrians or cyclists eager to operate in thunderously close proximity to port-bound HGVs. It was clear that LCC thought they had done just about everything they could do about sustainable transport, and could not come up with specific ideas of further measures that the link road would allow. They mentioned adjusting timings at pedestrian crossings in Lancaster: the Examiner wryly observed that this was a meagre harvest of sustainability from such a massive investment.

Under the new funding arrangements, LCC must take on all financial risks, including cost overruns; LCC is unlikely to have any funding available for the complementary measures that are essential to relieve congestion, and the subsequent Local Enterprise Partnership (LEP) proposed programme for transport investment in Lancashire contains no further investment proposals for Lancaster District – hardly surprising given that the Heysham M6 Link consumes such a disproportionate amount of scarce LCC transport funds for the next three or four years.

5. Changes between the Inquiries of 2007 and 2012

The long campaign against the road saw the arguments in favour undergo interesting mutations. The justification changed in important respects between the Inquiries of 2007 and 2012.

5.1 Traffic growth reduced

Studies for the 2007 Inquiry (done in 2005) forecast traffic growth in the area of 1.5% pa. By the time of the 2012 Examination,

however, the studies (of 2010) showed that traffic growth had been only 0.5% pa. This is significant because the justification for the road was that traffic would increase indefinitely for 60 years, leading to gridlock and economic stagnation, and the only solution was a new road. The economic "benefits" were quantified as money saved because journey times were less than they would have been without a new road. If time saved were less, and future journeys were less, the "benefits" would plummet and the road would be much more difficult to justify. Furthermore, forecast high growth produced "benefits" over 60 years. If that high growth failed to materialise even in the first five years of the 60-year period, the future growth and "benefits" would be reduced decisively.

Readers of this publication will recognise here a national (indeed, international) trend in reducing car usage ("Peak Car"), since about 2004. There are many reasons (Cities have a "time travel budget", and it has been reached; public transport has grown; urban sprawl is being reversed; older people live in cities, and they travel less; a culture of urbanism has grown; petrol prices have rocketed ...) but the trend is clear in the developed world.

LCC refused to recognise this trend. They explained the reduction as: less traffic than expected reassigning to the new road (a tautology), economic recession, using a new modelling tool (Saturn) which is more sensitive to competitive routes. Anything rather than admit that their doom-laden forecasts of gridlock were mistaken, and their justification for the road unjustified. At the 2007 Inquiry, TSLM argued that if lower growth estimates were used in the traffic models, the benefits would be considerably reduced, to such an extent that it would become difficult to justify the road scheme. In the event, by 2012 traffic growth had indeed turned out to be well below the estimates on which the scheme was justified, indeed two thirds of the original forecasts. This should have carried through to the calculation of benefits, and the justification for the scheme; but it did not.

5.2 Journey time savings reduced

Related to reduced traffic growth, another development between 2007 and 2012 was that forecast journey time savings reduced. On the journey to be relieved by the new road (Junction 34 of the M6 to the end of the link road), the journey time saving reduced from the 2005 estimate of ten minutes at peak times (not all that spectacular even then) to the 2010 forecast of five minutes.

But text of the justification (Economic Impact Report) did not change: the journey time savings were still labelled "significant". Indeed, on one journey the minutes saved reduced from 8.0 (2005) to 2.5 (2010), but were still judged to be "significant".

"Insignificant" would be more appropriate. This is a strategic route: it is stretching the imagination to think that hauliers from the M62 area (Yorkshire and the Manchester-Merseyside conurbations), planning a road and ferry journey of over a hundred miles to Ireland, would be influenced to favour Heysham by a saving of five minutes, at peak times only.

5.3. Job numbers reduced

As discussed above (4.3), forecast new jobs reduced throughout the period. In many cases, areas which were considered to be "inaccessible" had filled up. Further, recognition of the two-way road effect carried the new jobs forecast into negative territory.

5.4. BCR should have reduced

In calculating the benefits of a scheme, the estimate of total benefits (over a 60 year period) is divided by the total costs to give a benefits to costs ratio (BCR). In the case of HM6L (in a typical calculation from 2007) forecast benefits of £864,000 were divided by costs of £145,000 to give a BCR of 6.0. This was often given a pseudo-scientific gloss by the promoter as "A recent study has shown that for every pound spent on the road, there will be a benefit of £6 to the area".

A BCR of 6.0 was a criterion of roads entering the "Supported Pool" in October 2010 and being fast-tracked by the Government, and HM6L was judged to meet this criterion.

"Benefits" are mostly time saved by faster journeys, over a 60 year period. Now if the amount of traffic using the scheme reduced (by 20%), and the journey time saved reduced, it follows that the benefits should have reduced, in this case substantially; therefore the BCR should reduce, to such an extent that it would become difficult to justify the road scheme. In a sane world the BCR should have been recalculated and the road plan rejected, but momentum had built up for the scheme and sanity was bulldozed aside.

In the event, LCC were vague in their calculations and used favourable assumptions. They introduced new elements to the calculation ("Wider Impacts") to boost the "benefits" side of the equation. When specifically asked by the Examiner in 2012 to run a "low growth" model of the BCR, they specifically failed to do so. The changes on the ground were not carried through into the theory of the road's justification.

Until, that is, the day that Final Approval of government funding for the scheme was announced in December 2013, on which day the LCC Cabinet Member for Transport proudly announced that "for every pound spent on the road, there will be a benefit of £4.40 to the area". This smacks of duplicity, given the reported criterion of a BCR of 6 for supported pool status, and the ready identification in a report commissioned by TSLM in 2010 that the BCR should have been around 4.8, even based on use of LCC's own figures without questioning any assumptions.

5.5 Costings: a case of smoke and mirrors

Scheme costing has been a game of smoke and mirrors from the outset, with several peripheral cost elements, in particular landscaping, preparation costs, supervision, contingencies, and inflation effects treated in different ways at different times such that it became difficult to compare like with like. TSLM had the original scheme costings for 2005 (contained

in the Major Scheme Business Case), but made requests for updated detailed costings, in particular in January 2011 following publication of the BAFB. The crucial June 2010 costings were only finally forwarded by LCC in April 2012, shortly before the IPC Examination.

The costs became especially interesting at the time of the BAFB, when LCC claimed that changes had been made to meet the government requirement to reduce scheme costs. These resulted in the cost coming down by £16 million, to £123.25m, and LCC's contribution went up to £12.325m. It is not difficult to see that LCC's contribution became exactly 10% of the revised scheme cost, and the government contribution fell by just over 15%, so the required criteria for cost savings are easily inferred.

On closer inspection, the cost savings were attributed mostly to reductions in assumed inflation rates (down from 5% per annum to 2.7%) which saved £7m; the removal of £6m of contingency from the scheme cost to an 'additional risk layer' to be borne by LCC in the event of cost overruns; reduction in excavation and disposal of material, brought about by raising a section of the road to reduce the depth of a significant cutting, said in the BAFB to save just over £7m; and alterations to the M6 sliproads, said to reduce costs by about £1m. (These add up to more than £16m in total, but other cost elements had increased meantime).

The first thing this shows is that most of the 'savings' were not the result of actual scheme changes, but of technical adjustments to the budget estimates for risk and inflation. The main scheme change came with the extraordinary claim that £7.3m had been saved on earthmoving costs, when the earthworks total for the whole scheme at PE in 2009 had only been £8.5m! LCC stated in the BAFB that the reduced amount of excavation eliminated the need for disposal of excess material off-site, but were left floundering when it was pointed out by TSLM that the original scheme had expressly excluded off-site disposal.

LCC eventually tried to argue that they had never claimed that there would be savings from off-site disposal: and that cost savings were due to reduced excavation, avoiding excavation in rock, and reduced transport along the site. The first is untenable since LCC undoubtedly claimed elimination of off-site disposal, which could not but have resulted in cost savings: and the other two do not stack up in terms of either the narrative at the time or the stated unit rates for excavation and respreading on site for the amount of dirt involved.

The Department for Transport was advised of this in the period between the BAFB being published and government approval of the revised costings a month later. Their response was that they were satisfied with the reduced level of government funding, and if LCC had got it wrong on the costings, that was their problem, as the government contribution was now capped and any cost overruns would be borne by the scheme promoter.

The treatment of inflation was equally unsatisfactory. LCC stated in the BAFB that the inflation allowance was based on the revised 2.7% per annum from an updated cost estimate in June 2010, with an assumed start date in October 2012. When the June 2010 costings were received, however, it became clear that the unit rates were identical to those in the November 2008 PE costings: in other words, there was zero inflation allowance for the 19 months between the two dates! Furthermore, within two months of approval of the BAFB, LCC revised the starting date forecast back 9 months to July 2013, miraculously with no effect on the forecast outturn cost.

It was only when TSLM launched their legal challenge in April 2013 that LCC warned that the ensuing delay was going to impact on scheme costs, at a rate of £420,000 per month (including an unsubstantiated £230,000 for standing down the design team). It was announced by LCC in September 2013 that the scheme cost had risen to £128.9m, an increase of £5.7m. The scheme was eventually delayed by at most 5 months, so even on LCC's dubious monthly rate the delay due to the legal challenge was barely £2m. Where did the

other £3.7m come from? Could it have been the 9 months previously unaccounted for, $9 \times £0.42m = £3.78m$? And when are we going to see the effect of the 18 month gap in inflation allowances between November 2008 and June 2010?

TSLM estimated as long ago as January 2011, when the shortcomings of the BAFB cost 'savings' were exposed, that the eventual outturn cost of the scheme would be nearer £140m than £123m, plus £8m preparation costs which by then were separate from scheme costs, plus site supervision costs which rather disappeared from view at that time. The cost reached almost £129m three months before the start on site. LCC may hope that their lush risk padding will see them through without further cost embarrassment, but having started on site in the wettest winter on record it may not be long before the contractor's claims start rolling in.

LCC may seek to put the blame for cost escalation on the objectors (they already have), but the fact remains that most of the delays in the 8 years since the scheme was submitted, many think prematurely, in 2005 have been of the Council's own making. Above all, the time it took from planning permission in February 2008, through Programme Entry to the publication of Orders in October 2009, was the direct reason for the scheme falling foul of the CSR in 2010 and the fiasco of its inclusion as a NSIP in the ponderous IPC process. LCC has only itself to blame for costs to the Council that started at £6m at PE, rose to £12m in the BAFB, have already consumed most of the £6.5m additional risk layer, and look set to reach a total of £30m or more by the time the road is finished: but it is the people of Lancashire who will ultimately pay the price in the starvation of funds for significantly more useful transport projects across the whole county.

6. Alternatives

There are many alternatives to the road scheme. In 2010 TSLM joined with other sustainable transport groups in North Lancashire to produce a report and proposal for transport improvements for the district. The proposals built on plans put

forward by specialist transport consultants Faber Maunsell, commissioned by LCC. Faber Maunsell were asked to make recommendations based on the assumption that the road would go ahead, but from their report it was obvious that the “complementary” measures themselves would achieve the main aims of the scheme of congestion relief and economic regeneration.

The TSLM Report recommended a complete package of non-road building measures which would seriously reduce local congestion, and so aid regeneration and tourism, and improve access to Heysham. What’s more, costed at £30-40 million, these proposals would have saved £100 million on the cost of the Link road.

The package proposed by this report would have five key elements:

- High quality spinal bus route between Heysham and the University of Lancaster
- Rail system upgrades
- Cycle infrastructure
- Revisions to Lancaster gyratory systems
- Park and Ride

These effective measures, or the “complementary” ones discussed rather vaguely by Faber Maunsell, are unlikely to be implemented: at this time of government austerity, the soaring costs of the road will use up the whole transport budget for Lancaster for many years to come.

7. Conclusion

The objectors to the scheme who formed TSLM were motivated by a horror of the proposed damage to their community and destruction of their environment, and a desire to prevent it. Even a cursory examination of the justification for the scheme revealed that it would not bring the benefits claimed for it: it would not reduce congestion, or bring jobs, or regenerate the area.

They then delved deeper into the planning aspects of the scheme, and learned to deal with the planning arguments. Yet throughout the process, there was a sense that they were speaking the planning lan-

guage, but the decisions were being made on underlying political grounds, which were dressed in planning language, but not influenced by the planning arguments that the objectors were making.

It became apparent that, long ago, the promoter had decided on a road solution and then sought to justify it. The justifications were weak, and began to unravel as soon as the figures were investigated. The two Inquiries of 2007 and 2012 allowed comparisons between earlier forecasts, on which planning permission was granted, and outturns in the intervening five years. In every respect the forecasts had proved false. Forecast jobs had disappeared, forecast traffic growth had not materialised, forecast costs were understated and purported cost savings were illusory, and forecast journey time savings had been halved. The Cost Benefit Ratio should have reduced dramatically.

But these factors were ignored, and permission granted anyway.

There was a political element: a government intent on spending on infrastructure projects, influenced by businesses who wanted the road, although they refused to make the slightest contribution towards it. It seemed that a momentum had built up, wishful thinking displaced logical analysis, and the longed-for wish for a bright, shiny new road was granted.

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“Is this protester the most hated man in Scotland?”: A personal perspective on the legal fight against the Aberdeen Western Peripheral Route

William Walton

Introduction

The announcement made by Tavish Scott, the Scottish Transport Minister, on 1st December 2005 revealing that the route for the proposed Aberdeen bypass in north east Scotland would cross the River Dee about 2km to the west of the ‘preferred route’ and would incorporate an 11.5km long spur running south to Stonehaven came as a complete shock to virtually everybody in the area and made inevitable the likelihood of a protracted and often bitter dispute between a sizable group of objectors and the Scottish Government (Scottish Executive 2005a). The campaign engaged a coalition of various interests but was led by a group of largely local residents called RoadSense¹. This group, chaired by the author, fought the proposed Aberdeen Western Peripheral Route (AWPR) at every opportunity and eventually took the case to the Supreme Court in London. This paper chronicles the most important events in that campaign, explains the case put forward against the scheme in the public inquiry and subsequent legal appeals and tries to place the lessons learned from the campaign into some wider context.

Geographical and historical context to the AWPR project

Aberdeen is a city of around 210,000 people located on the north-east coast of Scotland and dominates a predominantly rural hinterland containing a small number of former market towns, such as Banchoory, Inverurie, Ellon and Stonehaven, each located 15-25km or so away (see Map 1 p58)². It has rail links south to Dundee, Edinburgh and Glasgow, and north-west to Inverness but, with relatively few intermediate suburban stations, short distance rail travel is unattractive to most commuters. As with most cities in the UK the private car provides the primary mode of transport for most, other than very short, journeys.

A green belt prohibiting development encircles the city’s northern, western and southern suburbs. This has encouraged much high density brownfield apartment development within the city but the development of new family housing has tended to leap frog the green belt to the small market towns mentioned above. Since the main centres of employment have remained within the city there are high volumes of car traffic heading into and out of Aberdeen along five principal trunkroads of varying levels of design capacity. The only distributor road within the city is known as Anderson Drive and was built as a de facto bypass during a phase of urban expansion back in the 1930s. Most long distance road traffic heading from the south is bound for the city but some, including some heavy vehicular traffic, is headed towards the more remote fishing ports of Fraserburgh and Peterhead and use a series of cross country roads west of Aberdeen to avoid congestion black spots on the edge of the city.

The concept of a bypass to the west of Aberdeen had been formulated as far back as 1933 although it had only been since around the mid-1980s that the proposal started to receive serious consideration from local councillors (Walton and Farrington, 2000). The dominant dynamic of Aberdeen and its economy since the 1970s, notwithstanding the brief downturn in the mid-1980s, has been one of growth due to sustained output of North Sea oil. This not surprisingly translated into increased pressures on housing and rising levels of car usage and congestion. In response to the traffic congestion issue, instead of resurrecting the longstanding proposal for a western bypass the regional and district councils explored the possibility of a dual carriageway scheme running from the River Dee in the south through the city centre, crossing the River Don over a new crossing (the Third Don Crossing) and terminating in the suburb of Bridge

¹ There are many individuals that made huge contributions to our campaign but in particular I would like to acknowledge the inputs of Sheona Warnock, Kath Keay, Dave Robb, Henry Irvine-Fortescue, Tony Hawkins, Roger Murray, Paddy Imhof, Keith Good, Robin Winmill and John McIntosh.

² I am indebted to Derek Johnson, Senior Lecturer in the Department of Geography at Northumbria University, for preparing the maps for this paper.

of Don on the northern side of the city. This strategy, which was only ever implemented in part through the construction of a short (but highly expensive) section of dual carriageway through Union Terrace Gardens in the city centre, was eventually abandoned following the public inquiry into a road widening scheme in Bucksburn where the planning reporter (the Scottish term for a planning inspector) concluded that only a bypass would alleviate the traffic congestion problems of Aberdeen.

An important step forward in the promotion of the AWPR occurred in the early 1990s when the former Grampian Regional Council identified for investigation 33 route options contained within 4 to 5 corridors, including one from Stonehaven in the south, running in a broadly semi-circular pattern around the west of the city linking the A90 in the south with the (then) A92 in the north. Following cost benefit and desk top environmental appraisals these 33 options were reduced to just two – Route 12 (the so-called Pitfodels Route) close to the western edge of the city and Route 14 (the so-called Murtle Route) slightly further to the west. Selection of either of the routes would create significant environmental impacts in the highly sensitive locations close to the River Dee – the Victorian suburb of Pitfodels was designated as a conservation area and Murtle was the location for the world renowned Rudolph Steiner Camphill and Newton Dee communities (operated by Camphill Village Trust) for young adults and children with learning difficulties. Routes further out to the west and going further south to Stonehaven were dismissed primarily because their greater length and their distance from the city made them both more costly and less economically beneficial. As the scheme was a 'local road' and not part of the national motorway or trunk road network it would have to be funded entirely by the Council rather than by the government. In November 1994 Grampian Regional Council opted in favour of the Murtle route and committed itself to delivering the AWPR (then known as the Western Peripheral Route or WPR) and costed at around £80m.

The influence of the AWPR on Aberdeen's urban development

As a result of this decision the Murtle route was incorporated into various land use development plans prepared for the north east Scotland region and inevitably featured as an important factor in a number of developer led large scale planning proposals that emerged during the mid and late 1990s. Of particular note was the proposal for a new settlement of 4,500 houses and associated industrial development on a site 5km south west of the fringe of the city at Banchory Devenick. Faced with what it viewed as a severe shortage of housing land Grampian Regional Council and its consultants identified 27 possible locations for a new settlement and selected Banchory Devenick, *inter alia*, for the opportunity which a large development presented at that location to secure significant developer funding contributions for the WPR.

Much of the political initiative for a new settlement in the Aberdeen area was lost in 1994 when the Labour led administration of Grampian Regional Council was replaced by the SNP and Liberal Democrats who favoured spreading housing allocations more evenly around the rural areas. As a result, notwithstanding a recommendation in favour of approval from the officers for the Banchory Devenick application lodged prior to the political changes, the scheme was rejected. The applicant, the Aberdeen based Stewart Milne private house builder, appealed and at the public inquiry undertook to contribute £20m to help fund the WPR which was aligned co-terminous with the northern extent of the scheme. The Reporter issued a 'Finding of Facts' report which gave strong support to the project but following the intervention of the Minister the scheme was eventually rejected after a second inquiry was convened to re-examine the specific issue of housing land supply in the light of newly issued guidance on brownfield development (Walton, 2000). Two other large proposals on the edge of the city for a new 25,000 seat football stadium at Kingswells and a new settlement of 2,200 houses / new university campus at Blairs, both incorporating significant developer contributions for the bypass, were also unsuccessful.

In the absence of being able to secure significant funding from private developers the prospects of Grampian Regional Council (and its unitary authority successors, Aberdeen City Council and Aberdeenshire Council) delivering the increasingly costly WPR were remote. This situation changed dramatically, however, when on 27th January 2003 the then First Minister, Labour's Jack McConnell, announced to a business breakfast audience at the Marcliffe at Pitfodells Hotel that the Scottish Executive, recognising the national significance of the project, would fund the bulk of it, with the two local councils expected to make good the balance (Scottish Executive, 2003a). A few weeks later the Scottish Executive announced that £3bn would be made available to fund integrated transport projects such as the WPR (Scottish Executive, 2003b). A further fortnight later it was announced that 'detailed design and construction work would begin' (Scottish Executive, 2003c).

The strategic policy support for what became known as the AWPR was published in the form of *Delivering a Modern Transport System for North East Scotland* (MTS) prepared by the local transport partnership body (NESTRANS, 2003). This document, which was not subject to public consultation, sought to take forward some policy proposals set out in an earlier multi-modal study produced for the city by Oscar Faber (1998) (which had concluded that the level of congestion relief brought about through a bypass would be minimal) by addressing the 'transport deficit' through a series of proposed transport interventions including, as well as the AWPR, a high volume cross-city rail shuttle linking Stonehaven through a series of new stations to Inverurie north of the city (known as 'crossrail'), a system of park and ride sites and enhanced bus services. The strategy, which was assessed under the Scottish Transport Assessment Guidance (STAG), emphasised that "...not every scheme will deliver benefits towards every objective, but collectively, it is believed that the proposed strategy best delivers on a balance of these objectives..." (NESTRANS, 2003, p.8). In terms of overall cost the AWPR accounted for around 65% of the proposed local transport capital budget (Walton and Shaw, 2003).

In 2004 Aberdeen City Council issued its local plan '*Green Spaces; New Places*' in final form and this sought boldly to dilute the previous policy commitment to brownfield development and focus the trajectory of development outward through former green belt along the principal arterial routes toward the proposed AWPR alignment (Aberdeen City Council, 2004). A series of so-called *Future New Communities* located within the green belt and comprising land capable of accommodating around 3,000 houses for development beyond the life span of the plan were identified at Countesswells, Kingswells and Dubford. In each case, echoing the previous sagas of the developer led new town proposals at Banchory Devenick and Blairs, and the proposed new football stadium at Kingswells, the planners argued that the schemes would link to, and capitalise upon, the proposed AWPR.

As part of the process of working up the detailed design for the scheme the Scottish Executive commenced preparation of an environmental assessment of the Murtle route including detailed groundwork analysis. Inevitably this led to an anxiety amongst property owners in the Aberdeen greenbelt. However, probably the most deep-seated fear was felt by the management of the Camphill and Newton Dee communities which occupied an extensive greenbelt campus north of the River Dee that would be bisected by the alignment of the bypass. The direct threat to the tranquillity – and hence the sustainability and viability – of the community led to the promotion of a well-orchestrated national campaign against the proposed scheme with a clear message being sent to the Scottish Executive that any attempt to pursue the project would be met with very strong opposition and inevitable legal challenges right up to the European Court of Human Rights.

It was no doubt because of this threat that the Scottish Executive decided to hold a consultation exercise in March / April 2005 to elicit opinion on the route, notwithstanding that the Roads (Scotland) Act 1984 under which the scheme was promoted did not contain any provision for public consultation or a public inquiry (Scottish Executive, 2005b), and four oth-

er possible alternatives (Map 2, p59). Most of the space within the exhibition – complete with a simulated fly-over to give a bird's eye view – was devoted to the Murtle Route with information on the alternatives being restricted to A4 sized sheets containing summary data pinned to the walls in a corner of the room. Members of staff from Jacobs Babbie, the consultants acting for the Scottish Executive, were on hand to answer queries from the public although they seemed to be much more comfortable talking about the preferred route than the alternatives.

The formation of RoadSense and the campaign to the public inquiry

The Minister's decision to opt against the Murtle route and in favour of what was presented as a combination of two of the four alternatives came as an enormous shock to the affected communities. The final route, the Milltimber Brae / Stonehaven route, was estimated to cost £295-395m at 2005 prices. Individuals from various communities met in December 2005 and agreed upon holding a public meeting in February 2006 under the banner of the newly formed RoadSense to gauge the strength and depth of opposition and assess whether there would be the stomach for what was likely to be a lengthy and costly opposition campaign. I was asked to chair the meeting; by that stage I was reasonably well known to many residents living on the Aberdeen urban-rural fringe as I had advised and acted for several action groups and community councils that had opposed many of the schemes already discussed – the proposed new settlements and the new football stadium – as well as some other large scale housing schemes on greenfield sites.

One event above all guaranteed that the meeting would be well attended. On 30th January 2006 the local broadsheet newspaper, the *Press & Journal* (2006), published a map leaked to it showing in dark red a 'corridor of search' for the new route measuring 4-5km wide in places (Map 3, p60). Not surprisingly, the mood of the 1,500 or so people that attended the meeting in the newly built auditorium at the International School of Aberdeen in Milltimber, which ironically but symboli-

cally was on the 'line' of the now preferred so-called 'route', was febrile.

Many speaking from the floor felt they had been completely misled at the public exhibitions by Transport Scotland's agents when they had probed them about the precision of the alternative 'routes'. One said that the Jacobs Babbie agent was unaware that the 'Peterculter / Stonehaven' route crossed a field that had planning permission for a state of the art school. Several said that they had been told that the alternative routes were simply identified to demonstrate the superior cost-benefit return of the Murtle route and should not be regarded as likely contenders. Another told the audience that he had bought a run-down farm building for conversion 750 metres from the Peterculter / Stonehaven 'route' on the strength of repeated assurances given by Jacobs Babbie over the precision and accuracy of the lines on the display plans. Three months after our public meeting, and with no opportunity afforded to him for comment, the finalised preferred alignment of the FastLink running from Maryculter to Stonehaven was published leaving it within 60 metres of his dream home (Scottish Executive, 2006) (Map 4, p61).

Once RoadSense was established we set about formulating a constitution, electing office bearers and organising ourselves into a series of sub-committees tasked with securing and preparing for a planning inquiry, lobbying politicians, liaising with other objector groups such as the Woodland Trust, raising awareness through the distribution of a newsletter and the production of placards, and critically, raising funds (*Evening Express*, 2006; *Herald*, 2006). Our overall aim was to fight the proposed route of the bypass and campaign for more sustainable solutions to Aberdeen's transport problems which we did through making representations on emerging transport and land use planning strategies. At a private meeting in July 2006 we were given an assurance by an often ill-tempered Minister that the scheme would not be included in the emerging draft National Planning Framework's list of nationally significant infrastructure projects exempt from the need for any public inquiry (Scottish Government, 2007; Scottish Government, 2008).

We also collected around 5,000 signatures to have the route selection process debated by the Scottish Parliament's Public Petitions Committee (Scottish Parliament, 2006). Tellingly, Mike Rumbles, the local MSP, told the committee that he had not been consulted on the FastLink by the Transport Minister.

Much of the lengthy preparatory work leading to the public inquiry was undertaken by our membership which, reflecting the income characteristics and nature of the communities likely to be affected, included many highly qualified professionals with expertise in highway and civil engineering, finance, ecology, law and planning. Nevertheless we still had the need to bring in a good deal of outside assistance³. Usually this was straightforward but we failed to find a firm of project managers that would be willing to present evidence challenging the cost of the scheme for fear, we were told, of blotting their copybook and prejudicing opportunities for future work with the Scottish Executive (as it turned out evidence on this issue would probably have been inadmissible). A number of major donors were identified to help fund our mounting costs arising from employing environmental and transport consultants, lawyers and public relations advisors but ultimately most of the £330,000 plus which we spent was provided in the form of a large number of relatively modest donations. We also received charitable donations from the Esmee Fairbairn Foundation and from the cosmetic firm, Lush.

Within the group we spent a considerable amount of time trying to elicit the basis upon which the route had been selected. Following a successful appeal against refusal of Freedom of Information requests we eventually received a welter of civil servants' and Ministers' emails and memos relating to route selection (Scottish Information Commissioner, 2007). These confirmed our understanding that the Milltimber Brae / Stonehaven route had been far less attractive in economic and environmental terms than either the Murtle or the Pitfodels routes. However, by this stage the Pitfodels route had disappeared from the Minister's radar screen. In 2005 there had been an unminuted meeting between members of a previously unknown

organisation called the Pitfodels Conservation Society and the Transport Minister. Inspection of the Electoral Commission's records revealed that the Scottish Liberal Democrat party had received very substantial financial donations from mid-2005 onward from a property magnate living in close proximity to the Pitfodels route who wanted to develop adjoining land for luxury housing (*Daily Mail*, 2008). To the onlooker it appeared to be an expression of gratitude, or possibly remuneration, for dropping the Pitfodels option.

Our first opportunity to register formal opposition to the scheme came in November 2006 with the publication of the environmental statement and the draft road orders (the process had to be repeated due to a procedural error in publishing the statement) (Jacobs, 2007). On the advice of the local Friends of the Earth group we decided to distribute several thousand post cards, setting out grounds for objection, to members of the public visiting the several beauty spots threatened by the scheme, such as Countesswells Woods and the former Deeside Railway Line, to sign and return. We also set up a web site through which members of the public could lodge their objection but when we approached Transport Scotland asking permission to link it to their email account we were told that its pledge to e-democracy did not extend to helping facilitate submission of objections to its own projects (*The Times*, 2007). By the deadline over 10,000 objections had been submitted, more than for any other road proposal in Scottish history. By this stage the reader will have no doubt gathered that RoadSense considered the process of route selection to have been inadequate, but this was only one of several grounds of objection. In summary, we contended that the promoters had not demonstrated that a bypass was required, that the scheme would cause irreparable damage to the River Dee Special Area of Conservation (SAC), that it would destroy bat roosts in the International School of Aberdeen, that it would destroy ancient woodland on the historically important Kingcausie estate, that it would lead to

³ We called upon the expertise of Alan James, Ecologica, who presented evidence on landscaping and transport policy and upon Colin Buchanan & Partners who presented evidence on transport appraisal.

large scale development in the green belt, that it would be financially more costly than other (road and non-road) alternatives, that it would induce additional traffic usage and greenhouse gas emission levels and that its impact on congestion relief within the city would be minimal (Standing Advisory Committee on Trunk Road Assessment, 1994).

A fundamental problem which we faced throughout the campaign was a lack of support from any of the main political parties. The AWPR had been promoted under the Labour / Liberal Democrat Holyrood administration whose voters in the centre and north of Aberdeen respectively saw it as a panacea for congestion relief, and it was also strongly supported by the SNP who considered it as vital to the economic prosperity of their heartlands in north Aberdeenshire and Moray. At a private meeting in his constituency in December 2006 the SNP's Alex Salmond MP told us that he passionately supported the underlying principle of the scheme but considered the route selection process to have been – somewhat predictably – a typical piece of "...Liberal Democrat ineptitude...". He also stated that if the SNP were elected to power in the forthcoming May 2007 elections then he or his Ministerial colleague would abide by the Planning Reporter's recommendations (an undertaking which breaches the public law principle that a Minister must not fetter his discretion on quasi-judicial matters such as this). What none of the many MSPs whom we met during our campaign, including the Transport Minister, were prepared to discuss was just how much the scheme would cost or how it would be funded. Later on the Transport Minister was to admit that he did not know how the scheme could be funded, possibly because, as revealed some years later through Freedom of Information requests, he knew that the official cost estimates were hugely inaccurate (*Press & Journal*, 2009; *The Herald*, 2011).

In May 2008 a pre-inquiry meeting was held at the Aberdeen Exhibition Centre to determine the ground rules for the conduct of the forthcoming public inquiry and, most significantly, to inform parties of the scope of the inquiry. A few days later all objectors received a letter from the Reporter

stating that the Minister had 'accepted the need in principle for the road' and that he only wished to hear evidence with respect to the technical and environmental aspects of the route choice. Objectors could identify and promote alternative routes but only if they had undertaken sufficient background work to show that they were capable of being implemented. In practice this seemed to be a requirement that objectors undertake what amounted to a desktop engineering and environmental study. Moreover, Transport Scotland contended at the inquiry that the effect of the Ministerial announcement December 1st 2005 was to require any alternative Fast Link route to be anchored at Stonehaven, and that alternative Fast Link routes linking to the A90 at Portlethen (approximately half way between Stonehaven and Aberdeen) as advanced by some objectors were inadmissible. It was obvious that the undertaking given to us by Alex Salmond, who by this stage was First Minister in the newly named 'Scottish Government', to give effect to the Reporter's recommendations was a double edged sword. The inquiry remit had been so unduly restricted that a recommendation to approve the scheme seemed increasingly inevitable.

One party that became noticeably reticent during proceedings leading up to the planning inquiry was the International School of Aberdeen, a private school jointly owned by a number of giant oil companies to provide an international baccalaureate type education to the scions of overseas oil executives posted to the city for relatively short periods. As already stated part of the school's wooded campus in Milltimber was on the proposed alignment. Although there were areas of open land immediately to the east of the campus where the road could be accommodated without any need for property demolition the project engineers opted instead to put it through some of the school buildings notwithstanding the acknowledged presence of European protected bats. Shortly before the inquiry opened we learned that the trustees of the school had come to an agreement with the Scottish Government that the campus would be closed and demolished with the school being relocated 5km east to a £51m publicly funded state of the art purpose built campus on a large wooded site

in Cults. That news made it inevitable that the road would be approved. It also meant that the Government would not face any opposition from an oil company backed objector.

The Public Inquiry into the AWPR

At the commencement of the public inquiry in August 2008 held at the Treetops Hotel in Aberdeen our barrister, Stuart Gale QC, submitted that the restricted remit was in breach of article 6(4) of the EU Habitats & Species directive (92/43/EC). The preliminary appropriate assessment prepared by Transport Scotland acknowledged that the scheme would cause material damage to the River Dee SAC, but nevertheless stated that there was no article 6(4) requirement to investigate alternative transport policies and alternative route alignments since the impacts on the highly sensitive river would be fully mitigated. Invoking the precautionary principle and the need for absolute protection to the known population of EU listed pearl mussels in the vicinity of the proposed crossing we contended that there was a good deal of uncertainty attaching to the effectiveness of the somewhat ill-defined mitigation measures, which pointed to the need for a wider exploration of transport solutions. In effect, given that the entire River Dee was designated as a SAC, this meant exploring either tunnel or non-road based solutions. The decision of the Reporter to reject our submission was to be the first of several defeats on the issue of the inquiry remit.

What the public inquiry did reveal was that the decision to identify alternative 'routes' had been made only a matter of weeks in advance of the public consultation exercise and that the decision to opt for the so-called hybrid Milltimber Brae / Stonehaven 'route' was revealed to the Project Manager only 30 minutes before it was announced to the press. The inquiry also laid bare some of the machinations behind the scenes in finalising the alignment of the FastLink. A letter written by Mike Rumbles MSP to the Church of Scotland Minister for Maryculter revealed that following a private meeting between himself and the Transport Minister, the route had been 'tweaked' and shifted to the east to lessen its impact upon the parishioners (a

'tweak' that inevitably shifted the impact onto other property occupants).

What it did not reveal was exactly why the Minister opted for the hybrid Milltimber Brae / Stonehaven route since no minute of the critical meeting had been taken. The hybrid route returned lower economic benefits and greater environmental costs than the Murtle and the Pitfodels routes. On cross examination it was conceded by Transport Scotland that the route was changed at the last minute due to the need to avoid confrontation with the Camphill and Newton Dee communities. With an underhand assurance having been given to the Pitfodels Conservation Society it seemed that the Milltimber Brae / Stonehaven route had been selected by a simple process of elimination.

The Reporters' unconditional recommendation to approve the finalised preferred Milltimber Brae / Stonehaven route in December 2009 came as no surprise. David Gordon, the chair of the three reporters adjudicating the inquiry, had earlier ignored protestations about the true scale of brownfield land availability when producing his 'Findings of Fact' on the inquiry into the new settlement at Banchory Devenick in 1996. With respect to the AWPR the Reporters accepted in their Findings of Fact, for example, that 31 local landscape character areas would be irreversibly damaged but nevertheless concluded that the environmental impacts were not so severe as to render the proposal unacceptable and that no alternatives offered a clear overall advantage to the proposed scheme. Under the procedures, which were changed following the debacle over the Glasgow M74 extension when the Minister had overridden the Reporter's recommendation to reject the scheme, final approval for the AWPR and the accompanying CPOs had to be given by the Scottish Parliament, under its affirmative order procedure. Parliament approved the project in January 2010.

The legal challenges to the Minister's decision

From the outset of our campaign we were aware that it was unlikely that we would get the result we desired through the public inquiry and that we would probably

have to resort to challenging the scheme in the courts. Any challenge could only be made on a point of law and, more specifically, under the terms of the Roads (Scotland) Act 1984, we had to show that we had been 'aggrieved'. We soon received advice from our own counsel that there were issues that should be ventilated in the court but we decided nonetheless to gain a second opinion from another barrister specialising in planning law. When that advice supported a challenge we went back to our members who overwhelmingly backed our proposal for legal action.

As well as pursuing a legal challenge we decided to lodge complaints with the Compliance Committee of the United Nations Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (the 'Aarhus Convention') and with the Commission of the European Union (United Nations Economic and Social Council, 2011). In the Aarhus Convention complaint we alleged: that there had been a failure to undertake proper public consultation, in particular with those people living close to the Fast Link; that the challenge was unaffordable; and that we had been denied access to important ecological information relevant to the River Dee. In regard to the Commission we contended that Transport Scotland had failed to consider alternative alignments around the International School notwithstanding that the environmental assessment (EA) acknowledged that it housed bats, protected under the Habitats directive (*Sunday Herald*, 2009). In response to our submission the Aarhus compliance committee found that the alignment of the Fast Link had changed but that members of the public had had the opportunity to attend the public inquiry to challenge the plan. It seemed that the Compliance Committee, whose function it was to uphold the convention, had failed to understand the convention's requirement for early consultation when all options were up for consideration. The Commission did not pursue our complaint.

Faced with diminishing funds we applied to the Court of Session for a Protected Expenses Order (PEO) to limit our liability for the Scottish Ministers' legal costs in

the event that our challenge was defeated. Such orders have been introduced in the UK (they are known as Protected Cost Orders in England and Wales) to give effect to the Aarhus and EU stipulation that access to environmental justice ought not to be prohibitively expensive. At that stage we had funds of around £78,000 and the Court awarded us a PEO of £40,000 (on the grounds that our legal costs were estimated to be around £30,000 and those of the Scottish Ministers were between £50,000 and £60,000) (*RoadSense and William Walton v Scottish Ministers* [2011]).

This PEO was, however, transferred to my name when, on the opening day of the hearing, the judge in the Outer House of the Court of Session expressed doubt as to whether RoadSense, as an unincorporated body, had legal personality to sue the Scottish Government. What became my case was conjoined with that of two other objectors, John and Maggie Fraser, who ran an organic farm adjacent to the Fast Link and contended that they should have been granted legal aid to fund professional representation at the planning inquiry.

The principal submissions made on my behalf were: first, that the decision to add the FastLink was a modification to the MTS and so breached article 3(3) of the EU Strategic Environmental Assessment directive (2001/42/EC); second, that there had been a failure to consult on route options when all options were available, in breach of the requirement under article 2(2)(b) of the EU Public Participation directive (2003/35/EC); third, that the public inquiry remit had been unfairly restricted in breach of the common law; fourth, that the failure to consider alternative routes breached article 6(4) of the EU Habitats directive; and fifth, that the planned demolition of the International School of Aberdeen breached article 16(1)(c) of the Habitats directive.

In support of the 2001/42/EC issue we noted that the Minister had sought to justify the 'policy decision' (his own words) to add the FastLink by stating that it would help alleviate growing traffic congestion on the A90 between Aberdeen and Stonehaven, a policy objective that had not previously been articulated in the MTS or evaluated

through a strategic environmental assessment (SEA). The failure to conduct such an SEA, in which other policy interventions such as enhanced rail or bus services could have been evaluated, rendered the approval of the AWPR unlawful. In the absence of an SEA we argued that the inquiry should have allowed evidence questioning both the need for a FastLink and the requirement that it be geographically anchored at Stonehaven. On the 2003/35/EC issue we contended, first, that the Scottish Government had not transposed the directive properly and, second, that the first formal opportunity the public had to object to the scheme was when the EA and draft road orders were published in November 2006, by which time other options (including non-road based alternatives) had been discarded. On the inquiry remit issue we submitted that we should have been able to challenge the policy supporting the FastLink. Finally, on the 92/43/EC issues we contended that the Scottish Government had failed to demonstrate that there would be no damage to the River Dee SAC, thus requiring consideration of alternative routes and measures, and that there was not a satisfactory alternative alignment for the AWPR around the school which would have avoided the destruction of bat roosts.

In his decision handed down 11th August 2011 Lord Tyre was not persuaded by the arguments of either John and Maggie Fraser or myself and refused both appeals (*William Walton & Others v Scottish Ministers* [2011] CSOH 13). On the critical FastLink issue he held that it was not an 'addition' to, or 'modification' of, the scheme but was merely a component of the project which was part of the broader strategy set out in the MTS. Since the MTS had not been modified he accepted Transport Scotland's submission that its antecedence meant that it not fall within the requirements for an SEA. Further, he held that there had been no procedural error in restricting the inquiry to an examination of the environmental and technical matters of the scheme and noted that it had still been open to the Reporters to have recommended against the entire scheme or the FastLink component. His judgment for some reason failed to address the 2003/35/EC transposition issue. Finally, he rejected both of the Habitats direc-

tive submissions, holding on the first that there was no credible evidence to cast doubt on the effectiveness of the proposed SAC mitigation measures and on the second, somewhat spuriously, that we had not shown that alternative routes would not also impact upon bat roosts.

To an individual that had far more confidence in the integrity and objectivity of the courts than in the flawed public inquiry process (during the campaign I had found time to complete the bar exams and had been Called to the Bar at Lincoln's Inn in October 2010) I found the reasoning of the judgment difficult to accept. Stuart Gale QC, who had acted for RoadSense during the inquiry and then, on a conditional fee arrangement (a CFA is a form of 'no win, no fee'), for me in the Court of Session, was of the view that I should appeal. His junior, Jane Munro, concurred and also offered to act on a CFA in any appeal to the Inner House.

Armed with the informal opinion of junior and senior counsel I asked for support from the RoadSense committee and membership. By this stage our annual general meetings were down to a core of around 60-100 people and our committee to around a dozen. Shortly after we announced our decision to appeal I was invited on to a local radio talk show to field questions from callers on why we were opposed to the AWPR. At the start of the programme I set out the basis of our decision to appeal and explained to listeners that one of our committee members alleged she had been told some years before by the then Alex Salmond MP that we ought to pursue the matter through the courts. Two days later, reporting a response from Alex Salmond to my radio comments, I found an over-blown picture of myself on the front page of the *Press & Journal* with the headline 'Is this protester the most hated man in Scotland?' with the First Minister claiming that I was holding Scotland to ransom and pleading with me to listen to the people and withdraw my appeal (*Press & Journal*, 2011a) (Picture 1, p62). A few days later the *Press & Journal* (2011b) sought to pile further pressure on me when it splashed the results of its own opinion poll across the front page claiming that 91% of local people wanted me to withdraw the appeal.

Alex Salmond again reiterated his plea for me to see sense.

Arguably such comments and journalism amounts to contempt of court and when they were raised by my counsel at an interim cost hearing Lord Osborne sternly observed that whilst it was one thing for Government ministers to express their support for policy objectives it was quite another to seek to offer public advice to a litigant to withdraw from litigation. The bench made it clear that they wished to hear no similar repetitions of such threats and, at least for once during the campaign, I felt that some sense of justice had been achieved (*Press & Journal*, 2011c; *The Telegraph*, 2011).

Any thought that I might win on appeal, however, was soon expunged at the start of the hearing when Clarke LJ expressed the opinion in forthright terms that my appeal was procedurally incompetent as I had not been served with a compulsory purchase order and so could not be an 'aggrieved person' under the terms of the Roads (Scotland) Act 1984. Putting to one side that I was appearing in the capacity of the chairman of a group that contained many members that had been served with compulsory purchase orders, such a perspective was completely at odds with the judgment handed down by the Supreme Court just a few months earlier in *Axa General Insurance Ltd and others v Lord Advocate* [2011] which seemed to sweep away the unduly restrictive title and interest requirements imposed by Scots Law. Although they agreed to hear the substantive issues the decision of the three judges was that none of the submissions had any merit and that my appeal should be dismissed. Central to Lord Clarke's opinion was that EU law provided for a system of tiered decision making and that once the Scottish Government had taken the policy decision to build the AWPR the scope for questioning the FastLink was limited to an examination of the detail of the alignment. He rejected any suggestion that the addition of the FastLink was a separate 'policy decision' (*Walton v Scottish Ministers* [2012] CSIH 19).

In March 2012 I decided to appeal to the Supreme Court. However, the court or-

dered that in the event that I won the Scottish Ministers would only be eligible to cover the costs of my senior counsel. Unsurprisingly, given the highly restrictive terms of the costs order both my counsel withdrew (a senior would not normally act in such a case without a junior) (*Press & Journal*, 2012a). Initially, notwithstanding that my experience was limited to making a bail application in my bar examinations, I decided that I would act as a litigant-in-person (*Press & Journal*, 2012b). Fortunately, within 24 hours my solicitor, Frances McCartney, informed me that one of Scotland's most eminent barristers, Aidan O'Neill QC, was prepared to act for me on a CFA with a junior, Chris Pirie, prepared to act pro bono (*Press & Journal*, 2012c). Of course experienced barristers are used to drafting complex pleadings at short notice but nevertheless the timescale, with the case scheduled to be heard in July so as to meet Transport Scotland's concerns about the 3 year time limited CPOs expiring, was extremely tight.

In the run up to the Supreme Court hearing I was subject to direct pressure to withdraw the appeal and was on the cusp of doing so until 3 days before the hearing when I was offered a new lecturing post at Northumbria University whose management made it explicitly clear that they did not regard my involvement in a campaign against a road scheme in Aberdeen as being incompatible with my contract of employment. The University of Aberdeen, my previous employer, had been a strong supporter of the AWPR through its membership of ACSEF (Aberdeen City & Shire Economic Forum) (*Times Higher Education*, 2013).

The appeal to the Supreme Court focused on whether the proposed FastLink should have been subject to a strategic environmental assessment and whether there had been a breach of common law fairness. To sustain the SEA argument we had to demonstrate, first, that the MTS was a plan that served a regulatory purpose for determining transport investment in the Aberdeen area and, second, that the addition of the FastLink was a modification to that plan and not, as Lord Tyre had held at first instance, just an expression of its detail. We were inviting the Court to grant

either an interdict (an injunction) prohibiting construction of the FastLink or a declaratory judgment confirming the need for an SEA.

In the lead opinion Reed LJ departed from the reasoning of Tyre LJ and held that even though he was prepared hypothetically to accept that the MTS was a 'plan' under the directive, the issue was redundant since the project had been taken over by the Scottish Government (*Walton v Scottish Ministers* [2012] UKSC 44). The consequence of this decision meant that the scheme was only subject to the requirements of an EA and not an SEA. The other judges concurred with the decision although, importantly, asking the rhetorical question who would protect the ospreys, Hope LJ made it clear that I did have the right to bring the action since it was evident that I was not a 'mere busybody' but somebody that had a genuine and long-standing environmental interest. Thus, the Supreme Court judgment, following its earlier holding in *Axa General Insurance Ltd*, has significantly advanced the right of those in Scotland without a direct property interest to challenge a decision and so brought the law of standing into line with that in England and Wales.

Notwithstanding the welcome expressed by the Scottish Government to the defeat of the final legal challenge there has, at the time of writing, still been no contract put in place for construction. This is no doubt because the Scottish Government now estimates that the final cost will be around £745m, more or less double the original official figure of £295-395m which underpinned the benefit-cost estimates cited at the inquiry which the objectors were not permitted to challenge. More recently Audit Scotland has concluded that the final cost of five key infrastructure projects calculated over 30 years of operation will be around £7.5bn, double their current cost of £3.8bn, implying a 30 year cost for the AWPR of around £1.5bn (Audit Scotland, 2013). There is a distinct possibility that this grand scheme will be started but never completed. In the meantime, the more sustainable and far less costly proposal for the enhanced cross-rail shuttle service included in the MTS has been quietly shelved.

Conclusions and reflections

At the start of the campaign, whilst recognising the reality of what it meant to challenge a Government sponsored project, I was nevertheless optimistic that our case would prevail. Like many in RoadSense I believed that the process by which the scheme had been promoted would be exposed as flawed either in the public inquiry or, more likely, in the courts. Other campaign groups had defeated trunk-road projects – such as at Oxleas Wood and the M65 extension in the Pennines – and I believed we could do the same.

The outcome is still difficult to accept. The decision to build a bypass was, according to Transport Scotland, based on the MTS published in 2003 which had not been subject to public consultation. The decision to opt against both the Murtle and the Pitfodels routes and in favour of the Milltimber Brae / Stonehaven route was essentially the product of politics and secretive negotiations rather than one based upon an objective and transparent assessment of acknowledged environmental and economic criteria. Prior to the Ministerial route announcement in December 2005 behind the scenes deals appear to have been concluded with the Camphill Village Trust and with the hitherto unheard of (and no longer existent) Pitfodels Conservation Society, effectively ruling out selection of either of the two long favoured 'inner' Murtle and Pitfodels routes. Once the more westerly Milltimber Brae / Stonehaven route had been selected then further deals appear to have been concluded with the International School of Aberdeen and the Church of Scotland so as to accommodate their interests. It is quite possible that other parties also concluded confidential agreements with the Scottish Government.

The decision to incorporate a hitherto uncanvassed 11.5km long spur into the preferred route was based upon a policy objective which had never previously been articulated or evaluated and which could not be scrutinised or challenged at the inquiry. The first opportunity anybody had to object to the FastLink was in response to consultation on the EA and draft road orders in November 2006 by which time

consideration of non-AWPR alternatives, including the widening of the A90, had been discarded. At no stage in the proceedings was there any evaluation of the comparative merits of the FastLink against other possible transport policy interventions, a position which the Supreme Court held was not in breach of the law but which nonetheless defies the principles of sound transport and land use planning.

In retrospect, however, by the time we had realised what had happened and formed ourselves into a campaign group in December 2005 it was, in reality, already too late. For reasons stated above nobody anticipated the selection of a route so far to the west of Aberdeen so we cannot blame ourselves for being caught flatfooted. By the time residents were formally consulted in 2006 all of the alternative possible options had been disbanded, notwithstanding the seemingly straightforward requirement of Article 2(2)(b) of the public participation directive. So once the preferred route had been selected, subjected to preliminary engineering works, had an environmental assessment prepared and had very large sums of public money spent acquiring objectors' properties then the prospects of persuading a planning reporter to recommend refusal to the Minister in the context of a highly restricted public inquiry were all but impossible. Our belief that the courts would remedy the shortcomings caused by the absence of an SEA, the risk of damage to the River Dee SAC, the destruction of bats, the skewed and limited public consultation exercise and the restricted public inquiry proved to be ill founded, illusory and possibly naive.

Mounting a challenge against any Government backed infrastructure scheme is likely to be a truly daunting experience for objectors. For about 20 of us in RoadSense it more or less took over our lives for around six years or so, and whilst it was often extremely draining it was ultimately a very rewarding life experience in terms of making new friendships and giving us a unique insight into the workings of the state. At all times we conducted our campaign in a transparent and dignified manner, something which cannot be said of all of the other parties involved. When the case moved to the courts in my name

I came under the media spotlight which was often quite unpleasant and intrusive. I was subject to a personal attack in the press by the First Minister and other MSPs, threatening and uninvited comments from passers-by, intervention by civil servants, hate mail in the blogosphere and undue and improper pressure to withdraw my appeal from senior staff in a long established and ancient institution in Aberdeen.

There is also an enormous financial expense incurred in fighting schemes of this size and complexity. In our case we had many members with relevant skills and qualifications and we were also able to raise considerable sums of money to fund our representation at the public inquiry (although we still found it difficult to persuade some consultants to act for us). Less privileged communities are at a far greater disadvantage in fighting projects that might threaten the amenity and integrity of their area. Tillydrone, a community in north Aberdeen suffering from multiple deprivation, was affected by a proposal for a road widening scheme and new river crossing during the same period covered in this paper. In sharp contrast to RoadSense that community found the task of raising funds for professional witnesses and legal representation for two short inquiries extremely demanding and eventually abandoned an intended court action on the grounds that legal aid was not available to an aggrieved property owner subject to a compulsory purchase order. This episode raises profound questions about access to environmental justice in Scotland for low income individuals and communities.

Whilst these constraints have to a certain extent been addressed following the recent judgment in *R (on the application of Edwards & Pallikaropoulos v Environment Agency et al)* [2013], which in certain circumstances limits for liability of the respondents' costs to £5,000, the claimants remain liable for their own legal costs which, without solicitors and barristers being prepared to act on a CFA or pro bono basis, could still be several tens or hundreds of thousands of pounds. Had I been fully invoiced by my legal team for the three hearings the total costs would have been at least £200,000-£250,000.

For all but the very wealthiest of people this will mean that engaging in protracted court action is out of the question and thus one must ask whether the UK is compliant with the Aarhus convention's requirement that litigation must not be prohibitively expensive (*Uprichard v Scottish Ministers & another*) [2013]. Fears over costs had also prevented John and Maggie Fraser from appealing Lord Tyer's decision. Arguably UK law on protected cost orders still falls a long way short of what is required under international law.

In making their decisions on major projects, and in line with long established public law principles, Ministers possess a considerable degree of discretion which the courts will only interfere with in circumstances where there have been clear and incontrovertible breaches of the law. Such an accommodating approach to the policies and decisions of Governments arguably places individuals and the environment at great risk since these interests, notwithstanding legislation protecting human rights and the environment, will usually be accorded far less weight than those of the wider population whom the state claims to represent. There were numerous occasions when the judges deferentially remarked that a rejection of the AWPR project after so much work had been done and so much money spent (it was submitted in the Supreme Court on behalf of the Scottish Ministers that around £130m had already been spent on property acquisition, engineering studies and professional fees) would be 'detrimental to Aberdeen' with the implication that any procedural errors were now water under the bridge. Some readers might find such expressed sentiments to be rather unsettling given what they reveal about the pliability of the so-called rule of law in the context of determining challenges to major infrastructure schemes.

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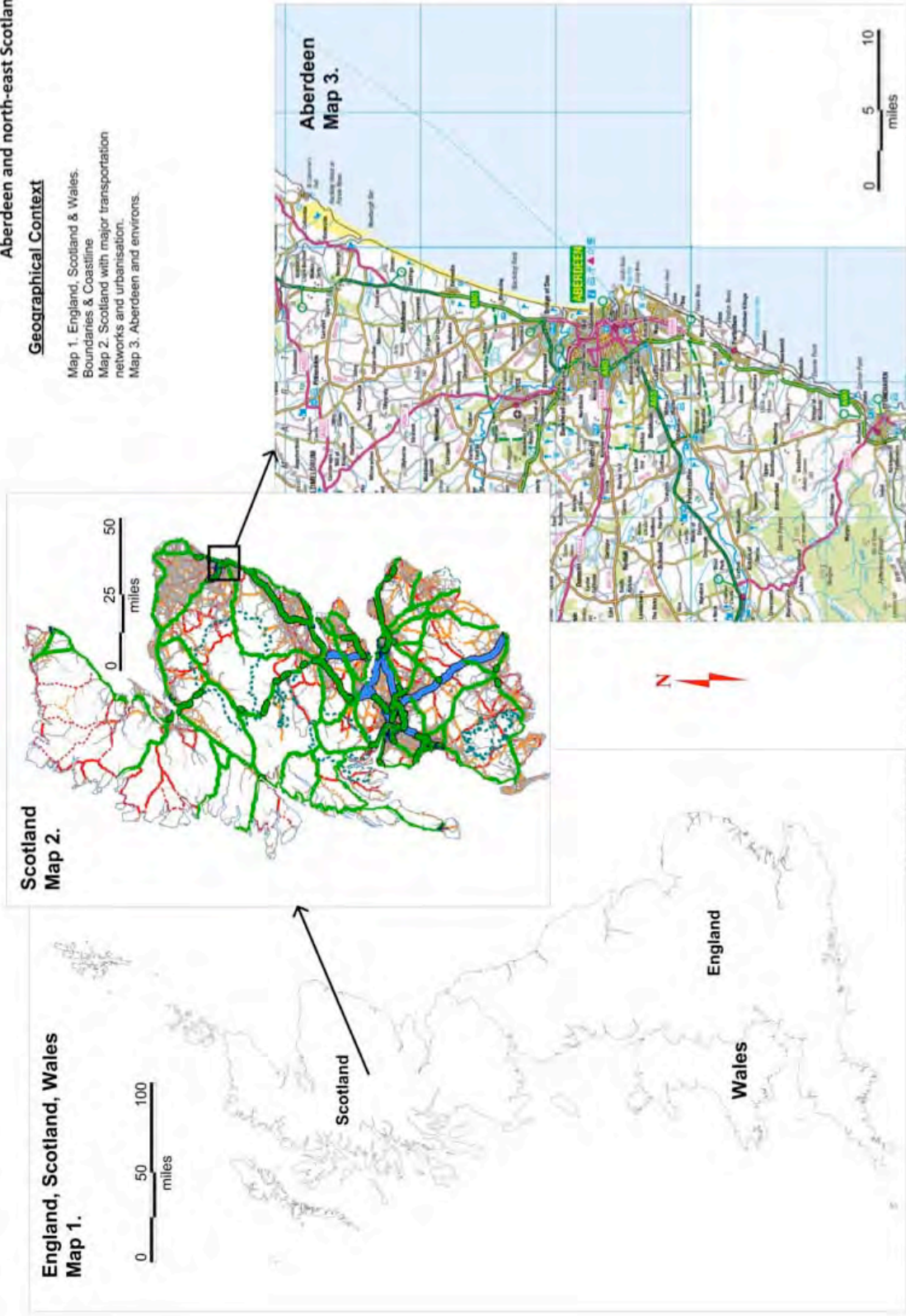
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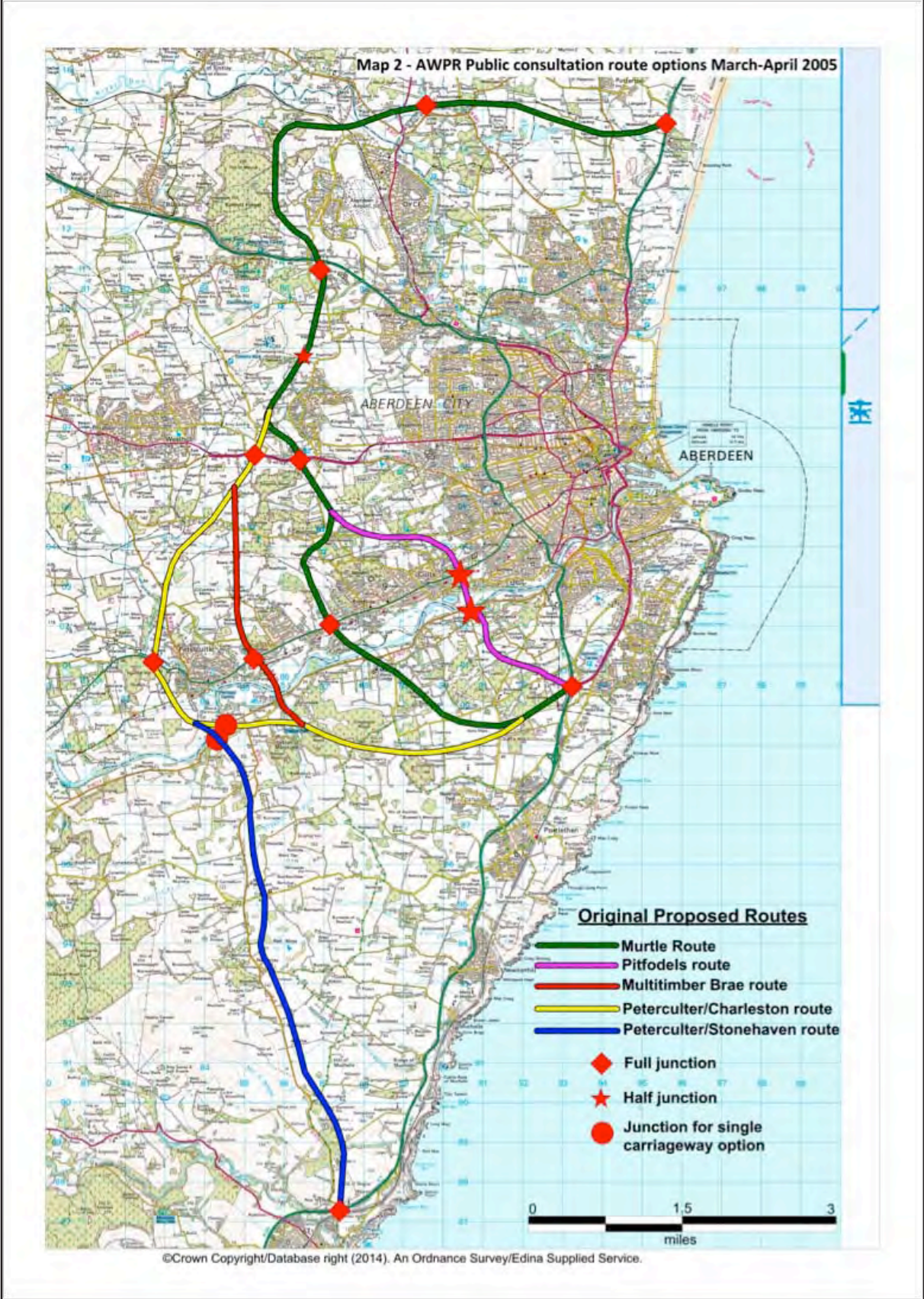
Map 1 - Geographical context of Aberdeen and north-east Scotland.

Geographical Context

- Map 1. England, Scotland & Wales. Boundaries & Coastline.
- Map 2. Scotland with major transportation networks and urbanisation.
- Map 3. Aberdeen and environs.



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Map 3 - Area of search for Milltimber Brae / Stonehaven AWPR, January 2006.

Approximation of search area utilised



Map 4 - Final AWPR route, May 2006.

ABERDEEN WESTERN PERIPHERAL ROUTE



Find out where on page 17

LOCAL NEWS SINCE 1747

The Press and Journal

TUESDAY SEPTEMBER 13 2011

Is this protester the most hated man in Scotland?

SALMOND ATTACKS BYPASS CAMPAIGNER AND URGES HIM: LISTEN TO THE PUBLIC

BY RYAN CRIGHTON AND ELAINE MASLIN



ANT: Anti-bypass campaigner William Walton said the first minister's "emotive" attack was making the matter personal

First Minister Alex Salmond has launched a scathing attack on the campaigner delaying the Aberdeen bypass - saying he risks becoming Scotland's most hated man.

The SNP leader accused RoadSense chairman William Walton of holding the country "to ransom" with a new legal challenge against the Aberdeen Western Peripheral Route (AWPR).

The road scheme - estimated to cost £400million - was backed by Scottish ministers in 2009 after a lengthy public inquiry, but work was put on hold after RoadSense filed a legal challenge in Mr Walton's name.

A judge rejected the 48-year-old university lecturer's arguments last month - but he is now challenging that, potentially blocking the project for another two years.

More than 14,000 people signed a petition asking him to stand aside and let the construction go ahead.

Last night Mr Salmond urged Mr Walton to listen to the public.

"All through my political life I have been in favour of the route," he told the Press and Journal.

"In 2006, I felt there should be a public inquiry because a new route had been proposed after the consultation.

"There has been a public inquiry, two years ago, which came down in favour of the route.

"At that stage Mr Walton should have said 'We've had our argument heard' and should have accepted the overwhelming opinion.

"He had his day - he has had many days at the public inquiry.

"He is flying against public opinion and making himself one of the most disliked people in this country."

Last week it emerged that a hearing for Mr Walton's fresh challenge might not take place until the end of 2012.

That would mean the road - which should have been open by 2017 - would not carry traffic until 2019.

The first minister added: "It is time for RoadSense to see some common sense. They should be duty bound to accept the result of the inquiry.

"Incredibly, he (Mr Walton) is talking about delaying this for longer. There is no

possible defence of that. Let's have some common sense.

"If he wants to listen to advice, it is to withdraw appeal - he is holding the country to ransom.

"The best thing now would be for RoadSense to see it and to let us get on with it."

Lord Tyre rejected Mr Walton's initial arguments last month and supported decision of ministers.

But Mr Walton believes his group was not given a proper opportunity to scrutinise the route - in particular "fastlink" to Stonehaven.

Members also feel they did not take proper notice of European law in reaching his decision.

Environmental assess

CONTINUED ON PAGE 17



Alex Salmond: "Let's have common sense"

EU to ban deep-water drilling set to fail

EU POISED TO APPROVE REPORT DISMISSING CALLS FOR MORATORIUM

EXCLUSIVE REPORT BY TIM PAULING

European Parliament is expected to reject calls for a moratorium on deep-water drilling following the Gulf of Mexico disaster.

Members in Strasbourg are expected to approve a report today dismissing calls for a ban on all new drilling in deep waters as a "disproportionate reaction".

The parliament's environment committee had proposed a ban until the lessons from the Deepwater Horizon oil spill in the Gulf of Mexico had

been learned. There was a questionmark over whether it would have been binding on Britain, but it was seen as part of the drive to increase controls over the UK North Sea.

The parliamentary report, collated by East of England MEP Vicky Ford, says it has been acknowledged that the issuing of licences for oil and gas exploration is the responsibility of member states, as is any suspension.

However, licensing procedures must conform to certain common EU criteria and mem-

bers the cautionary principle when issuing licences.

SNP MSP Alyn Smith said: "This draft report by Vicky Ford is a welcome contrast to last year's rather hysterical reaction to the Gulf of Mexico oil spill that came from some in the European Parliament.

"The introduction of an EU-wide moratorium on all new deep-sea oil drilling in EU waters was, and still is, a disproportionate reaction, and I am happy to see it spelled out as such."

The Green Group at the parliament is

ditch attempt to bring in the moratorium, but Scottish MEPs are quietly confident the report will be accepted.

A spokeswoman for Oil and Gas UK said the industry organisation agreed with Mr Smith that a moratorium would be disproportionate as its members already operated under a "robust" regime that was "fit for purpose".

"Testament to this is the fact that there has not been a major well-control incident in the UK in 20 years of drilling," she said.

"But the industry is not complacent and has carried out a thorough review of its operations and, where appro-



Picture 1: Front page of Aberdeen Press & Journal 13th September 2011

The Curse of the Zombie Roads

Patrick Kinnersly



Just the place for a fast highway?

This is the Wellhead Valley, between the town of Westbury and the western escarpment of Salisbury Plain. Wiltshire County Council wanted to build an eastern bypass of the town through here. After a long planning inquiry in 2008 the scheme was axed by the government because the transport case was too weak to justify the damage it would have done to this tranquil landscape. After appearing to accept that the scheme had been killed off, the county's new unitary council hopes to revive it by claiming that the safeguarded route survived refusal of planning permission and so can live on as a proposal in its new local plan for the period to 2025. The Westbury bypass is one of hundreds of 'Zombie roads' being brought back to life as Britain embarks on a new age of road construction. (Photo credit: Jenny Raggett, June 2009)

THE CURSE OF THE ZOMBIE ROADS

Old road schemes do not die. Like the legendary zombies they lie buried but undead, waiting for the call to rise again. The road at the centre of this article is the Westbury bypass in Wiltshire, supposedly killed off for ever after an almost unprecedented rejection by the planning system in 2009. That should have been its last chance to force a way through the tranquil Wellhead Valley between the town and the western escarpment of Salisbury Plain, right under the nose of the White Horse, the chalk hill figure that is the emblem of the town itself.

A map of the proposed scheme is on the web site of the White Horse Alliance - <http://www.corridor-alliance.co.uk/Maps.html> More about the history of the road and its revival can be found via this link and in Appendix 3 to this article.

But bypasses cannot exist in isolation. They may be marketed to a town or village as though the whole enterprise is conceived for no other purpose than to rid their community of danger, pollution and noise, but road builders are never that philanthropic. 'Your' bypass is just one part of their corridor to somewhere else. That was the strategy behind the formation of the A36 Corridor Alliance more than

20 years ago; we had to mirror what was then the government's plan to build a fast dual-carriageway across Hampshire, Wiltshire, North Somerset and South Gloucestershire linking the M27 to the M4. When Wiltshire's highway boosters started to develop their own 'growth corridor' along the A350 linking the M4 to the A36 in West Wiltshire we added this road to our territory and our title.

Zombie roads wait for the call to rise again. The government has found the ancient incantation bequeathed to it by the great leader of the road-building cult, Margaret Thatcher – 'Roads for Prosperity' and 'The great car economy'. The Westbury bypass is now rising from its grave. So, unbelievably, is the A36 Salisbury bypass.

The manifest foolishness of the government's programme for massive road-building at this stage of our history is almost beyond satire. I know I must treat it as a lethal threat – and I will do so later in this article – but all the same ...

ZOMBIE ROADS – RETURN OF THE UNDEAD

Unless you are over 40 you probably won't remember that cult classic of the 1990s, *The Zombie Roads*. For those too young to have seen it and those obliged to forget it as they head towards the upper levels of transport planning, a brief recap may help.

*In a small country off the coasts of northern Europe the government has been taken over by a covert alliance of oil companies, car makers, construction firms and property developers. This is of course a totally implausible premise (think - *Who Killed Roger Rabbit*, in which the good name of General Motors is besmirched by suggesting that it actually bought up the trams of Los Angeles in order to destroy the city's rapid transit system. As if!)*

*The genuinely scary noir style of *The Zombie Roads* was lightened by the blatantly satirical characterisation of the villain, the evil Maggi, stalking the land chanting 'Roads for Prosperity, Roads for Growth.' But even in a genre I shall call *blacktop noir*, the villain must somehow come to a sticky end. But how - and who are you*

gonna call? All the stock defenders of justice and liberty are shown shrinking away from a fight: a procession of green gurus, useless lawyers, timorous planning inspectors, flaccid MPs and compliant judges slinks across the screen. As rivers of tar engulf the land it seems no-one can stop 'the biggest road-building programme since the Romans'.

So, it's down to a raggle-taggle resistance movement led by fearless young idealists to challenge the might of Maggi's armoured divisions. They fight the zombie roads in the chalk hills, through ancient woods and across the rooftops where urban motorways gnaw at the suburbs of the capital city. Armed only with D-locks, fierce courage and limitless powers of invention, the young guerrillas slow the advance of the zombie roads; it takes longer to cut through the rolling downs, hack tree-by-tree through the woods, drop-ball house-by-house towards the city centre. Maggi's henchmen grow nervous as the gold in the great ironbound war chest runs low - just when they need sacks of the stuff if they are to hold onto power.

In the final scene the imprisoned resistance leaders are set free and carried shoulder high through the streets. Maggi is sent into exile with a cutlery drawer of daggers in her back. The land is quiet again save for the sound of tar and concrete slurping out of the valleys like dark glaciers retreating.

As the credits roll we see, far off on a moonlit hill, young people dancing in a circle of beech trees.

It should have been impossible to make a sequel to *The Zombie Roads*. It was so Nineties, so 20th Century. Those were the days of rampant monetarist economics and unshakeable confidence in an endlessly rising market, before 'we' knew about global warming, peak oil and the longest recession in history. Ranged on the other side was a youth culture of dissidence and do-it-yourself social invention rebelling against attempts to suppress its raves and other manifestations of new-age indifference to global commodities, the 'Great Car Economy' and other supposed attractions of 'the property-owning democracy'.

By the middle of the Nineties, senior Conservative cabinet ministers including

Environment Secretary John Gummer¹ had renounced their faith in tarmac as a growth medium and torn up their sacred text, *Roads for Prosperity*². The reports of the Standing Advisory Committee on Trunk Road Assessment had confirmed that building roads just encouraged traffic growth and further congestion³ and did not necessarily bring economic growth or regenerate regions with poor connections to the strategic road network⁴. A swathe of road projects was cancelled. But the 'Nasty Party', with more to live down than environmental destruction, suffered a crushing defeat at the general election of 1997.

The incoming New Labour government of Tony Blair had of course promised nothing truly radical on the transport front. Crucially there would be no re-nationalisation of the railways system so disastrously privatised by the Tories. But the good news was that Deputy Prime Minister and life-long transport union member John Prescott wanted integrated transport and integration of environmental and transport planning. The result was a new super-ministry, the Department for Environment, Transport and the Regions (DETR) and the Commission for Integrated Transport. The intention was to join up planning of development with planning of transport across the regions of the UK. He wanted to shift motorists from cars to more sustainable forms of transport - including trams - and freight from road to rail. But his commitment to eat his hat if he did not defeat traffic congestion went unfulfilled. Traffic continued to increase; the hat remained uneaten. It wasn't really his fault. While he may have already bitten off more than he could chew by joining up so many ministerial functions his real mistake was to underestimate the power of the roads lobby and the belief embedded in all government departments that better transport must mean more and better roads; other modes, including rail, bus, cycling and walking, were alternative transport.

But for us in the SW there was a phoney peace, a brief lull after the Labour government scrapped the A36 Salisbury bypass in 1997. The Tories had already begun to dismantle the Department of Transport (DoT) plan for a fast dual-carriageway along the

entire route from the M27 near Southampton to the M4 north of Bath and Bristol. They too would have been forced to scrap the Salisbury scheme for environmental reasons. But after years of anti-road campaigning we allowed ourselves to believe that this cancellation and others around the country might just herald a new age of rationality.

We looked forward to transferring our energy from the soul-destroying work of stopping bad things to the creative challenge of promoting good things. In Salisbury, anti-bypass campaigners formed a local group of Transport 2000 and set about promoting 'home zones', cycleways and better buses. In 1998 we even launched a 'Green Commuter of the Year' competition. (The 'Brown Wheel Trophy' was awarded to the schools of Salisbury for 'services to congestion'. The County Council declined to receive an award that recognised its failure to develop school travel plans).

John Prescott's policies for integrated transport appeared to be deflecting the road-builders' juggernaut, if not exactly turning it round. Wiltshire County Council's first Local Transport Plan (LTP1), published in July 2000⁵, embodied some of the new as well as too much of the old. On the one hand it offered the poisonous fruits of the Salisbury Transport Strategy, a tarmac-laden study commissioned from consultants WS Atkins after the cancellation of the Salisbury bypass⁶. On the other hand the LTP contained progressive ambitions for reopening railway stations and even toyed with the notion that the council itself might hire rolling stock and run local rail services.

With hindsight it is easy to see that the game was already up. The railway improvements were just green garnish on the old high-calorie junk-transport menu. The days of modal shift were over; New Labour had done a handbrake turn and was already motoring off in the other direction as fast as Tony Blair could drive it.

In July 1999 he had appointed the former trade union militant turned media mogul Gus (by then Lord) Macdonald as Minister for Transport, an appointment he held for

just under two years. By the time the first LTPs appeared it was clear to campaigners that the word had gone out to regional government offices that local authorities could dust off their old road schemes without undue embarrassment.

Wiltshire County Council was quick to revive sections of the DoT's old A36/46 superhighway plan and present them as local relief and link roads around Salisbury and 'improvements' along the A36 itself.

In September 2000, independent hauliers and farmers, supported by Conservative Party leaflets and petitions, protested against the rising cost of motor fuel by blockading oil refineries and staging go-slow convoys on motorways, demanding a cut in fuel duty. Neither the police nor the oil companies tried to break up the thin lines of protesters at the refineries, in marked contrast to the treatment of obstruction by trade union pickets or by activists trying to halt road projects such as Twyford Down.. Panic buying and petrol shortages damaged the economy and the popularity of the Labour party. The fuel duty escalator was switched off. A more populist approach to transport was switched on.

ZOMBIE ROADS 2 – NOT DEAD BUT SLEEPING

By 2001 it was obvious that Labour's brief flirtation with integrated transport was over. In the new consensual spirit of 'New' Labour, transport and environment campaigners were being consulted to death on local transport plans and on the 'multi-modal studies' designed to reassure the road-builders that cancelled roads did not mean the end of hope. It was soon clear that 'multi-modal' did not mean what it said on the label. If the study favoured certain road schemes they would be built; if it favoured massive investment in rail corridors along the same routes the shareholders of the privatised infrastructure company, Railtrack, would not cough up the cash. The separate private train operating companies would not hire more rolling stock to support better services; the private companies set up to provide them with rolling stock would not in any case purchase new trains to expand the ageing fleets they

had purchased at knock-down prices from the government. The government would not inject the extra cash required to unlock this vicious circle. When the possible outcomes of multi-modal studies were so limited there seemed little point in 'environmental transport stakeholders' wasting time proposing strategies that had little chance of being realised. I resigned from further involvement with consultations on the London to South West & South Wales Multi-Modal Study (SWARMMS)⁷.

The railway stations that LTP1 earmarked for reopening remained closed. When Wiltshire County Council's plans for road improvements along the A36 corridor were abandoned or rejected it switched its attention to its first love, the A350 'growth corridor' between the M4 at Chippenham and the A36 at Warminster. After building one complicated and expensive new section, the Semington-Melksham Diversion, in 2004 it came unstuck at Westbury. The government declined to fund its 2005 bid for an A350 eastern bypass of the town. After powerful lobbying of the South West Regional Assembly, in alliance with the other shire counties of the South West, WCC secured funding for a revised scheme and applied to itself for planning permission in 2007.

Fortunately the Planning Inspectorate agreed with us that the application was a 'departure' from the Local Plan. It was called in for determination by the Secretary of State and a planning inquiry ordered. We then had to embark on a legal challenge to get the council's proposed starting date for the inquiry postponed to give us time to assemble all the expert evidence needed to expose the flaws in the council's case. The Treasury Solicitor agreed that this was a reasonable request from a body representing thousands of people through its 12 member organisations. This meant that we did not have to take the argument to the High Court and gamble our hard-won fighting fund before the inquiry had even started.

After a long public inquiry in 2008 the inspector's report was a damning indictment of the scheme. The government accepted his recommendations and in July 2009 rejected the planning application

<http://www.corridor-alliance.co.uk/news-july-2009.html>.

The council had wasted the best part of £5m on a demonstrably dud transport scheme that would have wrecked one of Wiltshire's finest landscapes. The £40m budget allocated to the road was transferred to the dualling of the railway line between Swindon and Kemble.

It had cost us tens of thousands of pounds to achieve this almost unprecedented victory. By campaigning at every level of the political system and investing in legal representation and expert evidence on everything from transport economics to dormouse ecology we had defeated a road which, like most major highway projects, was expected to be rubber-stamped by the planning system. The council was so confident of success that it had already predicted a start date and begun to get estimates from suppliers of stone and gravel.

We had also effected a rare modal shift of the kind foreseen but not achieved by John Prescott in the heady days of 1997: money for a destructive road scheme had been switched to a rail improvement that had been awaiting financing for years but had not received the necessary prioritisation in a regional funding process dominated by shire counties.

We had learned from the Corridor Alliance that old roads never die. They just lurk in the plan chests in Whitehall and county halls across the land, waiting for the next business-friendly government to flash a war chest of blacktop gold with which to win - the Daily Mail will assure them of this - the hearts and votes of long-suffering and overtaxed motorists.

So we decided not to disband the White Horse Alliance. Every year in July we hold a garden party overlooking the exquisite sweep of the Wellhead Valley. We are there not just to celebrate the anniversary of the road's cancellation but also to raise funds for the ongoing struggle against the indelible plans of the new unitary authority, Wiltshire Council (WC), to ream out the A350 'growth corridor'. Any increase in capacity upstream of Westbury would induce more traffic, reverse the steady decline in congestion through the town and strengthen the feeble case for a bypass.

ZOMBIE ROADS 3 – THE REAWAKENING

Five years on we are back where we started. Another Conservative government (in coalition with the Liberal Democrats - a party notorious among environmentalists for 'talking green' while it supported the A34 Newbury bypass and, more recently, the A380 South Devon Link Road) is back on the black stuff. In an uncanny echo of the last Tory splurge on road-building, Chancellor of the Exchequer George Osborne has announced spending of £18bn on what spin doctors call 'the biggest roads programme since the Romans'. He seems to have built a history bypass around the £23bn programme launched in 1989 - 470 schemes including 150 bypasses - which ministers described at the time as 'the biggest since the Romans'.¹

This time round, the programme is priced at £18bn (with another £10bn for road repairs and maintenance). See 'Investing in Britain's Future. The shopping list includes 221 extra lane-miles on the busiest motorways, and a long-term ambition to dual and grade-separate most of the non-motorway network managed by the Highways Agency.

The programme in 1989 was based on the government prediction that traffic would rise by 142 per cent over the next 30 years. The current one is based on the Department for Transport's predicted rise of 40 per cent over the next 40 years. These forecasts of everlasting traffic growth prompted Professor Phil Goodwin to produce his famous 'porcupine graphs' [reproduced by Dr Chris Gillham in his submission to the Department for Transport's consultation on the Draft National Networks National Policy Statement (NN NPS) See Appendix 4]⁸.

So here we go again - another massive national programme of road construction, another round of consultation over the same old road schemes. This time we are well into the 21st Century and old enough to know better. The economy has melted down, the icecaps are going the same way - but even if, implausibly, we could totally decarbonise transport, or at least limit carbon emissions from our individual trans-

port activity so that they were contained within our personal carbon ration (two tonnes a year per global citizen if we are to keep planetary warming below 2 degrees C), we would not address the larger problem of unsustainable use of the planet's resources. Indeed, as I argued in a previous article for WTPP¹⁰ just decarbonising transport could make things worse by enabling us to carry on doing more of the same. Bigger, faster and cheaper transport – whatever it is powered by – enables the larger unsustainability of which climate change is the most obviously threatening symptom. Advocates of the trickle-down theory of world development (rather than the trickle-up theory in my analysis) will resent the analogy but I offer it all the same to convey the destructive power of 'business as usual': converting a battle-field tank to electric power would deal with only one of the things wrong with it.

By refusing to acknowledge the role of Big Transport as the enabler of global unsustainability, governments and corporations can continue to work on the assumption that eternal growth in world trade will always be feasible. Cheap labour and cheap resources – everything from food to minerals – can be exploited in distant locations and goods shipped at marginal cost back to the markets where they will be consumed and surplus value and profits realised and concentrated.

Even the most stupid government should be able to see that this model is destructive and unsustainable. Infinite growth is self-evidently impossible on a planet with finite supplies of land, water, food, minerals, fossil energy and the other resources needed to create and maintain a habitable world. Our coalition government in the UK ('the greenest ever') does not just ignore this constraint at the end of the game, it is going out of its way in a time of supposed austerity to lavish money on making the mechanism of destruction go faster.

It also seems bent on removing any obstacles that might obstruct new highways and other transport infrastructure: the assessment of risks to biodiversity is to be fast tracked; the freedom of planners and objectors to argue that a road scheme would increase carbon emissions is to be

removed and compliance with European biodiversity law is to be fudged by a willful misinterpretation of the Habitats Directive.

The government's draft National Networks National Policy Statement (NN NPS) proposes that the whole £18bn package of highway improvements should effectively bypass the European legislation by claiming to be justified by 'Imperative reasons of overriding public interest' (IROPI). I challenged this simple-minded interpretation in my response to the consultation on the National Policy Statement – see Appendix 1¹¹.

By arguing here that Big Transport is an essential enabler of global economic growth it might look as if I am accepting the Department for Transport's assumption that new roads almost inevitably foster economic growth. After more than two decades of challenging this assumption and witnessing at first hand the manifest failure of sustained road-building to deliver reliable economic growth (was our current financial crisis triggered by a shortage of road capacity?), I would hate anyone to think I had swallowed the doctrine of Roads for Prosperity. My colleague Chris Gillham has dissected with forensic precision all the reasons for not believing in a causal link between road investment and economic growth. As he pointed out in his submissions to the NPS consultation and the House of Commons select committee on transport – see Appendix 2¹² the national economy and road capacity have both grown in recent decades, but no official body has ever produced any evidence of a causal link between the two. Did road investment boost economic growth or were more roads built to accommodate the traffic generated by industrial expansion?

If we accept the second proposition, that economic activity of certain kinds generates more road traffic, then we can begin to get into the minds of those who insist that building roads boosts industrial investment. They may know very well that the relationship is the other way round but it doesn't matter; they have other reasons for wanting more roads built. As long as the weighted spools of the cost-benefit analysis (COBA) fruit machine can be

trusted to come up with a row of cherries, they can 'demonstrate' that road-building benefits ordinary people by giving them faster and more reliable journeys. Neo-liberal prejudices against subsidising any part of the public realm can be satisfied by arguing that roads 'pay for themselves' and even if they didn't (which they don't - see Gillham again⁸) motorists have already paid for them through taxes on vehicles and fuel (of course they have not begun to cover the external costs of motoring (see Pearce, quoted in Gillham¹²).

Just in case they are ever forced to admit that the COBA formula might be less than scientifically 'robust', the DfT and HA have recently added a new 'benefit' to the case for road expansion - green-field housing estates, business parks and other economic assets will be enabled by new highways or new junctions on the strategic road network. Along the South coast we were told that improvements to the M27/A27 would help to develop the economic potential of two redundant military airfields. The supposed economic gains from this wheeze were not set against the economic damage that expansion of rival airfields might have done to the existing airport at Southampton, or the damage caused to environment and health by spreading aircraft noise to even more people.

We were assured that the developments made possible by such road projects would unlock billions of pounds of investment. This is the equivalent of the electrician and the maker of kitchen appliances getting together to assure you that you will be better off if you put in a new ring main with lots of new sockets. The primary purpose of the expanded road system is not so much about moving vehicles along a ribbon of asphalt as opening up land for development, just as the primary function of the ring main is to support an ever-expanding array of electrical devices. Shifting more and more electrons through copper wires is the consequence not the cause. In both cases the network will overheat unless its capacity increases. The new housing estates will generate thousands of vehicle movements a day; the business parks thousands of car and HGV trips in a daily ebb and flow of goods and workers. National and local govern-

ment will provide the required slip roads and roundabouts; the developer may or may not have to contribute to the cost by sharing some of the gains that flow from opening up new land for these new 'appliances' that will be connected into the national ring main. Any subsequent expansion of the road network required to accommodate the traffic generated by the new developments will be funded by the state. The COBA assessment will show that the investment will pay for itself by reducing delays on the link that has just been gummed up by the developments.

This is the model of spatial and transport planning we have been confronting in Wiltshire since 2009 when the council published its first draft of the local plan for the county until 2025. Large out-of-town developments are to be located within the A350 'growth corridor', creating a 'need' for better road links to and within the corridor, thereby expanding its 'strategic' capacity. It now looks as if the government's new bodies for funding local transport - Local Enterprise Partnerships (LEPs) and Local Transport Bodies (LTBs) - will pick up most of the bills for everything but the local distributor roads.

The Sustainability Appraisal of Wiltshire's 'core strategy' warned that the scale of residential and business development proposed in West Wiltshire would generate so much traffic that the A350 route would eventually have to be dualled. This did not cause the council to modify its plan; indeed the prediction must have sounded like sweet music to councillors and transport officers fixated for years on the vision of a fast highway between the M4 and the A36 route via Salisbury to the port of Southampton, labelled as a 'European gateway' in the LEP report Transport vision 2025. The Highways Agency quoted as 'evidence' for its SW Peninsula Route Based Strategy (RBS) an unnamed 'stakeholder' who suggested that for the A350 to 'work', it needed to be a dual route and had the potential to 'take on the role of the A36/A46' - see Appendix 3¹³.

The A36/A46 trunk road goes from the M27 near Southampton to the M4 north of Bristol and Bath. The A46 section of

the route is indeed unsuited to the role of trunk road. Severe environmental obstacles prevent a direct link between the A36 and 46 across the flood plain of the Avon east of Bath. Plans for a fast highway from Bath to the M4 were withdrawn for environmental reasons in the 1990s. Substituting the A350 for this part of the A36/46 corridor would not help Wiltshire Council achieve a fast route to Southampton. The whole route is stacked with environmental obstacles. Those at Salisbury were declared insuperable when the government scrapped the Salisbury bypass in 1997. East of Salisbury the route passes through Hampshire where the county council has so far shown more interest in taming the traffic through its villages than in reinstating the government-planned bypasses of the 1990s.

However Investing in Britain's Future expresses a long-term ambition to dual and grade-separate most of the Highways Agency's non-motorway network. The Swindon and Wiltshire LEP has naturally seized the opportunity to add a Salisbury bypass to its 'reference list' of long-term ambitions. The A350 Westbury bypass is of course on the same list.

So, local as well as central government is locked into the business of expanding road capacity for the foreseeable future.

A local authority that wants to plan something more suited to the needs of the 21st century will find it difficult to achieve. For a start councils no longer have enough skilled staff to do all of the detailed planning. The alternative is to reach for the 'plug-and-play' solution: in effect you just subcontract most planning of housing, employment and transport to large developers, on condition that the local development plan will permit them to open up the large tracts of virgin farmland they put into their land banks years earlier. Selling the resulting 'spatial strategy' to the Planning Inspectorate should be easy as long as you can show that you and the builders can deliver enough homes to satisfy the government's requirements for an adequate 'five-year supply'. This centrally imposed quota will trump any requirement by local communities that their countryside not be paved over.

It is almost inevitable that this approach to development produces large car-dependent estates remote from town centres. Small clusters of houses close to town centres take more design work and it is difficult to accumulate the housing numbers required, especially when sites are on former industrial land. The same applies to small enclaves in villages where a council might want to meet a desperate need for affordable homes for rural workers.

Supposing the council wants to do the right thing by locating new housing and employment allocations around new or improved public transport services? This classic formula for sustainable development is almost impossible for a local authority to achieve. Serving new development with new roads is a doddle by comparison. Councils cannot just put in a new railway station. It takes years of negotiation with Network Rail and train operators. Passenger numbers have to be assessed in commercial terms. Rail franchises have to be revised, extra rolling stock hired (none is likely to be available). There is no national plan for increasing the capacity of the local rail network. Indeed the government has ruled out major investment in improving local rail services because it would only add to delays on the system – a constraint curiously absent from plans for upgrading and repairing the road network.

Buses might seem like an easier option, but neither the council nor the developers will want to underwrite revenue costs stretching far into the future. There is no formula to demonstrate that such investments would 'pay for themselves' by cutting carbon emissions, removing traffic from congested roads or increasing social cohesion.

When doing the right thing is so difficult we have to conclude that it is meant to be like this. Why do the mandarins at the DfT insist on adding more sharply rising spikes to the downward curve of the porcupine's back? How can they justify their latest spike, a prediction of 40 per cent traffic growth by 2040, when it relies among other absurdities on the assumption that oil prices will fall every year until 2030? Why manufacture fictional graphs of ever-rising demand for road transport while ignoring

the actual evidence of steadily rising demand for rail travel?

The only conclusion to be reached is that government policy requires them to do these things. There must be a political motive arising from actual economic benefits accruing in very influential places. I would be the last person to believe that these benefits are the value of accrued time savings totted up by the COBA formula or the 6 to 1 return on each pound of road investment claimed by transport minister Philip Hammond.

Governments and big businesses do things we regard as stupid but it would be naïve to think that they are actually stupid when it comes to looking after the short-term economic interests of the large corporations whose support determines their political fortunes. This search for motivation goes far beyond the obvious vested interests of the car-makers, road-builders and oil companies that make money from road construction. The search takes me back to the central role of Big Transport in ensuring that the destructive globalisation of extraction, production and distribution can expand and grow for as long as we, or the planet, will permit it.

Sitting under an oak tree on the western shore of Southampton Water you can see one of the biggest parts of this normally invisible infrastructure in action. Day and night the cranes unload the vast container ships that bring us the boxes of shoes, clothes, electronic goods and all the supposed necessities of modern life that are more profitably made in China, Vietnam, South Korea, Malaysia or Indonesia than in Europe. The place where we sit was destined to be an even bigger container port, able to accommodate the next even bigger generation of ships. The Dibden Bay deep-water port was not built. A planning inquiry found that the resulting damage to the Southampton Water Special Protection Area for birds would have breached the European Habitats Directive. If – or more likely when – the zombie port returns, it's possible that a planning inspector would again recommend rejection. But this government has little time for the 'gold-plated' environmental safeguards laid down by the EU. We would expect it

to claim for a new container port the same privilege it claims for its bloated new roads programme: 'imperative reasons of overriding public interest' would prevail over damage to protected habitats and species. As well as the container port, the Dibden Bay development was designed to provide a Ro-Ro ferry berth and a terminal for dredged sand and gravel. More heavy trucks and cars would have flowed along 'our' road corridor, east and west along the M27, and north on the M3 (through the notorious cutting at Twyford Down, east of Winchester.

This ever-expanding global infrastructure of bigger ports and airports and bigger ships and planes cannot work without more and bigger heavy goods vehicles. The UK has so far resisted proposals to double the maximum weight of HGVs from 40 tonnes to around 80 but we have been warned. Now we begin to see 'transport economics' from the point of view of globalising governments and corporations. What would happen if the big new trucks carrying the big boxes from the big new container port couldn't get to the hangar-sized distribution warehouses located at strategic points along the motorway and trunk road network (but not in peripheral regions of the country because these can be supplied from megasheds closer to bigger markets)? The whole model would collapse. Ships would stand idle as the system backed up all the way to Cherbourg, Rotterdam and Shanghai. 'Just in time' would become 'just too late'. Production lines would stop for want of components. Wages would be paid for waiting time, markets missed, perishable goods sent to landfill.

The prospect is unthinkable and no government must ever be allowed to forget the price it will pay if it fails to provide a strategic road system 'fit for the 21st Century'. Predicting a 40 per cent increase in traffic between now and 2040 should provide enough spare road capacity to ensure that the global transport system never reaches gridlock. Preventing the planet overheating is not our concern. Well, not until it begins to hit the bottom line.

This conflict between the demands of global economic growth and our more press-

ing needs for the simple necessities of human existence was illustrated when the Highways Agency staged a stakeholder 'engagement event' in Taunton, Somerset, on 24 January this year. Most of those present were from local authorities and LEPs around the South West region. The few environmental activists who made it to the event were there because national NGOs had informed their local contacts and the word had gone round. The Wiltshire Wildlife Trust and the Natural England officer most involved in wildlife protection in the county were not informed. The environmentalists who did make it were able to point out that the 'route based strategy' (RBS) under consideration was entirely mono-modal, concerned only with examining ways to improve the A303/A358/A30 road corridor into the SW. They were also able to highlight the constraints that have hindered previous attempts to turn the route into a dual carriageway between the M3 and the far west of the peninsula. These include among others the World Heritage Site at Stonehenge, the European protected habitats of Salisbury Plain and the Hampshire Avon, and the Blackdown Hills Area of Outstanding Natural Beauty.

It seems that the Department for Transport and the Highways Agency would rather not be burdened by such considerations. Officials have been instructed to find 'shovel ready' or 'no-regrets' schemes, along the corridor in time to garnish the Chancellor's autumn statement. The local authorities and electors of the SW need to hear that something will be done to speed up the 'second strategic route into the region'.

The 24th of January was also the day when Somerset County Council declared a Major Incident after weeks of flooding in the Somerset Levels. The village of Muchelney had been cut off and supplied only by boat for three weeks; further heavy rain was forecast for that weekend.

After the 'engagement event' at Taunton transport campaigners returning to Wiltshire by train stared out in disbelief as the track became a causeway between floods stretching as far as the eye could see.

On 4 February heavy seas took out the rail line at Dawlish. Business leaders and

politicians in Cornwall and Devon said the disruption would cost the economy hundreds of millions of pounds. Businesses in Plymouth estimated the cost at £1m a day.

Exeter MP Ben Bradshaw repeated a question he had asked the government before the disaster - what had happened to £31m promised in 2013 for 'resilience work' to protect the line from damage by the sea? The threat of storm damage at Dawlish has been known since Brunel's original line was first severed in the 1880s. Creating a diversionary route by reinstating services via Okehampton axed in the 1960s would help to ensure that the SW stayed connected during periods of extreme weather. It would also offer rail connections to many poorly served rural communities. Unfortunately the cost-benefit rules governing rail investment would tend to rule out an investment meeting so many requirements of a sustainable future. In his submission to the DfT's consultation on its policy statement for national networks [see paras 1.10 - 1.11 in Appendix 4⁸] and his submission to the Highway's Agency strategy for the SW⁹ my colleague Chris Gillham contrasts this failure to pay for storm-proofing the railway route into the region with the £130m being so enthusiastically spent a few miles away on the South Devon Relief Road between Newton Abbott and Torbay.

By the following Saturday, Exeter was totally inaccessible by train due to flooding on the Somerset Levels and a landslip at Crewkerne. The route from Bridgewater was blocked by the flooded River Parrett to the south of the town and floods at Athelney blocked the main line from Castle Cary[at Athelney].

At the time of writing, well into March, the Somerset Levels are still flooded. The severed railway line at Dawlish is not yet repaired. There are few serious delays on the A303 trunk road into the region, except during the morning and evening rush hours. At the peak of the summer holiday season motorists heading for the SW may have to crawl slowly past Stonehenge. This is one of the bottlenecks being studied by a 'Route based strategy' designed to find road projects that can be announced in the Chancellor of the Exchequer's Autumn

Statement. Earlier plans for a long tunnel under the monument were abandoned because they were simply unaffordable. Widening the road at this point would put the UK in breach of its duties to protect the World Heritage Site.

The people of the region may well want a faster road into the South West. But, given a choice, they might rather see their share of the Chancellor's £18bn roads budget spent instead on flood defences, the railway and its decrepit rolling stock and all the other things they will really need for their survival and wellbeing in the 21st Century. No one has asked us which we would prefer. Instead we have been asked which Zombie roads we would like to see brought back to life. It is a very dumb question.

Author details:

Patrick Kinnersly

Patrick Kinnersly is a founder member of the A36/A350 Corridor Alliance (ACA), formed in Salisbury, Wiltshire, in October 1993. He is Secretary of the White Horse Alliance which was established in the summer of 2007 to fight the proposed Westbury eastern bypass. WHA is a coalition of 13 organisations ranging from national NGOs, including Campaign for Better Transport, to regional and local bodies including ACA, CBT and four parish councils.

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10. WTPP Vol 15 No 4 (2010) Climate change on a planet near you. Kinnersly <http://www.eco-logica.co.uk/pdf/wtpp15.4.pdf>

11. Kinnersly Submission to National Networks National Policy Statement (NN NPS)

12. Gillham 2013 Submission to Transport Select Committee - Strategic Road Network

13. Kinnersly Submission to consultation on SW Peninsula Route Based Strategy (RBS)

Appendices:

These appendices contain some of our responses to consultations on the government's road-building plans.

Appendix 1

Submission to National Networks National Policy Statement (NN NPS)

Patrick Kinnerly

Department for Transport [public consultation on the government's draft national policy statement for national networks](#) in England, 4 December 2013 to 26 February 2014

Submitted 26 February 2014

I note that the NPS is supposed to cover rail as well as road networks but it is clear that you have returned to the dream time of 1989 and 'Roads for Prosperity' when roads investment was to be doubled over the next 10 years. Then as now this was called 'the biggest road programme since the Romans.'

Experience of the Corridor Feasibility Study 'engagement events' and study of the RBS documents makes it clear that we are embarking on a programme of mono-modal studies with a view to producing a list of quick-fix road schemes with which to garnish the autumn statement.

As DfT has already told us that investment in local rail is not desirable I doubt if the autumn statement will contain much by way of new rail investment apart from a few millions for replacement of the missing link at Dawlish.

As a campaigner for sustainable transport who has wasted time on numerous consultations over the last couple of decades I vowed after my exit from SWARMMS not to engage in this nonsense again. Transport planning needs to be integrated. You have fragmented it into a mess of acronyms – LEPS, LTBs, SEPs, RBS etc – out of which we see emerging all the old zombie road schemes, including unbelievably the Salisbury and Westbury bypasses, both rejected by Secretaries of State after ex-

haustive examination at planning inquiries.

Now we are told that planners may not consider objections to such absurd projects on grounds of their adverse impacts on climate change. Planning will be streamlined to eliminate challenges that hold up the process of 'delivery'. Environmental assessment can be simplified by new on-line guidance from NE.

After more than two decades of opposing this obsession with 'roads for prosperity' and the wilful insistence of successive governments on ignoring reports from SACTRA and other expert bodies, I know that nothing I say will make the least bit of difference. Experience suggests that the promise of umpteen billion to be spent on a new age of road building will turn to nothing as it did last time round. I hope that history will repeat itself.

Meanwhile I would suggest that your reading of the Habitats Directive is so seriously misguided that it would lay the UK open to legal challenge at the European Court of Justice.

The Habitats Assessment summarises DfT's interpretation of European Law as follows -

3.4.4 As the NPS does not identify specific locations for interventions, and neither do any of the alternatives, it is not possible to reach a definitive conclusion about whether or not any of these alternatives would have adverse impacts on European protected sites, nor what comparative impacts they would have on those sites.

3.4.5 The Government believes that there are sufficient grounds to establish Imperative Reasons of Overriding Public Interest (IROPI) for the NN NPS because of the very strong economic and social need for the measures supported by the NPS. This need is detailed in the NPS and summarised below.

I believe you have deliberately misunderstood the test of IROPI. The Habitats Directive does not allow a developer to skip straight to Imperative Reasons. The first duty is to assess impacts and consider alternatives. Para 3.4.4 reveals a total lack of the evidence on which impact could be

assessed and absence of harm confirmed beyond scientific doubt [See 'Wadden-zee'].

I don't think any road has been permitted on grounds of public interest. Even the Via Baltica Euroroute was stopped by the Habitats Directive.

I would be grateful for a considered response to any of the points above.

Patrick Kinnersly
[personal capacity]

Appendix 2

Evidence to House of Commons Transport Select Committee Inquiry into the strategic road network
Christopher Gillham

<http://www.parliament.uk/business/committees/committees-a-z/commons-select/transport-committee/news/strategic-road-network---tor/>

Submitted 17 October 2013

Strategic Road Network 2013
Individual Submission – Christopher Gillham

1. Summary

1.1. This submission explores the assumptions on which the DfT (with Treasury approval) bases all its road planning. The problem is that the assumptions are so deeply entrenched that they have taken an ex cathedra aspect – no civil servant, politician or media correspondent questions them. When questions have been raised by a few individuals, the DfT has never answered them; it has never done any research to evaluate its assumptions.

1.2. The DfT makes three fundamental assumptions that it has never evidenced. First that road building must be an unqualified good for the economy; secondly that there is always an insufficiency of road space; and thirdly that Adam Smith's invisible hand acting through millions of road users' willingness to pay, guarantees that the macro-economy benefits by a kind of economic annealing.

1.3. The DfT takes the third assumption as the basis for its entire economic appraisal process (COBA) – if the user is willing to pay then, if the increase in road capacity allows him¹ to pay less for the same, there must be a benefit that accrues to the economy as a whole.

1.4. The first assumption depends upon the other two, but of itself it ignores the possibility that there may be costs to society that the road user does not perceive or associate with his activity. Summing the advantages to the users does not guarantee that the economy as a whole benefits. If burning fossil fuel is fatal to the stability of the planet, the Invisible Hand assumption still reckons society benefits.

1.5. It is possible to test the first assumption by seeing how measures of changes in economic welfare correlate with changes in road capacity. I carry out some simple calculations to show that the assumption is unreliable. I have presented these to various DfT officials over decades and they have never critically or analytically responded.

1.6. The second assumption is rooted in the proposition that you can never have enough of anything. Building a road in a country empty of such infrastructure demonstrably allows economic activity that would not occur without it. This does not mean, however, that there is no point at which extra such infrastructure impedes activity. Simple thought experiment shows there must be an optimum such level of infrastructure; the question is to know on which side of the optimum Britain lies. DfT has never considered this elementary question even though its assumption that we can always benefit from new road capacity does not appear to be borne out by my correlative tests.

1.7. The third assumption begs the question "who is willing and who pays?" because the user does not pay the full cost of what he is using. There have been many studies of cost externalisation and the biggest and most thorough study reckons the road user externalises costs to around 3

1 I use the male pronoun to represent a person of either gender, to avoid the infelicity of using the gender-free 3rd person plural.

times the total taxes he pays. The DfT has never contested these studies or produced one of its own.

1.8. Eddington believed users should pay the true cost of what they do and it is hard to avoid this belief since the subsidy to motorists is highly regressive. What Eddington did not do was work out what would happen if the externalised costs were recovered. I show some calculations, based on the apparent elasticity of response to fuel price. These indicate that today's traffic levels would reduce to those pertaining in the 1960s.

1.9. As an economic argument there is no need for more road capacity, indeed arguably there is a need to reduce it. This ought long ago have been considered to be the case as an environmental argument.

2. Introduction

2.1. In my submission I will try to get at the core assumptions underlying every government policy on roads since the war. I do not believe that any office of government, including the Treasury, has ever demonstrated that the assumptions are valid; nor have they carried out any research to inform or justify their assumptions. Vast elaborate structures of policy and appraisal have been erected on these unjustified assumptions and huge sums of money spent in consequence.

2.2. The Command Paper 'Action for Roads' is no different in this from any previous policy or strategy; it is informed by these assumptions and bound to this structure. It is mumpsimus' - consistency in error does not do away with error.

2.3. Before making my case on the false assumptions of road economics I give some background on how ordinary members of the public are confronted with government policy (usually through the public inquiry process) in this area and how barriers to fundamental questions are put in the way.

2.4. My name is Christopher Gillham of 16 Upper High Street in Winchester. I am a retired scientist with a PhD in physics and have worked in both academic and indus-

trial research. I have spent more than half my life fighting road schemes, beginning in 1975 in the build-up to the second of the four M3 Inquiries at Winchester, and going on to take part in campaigns and inquiries in Hampshire, Dorset, Sussex, Kent, Surrey, Berkshire, Wiltshire, Somerset and London. I have not done this for fun - it is not a hobby, because I find the whole business of road inquiries to be amongst the most depressing, frustrating and fundamentally unfair and unfeeling activities to be involved with.

2.5. Two major barriers to reason manifest themselves at road inquiries:

- An inquiry cannot question 'government policy'.
- The Inquiry must confine itself to the locality.

3. Questioning Government Policy

3.1. There are obvious problems of consistency in government policy, sometimes simply because governments change and emphasis changes, but very often within the policies of a single administration. The clash between policies on greenhouse gas emissions, air pollution, biodiversity, landscape and heritage protection and most other transport policy or practice is most obvious. On these matters one can only hope to stress the importance of the former and hope that an Inquiry Inspector is civilised enough to see it. It happens occasionally, but it is a lottery.

3.2. But there are also cases, cited frequently in public inquiries, where government policy is arguably counter to reality. There is a famous story of the US State that tried to legislate to make mathematical n exactly equal to 3^2 . The point I make in relation to road inquiries is that certain things, such as traffic forecasts and the methodology of cost-benefit analysis, are regarded as policy, even though they are highly questionable in logic and arithmetic.

² This is not exactly apocryphal - in 1897 Representative T.I. Record of Posen County introduced House Bill #246 in the Indiana House of Representatives. He proposed that n take one of three rational numbers. Whether this was silly season politics or a serious attempt to deny reality is not recorded.

3.3. I will address below why I believe that the basis of appraisal of road schemes in this country is deeply flawed. What I would like to get over here is how unfair the process is. If the Department for Transport says the world is flat, ordinary mortals are required to accept that it is flat, whatever evidence they have for believing this to be untrue. Inspectors at Inquiries will sometimes listen to such evidence, but they always stress that they cannot take cognizance of it.

3.4. I have given evidence at more than a dozen major highway inquiries and the promoters have never chosen to answer the fundamental points I have made on the appraisal methods, nor have Inspectors ever required them to do so. Inspectors will usually say, quite reasonably, that such fundamental matters should be taken up directly with the DfT.

3.5. Unfortunately this avenue does not appear to be open either. Three years ago I made an attempt to get a definitive response from the DfT. I wrote to Norman Baker, making a number of points that I make in this submission. I received no answer to them. A year later I put questions on the basis of road appraisal in a succinct form (which I reproduce in Appendix A, but which are implicit in what I say below). Despite other letters and emails to the Minister since, requesting a response, I have not yet received any answer.

3.6. The DfT has spent many billions of pounds building roads over the last 60 years. It appears never to have justified the processes it uses to appraise what it does. It appears to be unwilling or unable to respond to questions on its processes.

3.7. Select Committees appear not to examine the fundamentals. Nor do committees of experts challenge these. SACTRA did some good work on issues such as traffic induction and worked on details of the COBA mathematics, but never really questioned the assumptions behind the appraisal process. Eddington did slightly better, in that he hinted that there were unproven assumptions (e.g. of economic benefit) and economic distortions such as cost externalisation, but he shied away from examining these. There is seemingly

a process by which all official attempts to examine transport policy very quickly go native and swallow the received wisdom of the DfT and the Treasury. What does one do in this Kafkaesque world?

4. The Local Question

4.1. The appraisal of a road at a road inquiry supposes that one is simply comparing the expected effects of a scheme with 'Do-Nothing' in the vicinity of the scheme itself. A bypass scheme, for example, is supposedly appraised environmentally for its local effects on a town being relieved and on the countryside that is to bear the burden of the bypass construction. It is appraised economically by considering the supposed reduced costs of journeys within the region of the scheme against the costs of construction and increased maintenance of a new road.

4.2. It does not appraise the effects beyond the area of a scheme. Thus the traffic induced by a new bypass affects the network and communities well beyond the scheme and this disbenefit, both environmental and economic, is simply ignored. More importantly it fails the test of the *fallacy of composition*³ - a set of benefits are presumed to add up to an overall benefit. Just because a case is made (and I seriously doubt that any such case has ever been properly made) that there is an economic benefit to be had for a given road scheme, does not mean that the benefits of lots of individual road schemes add up to a benefit for the nation.

5. Of Atoms and Diamonds-Infrastructure 'Investment'

5.1. *Assumption 1*: It is taken for granted, almost uniformly it seems amongst parliamentarians, that spending money building roads must be beneficial to the nation economically. *Action for Roads* certainly takes this as read⁴. And we even see it quan-

³ "The fallacy of composition" is a logical error - a mistaken belief that what seems good for an individual will still be good when others do the same thing. For example, someone who stands at a crowded concert may get a better view of the stage. But if everyone at the concert stands up, nobody's view is improved.'Fast Food Nation; Eric Schlosser p119

⁴ It seems more concerned that Britain is falling behind other nations in its provision of roads than it is

tified. Three years ago Philip Hammond asserted that *'for every pound we spend on Highways Agency schemes, on average we will get back £6 of benefits'*. Where does this calculation come from? We need to examine the other assumptions.

5.2. Assumption 2: It is supposed that we have an insufficiency of road infrastructure. It follows, therefore, that if we can add more such infrastructure or make the existing infrastructure more efficient at doing what it does, there must be a benefit. But this in turn supposes another assumption.

5.3. Assumption 3: That what we do with the infrastructure is, of itself, economically beneficial. This assumption essentially falls back on Adam Smith's invisible hand - his *'claim that individuals' efforts to maximize their own gains in a free market benefit society, even if the ambitious have no benevolent intentions'*⁵. This action of individuals is deemed (e.g. by SACTRA) to be mediated by *'willingness to pay'*.

5.4. What the DfT (with Treasury approval) does with these assumptions is atomistic. It takes a section of the road network and argues that the users of that network have made an economic decision guided by the Invisible Hand and that, if they benefit from an improvement at that section by more than it costs to make that improvement, then the overall economy must benefit from the difference.

5.5. The granularity of this atomism borders on the fantastic – COBA aggregates billions of tiny supposed time-savings and fuel-savings over a period of 60 years, augmented in turn by equally fantastic forecasts of traffic growth. It is so fantastic that it is very difficult, however fairly one tries to put it, to get over to a normal thinking member of the public that this is what the DfT does.

5.6. The COBA atomistic approach is akin to the physicist who reckons to model a substance by bringing together billions of atoms, without really knowing the true properties either of the atoms or of the crystal structure that will keep those atoms together. The man on the street probably knows whether he has a diamond

or a heap of soot in front of him and probably knows the relative values much better than the atomist who has computed what he will get. The answer to the value of the modelling can probably only be seen at the macro level. That is where we should test the assumptions.

6. Testing the Assumptions

6.1. Assumption 1 – Road investment is an automatic good. Firstly making assumptions 2 and 3, it is still not axiomatic that building more roads must be good. People may make decisions based on individual economic benefit; there may be an insufficiency of infrastructure to allow them to make those decisions; by providing the infrastructure it may be that a national first approximation economic benefit results from summing those individual benefits. But what if those choices have consequences not felt or not noticed by those individuals, but which sum to some consequence to society, environmental, economic or both?

6.2. Obvious examples can include climate change, pollution and health consequences, which can easily be argued as significant economic consequences. In a resource-diminishing world (energy, climate stability, water, food etc.) the *Invisible Hand* can create habits that are more and more difficult to break. We would not normally think in terms of buying bongos or needles and planting opium poppies as an *'investment'*. Why would we think about *'investment'* in oil dependency?

6.3. There is, therefore, no justification for assuming road building is beneficial as an axiom. How, at a macro, phenomenological level, do we demonstrate that road building represents an overall good for the economy? Obviously the sort of statement that Philip Hammond made (§5.1) does not do this because it is atomistic and starts from all three assumptions – if any one of them is even partly wrong, his statement is meaningless.

with attempting to show what the economic benefit might be.

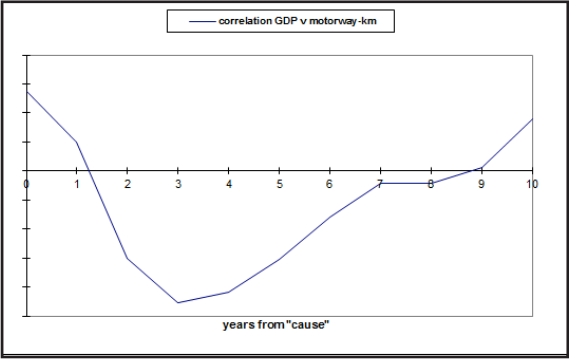
⁵ E.g. http://en.wikipedia.org/wiki/Invisible_hand

6.4. The only kind of answer to this that I have got from the DfT was in an email exchange a few years ago, in which I was referred to the EddingtonReport as demonstrating that road building was good for the economy. In fact it does no such thing. Eddington refers to a correlation between GDP growth and road traffic, but is at pains to stress that he did not know which way the correlation ran – does GDP growth result from road building or the other way round? It is a pity that he did not commission a study of this (from my failure to extract any response from the DfT on this I think we can safely assume that they have never studied it either).

6.5. This ought to take our breath away. For 60 years the Department for Transport has been carving this country up on the assumption of an economic benefit and it doesn't know (and more importantly has never bothered to find out) whether economic growth comes from increasing traffic by building roads or whether roads are built to accommodate traffic brought about by economic growth.

6.6. Yet it is not that difficult to take a stab at it. There is historical series data on road building and on economic measures such as GDP and unemployment levels. In Appendix B I explain the process of determining correlation integrals. I would hesitate to assert that such integrals demonstrate the direction of causality, but they are a reasonable test of an assertion that there is a particular causality.

6.7. If we cross-correlate changes in GDP with increases in major road capacity we get curves of this nature:



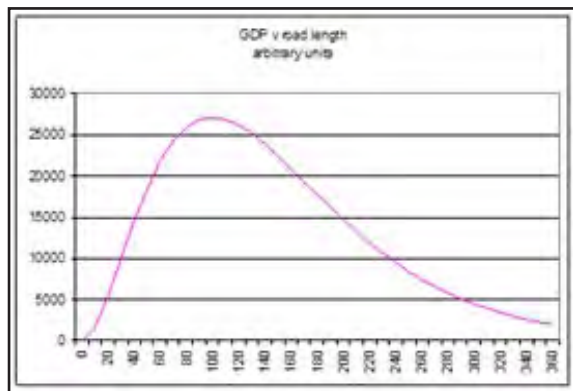
6.8. This would suggest that the direction of correlation is opposite to that we would expect from the presumption that roads increase GDP. The correlation is markedly

negative – GDP tends to go down after road construction. Similarly other measures of economy appear not to have the positive effect reckoned for them. A correlation test indicates that a rise in unemployment, for example, follows an increase in road building (see Appendix B).

6.9. Even correlation of accidents with road building does not follow the direction of causality the DfT would have us believe. Considering that COBA always reckons an accident benefit from building roads this may come as a surprise, but it shouldn't do so. We know that the accident rate on motorways, for example, is low compared with that on other roads, but that says nothing about how motorway driving may influence driving off the motorway (peripheral effects) or how road building induces traffic on other parts of the network and effectively contributes accidents there.

6.10. *Assumption 2 – There is an insufficiency of road infrastructure.* This is really a flawed belief that you can never have enough of a good thing. Nobody doubts that the ability to transport goods is a necessary factor in generating wealth. If there were no roads in Britain economic activity would be very local and very limited – the GDP of such an economy would be relatively low. On the other hand, if Britain were entirely laid down to road and the road was used, then we would have no space to grow or make anything, and since we would be travelling all the time, no time to be involved in any economic activity at all. Somewhere between no roads and country saturated with roads must be the optimum for economic activity.

6.11. Just consider what this means. There has to exist a curve representing economic activity of the country as a function of the amount of road space in it; that curve must increase from zero to some level and decline to zero again. Something like this:



6.12. The peak of this curve clearly occurs at the optimum level of road space. How do we know on which side of this peak we sit? Politicians, the Treasury and the DfT seem to be uniformly of the view that we must sit on the left hand side. What evidence is there for such a view? The correlation data I have shown above actually favours the supposition that we are on the right-hand side – that new road building makes us poorer (and the arithmetic of COBA becomes simply nonsensical). You would think the DfT or at least the Treasury would want to know. I see no evidence that they have ever asked the elementary question.

6.13. *Assumption 3 – The Invisible Hand tells us there is a benefit through 'willingness to pay'.* The question, however, is 'Who is willing and who pays?' If we pay for all the economic choices we make, the market theory is that this somehow equilibrates or anneals to a stable optimum or quasi-optimum state. But that pre-supposes that we do pay for the choices we make. The Blueprint studies of the late Professor Pearce⁶, however, showed that motorised road transport users externalise a very great part of their costs, so market choice is skewed.

6.14. If externalisation is large the skewed response would be expected to be large. How can we say there is a legitimate demand for road space when we don't know whether the users would pay the real cost?

We could find out by observing the elastic response to forcing motorists and freight operators to pay an increasing proportion of the true costs. And we could work out what might happen to traffic if the users paid the full costs.

6.15. The last Pearce estimate for UK externalisation was that it totalled more than three times the total vehicle and fuel duty taxation.^{7,8} It is extraordinary that this is simply not known by most commentators and politicians (especially the Chancellor and the Secretaries of State for DEFRA, DfT and DCLG), who talk the absurd language of 'war on the motorist' – the motorist is in fact highly subsidised and the subsidy is extraordinarily regressive⁹. Eddington also recognised the problem of externalisation and indicated that he thought road users should pay the true cost.

6.16. What if they were required to do so? We know that road traffic peaked in 2007 and has fallen steadily since¹⁰. We can guess that this is in part due to a fall in disposable income and economic activity from the recession, though the curve was plateauing before the 2008 economic collapse. It seems more likely that the response relates to the perceived immediate price of making journeys (i.e. the price of petrol).

6.17. We can do a simple test of the elasticity of this response (detailed in Appen-

6 E.g. Blueprint 5: The True Costs of Road Transport ; Maddison D, Pearce D, Johansson O, Calthrop E, Litman T & Verhoef E; Earthscan, London 1996

7 And we should remember that these estimates made in the mid-nineties were before the extent of air pollution costs were understood and certainly massively underestimated the climate change consequences of transport emissions

8 There are a number of studies of externalisation, none of which come to a contrary verdict to Pearce. The DfT have never released any statement refuting these studies or reported on any research of their own.

9 Arguably those least likely to own a car are the poorest, who suffer from lack of such mobility in very many other ways (facilities, shops etc. move further away from them) brought about by the mobility of those they subsidise.

10 It seems extraordinary that the government is putting money into increasing capacity in a system with falling demand – why not put it all into a system with increasing demand – rail (which is probably less subsidised and subsidies are declining)?

dix C). Data from 1990 to 2012 shows a surprisingly linear response to price suggesting a fall of 37km per year per vehicle for a fuel price rise of 1p. Pearce-type estimates of the cost externalisation at three times total taxation suggests that recovery of this externalisation via fuel price would require a price increment of 426p per litre. This suggests that the average km per vehicle would drop from the present 14000 to around 3000.

6.18. Consider what this means. Eddington said that road users should pay the true costs of what they do. Yet if they did, the data would suggest that traffic levels would be way down on present levels (indeed at a level last observed in 1959). On the current network it would be hard to see how there could be any congestion anywhere if this really happened, so why, if Eddington thought it should, did he still suggest that there was a need to relieve congestion hotspots? The position is nonsensical.

7. Other Assumptions

7.1. *Value of time.* We have heard much of the criticism of the DfT in relation to its cost-benefit analysis in respect of HS2, particularly focusing on its calculations of value of time. Clearly with roads there is no equivalent assertion that the time spent travelling can be used for other things. Nevertheless there are severe objections to how time is valued in COBA. I do not intend to dwell on this because it all sits in the classic paper by David Metz.¹¹

7.2. Essentially the behaviour of motorists does not fit the DfT supposition that they seek to minimise the time they take driving, but rather, with the provision of extra road capacity, they tend simply to drive further. Indeed the net result of all the road building of the last 40 years has actually been slightly to increase the time motorists spend driving.

7.3. Undoubtedly the DfT would argue that people are merely taking advantage of the opportunities afforded to them by making longer distances easier to travel. But can this really plausibly be the case? Are we really doing new things with this opportunity or are we simply travelling greater dis-

tances to do the same thing. I'm sure we all know of the stories that milk from cows in Dorset travels to Glasgow for processing to be shipped back to Dorset for retail. And I expect we all have personal anecdotes, but I can certainly testify to the fact that the last 40 years has taken away many facilities that I had within walking distance of my house in Winchester, firstly to edge-of-town industrial estates and then down the motorway to Southampton or beyond. Obviously we should not rely on anecdote, but what do you do when the DfT does no research whatever on the consequences of its actions?

7.4. *Peripherality.* It is common practice with authorities promoting roads, to assert that economic benefit will accrue to depressed regions and it is common practice for DfT and politicians to swallow this argument, even though it is never really evidenced. One has only to look at schemes such as Kingskerswell or Combe Haven¹² to see how these unevidenced assertions prevail.¹³

7.5. Roads are two-way things and in logic can as equally drag activity out of a region as bring it in. Eddington, who is hardly anti-road, fights very shy of asserting that an individual scheme can be assumed to bring a benefit to a particular area and certainly doesn't include this as one of his reasons for building roads. This is something else the DfT ought to have done some research on.

8. Conclusion

'Telle est la faiblesse de notre raison: elle ne sert le plus souvent qu'à justifier nos croyances' Marcel Pagnol – La Gloire de Mon Père

8.1. Road Inquiries are atomistic or reductionist - all about minute examination of lots of detail of variable provenance and credibility, which somehow an inspector is supposed to aggregate into an informative

11 *'The Myth of Travel Time Saving'*; D Metz; Transport Reviews, Vol. 28, No. 3, 321-336, May 2008

12 To be fair to the DfT they did not see an economic case for this hugely damaging scheme – the Chancellor overruled them.

13 Though the Inspector at the Westbury Bypass Inquiry in Wiltshire did look critically at the claims of economic benefit and reduction of out-commuting.

and decisive result. The problem is that the processes of appraisal are based on entirely unevidenced assumptions.

8.2. The DfT have had more than half a century in which to do the elementary research to justify their assumptions. They have not done it and they have not engaged in argument when elementary criticism of their assumptions is drawn to their attention. The DfT have always adopted a strategy of simply ignoring criticism.

8.3. COBA appraisal is a huge, elaborate edifice built on quicksand. It is junk science and no less junk because politicians and a whole transport planning industry is prepared to swallow it.

8.4. I am reminded of my first University exposure to experimental physics, when it was apparent that the supervisor was not particularly interested in the detail of the experiment or its outcome, but simply asked us 'Do you believe that this is a credible result?'. He was not asking us to surrender the experimental evidence to an irrational (or rather non-rationalised) belief, but to stand back from the experiment and see whether what we had observed accorded with our wider knowledge and experience.

8.5. Does Britain's transport policy accord with what we believe and fear about the future of our planet? This is the big elephant-in-the room question – do we morally cop out from this question by paying all our attention to the atomistic detail of the Webtag process?

8.6. For me the answer to the holistic question is obvious. I can only say that everything we do know of the science and almost everything that we see of the politicians willingness to do anything about it, progressively and rapidly darkens our future. The dangers are imminent and the prospect is catastrophic, much more horrible than the very worst part of the cosy picture that Stern and Eddington have painted.

8.7. Yet Government is in defiance even of these mildest of warnings. Who seriously believes that in 10 years time, possibly beyond the tipping point of climate

change, anybody will see any sense in all the silly decisions from the Treasury and the DfT to carry on pouring fuel on to the planetary fire?

Appendix A – Correspondence with Norman Baker

After writing to the Minister in November 2010 and receiving no substantive reply to the points I made, I sent a second letter in November 2011 in which I spelled out the questions I was seeking answers to. I sent a further letter asking for a response to my previous letters in July 2012. I have not received a reply from either the Minister or the DfT. The questions I put were:

So it seems reasonable to me to return to the unanswered questions of my original letter and ask that you obtain responses from the DfT to each of my points. Put simply my letter was about the false economics of DfT road scheme appraisal as represented by Philip Hammond's assertion that 'for every pound we spend on Highways Agency schemes, on average we will get back £6 of benefits' and the wider economic assumptions famously encapsulated in Mrs Thatcher's 'Great Car Economy'.

Economic Appraisal

1) The economic appraisal process for road schemes is based on an assumption that road transport at the level it occurs in the UK represents a net economic 'good' for the country. Without this assumption there is no justification for further assuming that reducing the costs of road transport (especially through road building) represents an economic 'better'. I have asked at many public inquiries what research the DfT has carried out to justify that assumption, without receiving any definitive answer. *Question: has there been any research into this basic assumption?*

2) The Eddington Report has been adduced as demonstrating a basis for such an assumption, but while Eddington makes a link between GDP and road building he is careful to stress that he does not know which way round it goes – do we have growth because of road building (or road transport) or road building (or road trans-

port) because of growth? *Question: does the DfT have any evidence on the direction of causality in the correlation between GDP and either road building or road transport use?*

3) While SACTRA did some useful things in the past and showed a degree of independence, notably when it insisted on the induced traffic effect, which the Highways Agency had denied for decades, unfortunately it got side-tracked by the labyrinthine processes of benefits calculation without ever questioning its fundamental principle of 'willingness to pay'. The problem with the principle is that it does not ask the question who is paying what? *Question: how is 'willingness to pay' a proper basis for determining the benefit of reducing the costs of a user, if the user is not paying the true costs of his activity and other people or other things are doing so?*

4) The Blueprint studies of the late Prof. Pearce at Leeds University suggest that the true costs of road transport are something like three times the total taxation burden on the road user. If we take the known elasticity of demand with respect to fuel price as an indicator, tripling the taxation on the road user would bring about a massive decline in the use of the roads. *Question: has the DfT carried out any research of its own seeking to establish the degree of externalisation of road user costs, and does it have any evidence to suggest that the Pearce calculations are fundamentally wrong?*

Cars for Prosperity:

5) *The motor trade for prosperity:* Governments are fond of subsidising car purchases, a subsidy which is clearly regressive in nature, from the scrappage scheme of the last government to the support for electric car selling under a spurious 'green' agenda. Car manufacture is an economic activity and it certainly brings wealth to some countries. But what is the evidence that support for the sale (or even the manufacture) of cars in the UK is beneficial to the economy of the UK? We import in terms both of vehicle numbers and of money much more than we export. Any encouragement of indiscriminate growth

of car sales might reasonably be presumed to increase a balance of trade deficit in this area. *Question: does the DfT have any evidence that there is a net economic benefit to the UK of encouraging the sale of cars?*

6) Surely the best environment (and hence the more natural home market) for developing any green technology is likely to be in those countries that most naturally think in terms of alternatives to wholesale conventional individual-vehicle-centred transport. The UK does not compare well with major European and Japanese competitors in this regard. Germans, for example, naturally seem to look for alternatives when it comes to transport, in a way that the British people mostly no longer do. *Question: has the DfT done any research on the relative economic benefits to the UK of investment in public transport compared with the support for private motoring?*

7) *Car access for prosperity:* The assumptions about economic benefit of road transport exist at many levels. Town councils throughout Britain have forever shied away from restricting car access to their town centres in the belief that it is bad for the economy. While Park and Ride often figures as an alternative to building more car parks in the centre of towns, very rarely do councils take the obvious logical step of significantly removing city centre car parks. Yet if you imagine planning the access for a town from scratch you would not decide that the most efficient access through a restricted street network was for individual shoppers or tourists to each enter in a separate box with 20 times the footprint of a human being.

Conventional public transport with good reliability, frequency and coverage (spatial and temporal) would so clearly be the efficient way of doing things that you'd think every town council in the country would be making it happen. But ask them and they all say that local businesses fear a loss of trade if you restrict car access. While there are towns and cities on the Continent with clearly more radical transport policies and apparently at least as prosperous as car-choked towns, there appears to be no definitive research on this. *Question: has*

the DfT done, or had access to, any research on the economic consequences of more radical transport policies for urban centres, and if not would it consider urgently commissioning the definitive study that is needed?

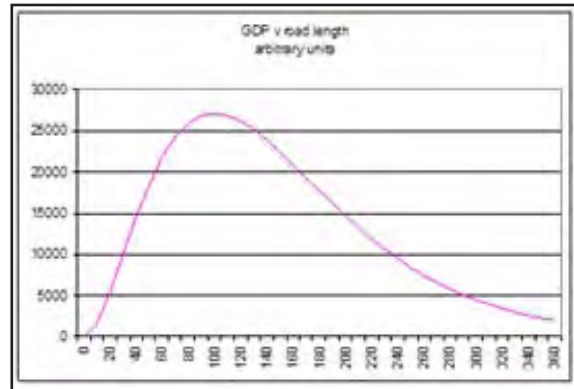
8) Road building for local prosperity (peripherality): two years ago the South-West saw the end of the Westbury Bypass in Wiltshire. After many years of planning and a wasted £7M of ratepayers money Wiltshire Council came to an Inquiry with a positive COBA (naturally! – it is quite difficult to make COBA negative) and a claim for local economic benefit. An argument used was that economic welfare was draining out of Westbury by out-commuting and that a bypass would somehow give better access to its industrial estate and thereby create more employment in Westbury. The notion that a new bypass to Westbury might actually increase the propensity for out-commuting (by reducing the transport costs of it) had simply not occurred to the planners. But it did occur to the Inspector.

The obvious truth that a road is a two-way thing and can just as easily suck economic activity out of an area as draw it in, is simply ignored all over the country. At this moment the DfT is actively considering an appraisal for the Kingskerswell scheme (where the local authority is apparently prepared to risk several tens of millions of pounds of ratepayers money) which makes assertions of economic benefit to the region without any consideration of peripherality evidence at all. *Question: Has the DfT ever done any research on the economic peripherality effects of road schemes? Supplementary Question: when the DfT analyses road bids made to it, does it ever look at or attempt to quantify its likely peripherality effects?*

9) *Road building is an economic good in itself?:* The biggest assumption is that building roads, allowing greater growth in transport, must be good for the economy per se. But because something at some level may be a good does not mean that more of it is better.

If there were no roads in Britain economic activity would be very local and very lim-

ited – the GDP of such an economy would be relatively low. If the British Isles were entirely laid down to road and the road was used, then we would have no space to grow or make anything, and since we would be travelling all the time, no time to be involved in any economic activity at all. Somewhere between no roads and infinite roads must be the optimum for economic activity.



If (as a result of our mistaken way of assessing road schemes) we have built so many roads and created so much traffic that we are on the wrong side of this optimum, then the more we build the worse the economy gets. Question: does the DfT recognise that there must be an optimum level of road space for the economic good of the country, and if so what research has it done to discover where that optimum lies?

Appendix B – Correlation Techniques

Time series of data can be depicted as simple curves. If there were an underlying causal link between one time series and another, say between series A (the cause) and series B (the result), we would expect there to be a correlation of some sort between data in A at some point in time and data in B at some later time. If a quantity y in series A 'causes' quantity z at some time T later in series B, we say y is a function of time t , $y(t)$, and z is a function $z(t)$, and that

$$z(t+T) = g(y(t))$$

where g is the correlative function. Let us take a simple example. Suppose a value y at any time gives rise to (i.e. causes) a value $z=y^3$ 4 years later, we can plot for any series A of y , a series B of z . (Figs. 1a and 1b)

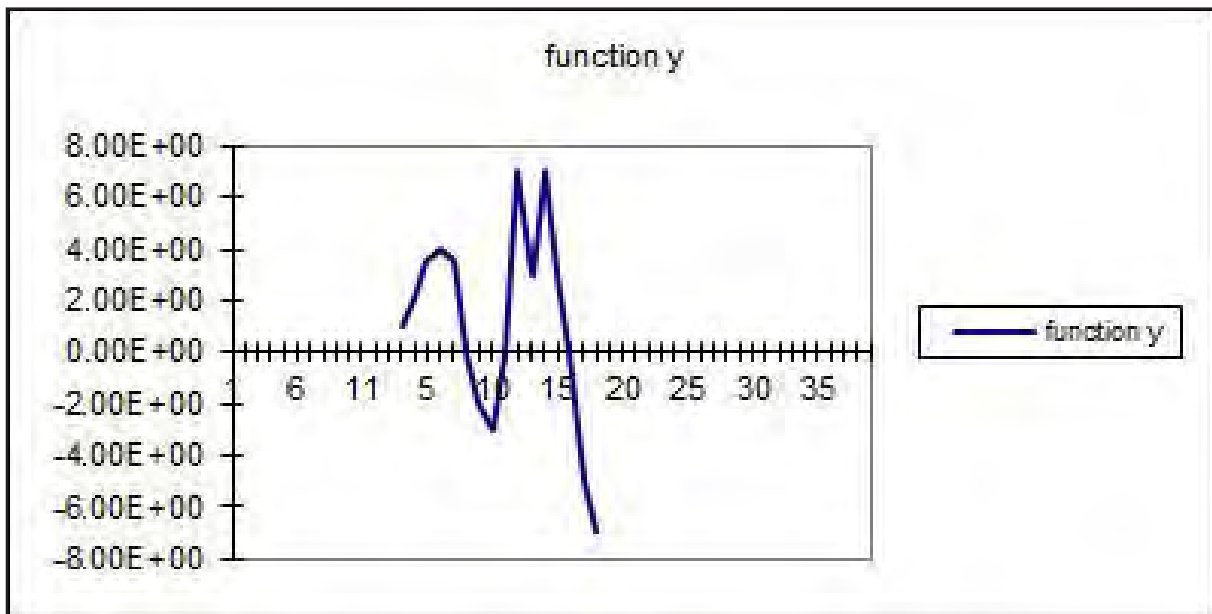


Fig 1a

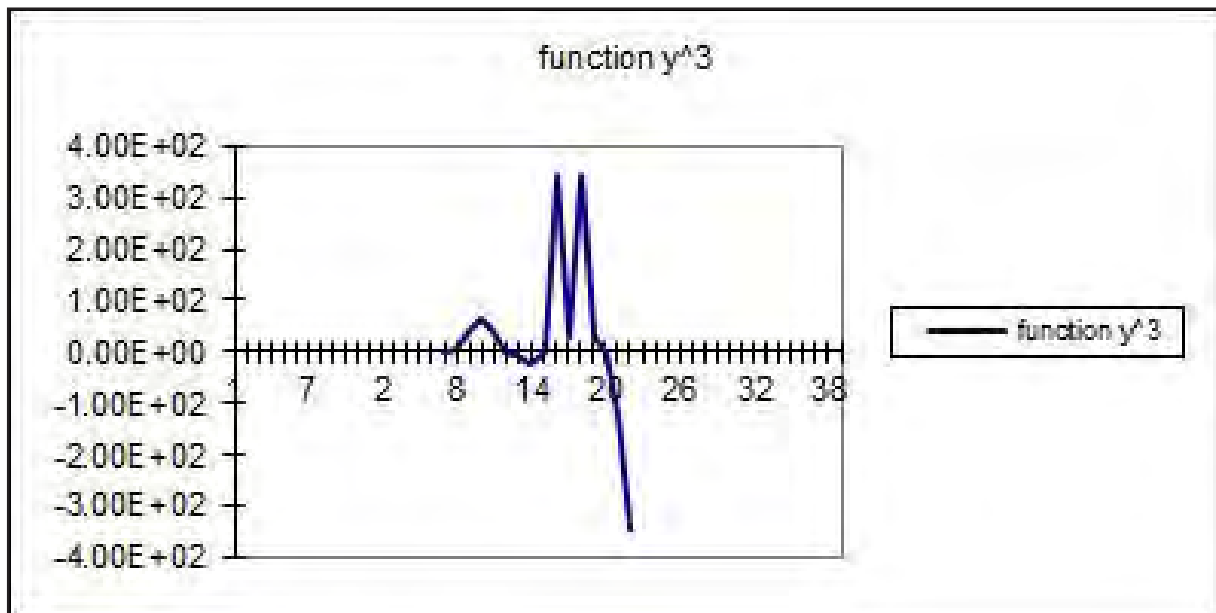


Fig 1b

The chosen function is a positive correlation, that is an increase in y results in an increase in z in 4 years. Although the two curves are not identical, it is easy to see the correlation, because if we slid the y curve 4 years to the right, the peaks and troughs would match up with those in the z curve. With real data, however, especially where complex phenomena are involved, a causal relationship between y and z will be blurred by other factors, i.e. z may be only partially a result of y and other systematic and random influences may be present. An underlying correlation trend is then no longer obvious to the human eye and we have to use a mathematical process to find it. The mathematical

process of the correlation integral is to test the coincidence (by summing the products) of the two curves as one slides over the other in time. We plot the integral as a function of how much we have slid the curves in time. Thus for the example above we get the curve in Fig 2.

Here we can see that there is a strong correlation peak centred on 4 years into the future, which is precisely the causative correlation we defined. One might expect intuitively that since we defined a precise relationship between a cause and an effect only and exactly after 4 years delay, and we have not added any other influences or corrupting effects, the correlation integral

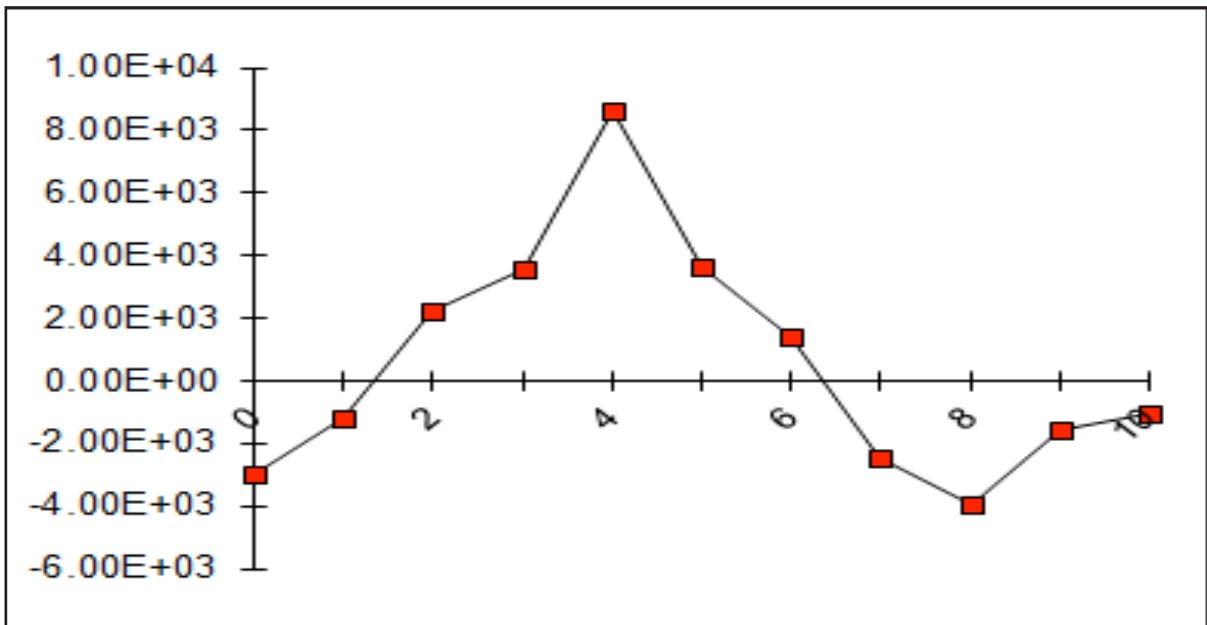


Fig 2

should have a very sharp spike at 4 years and no value elsewhere. The reason it is not as perfect as that, is because the first time series I have used is not a random set of numbers but possesses its own internal correlations (auto-correlation).

If we had defined an anti-correlation, that is a functional relationship such that an increase in y causes a decrease in z , the correlation integral will show a negative peak. If, as a trivial example, I just change the sign of the relationship, so that $z = -y^3$ 4 years later, we get the inverse curve as shown in Fig 3.

We have, of course, to be careful not to confuse correlation with cause and effect. A particular danger arises with false correlations that arise from two independent quantities each correlating similarly with a third. The commonest mediating quantity is time, with untold numbers of examples of quantities monotonically (that is only ever going one way) declining or increasing as time passes. Over the last 50 years there has probably been a monotonic growth in the number of young people who wear T-shirts, and over the same period a monotonic growth in civilian air traffic. Those two quantities will positive-

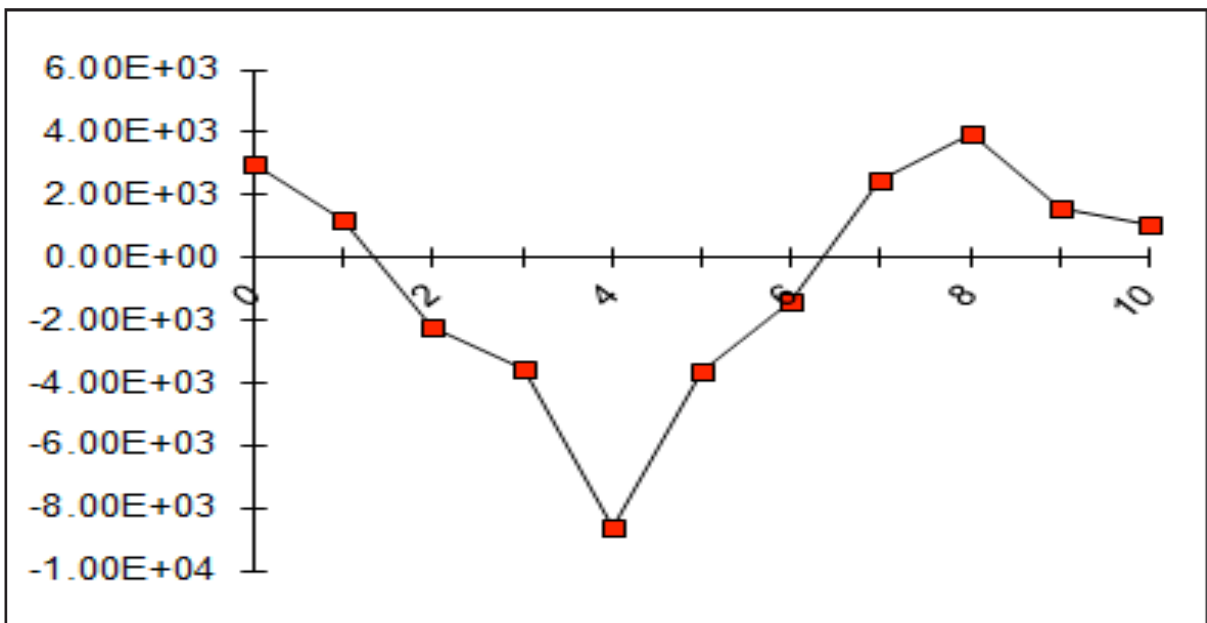


Fig 3

ly correlate, but you would be hard put to make a causal connection between them.

However, the DfT claims effects from a particular cause, road building, which has properties which do allow the possibility of testing for sensible correlation, by which I mean a correlation which indicates a phenomenological relationship, which may or may not be causal. A time series of the total length of motorway is not of itself very useful, being (unfortunately!) a monotonically increasing function, so that it would, for example, correlate positively with the growth of population or the consumption of hamburgers. But road building itself, that is the time series of the number of roads being built in each year, is not monotonic - it rises and falls. If road building has a causative effect on other measurable quantities, those rises and falls should statistically correlate, and since those rises and falls are likely to have a pattern all of their own (determined by budgets and policy changes), the likelihood of significant coincidental correlation is much smaller.

So it is the minor variations in quantities, which have patterns which are statistically traceable, rather than underlying trends, which will give sensible correlations, if they exist. In the following testing of DfT hypotheses, the quantities I use will be derived from published time series data. I am looking for the patterns of changes in quantities, so I need to remove the underlying trends, the monotonicity, and leave the differential or incremental data. That after all makes sense - we are interested in whether an incremental increase in roads causes or at least correlates with an incremental increase or decrease in some other quantity, like GDP. I find the incremental pattern by removing a smooth underlying trend, using a standard process of polynomial curve fitting by least squares minimisation.

I do not want to go into too much detail on this. At its simplest we fit in a statistically 'best' manner, a parametrised curve to the overall data, with as few parameters as possible. All of the time series data to which I shall refer have some marked curvature in their overall form (e.g. GDP historically until very recently tends to-

wards an exponential-like function on a steepening curve, and motorway length increases historically with a tendency for a declining rate), so that straight line fits are probably not appropriate. The first curved polynomial is quadratic in form and I have chosen to do all the fittings to this same polynomial level for consistency. In fact the results are not very sensitive to the level chosen anyway.

To summarise the process I will use, I will take a time series that represents road length and a time series that represents some other interesting quantity such as GDP. I will turn each of these series into incremental patterns by removing a smooth underlying trend. I will then determine the correlation integral for these two patterns.

Here I must make a disclaimer. While this is bona fide numerical analysis, I am not seeking to demonstrate that there are causal correlations, merely testing whether the statistical evidence supports the DfT's presumption that a particular causal relationship exists.

To explore this I take the significant period of motorway building. The most obvious indication of road building activity would be the growth in road space available. By road space I mean the area of drivable road, or the length of road times the mean number of lanes. I show the time series of motorway km and the residual (magnified in scale here) after removing the underlying trend (Figs. 4.1 and 4.2, p67):

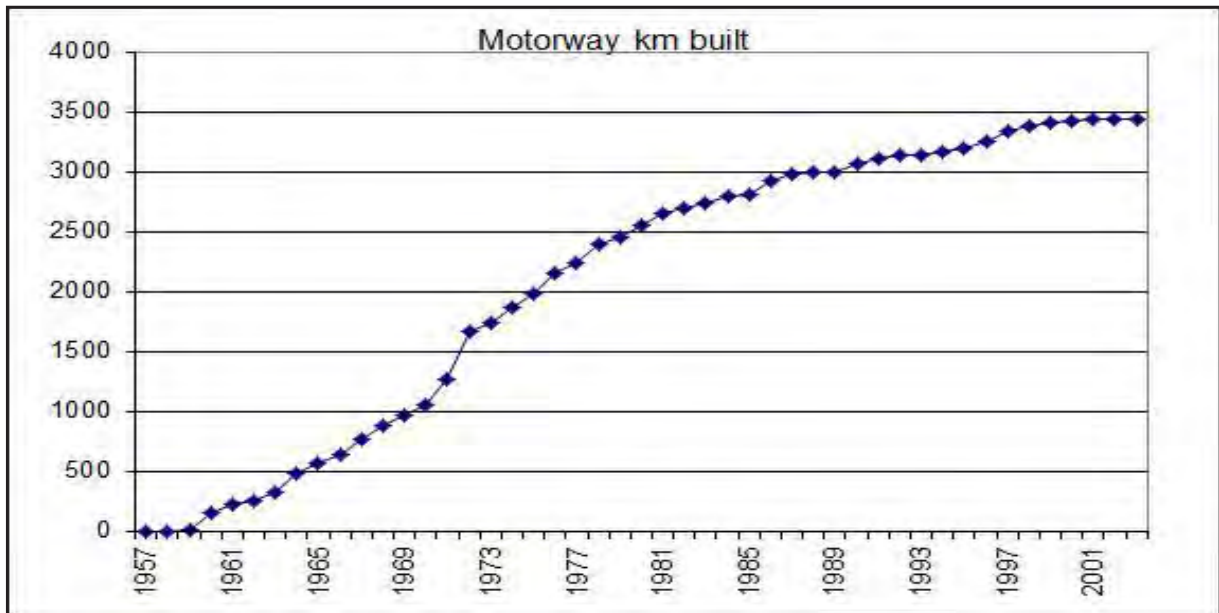


Fig 4.1

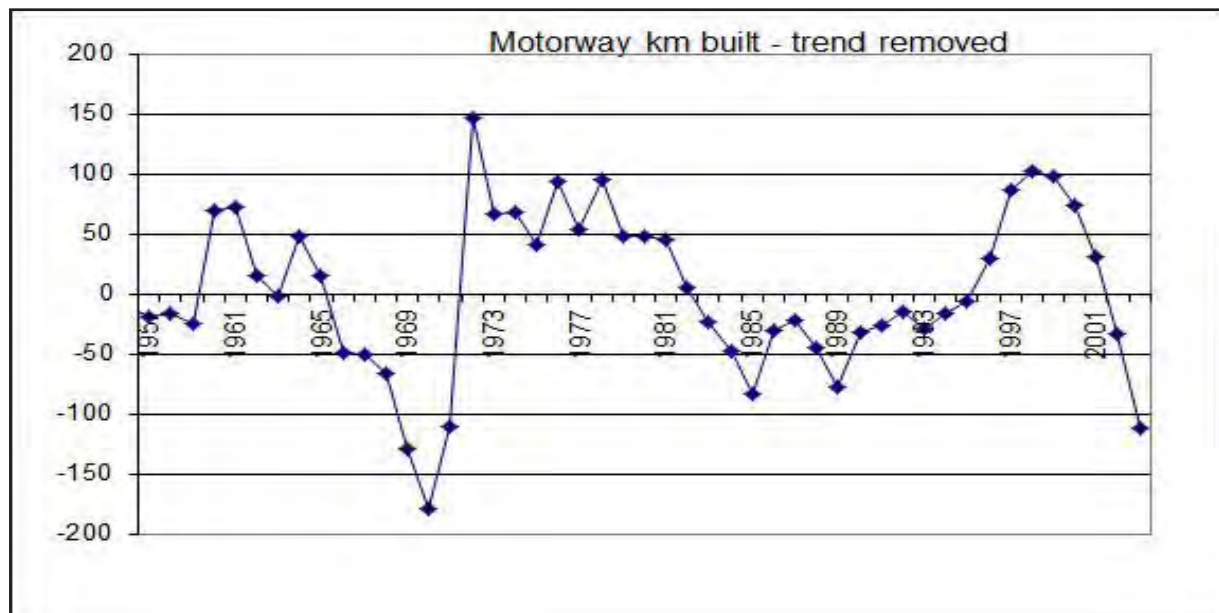


Fig 4.2

As a first measure of economic well-being I choose GDP at constant factor cost (Figs. 5.1 and 5.2 p68):

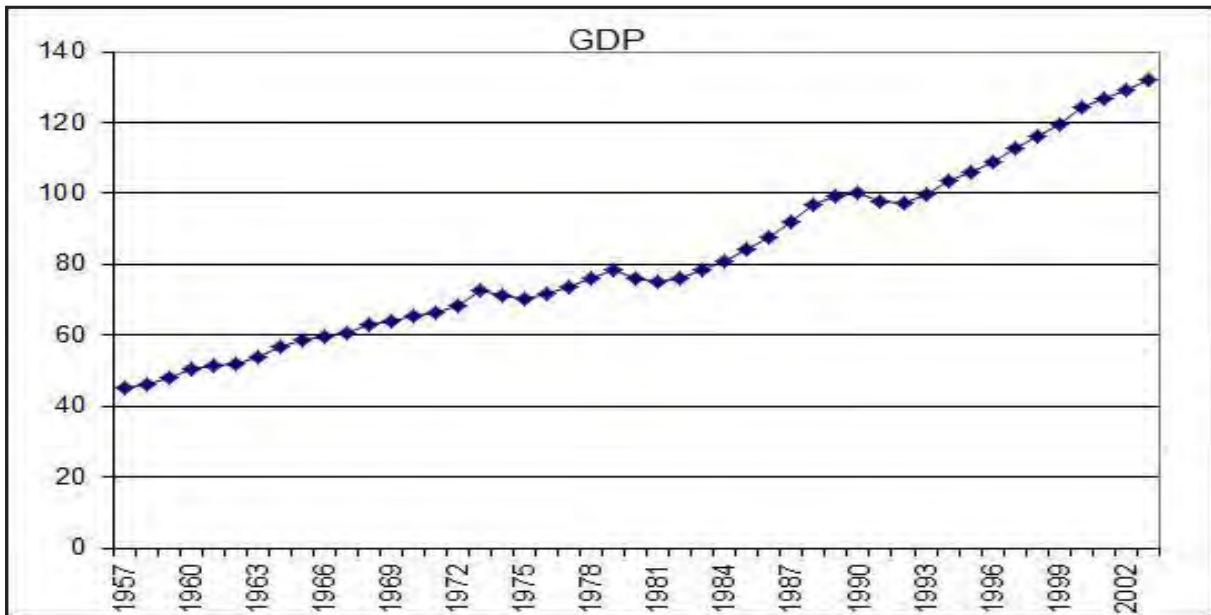


Fig 5.1

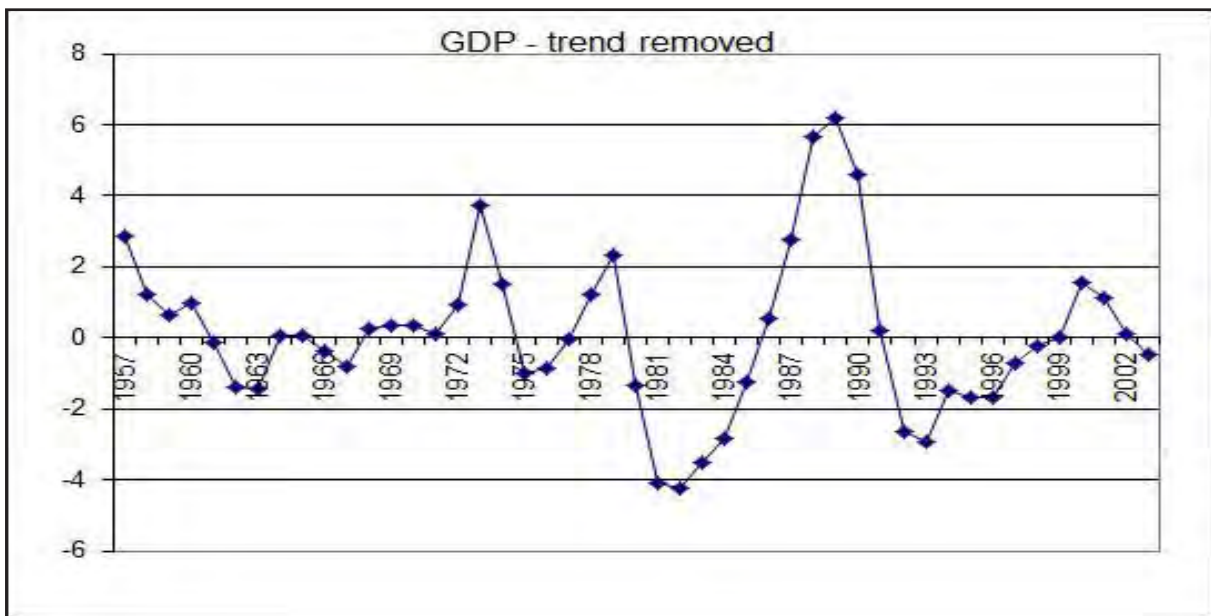


Fig 5.2

The motorway building correlates with changes in GDP as shown in Fig. 6 (p69).

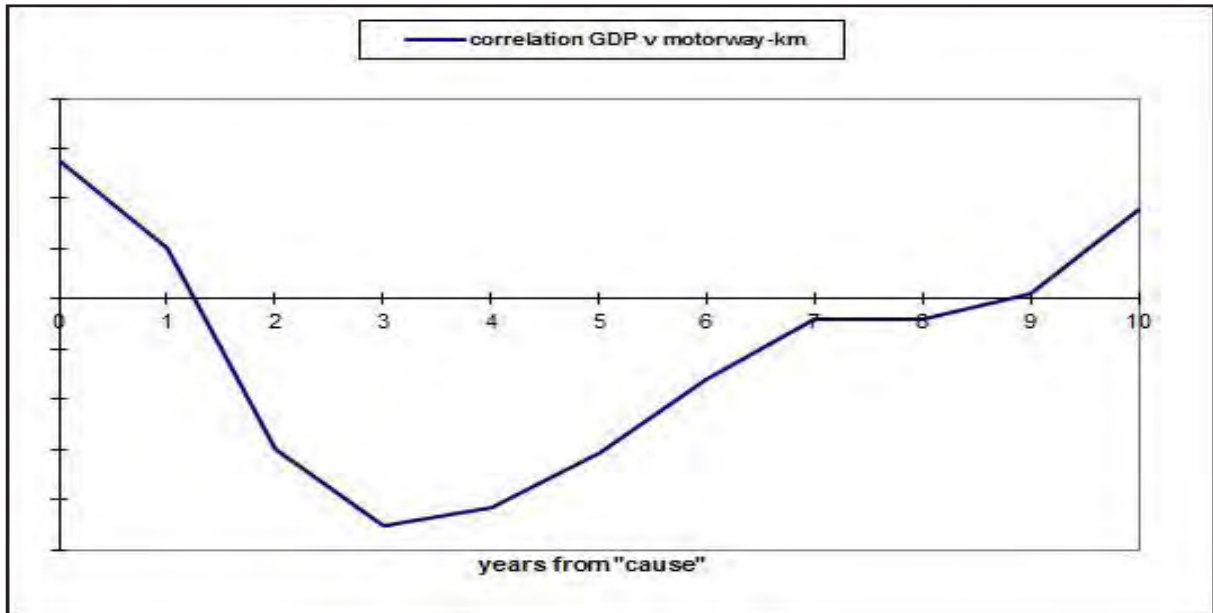


Fig 6

This shows a very marked anti-correlative form. The historical statistics show that road building is followed by a decline in GDP troughing after about 3 years. Employment is another supposed benefit of road building. Taking unemployment measures for the same period (Figs. 7.1 and 7.2).

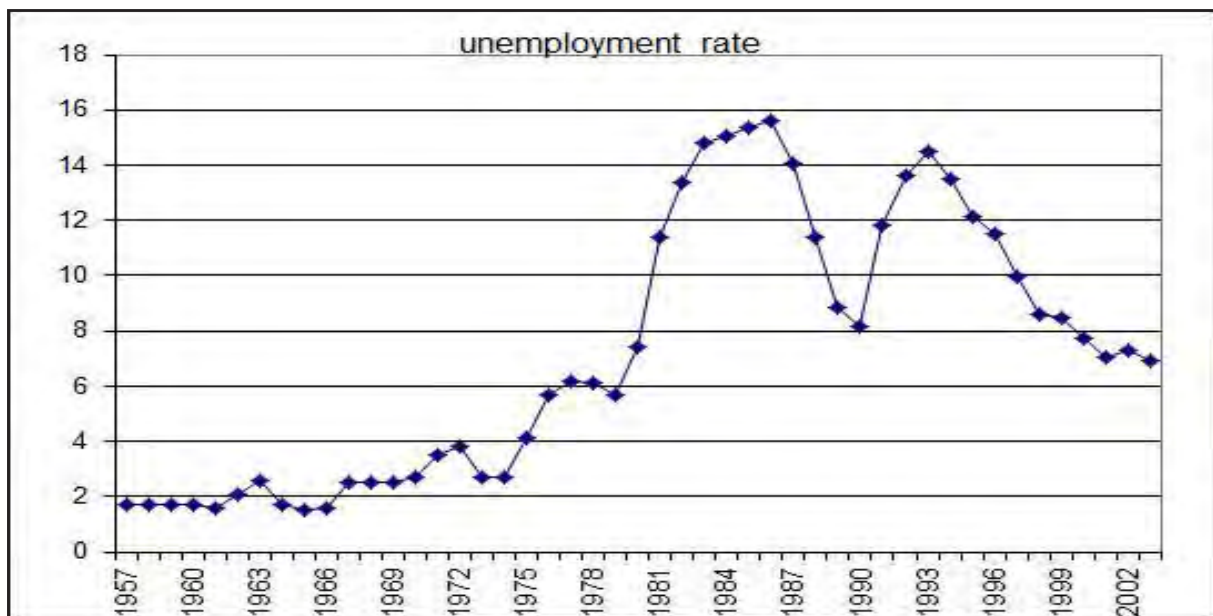


Fig 7.1

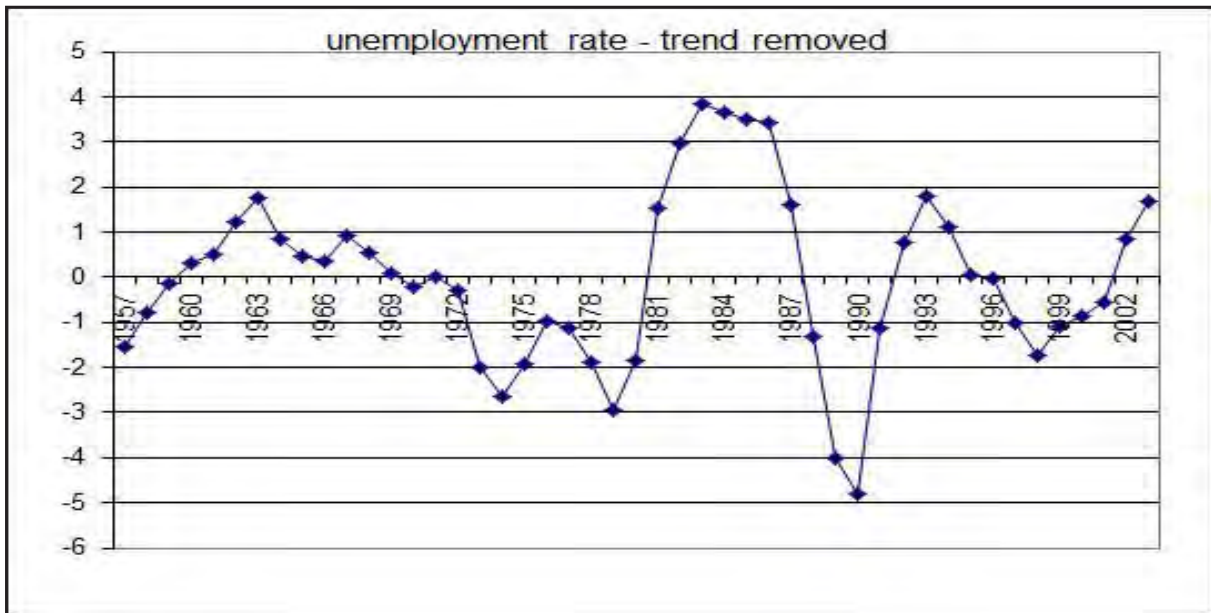


Fig 7.2

A trend line is a bit more difficult to assert here, but it is probably still more valid to use the 'changes' curve than the overall historic curve. The correlation integral becomes as shown in Fig. 8.

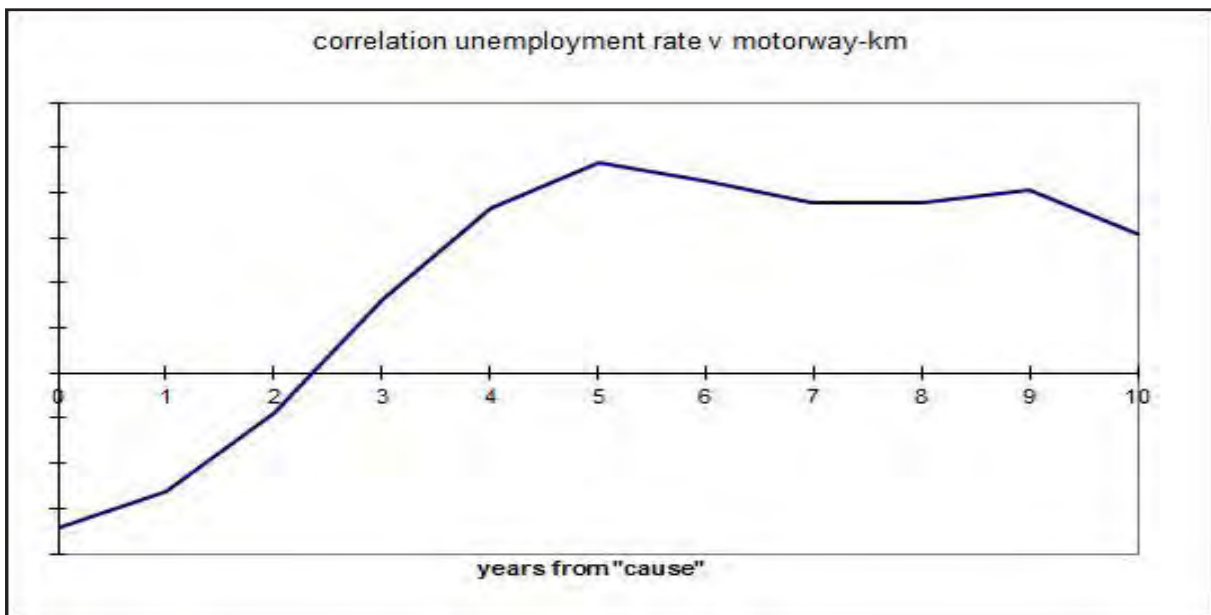
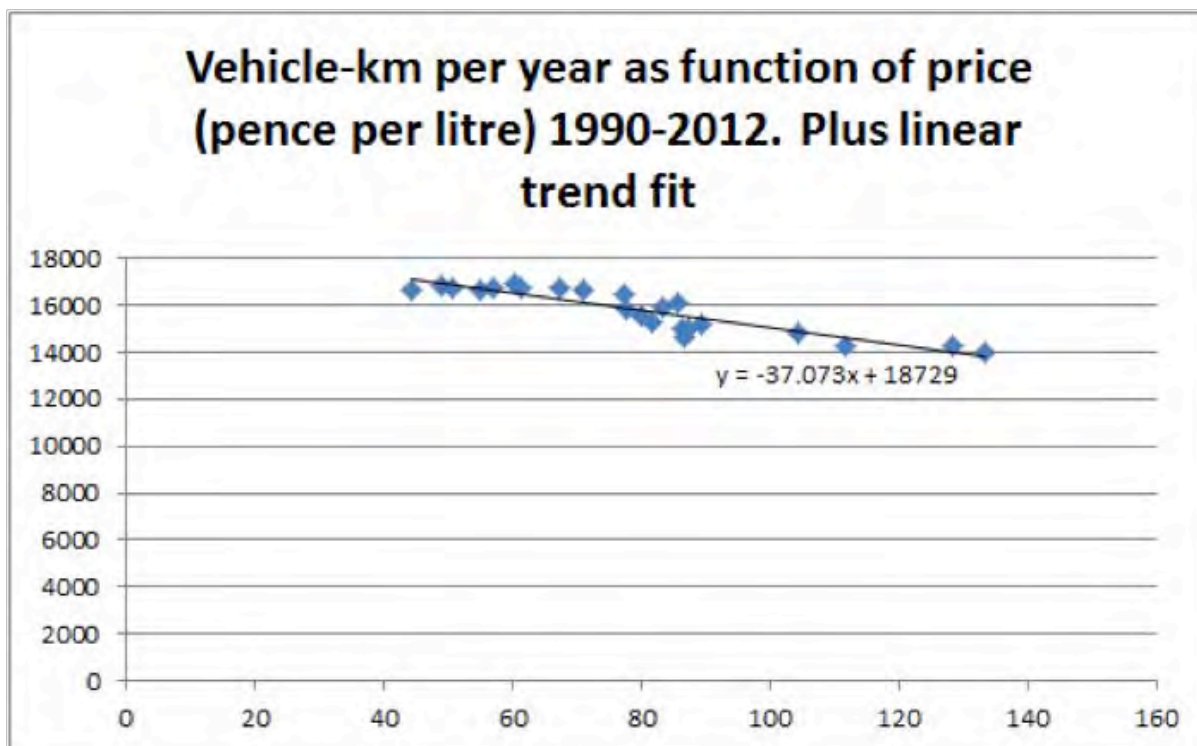


Fig 8

Suggesting the historical statistics show a strong correlative effect and telling us that unemployment tends to rise following road building with peak effect after about 4-5 years.

Appendix C Elasticity of traffic to fuel price

For the years 1990 to 2012 the average number of km/vehicle travelled can be plotted against fuel price (unleaded) at pump:



We can determine the price of petrol that would recover the externalised costs for an average vehicle¹ :

		pence
A	fuel duty approx per litre	60
B	pump price	133
C	price per litre less all tax = B/1.2 [VAT] - A	51
D	B-C = total tax per litre	82
E	mid range petrol car road tax (AA)	£200
F	average km per year travelled	14,000
G	road tax per km (pence) =E/F	1.4
H	average petrol cost (pence) per km (AA)	9.9
I	km per litre = B/H	13.5
J	road tax (pence) per litre = G*I	19.3
K	total tax (pence) per litre=J+D	101
L	externalised costs = 3* K	304
M	price that ought to be paid =L+C	355
N	predicted veh-km per year at this price = -37.07*M+18729	5562
O	price that ought to be paid incl VAT as normal economic activity (M*1.2)	426
	predicted veh-km per year at this price = -37.07*M+18729	2929

Assuming the user should pay tax (VAT) as on any normal economic activity, this suggests that recovery of externalised costs per vehicle, via fuel price, would result in a price of £4.26 per litre. The apparent elasticity relating distance travelled to pump price (the trend line fitted in the

above graph) suggests that veh-km would drop from around 14000 now to around 3000.

¹ Figures from Transport Statistics and AA: http://www.theaa.com/motoring_advice/running_costs/index.html

Appendix 3

Submission to consultation on SW Peninsula Route Based Strategy (RBS)

Patrick Kinnersly

<http://www.highways.gov.uk/route-based-strategies/>

Submitted to Highways Agency South West Route Based Strategy Team
5 March 2014

SW Peninsula Route Based Strategy (RBS)

I am secretary of the White Horse Alliance, a coalition of 13 organisations ranging from national NGOs, including CPRE and the Woodland Trust, to parish councils in West Wiltshire. The WHA was set up in 2007 to mount a professional case at the planning inquiry into Wiltshire County Council's application to build the A350 Westbury eastern bypass and to campaign for sustainable transport and planning in Wiltshire and the wider SW region.

We spent tens of thousands of pounds on legal representation and expert witnesses at the planning inquiry in 2008. The Inspector recommended against the scheme on the grounds that the small transport benefits of the road could not justify the damage it would have done to the landscape through which it would have passed – a tranquil valley below the western escarpment of Salisbury Plain and Westbury Hill, where the emblematic white horse would have looked down on a three-lane highway climbing out of the clay vale.

In July 2009 the Secretary of State accepted the Inspector's report and rejected the planning application for the road. Wiltshire Council, created that year as unitary successor to WCC, did not challenge the decision. The first of our objectives had been achieved: it looked as if the Westbury eastern bypass had been definitively buried by the planning process. We decided to continue as an active organisation in pursuit of our second objective, achieving more sustainable spatial and transport strategies in West Wiltshire and its region.

The council's draft core strategy published that year gave no hope that such an objective might be achievable. It was the epitome of unsustainable planning – large extra-urban extensions sprawling across farmland remote from town centres and linked by new roads to the A350. The financial linkage was as obvious as the link roads: strategic housing and employment sites would help to fund the old dream of creating a 'strategic route' between the M4 at Chippenham and the A36 at Warminster.

This 'economic growth corridor' has dominated and distorted the planning and transport strategies of Wiltshire councils for several decades now. In the 1990s the dream was shared with Dorset County Council. The two shires had a shared interest in making the A350 a strategic route between the M4 and the expanding port of Poole. Dorset's county and district councils appear to have abandoned that ambition, leaving WC to switch its focus to its other old dream road to the Channel ports, the A36(T).

Whichever 'gateway to Europe' dominates the council's strategic 'thinking', Westbury stands in the way. For the member groups of our alliance the only comfort to be taken from the WC's core strategy was that it did not propose a bypass for Westbury. Millions of pounds' worth of improvements were proposed for the A350 but they were all to the north of Westbury. The policies for the community area proposed nothing more than measures to reduce the impact of the road on the town centre. The public exhibition introducing the Core Strategy to the people of Westbury showed no bypass. The emerging Local Transport Plan was similarly silent on the matter.

Then in the summer of 2012 a map of the original eastern bypass route was included in the 'proposals map' in Appendix H of the Core Strategy, justified by the claim that this was a mere technicality resulting from the need to 'save' Policy T1a from the still current West Wilts Local Plan.

Our lawyer and member groups of the WHA challenged this move at the Examination in Public of the CS last summer. The council declined the Inspector's requests

to remove the safeguarded route from its draft development plan.

So, unless the Inspector insists and the council relents, we will be back where we started in the summer of 2007.

This sense of futility and *déjà vu* is all pervasive today. The zombie roads are slithering out of old plan chests all around the country and taking up position along the pegged lines that showed where they expected to triumph over landscape, wildlife, water resources and common sense in the great Blacktop Age of *Roads for Prosperity* and *the great car economy*.

One of the founder groups of the White Horse Alliance, the A36 Corridor Alliance was formed in 1993 by a coalition of environmental and transport groups along the route of the A36/A46 corridor between the M27 near Southampton and the M4 at Tormarton. Seeing the emerging ambitions of Wiltshire County Council we subsequently added the A350 to our name and our brief. Among the founder members at that first meeting in Salisbury were those fighting the A36 Salisbury bypass. This was the centrepiece of the Government's proposed strategic dual-carriageway linking the M27 and M4. None of the environmental or heritage QUANGOs appeared at the planning inquiry in 2004. The road would have been built if grassland ecologists working pro-bono for opponents of the road had not found what the DoT's ecologists had somehow overlooked. The proposed route on embankment across the water meadows of the River Avon would have destroyed a rare flowery meadow (MG8 grassland type). English Nature woke up. The Avon was after all a candidate European SAC. The EA was suddenly worried about flooding and impacts on groundwater flows. The precursor of English Heritage suddenly noticed that the river valley and meadows below Salisbury provided one of the finest views of the Cathedral – 'A quintessentially English landscape'.

The government scrapped the scheme in 1997 because of these insuperable environmental obstacles. The DoT's A36 superhighway detumesced. Wiltshire CC tried to revive the Salisbury bypass in the guise of local relief roads but failed.

When is 'insuperable' not insuperable? When you have the memory of a goldfish, dreams of everlasting economic growth and the environmental and cultural sensitivities of a cockroach?

You will by now have recognised some elements of the route strategies embodied in your work on the SW Peninsula. The A36/A46 Trunk road (detrunked and then retrunked again after the five local authorities responsible for it could not agree a joint management policy for it) is on your map, hanging around in an un-strategic diagonal sort of way between the RBS corridors.

The A350, not being a trunk road, is there, but without prominence. Your 'evidence' shows that the two roads have much greater significance in some LPAs mental maps of the area.

For example a report for the Swindon and Wiltshire LEP in January '*Transport Vision 2025*', envisaged not only an A350 Westbury bypass but also eventually an A36 Salisbury bypass, along with several A303 schemes (the latter marked on the consultant's map before your A303 route study had even got under way!). The report puts the Westbury and Salisbury bypasses in a 10-year plan 'reference list'.

The report does not list the A36 as a 'corridor' in its own right; the 'Vision' subsumes it into the 'A303 corridor' yet the map and text show the A36 trunk road pointing at 'South coast gateways to Europe'! We can only assume that this coupling with the A303 is intended to scoop up gravy from the Chancellor's £18bn roads programme budget.

From your own work on the SW Peninsula strategy you will recognise another coupling of corridors:

Table 4.1 'Schedule of challenges and opportunities' is a mish-mash of largely anecdotal information from local council and LEP wish-lists. For example:

'A350 North of Warminster, Swindon and Wiltshire:

'This is a key route serving north-south. It is significant also due to the number of towns along the route. It is a local

corridor, but should be seen in relation to the A46. Is the A46 fulfilling its role as a strategic road? For the A350 to work, it needs to be a dual route. Has the potential to take on the role of the A36/A46.'

I wonder who could have told them that!

The scoring boxes for this A36/46/350 hybrid corridor dream show a tick for 'Short term priority' and confirm that it was 'identified through local stakeholder engagement.'

So, here we go again! All the old roads, rebundled, rebranded and bunged together into various unconnected consultation processes, LEP and DfT and HA trying to come up with shortlists of quick wins, low hanging fruit and shovel-ready fossils while the funding window remains open. Responses from 'stakeholders' committed to sustainable planning and transport for a survivable future cannot have any bearing on a process unashamedly committed to mono-modal expansion of the road network.

The older ones among us have been here before. Some of us attempted to play a constructive role in the consultation processes of the SWARMMS multi-modal study at the turn of the century. I resigned from the consultation and wrote to the consultants to tell them why. My open letter of resignation was published in *World Transport Policy and Practice* in 2001. I attach it here in the hope that you will see the extraordinary similarities between that time and the present day.

Given my renunciation of consultation with government over its transport planning (or lack of it) you may be wondering why I have responded at such length to this one. The answer is that I have responded to the dishonesty implicit in the process that is now being rushed towards a list of roads projects for the Autumn Statement. This is a travesty of what transport planning should look like in the 21st Century. I write to protest at something I know I cannot influence by engaged comment on what passes for strategy and evidence.

I also bear some responsibility to the

member groups of the White Horse and Corridor Alliances. CPRE and CBT nationally have submitted evidence and you will have received the protests those campaigns generated from individual members, including myself, over the national strategy behind your strategy. I know that my colleagues in Salisbury and CBT Bristol and Bath Travel to Work Area group will be dealing with matters of particular concern to them. I know that the Stonehenge Alliance has submitted a powerful objection pointing to the inadequate evidence base of environmental and heritage constraints that should be tempering the ancient regional instinct to dual the A303. The World Heritage Site around Stonehenge and two AONBs are not listed as constraints. I will not list all the other AONBs, the National Parks or the European sites and SSSIs that could be endangered by this recrudescence of tarmac, runoff, and air pollution. You should be able to locate them if you have the time or motive.

I also have an obligation to link our concerns in the SW with the concerns of colleagues in the South East: our regions and route studies appear to be separated from each other. We have seen no evidence that modelling is being done - or can be done in the time available - of cross-border induction of extra traffic as road schemes such as the almost inevitable Arundel Bypass and road-based strategic developments increase both demand and capacity along the South Coast. Are we in danger of reviving that old dream of a South Coast Motorway'?

I would like to remind you that SWARMMS ran concurrently with a South Coast multi-modal strategy and a strictly mono-modal Highways Agency 'route management strategy study' of the route between the M5 near Exeter and the M27 near Southampton. Since then we have also had the Bristol and Bath to South Coast study that recommended signage to redirect HGV traffic away from the A36 and the A350 and route it via the A303, A34 and M3 to Southampton and Poole.

You might like to add those studies to your evidence base - if there is any time to read actual evidence showing that you and your 'stakeholders' are engaged in a political

process that has nothing to do with transport planning and everything to do with fulfilling your absurd prediction that traffic will grow by 40 per cent by 2040.

Yours sincerely

Patrick Kinnersly
Secretary, White Horse Alliance
Joint convenor, A36/A350 Corridor Alliance

The Death of the Habitats Directive

Alan James

The European Habitats Directive¹ was enacted in 1992 to introduce to all EU (at the time EEC) member states a system of strict protection for vulnerable natural habitats and species. It required states to draw up lists of areas to be afforded special protection (Special Area of Conservation or SAC) because of the presence of habitats or species of particular importance in a European context, in order to create a coherent network of sites (Natura 2000); and to afford legal protection to a specific list of species (Annex IV) which while not always rare in a national context, were susceptible to deterioration in population or range.

The Habitats Directive was required to be enshrined in law in each of the member states, including drawing up a list of candidate SACs to be confirmed by a given date. In the United Kingdom, the Directive was first incorporated into British (including Scottish) law in 1994², and the current version dates from 2010³, often called the Habitats Regs. There have been problems with the adequacy of transposition of the Directive into national law, but in any case the Directive has supremacy in cases of ambiguity.

The Habitats Directive was and remains a remarkably powerful statement of what is and is not acceptable in terms of development impacts on habitats and species that fall within its orbit. If an area is designated a SAC (or a Special Protected Area – SPA – for birds, subsequently incorporated into the Directive), or if an individual species is included in Annex IV, there are narrowly prescribed criteria and procedures to determine whether development is permissible. It is in effect a line in the sand, drawn to ensure ultimate protection to the sites and species that were deemed to matter most. The strictness of protection has been clarified and if anything reinforced by case law in the years since 1992, and in particular by European guidance based on case law issued in 2000 and 2007 for sites^{4,5} and in 2007 for species⁶.

Through most of the 1990s the Habitats Directive was relatively little known in

Britain and still less an issue in development decisions. It was – and arguably still is – primarily a protocol to protect wildlife, rather than a development planning tool. However, the interests of the two often coincide: if a development destroys the resting place of an Annex IV protected species, that is a reason why the development may not legally proceed, in order to enforce the “strict protection” (the actual words of the Habitats Directive Article 12) of the species, unless very precise conditions for derogation from this requirement are met. In the past few years, more cases have arisen, in transport and other areas of planning, in which objectors to a scheme have invoked the Habitats Directive as a reason why development cannot lawfully proceed.

This article argues, with case studies, that the planning system increasingly marginalises the Habitats Directive whilst paying lip service to it: and the law (albeit with exceptions) generally appears reluctant to impose the strict protection required by the Directive on decisions which come to judicial review. The article concentrates on protected species, mostly in relation to transport projects, but as much again could be written about protected sites. The case studies include the two most important recent High Court cases on protected species, known as ‘Woolley’ and ‘Morge’ after the individuals who brought the cases: and two road schemes, the Aberdeen Western Peripheral Route (AWPR) and the Heysham to M6 Link, both of which were subject to legal challenge on grounds of impact on protected species amongst other issues.

With the High Court decision in 2013 to allow the Heysham to M6 Link Road to go ahead in the face of evidence that it would result in the deterioration of resting places of otters which are Annex IV protected species, in my view the Habitats Directive can no longer be relied on as an effective conservation tool in Britain, in spite of being the law of the land. In transport projects, my experience suggests that whilst blatantly damaging options may be discarded, compliance with the Habitats Directive will be claimed for the preferred option irrespective of its possible shortcomings.

Requirements of the Habitats Directive

Under Article 12(1)a) and c), the deliberate⁷ capture, killing or taking of eggs from protected species is prohibited. Article 12(1)b) prohibits the deliberate disturbance of protected species: and 12(1)d) prohibits the deterioration or destruction of breeding sites or resting places of protected animals. The last of these is somewhat different from the other three, in that the transgression is against the habitat rather than the species themselves: it is not a defence to argue that individuals were not present at the time of destruction so could move somewhere else.

Article 16 sets out criteria which could permit derogation from the requirements of Article 12. In the absence of satisfactory alternatives, and provided that the favourable conservation status (FCS) of the species is maintained, the main derogation applicable to transport schemes arises if there are of Imperative Reasons of Overriding Public Interest (IROPI), including public health, safety, wider environmental benefits, or reasons of a social or economic nature. This is usually summarised as three derogation tests – IROPI, alternatives, maintenance of FCS – all of which have to be met.

The 2007 Guidance on protected species has exhaustive discussion on the meanings of IROPI, FCS, and alternatives. FCS is not often a contested issue in British transport projects⁸, not least because of the resources that would be needed for objectors to prove it. IROPI is notoriously difficult to prove or disprove, but the 2007 Guidance emphasises that 'imperative' and 'over-riding' set a high bar in the context of strict protection of vulnerable species (see ref 6, III.2.1 para 24). Road scheme promoters invariably make airy claims of public interest to justify their projects, with little rigorous argument to underpin the assertion⁹.

In contrast, the guidance on alternatives is very specific and fairly clear-cut. In summary (all quotes 2007 Guidance [ref 6] III.2.2, paragraph numbers as given):

- It *"is an overarching condition that all*

derogations must satisfy" (para 34)

- Alternatives should be chosen to solve the identified problem in a way that ensures the best protection of the species, which *"could involve alternative locations (or routes), different development scales or designs, or alternative activities, processes, or methods"* (para 37).

- *"recourse to derogations must be a last resort"* (para 38, bold in original)

- *"a derogation may only be allowed where no other solution which does not involve setting aside these (Article 12) prohibitions can be adopted"* (para 39)

- Whether or not an alternative is satisfactory must be assessed on objectively verifiable factors of a scientific or technical nature (para 40), but in any case *"another solution cannot be deemed unsatisfactory merely because it would cause greater inconvenience to or compel a change of behaviour by the beneficiaries of the derogation"* (para 41)

Taken together, this is a formidable list of requirements, as befits a system of strict protection for the most vulnerable species, to be met before all alternatives have been exhausted and derogation can be granted. In effect, it puts the safeguarding of protected species ahead of all other considerations, with derogation being a last resort if no other course of action would remove or reduce impacts on protected species.

Two further points are important in any discussion of Habitats Directive/ Regulations assessments:

- A constant theme of the Habitats Directive and the Guidance documents is that decisions must be based on the best available scientific evidence. As will be seen in the case of the Heysham-M6 Link, the quality of evidence may have been the best 'available', but was far from the best that was possible.

- In Britain there is a system of licensing for derogation, managed by the nature conservation bodies of the individual countries - Natural England (NE) for England, Scottish Natural Heritage (SNH) for Scotland, etc.

Almost invariably, inquiry inspectors and judges rely on the opinions of the nature conservation bodies in determining con-

tentious cases relating to the Habitats Directive. This attitude is now reinforced by case law since the Supreme Court ruling on the Morge case. However, NE often fail to engage with assessments (as in the Woolley case) due to a chronic and worsening lack of resources, and argue with some justice that if they contested every case however minor, their resources would become even more stretched and their effectiveness in challenging government on the most important cases would be diluted. Most campaigners against road schemes regard NE and SNH as hopelessly compromised, since they are government bodies and seem reluctant to act against the government's bidding except in the most extreme cases¹⁰.

Woolley and Morge

These are the two most significant High Court cases in Britain in recent years relating to species protected under the Habitats Directive. The very different outcome between the former in 2009, and the final decision in the latter, by the Supreme Court in January 2011 marked a significant shift in case law.

In the first of these¹¹, Simon Woolley was the claimant and Cheshire East Borough Council the defendant. The case concerned the demolition of a bungalow containing a bat roost. The particular issue was whether a local planning authority was required to satisfy itself that the scheme was compliant with the Habitats Directive/1994 Regs in reaching a decision to grant the planning permission (for a small housing development) for which the demolition was required: or whether it was sufficient to note the applicability of the Directive and Regulations because of the presence of bats, and state the requirement for a derogation to be licensed. Judge Waksman QC concluded in favour of the claimant, basically on the grounds that it was necessary for the local authority to engage with the requirements.

In the context of the present discussion, two paragraphs of J Waksman's decision are particularly important:

31. The Planning Permission itself stated in reason 6 that the proposal had

an acceptable impact on European protected species. But that is not the question posed by the Directive and Regulation 3 (4) which concerns the requirements to be met before any derogation can take place at all.

It is a common argument that an impact on a European protected species is acceptable, often on the grounds that with mitigation and compensation measures the habitat for the species will be maintained or even enhanced. However, as J Waksman states, "that is not the question posed by the Directive": the question is whether the three tests for derogation are met.

He then goes on to say (in response to the argument that the outcome of planning approval would have been the same had the local authority complied with the relevant guidance):

34. In any event, given the strict requirements for any derogation I would be very reluctant to hold that the outcome would have been the same in any event. And the fact that a licence was ultimately obtained ... does not alter that conclusion. Indeed at the Inquiry Millennium's (the developer) planning witness agreed that imperative reasons of overriding public importance did not arise and that there was a suitable alternative to demolition which was to retain Bryancliffe.

The derogation licence was issued by NE four months after the planning permission had been granted. Although not stated in so many words, the inference may be drawn that NE should not have licensed the destruction of the roost because the tests for derogation had not been met. Even the developer agreed that there were no imperative reasons of over-riding public interest in building a small housing development, and there was an alternative to demolishing the bungalow.

The initial Morge High Court hearing was also in 2009¹², but the case rumbled on through an Appeal in June 2010¹³ to the Supreme Court hearing in November 2010 and judgement in January 2011¹⁴. It was brought by Vivienne Morge against Hamp-

shire County Council, and concerned a proposed busway through an area containing bat roosts. Although the busway avoided destruction of roosts, the argument was that it constituted disturbance under Article 12(1)b) because of the loss of foraging areas and severance of commuting routes to other foraging areas. The case was clearly a difficult one, as the first judge found in favour of Hampshire CC, the appeal judge overturned that ruling, and the Supreme Court overturned the Appeal decision but with one dissenting opinion.

Without going into too much detail, the decision revolved around how to define 'disturbance', and how to resolve conflicting opinions on what extent of disturbance was critical to the future of the bats in the area. Like Woolley, the decision also pertained to the obligations placed on a local planning authority to determine the effect of the Habitats Directive on approval or refusal of permission. The Appeal judge argued that a planning authority could grant permission only if it concluded that there would be no breach of Article 12, or that in the event of a breach NE was likely to grant a licence for derogation under Article 16: but the authority should refuse permission if it was uncertain whether a breach would occur, or whether a licence would be granted if needed. The Supreme Court judges argued (ref 14 para 29) that this went too far, and that a planning authority should only refuse permission if it concluded that the development would both offend Article 12 and be unlikely to be licensed.

The Supreme Court ruling supersedes J Waksman's judgement in the Woolley case, and moves towards a presumption in favour of granting planning permission unless there are specific reasons not to do so, as opposed to the precautionary principle adopted in the Appeal Court ruling, of refusing permission in cases of doubt. However, its greater effect is on the substantive case of assessing disturbance. The key judgement was the majority opinion (ref 14 para 30) that Natural England's views should take precedence over others, because NE is the statutory body charged with nature conservation:

"Where, as here, Natural England ex-

press themselves satisfied that a proposed development will be compliant with article 12, the planning authority are to my mind entitled to presume that that is so"

The dissenting opinion argued that in fact NE, who initially objected to the scheme because of lack of information on bats, had not expressed themselves satisfied that there would be no breach of Article 12. It was also argued that the officer report misrepresented NE's statement and gave more assurance to council members than was in the specialist reports, that disturbance would not be significant. He therefore concludes (para nos from ref 14):

82. ... It was simply not possible for the committee to properly conclude that Natural England had said that the proposal would not be in breach of the Habitats Directive in relation to bats. Absent such a statement, they were bound to make that judgment for themselves

83. As I have said, Natural England ... had not explicitly addressed the question whether the disturbance of bats that the proposal would unquestionably entail would give rise to a violation of the directive. The main focus of the letter of 19 July (when the objection was withdrawn) was on an entirely different question ... the unalterable fact is that(NE) did not say that it had concluded that no violation would be involved, much less that the planning committee did not need to consider the question.

This judgement appears closer to J Waksman's view that a planning authority has to satisfy itself that no breach of the Habitats Directive is likely to occur in the event of planning approval, notwithstanding advice it may have received even from the statutory body for nature conservation. However, this was a dissenting opinion¹⁵, and the effect of the Supreme Court decision is that whatever NE says – or is thought to have said – goes. This may be an oversimplification of a complex decision, but the effect is real and recognisable in subsequent inquiries and appeals¹⁶.

Aberdeen Western Peripheral Route (AWPR)

This scheme involves a 41km route around the West side of Aberdeen, which was opposed by a large number of people on a large number of grounds over a long period of time. The salient facts (from 2005 onwards, when the scheme was reassessed) are that:

- Five routes were presented for consultation, at ever-increasing distances westwards from the edge of Aberdeen – named in order Pitfodels, Murtle, Milltimber, Peterculter, and Peterculter with a southern leg
- The Murtle route was consistently assessed as the preferred route, both before and after the 2005 reassessment, even though it had a severe impact on the Camphill community for people with disabilities
- In spite of this overall assessment, the ministerial decision in 2005 was to promote the Milltimber route, but in a hybrid version also with a southern leg
- The Milltimber route passed in the vicinity of the Aberdeen International School, which was acknowledged in the Environmental Statement to house bat roosts
- All British species of bat are protected under Annex IV of the Habitats Directive, so fall under the orbit of Article 12 and of the Article 16 tests for derogation from Article 12
- There were two variants of the Milltimber route at the International School. One was to demolish the school buildings, put the road through the site, and rebuild the School elsewhere: the other was to run the road alongside the International School site and not relocate it, accepting that there would be an impact on the school.
- The decision was made to relocate the school and demolish the existing buildings: this decision, whatever other logic was involved, did not mention or consider the presence of the bat roosts and the potential contravention of the Habitats Directive.
- This decision was challenged both at the Inquiry into the scheme in 2008, and in subsequent legal challenges

The Inquiry Reporters somewhat ducked the issue, saying they were not aware of any decisive advantages of one route over another and that it was for Ministers to decide whether there were no satisfactory alternatives. The High Court judges accepted an argument put forward by Transport Scotland, that all five routes had potential impacts on bats, so the destruction of bat roosts at the International School could not be said to be a determining factor against the Milltimber route. This judgement was in my view fundamentally flawed on two counts:

1. The case was that, within the Milltimber route, there was a variant that did not involve the destruction of the bat roosts: therefore, the Milltimber route as proposed was illegal as there was a satisfactory alternative within the terms of the Habitats Directive. Furthermore, this aspect of the assessment had not been addressed in the reason given for preferring the destructive variant, which was essentially that it was better to relocate the International School than to have it sit alongside a busy major road.
2. There was no evidence on the actual or potential destruction of bat roosts on the other four route options, only assertions that there would be disturbance of bats, without even an assessment of which option offered the least disturbance, as required in the 2007 Guidance (ref 6 III.2.2 para 37). Destruction of resting places is a distinct element in Article 12 of the Habitats Directive, and much more tangible than 'disturbance'.

The judges accepted the argument that there was no reasonable alternative that would have eliminated impact on bats, since all routes had a potential to impact on bats. This failed to address either the point that a Milltimber route could have avoided the destruction of the resting place; or that there was no evidence whether other routes would have had any impact on resting places, or whether they disturbed bats to a greater or lesser extent than Milltimber.

Heysham-M6 Link Road (HM6L)

HM6L is a 4.8km length of road, promoted by Lancashire CC (LCC) to link the M6 with the Port of Heysham and other parts of the peninsula between the estuary of the River Lune and Morecambe Bay, bypassing the existing urban road through the eastern side of Lancaster and the suburban areas between Lancaster and Morecambe. The background to the scheme is covered in an accompanying article by David Gate of the action group TSLM which vigorously opposed the scheme for 8 years.

It is difficult to understand the point of this road, which lops only a few minutes off the journey time between the M6 and the port and, as LCC acknowledged, does little to reduce congestion on the existing urban road network. Extravagant claims about creating 6,000 jobs on the peninsula proved over-egged by a factor of 10 even using the dubious standard methodology for estimating job creation. The road was admitted to be inappropriate development in the Green Belt, but a typical unfounded claim of over-riding public interest was invoked.

The scheme gained planning permission in 2008, but this became redundant in 2010 because of scheme changes. The scheme went through a second inquiry, an Examination under the 2008 Planning Act for a Development Consent Order (DCO) under the dubious pretext of being classed as a Nationally Significant Infrastructure Project or NSIP (17) in spite of being a local authority road. It emerged that there was a significant and previously undisclosed increase in forecast traffic through the village of Halton, just east of the M6 and on the bank of the River Lune. Halton residents had already been objectors to the scheme because of concerns about flooding, but more joined the campaign some of whom knew a lot about otters on the Lune and questioned whether they were affected, as an Annex IV species, at the new HM6L river bridge immediately West of the M6.

The Environmental Statement for the 2005 version of the scheme included a survey of otters in 2004, which found no evidence of

otters on this stretch of the River Lune but acknowledged that other sources indicated that they were present. Their presence was accepted as likely but the degree of disturbance was deemed unlikely to cause a breach of Article 12(1)b), and there was no evidence of resting places in the vicinity of the bridge.

The second application in 2011 admitted that the 2004 survey had not been formally updated, but this was not felt to be necessary since it was not disputed that otters were present. The objectors commissioned a survey from nationally respected otter experts, who presented strong evidence of at least one otter holt in the immediate vicinity of the proposed bridge, and possibly several more in the area of typical otter habitat on the northern bank of the river.

This evidence was presented to the Examination, causing discomfort to LCC and its nature conservation consultants because of the potential breach of Article 12(1)d) in causing the destruction or deterioration of a resting place. There was no question of the tests for derogation being applied, because the scheme promoter had no knowledge of the existence of the resting place because it had done no in-depth survey work for nearly 10 years!

Natural England were also represented at the Examination, and explained new arrangements for 'shadow licensing' of derogations, introduced to fit DCO/ NSIP procedures. NE can give an opinion on the likelihood of a licence being granted on the basis of evidence presented to them at earlier stages in scheme development, subject to there being no significant changes by the time of application for a licence. However, in a case where no evidence was presented by the scheme promoter due to a lack of up to date survey information, NE would be unable to give any opinion.

LCC hurriedly arranged a single site inspection, falling well short of the 12 months of data advocated in NE guidance on acceptable survey methodology. This took place at a time of very high river levels with the main holt entrance under water. The outcome was that LCC stated that they could not find any evidence of a holt so in their

view it did not exist so no further evidence would be presented.

The objectors commissioned a second report from an otter expert, independent from the first, and he confirmed the likely presence of a holt at the location previously identified, and that it would be unviable as a resting place if the bridge were built.

The Examining Authority (ExA) concluded in his report¹⁸ that "*the situation with regard to otters is less clear cut*" (ref 18 para 180) than with bats, which was more clear cut because the destruction of roosts had been sanctioned by NE in the shadow licensing process, albeit without reference to the tests for derogation¹⁹. However, he concluded that the approach adopted by LCC was "*not unreasonable in seeking to establish at the appropriate time prior to construction whether a licence would in fact be required to cover potentially material disturbance to otters.*" (ref 18 para 187).

The logic of this statement is questionable. The DCO could be approved, compulsory purchase set in motion, contracts entered into with cancellation penalties, and works committed elsewhere along the route, for a scheme which would be unlawful if the tests for derogation were not met should a licence to derogate prove to be required once the promoter got round to doing the survey.

This line of argument only really works if it had already been concluded that a licence **would** without doubt be granted if needed, because the tests for derogation would be satisfied come what may. It is difficult to comprehend how such an approach satisfies the core principles, purposes, and procedures of the Habitats Directive. It is also in direct contradiction to the stated position of Natural England at the Examination, that it could not adopt a position on licensing a derogation without having seen evidence on the position and nature of any resting places. At the same time, NE's position contradicts its own initial position in the Morge case, which was that it objected to the scheme because of the lack of adequate survey information on protected species: with HM6L the response to exactly the same complaint was

that NE had no position one way or the other.

The ExA attempted to justify his position on the reasonableness of LCC's proposed course of action by stating that:

"From what I have seen and read, should such an application ultimately prove to be required it would seem likely to be able to be granted on the basis of mitigation..." (ref 18 para 187)

As J Waksman said, that is not the question posed by the Directive. Should an application to licence prove to be required, it would have to satisfy the three tests for derogation, using the best scientific evidence available (and it is hard to envisage even a minimum acceptable standard of scientific evidence without any proper surveys), in the context of derogation **as a last resort**.

The alternatives test required looking well beyond whether the bridge could be in an alternative location (ref 18 para 188): there had to be assessment, as quoted earlier in this article, of "*different development scales or designs, or alternative activities, processes, or methods*". To my knowledge no such assessments were ever undertaken with the bar set at 'last resort' in the context of strict protection of Annex IV species, for which "*another solution cannot be deemed unsatisfactory merely because it would cause greater inconvenience to or compel a change of behaviour by the beneficiaries of the derogation*". The view of objectors remains that the only test that was probably satisfied was the maintenance of favourable conservation status.

The failure to follow due process in assessing the impact on otters as a European protected species was one of the grounds for legal challenge. The case²⁰ was heard in July 2013, and the decision was published in early October. The usual paragraphs 29 and 30 of the Morge Supreme Court decision were quoted at length, but the reasons why this was relevant to HM6L are not explicitly stated. Morge was about disturbance of species, HM6L was about destruction or deterioration of resting places.

There are further reasons to challenge the handling of this section of the judgement:

- The judge asserts that the challenge facing the ExA was that otters are a mobile species, so it was not possible to tell in advance where they would be at the time of the bridge's construction. In fact, the issue was about resting places, which are not mobile, and the 2007 guidance expressly states that a resting place need not be occupied at the time of its destruction for due process under the Habitats Directive to be required
- It is stated that NE would "*not consider granting a pre-emptive shadow licensing application*" (ref 20 para 69), by implication because of the mobility of the species. This is not what NE said at the Examination, as reported by the ExA. NE could not consider a shadow licence application without evidence which would have been available had LCC done up to date surveys. NE was perfectly happy to issue a shadow licence for the destruction of bat roosts, which involved equally mobile species; and all shadow licensing is subject to there being no material changes in circumstances at the time of application for the actual licence.
- He quotes from para 30 of the Morge Supreme Court decision, that "*Where, as here, Natural England express themselves satisfied that a proposed development will be compliant with article 12, the planning authority are to my mind entitled to presume that that is so.*" This is not relevant to HM6L, as NE explicitly said that they did not have an opinion one way or the other, because they had no evidence on which to base an assessment.
- Para 71 of the decision is open to question and comes across as internally contradictory. It is stated that "*Natural England indicated that if a survey were to find that there were resting places in the vicinity of the bridge at the time work is shortly to commence then a licence application would probably not be required (presumably on the basis that such resting places would not be damaged or destroyed)*". It is unclear when and where NE indicated this position, but it is in conflict with their consistently stated position that they could give no opinion until presented with evidence by the scheme

promoter. It is in any case hard to understand how NE could express a view, then or at any time, that resting places of unknown whereabouts (as far as LCC were concerned) would not be damaged or destroyed by the bridge.

- The final part of para 71 is arguably a non-sequitur: "*In this case, it was open to the defendant to conclude that it was not likely that the proposed development would harm otters in those ways prohibited by the Regulations or that, even if it, did (sic) Natural England would be likely to issue a licence*". This appears to adopt the Morge approach, that if NE were satisfied that breaches of Article 12 were unlikely and were in any case likely to be licensed, then LCC, the ExA, the Secretary of State, and judges hearing legal challenges were entitled to reach the same conclusion. However, NE at no point said they were satisfied: they needed evidence before they could begin to address the issue. In any case, even if as para 71 claims, NE had said that a licence application was probably unnecessary, this says nothing about whether NE would have been likely to issue a licence had they changed their mind on the need for licensing.

The legal challenge failed, and both written and oral leave to appeal were sought but refused. The written application²¹, which amplified the above case against the first decision, was dismissed in three lines:

"The judge's reasoning concerning the 2010 Regulations and the others (sic) makes complete sense to me. The arguments now advanced against it seem to be unrealistic and to represent technical and unmeritorious quibbling" (ref 21 para 8)

Concluding discussion

For me, the dismissal by a senior judge of issues of compliance with the Habitats Directive as "technical and unmeritorious quibbling", without even engaging with the issues raised, marked the death of the Habitats Directive as a procedure ensuring the strict protection of species of European significance. I have discussed the cases of HM6L and AWPR with nature conserva-

tion professionals, and the general view is that whilst compliance with the Directive may or may not have resulted in the schemes being quashed as unlawful - in other words, a scheme could legitimately pass properly applied derogation tests - it was questionable whether due process had been followed in either case.

The decisions are based on unfounded assumptions that derogation from Article 12, if needed, would be sanctioned through the licensing process, which in turn often appears remarkably lax about applying the actual tests for derogation. J Waksman argued perceptively that the characterisation of impacts on protected species as 'acceptable', or capable of mitigation or compensation, were not addressing the question asked by the derogation tests. Unfortunately, his judgement was consigned to history within two years by the Morge Supreme Court ruling, and in the process the baby of proper application of the tests for derogation was thrown out with the bathwater of planning authority obligations towards the Directive. The proper application of the tests for derogation has, albeit possibly as an unintended consequence of the Supreme Court decision, been reduced to a crude rule of thumb that if Natural England or SNH are happy with a scheme in relation to the Habitats Directive there is no cause for anyone else to be unhappy.

It is possible that the Habitats Directive has become its own worst enemy because it is so tightly defined and prescriptive. There is an attitude, especially among those who espouse major infrastructure schemes as the route to economic salvation, that schemes costing hundreds of millions of pounds should not be thwarted by a bat roost or an otter holt, when the bats and otters can easily relocate elsewhere without harming the purposes of species protection. There is also a view among conservation professionals that the Annex IV lists should be reviewed 20 years on, as some species, including otters and the commoner bat species, are not as vulnerable or endangered as they once were. Finally, there is a perception that the purpose of the Habitats Directive was primarily to protect nature, and this purpose has been hijacked as a tool to oppose develop-

ment by people whose primary interests are not the conservation of nature.

And yet ... the interests of sites and species of European conservation value are not served by marginalisation of the system of strict protection by scheme promoters, for whom the scheme is also ultimately more important than the conservation of nature: nor by decision makers whether planning authorities, planning inspectors, nature conservation bodies, or judges, who often appear to me to adopt too wide an interpretation of strict processes for strict protection.

In my experience, the Habitats Directive is widely regarded as both idealistic and unrealistic in our 'modern' world where growth and development are everything, and quality of life is an assumed by-product of the economic prosperity that growth and development bring. Perhaps the Habitats Directive does need an overhaul 22 years after it first saw the light of day. But equally, its core values should not be disregarded or eroded, and perhaps its 'line in the sand' approach to protection of the most vulnerable sites and species is as necessary now as it was in 1992.

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References and Footnotes:

1. Council Directive 92/43/EEC 21 May 1992 on the conservation of natural habitats and of wild fauna and flora
2. Statutory Instrument 1994 No 2716: The Conservation (Natural Habitats, &c.) Regulations 1994
3. SI 2010 No 490, The Conservation of Habitats and Species Regulations 2010
4. Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats Directive' 92/43/EEC: European Commission 2000
5. Guidance document on Article 6(4) of the 'Habitats Directive' EEC 92/43/1992: European Commission January 2007
6. Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC: European Commission February 2007
7. The 2007 guidance defines 'deliberate' in an interesting way (II.3.1 para 33), as proceeding in the knowledge that an action is likely to result in death/ capture/ disturbance of a species, even if that is not the intention.
8. It was an issue in the Westbury bypass inquiry (2008), which involved several of the rarer species of bat and a colony of dormice: but it remained untested, as the inquiry Inspector recommended refusal on other grounds.
9. The Heysham-M6 Link Road was bizarrely defined as a Nationally Significant Infrastructure Project in 2011, which effectively closed off discussion on IROPI: in reality it is a three mile stretch of local authority road which was eventually conceded to save an average of only 5 minutes journey time at peak hours, hardly the stuff of imperative and over-riding public interest!
10. At the Westbury bypass inquiry, NE raised no objections on landscape impact, which is also one of their areas of statutory responsibility: yet this was the main reason for refusal of the scheme, expressed in such crystal clear terms by the Inspector that it is hard to understand how NE could have espoused the opposite conclusion other than for reasons of expediency.
11. High Court of Justice, Queen's Bench Division, Case No CO/2820/2008
12. High Court of Justice, Queen's Bench Division, Case No CO/10056/2009
13. Court of Appeal, Civil Division, Case No C1/2009/2589
14. Supreme Court, 2011 UKSC 2
15. The majority view was that NE's position was clear, notwithstanding what was or was not in the July letter: NE had objected because of lack of information on bats, and withdrew that objection, from which it was reasonable to infer that the grounds for objection had been resolved.
16. For an interesting discussion on the effects of the Morge Supreme Court decision (which does not necessarily coincide with my views), see "After Morge, where are we now? The meaning of 'disturbance' in the Habitats Directive": Charles George QC (who represented Mrs Morge in the hearings) and David Graham March 2011. See also note 19 below
17. This anomaly was corrected in 2013 amendments to the Planning Act, which clarified that a NSIP would apply only to highways for which the Secretary of State was responsible, and not local authority roads unless certain exceptions were applied.
18. Heysham to M6 Junction 34 Link road, North of Lancaster Order: Examining Authority's Report of Findings and Conclusions and Recommendation to the Secretary of State for Transport: Planning Inspectorate December 2012

19. This was not pursued in the subsequent High Court challenges, on legal advice that since NE had indicated they would licence a derogation the chances of success were almost nil in the aftermath of the Morge Supreme Court decision – a clear case of the malign effect of that decision, in contrast to the position in J Waksman’s decision, that the issue of a licence by NE did not necessarily mean that the tests for derogation had been met, so a licence did not necessarily guarantee compliance with the law.

20. High Court of Justice, Queen’s Bench Division, Case No CO/5073/2013

21. Court of Appeal Civil Division, Case No C1/2013/2923

Public transport network planning in Auckland, New Zealand

Muhammad Imran and John Stone

Introduction - elements of public transport network planning

This paper explores how efficiency and patronage levels can be improved in public transport provision in Auckland, New Zealand by employing a 'network planning' approach to public transport service design. Historically, in New Zealand cities, public transport has provided mobility for people without access to cars (Imran and Matthews 2011). However, public transport is increasingly called upon to contribute to environmental sustainability by reducing carbon emissions (AC 2012), and to influence economic growth by alleviating Auckland's traffic congestion (MoT 2012). These objectives for public transport seem daunting. While increasing peak hour services may seem an obvious technique to reduce both environmentally damaging emissions and congestion, this strategy may have unforeseen repercussions. For instance, a focus on peak hour services may detract from the quality of off peak provision, disadvantaging those reliant on such services including part-time workers, and people seeking to access educational, recreational, social, community and utilitarian facilities (Mees et al. 2010).

One approach to providing for diverse travel patterns is to provide separate services for different markets: express buses and trains for peak commuters; regular buses for local trips along busy corridors; and para-transit for low-demand corridors and times (Nielsen 2005). The problem with this approach is that the more public transport services become tailor-made, the more they surrender their environmental and economic advantages. A public transport system offering a direct service between every origin and destination would have low frequencies, low occupancies, high costs and high greenhouse emissions per passenger.

The alternative is the 'network planning' approach adopted by many cities in Europe and Canada (Mees 2010). These cities focus on the provision of public transport services to local passengers as well

as commuters. These services do receive modest public subsidies, but at the same time offer significant environmental benefits and high level cost-recovery ratios. The network planning approach enables 'anywhere-to-anywhere' travel while keeping occupancy rates high, by carrying different kinds of travellers on the same services. Transfers are integral to a public transport system that offers access to a large number of potential destinations at an affordable cost to the operator (Nielsen 2005). Traditional public transport planning has treated transfers as an inconvenience to be avoided at all costs, but the network planning approach makes them the building blocks of a multidestinational system. While transfers present many new travel opportunities, they also impose inconvenience. Creating effective transfer-based public transport systems requires careful planning to ensure that the inconvenience is reduced to an absolute minimum (Mees et al 2010). The HiTrans best practice guide to network planning (Nielsen 2005) lists four key elements that underpin the creation of high-quality, transfer-based networks:

1. A simple line structure: simplicity makes the network easier for passengers to understand, and it reduces the resources that an operator must provide.
2. Stable line and operating patterns: a network must also be stable. The idea is to provide a consistent, high-quality service across the network all day, rather than operating different service types in peak, off-peak, night and weekend time periods.
3. Convenient transfers: easy transferring requires attention to timetables and physical facilities. 'Random' transfers are possible when all lines serving an interchange point operate frequently, generally every 10 minutes or better. 'Timed' transfers are needed when services are less frequent, and the timetables for connecting lines must be coordinated (Nielsen 2005; Mees 2010).
4. Appropriate institutions and fare systems: fare systems must allow free transfers. The pooling of fare revenues is essential for this; and to allow cross subsidies. Planning on a whole-of-system basis seems to require a single responsible regional agency.

These four elements for public transport services planning create 'the network effect' (Mees 2000). Mees (2000) argues that doubling service levels in a traditional network will lead to only a 50 per cent increase in patronage levels, but if the traditional north-south network can be complemented by east-west services, this provides the potential for a 1000 per cent increase in patronage.

A hypothetical example - 'Squareville' - can be used to illustrate the efficiencies that can be generated by the 'network effect' in a low-density, dispersed city (Mees 2000). 'Squareville' (see Figure 1) has a grid-iron pattern and public transport services are designed to operate in east-west and north-south directions. However, each passenger has to transfer to reach their destination. This pattern increases elasticity of demand, patronage and revenue from fares, and exemplifies the core concept underlying network planning: maximising possible journeys whilst minimising operational resources by transferring people.

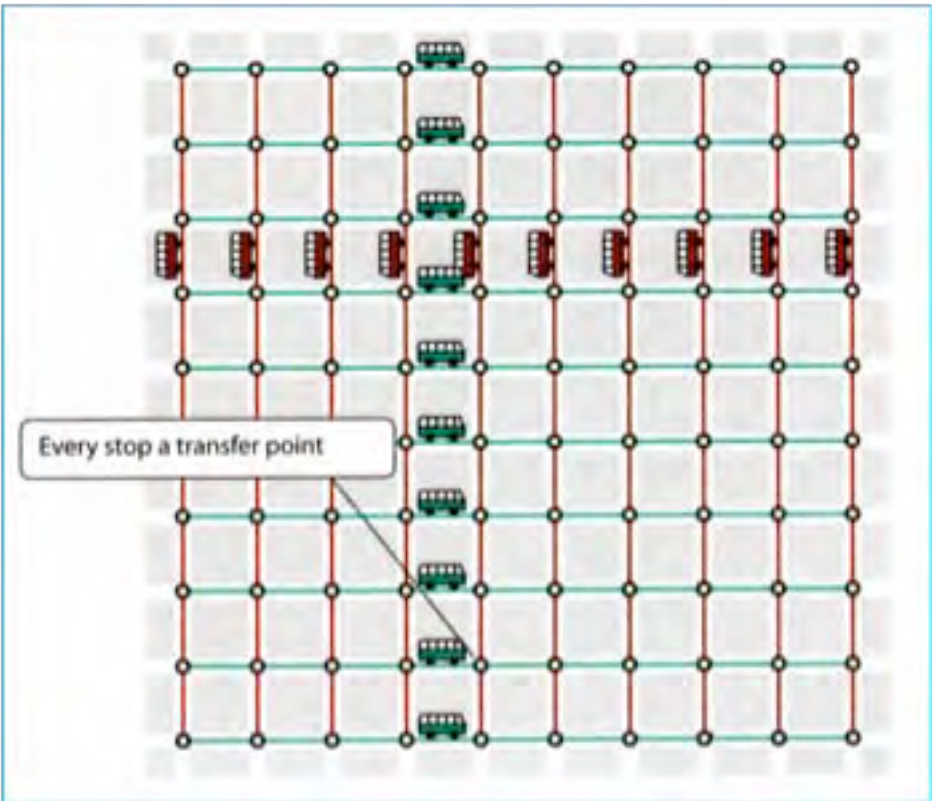


Figure 1: The network effect of the 'Squareville' (Mees 2000; Nielson 2005)

The network approach reverses traditional public transport planning approaches by treating transfers as the cornerstones of

a multi- system, rather than as an avoidable inconvenience. Thompson and Matoff (2003, p.298) argue that 'the multidestintional approach uses transfers to open travel paths to and from non-CBD destinations that are reachable in radial systems only by lengthy and circuitous travel. The intent is to induce new ridership through the provision of new travel opportunities created by transfers in the belief that the induced non-CBD patronage will exceed any CBD patronage that may be lost due to an added transfer.'

Historically, the Paris Metro and the Zurich public transport are successful illustrations of the network planning approach. However, Vancouver is an example of a city where the bus network has been successfully restructured by employing the network planning approach in last two decades (Stone et al. 2012). The reduced costs of operating the B-Line services which provide higher standard services - less frequent stops, and upgraded boarding and interchange facilities, are reallocated to local routes to improve service levels. For example, the

#98 B-Line commenced operation in 2001 to the district of Richmond in Vancouver's southern suburbs. Prior to 2001, many low-frequency routes, often only operating during peak hours, and with express sections in the inner city, came to the CBD. The #98 provides a single, high frequency, full-time express service, with other bus lines forming feeders or cross suburban links that connect with it at specially designed interchange 'stations'. With this design, the trade-off for transferring is a

dramatically increased service level on the local line sections (Mees et al. 2010).

While no two cities, even those in the same country, are directly comparable due to different histories, topography, economic and institutional structures, Vancouver shows notable successes can result from the use of the network planning approach to public transport. It is therefore, reasonable to assume that this approach could offer the potential for improvements to public transport in Auckland (Stone et al. 2012). There are some basic similarities between Vancouver and Auckland, such as low population densities (17.1 and 18.9 persons per hectare respectively), relatively weak CBDs (12.6 and 13.6 percent of total jobs), the necessity of making water crossings to access other parts of the city, and high car ownership and mode share for work trips (74.4 and 87.4 percent) (Mees et al. 2010). However, Vancouver outperforms Auckland in terms of work trips made by public transport (16.5 to 7 percent), and by an even greater margin when considering per capita for all trips (135 to 40 boardings per capita) are analysed. Accordingly, Auckland is renowned for its congestion and the worst levels of public transport provision in the developed world (Bachels et al. 1999).

A number of agencies at various levels of government are responsible for transport planning in Auckland (Imran and Matthews 2011). At the local or metropolitan level, Auckland Council was created in 2010 and its subsidiary Auckland Transport (AT) is responsible for planning and formulating transport strategies. The data collected for this study comes from both desk-top research, and a consultative workshop. The desk-top data analysis included timetables and fare structures available on websites. It was not possible to access commercially sensitive information such as patronage data for individual public transport lines, which would have enabled a more in-depth analysis. A consultative workshop was conducted on 11 February 2009 as a part of NZTA funded project which was attended by central, regional and local transport planners. The workshop helped in gaining an in-depth understanding of public transport issues in Auckland. The next section summarises the public transport operating practices found in Auckland.

Public transport service planning in Auckland

This section covers the institutions which influence public transport service standards, CBD circulation and ticketing in Auckland.

Institutions

The New Zealand government's 1989 deregulation of public transport had its greatest impact in the Auckland region, allowing several private bus companies to operate services that directly compete with each other, and with the rail services.

Rail services and some bus services are planned and subsidised by AT and are delivered by private contractors. Outside this framework, many bus routes are delivered as 'commercial' services, for which operators receive fare revenues and a payment from AT to offset concession fares. The MAXX brand is used as a coordinating mechanism but many services operate outside of this, using the liveries of the private operators (Mees et al 2010).

Service standards

Whilst the Northern Busway (the first BRT in Auckland) represents an improvement in service standards, public transport in Auckland does not have a clearly defined network structure. The train system provides the skeleton trunk service in the southern and western corridors that, even with current diesel operations (electrification is underway), offers competitive travel times when compared with buses which offer direct competition. Services are chiefly oriented towards city-bound commuter markets, with low frequencies during off-peak periods and in counter-peak travel directions. Bus services are generally designed to avoid transfers: a multiplicity of indirect lines are used to link likely origins and destinations. At some locations, timetables refer to transfers and interchanges but connections with trains are seldom well designed or encouraged (Mees et al 2010). The Northern Busway offers a trunk service to the northern suburbs with relatively high daytime frequencies. The design of interchanges at busway stops is conducive to easy transfers and the

routes of some local bus lines have been altered to take advantage of the improved travel times. However, other bus lines still run in competition, taking passengers all the way to the CBD, but at slower speeds (Matthews and Imran 2013).

The concentration of many bus lines in the Auckland CBD is a major source of delays, as buses compete for street space with private cars and have little effective signal priority. The problems caused by this congestion for efficient operations, and for public understanding of the system, are well-understood by local planners. However, current institutional arrangements limit the potential for the introduction of measures, such as the use of 'pendulum' lines (routes that start at one suburban terminus and ran through the CBD to another suburban terminus) and suburban transfers that could alleviate these prob-



Figure 2: Confusing for users and inefficient for operators: buses queuing in the Auckland CBD (Photo taken by Muhammad Imran)

lems (Mees et al. 2010).

In Auckland, a zonal-based fare system is used for travel on public transport. Under this system, passengers pay higher fares for longer travel distances. One set of tickets is issued for train travel, and there are nine separate sets of bus fare 'products' associated with the various private operators. Free transfers between services are generally limited to those run by a single operator. However, the Northern Busway fares are designed with transfer in mind. Despite this transferrable fare being in place, the suburban bus network is not designed as a feeder service and is rarely used for transfer. Recently the Auckland Council simplified the system by introducing a smart card (the HOP card), although it is still not useable on all bus services; as a result the fare system remains complex (Matthews and Imran 2013).

Discussion and Conclusions

It is clear from the analysis in the last section that considerable potential exists to improve public transport in Auckland. This section discusses how the embracing of a public transport network-planning approach can present opportunities for improvements in public transport provision in Auckland.

Institutions

Auckland Transport – a metropolitan transport agency - coordinates public transport services in the region. AT, like its predecessor ARTA, is structured in such a way, and has staff with the requisite skills, to facilitate the implementation of a network-planning approach. Such an approach would require the development of a new relationship between AT and private op-

erators, in which fare-box revenues would be retained by the tendering authority, to fund the delivery of the planned network (Mees et al. 2010). This relationship would be possible under existing or reformulated procurement legislation (Gibson 2010).

Recent upgrades to Auckland's rail system provide a platform off which community consultation processes could be built to generate support for reorganisation of existing public transport services into a functional network. Public consultation could be based upon the passenger transport advisory committee model.

For the network planning approach, it would be essential to create a fully integrated fare system. The Auckland HOP Card is a good initiative, but its value is diminished by the financial penalty imposed on passengers who make transfers between lines and modes; this penalty

needs to be removed (Matthews and Imran 2013).

Service standards

Previous sections show that Auckland has adopted a 'tailor-made' approach to public transport service planning. This approach includes service variations depending on the time of day and user, including an express bus services for commuters in peak directions and separate services for community and late night trips. Moreover, bus services often run in competition with the train services.

This approach could be replaced with the network planning approach which would increase both the efficiency of vehicle deployment and rates of boarding per service-km (Mees et al. 2010). Land-use planning decisions suggested by the Auckland Plan and the Unitary Plan (AC 2012; AC 2013) would largely dictate the location of key suburban public transport interchanges. Once decisions are made about the network structure, the operational details should be designed on the network principles of simplicity and directness, speed and reliability, and frequency.

In Auckland bus lines serving the major travel corridors show considerable duplication, including those serving the CBD; these services are often also competing with rail services. Both the 2003 opening of the Britomart terminal, and the City Rail Link (CRL) project, advanced rapid rail solutions, thereby, providing a suitable platform from which to build public support for the development of the network planning approach. This approach would overcome rail-bus competition and assist in developing on-road priority for public transport. Moreover, adjusting city wide timetables would help to transfer passengers from one mode or line to other modes or lines, ultimately increasing patronage (Mees et al. 2010).

Vancouver's experience shows that political and community support is necessary to develop the network planning approach (Stone et al. 2012). It is therefore necessary for AT to actively engage with communities and local politicians on public transport service alterations.

The focus of the Auckland Plan and Unitary Plan on medium density compact development, mixed land-use, urban design for pedestrians, and restraints on car access to the CBD provide a supportive framework against which to implement the network planning approach to public transport service planning (AC 2012; AC 2013). In conclusion, Auckland public transport service planning lacks a network planning approach to improve patronage in the short term. However, AT has the skills and structures in place necessary to develop networked public transport services in the Auckland metropolitan area. The planning and implementation of a network planning approach would require: a new relationship between AT and the private operators; a new public processes to build political and community support; an integrated HOP card to provide a mechanism for cross-subsidies for lower-patronage but important network services; and new transfer points or interchanges to be identified during the land-use planning process suggested by the Auckland Plan and Unitary Plan.

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The Insanity of Normality: Reconceptualising the Road Safety Debate

Gary Haq, John Whitelegg

1 Introduction

In its recent review of pedestrian safety the World Health Organisation (WHO, 2013) estimated that globally “more than 270,000” pedestrians lose their lives on the world’s roads each year. This is 22% of all road deaths and in some countries the proportion is as high as two thirds. Millions more are injured but accurate statistics on this total are not available. The WHO report emphasises that this toll should not be accepted as inevitable “because they are, in fact, predictable and preventable. This combination of very significant impacts (death, injury, grief, disability, loss of income, poverty) combined with the stark reality that it is well within our grasp to eliminate death and serious injury in the road traffic environment points to a serious level of irrationality and disfunctionality in the discourse and policy environment within which road safety sits. The disfunctionality is so serious that it exactly matches what the Swiss psychotherapist, Arno Gruen, has called “The insanity of normality” (Gruen, 1992). It is the objective of this paper to explore the road safety discourse, interrogate the “insanity” perspective to see if it can help us to radically re-engineer the total road safety discourse and use the Swedish “Vision Zero” road safety policy as an example of what can be done to shift global society towards a zero death and zero serious injury future in the road traffic environment.

Thirty years ago Whitelegg (1983) argued that there is a significant policy deficit in approaches to road safety. This deficit is still evident. The persistence of death and injury in the road traffic environment is a major global problem with 1.2 million deaths and 50 million injuries each year on a global scale (WHO, 2004). Road safety policy is still very reluctant indeed to address fundamental structural solutions to the problem of “road traffic accidents” and the basic changes to system design that these solutions would involve. The last three decades have seen no such change in system design and have seen a

massive global effort to export the same flawed system design to China and India and other parts of the world where millions of avoidable deaths, serious injuries and life-time disabilities are accepted as an undesirable but inevitable part of modern life.

The perpetuation of a system of mobility and its detailed design elements alongside the enormity of the death and injury consequences of this system can be explained by the phenomenon described as “The insanity of normality” by the Swiss-based psychoanalyst Arno Gruen (Gruen, 1992). This paper explores the insights provided by Arno Gruen and attempts to put into practice his insights through a reconceptualisation of the road safety discourse. This discourse has traditionally been dominated by mechanistic and economic views of the road, the driver and the “accident” victim with a clear avoidance of the importance of ethics, morality, humanity and the need to re-design systems that punish the poor, the weak and those without power. This reconceptualisation has already commenced in the Swedish Vision Zero road safety policy (Whitelegg and Haq, 2006) but this does not carry a sufficiently strong determination to confront the insanity of normality and address all those societal forces that ensure the perpetuation of car-dominated mobility, large scale public subsidy of this domination and the prioritisation given to speed and saving time.

In what follows we will seek to define the dimensions of the global road safety problem and its impact on those who become the unwilling victims of system design. We will test this reality against Arno Gruen’s “insanity of normality” thesis and then define a new reality informed by these insights where road safety problems are eliminated by fundamental re-design of the mobility landscape. Our redefinition of the mobility landscape will be based on original empirical research conducted in a UK Department for Transport research project reported in Whitelegg and Haq (2006). In this project over 300 citizens took part in detailed focus group work and produced a citizen led “Vision Zero” of road safety that is at odds with expert opinion. We conclude with remarks about the barriers to progress represented by

the conflicting world views of citizens and experts and assess the likelihood of an ethical, human-centred approach replacing a model based on speed, saving time and the instant gratification of wants.

2 Murder most foul

Dean (1947) wrote a powerful treatise on the unacceptability of 181,438 deaths and 4.7 million injuries on Britain's roads in the period 1909-1945. In commenting on this huge death toll and revealing his feelings about its moral unacceptability in his title "Murder most foul" he expresses hope for the future:

"The reconstruction of Britain will indeed be a dismal failure if it includes as a permanent feature of the national life the killing and maiming of a quarter of a million, or more, persons every year on the roads, with the wholesale lying and hypocrisy by means of which the slaughter is concealed or justified. But there is no reason for failure. As in every other direction, the opportunity is ready at hand. All that is needed is the will to act." (page 111)

Dean's hopes for the future were not fulfilled. The very high annual death toll in Britain at the time he wrote his treatise e.g. 7343 in 1934 has reduced to 1754 in 2012 (DfT, 2013) but this apparent improvement in level of safety is rarely evaluated against the observable background of wholesale reductions in those exposed to risk. Nor is it adequately evaluated within a context that can embrace human impact, distress and the overwhelming feeling (see discussion below) that it is unnecessary and can be avoided. The degree to which children are eliminated from the road traffic environment because of the fear of traffic and awareness of danger reduces the population at risk and points to a different conclusion about the efficacy of road safety improvements (Hillman, Adams and Whitelegg, 1990).

Attention has now shifted to the global dimension in a way that could not have been foreseen by John Dean in 1947. The World Health Organization (WHO, 2004) has correctly identified the scale and human nature of the problem in its "World Report":

"Every day thousands of people are killed and injured on our roads. Men, women or children walking, biking or riding to school or work, playing in the streets or setting out on long trips will never return home, leaving behind shattered families and communities. Millions of people each year will spend long weeks in hospital after severe crashes and many will never be able to live, work or play as they used to. Current efforts to address road safety are minimal in comparison to growing human suffering."

In a strong echo of John Dean the WHO concludes:

"The time to act is now. Road safety is no accident. It requires strong political will and concerted, sustained efforts across a range of sectors. Acting now will save lives. We urge governments as well as other sectors of society to embrace and implement the key recommendations of this report" WHO (2004).

Clearly a body count cannot convey the enormity of the impact of death, injury and distress on parents, families and friends. A more discursive, ethnographic and narrative assessment is needed to capture the full extent of impacts on people and relationships. We need to find a way to give a much stronger voice to the victims in shaping road safety policy if we are to build a way out of the accepted parameters of the road safety debate and chart a course towards a "Vision Zero". We turn to this in our discussion of focus group results below.

Notwithstanding this strong caveat on the poverty of numbers WHO (2004) uses them to good effect:

- Worldwide an estimated 1.2 million people are killed in road crashes every year and approximately 50 million are injured.
- This annual total approximates to 3000 deaths every day.
- These figures will increase by 65% over the next 20 years unless there is "a new commitment to prevention".
- Road traffic deaths will increase in the period 1990-2020 from 0.99 million

to 2.34 million.

- Low income and middle income countries account for 85% of the deaths and 90% of the annual disability-adjusted life years (DALYs) lost because of road traffic injury.
- Without appropriate action by 2020, road traffic injuries are predicted to be the third leading contributor to the global burden of disease and injury.
- A large proportion of the road crash victims in low and middle income countries are vulnerable road users such as pedestrians and cyclists.
- In the period 1975-1998 road traffic fatality rates rose by 44% in Malaysia and by 243% in China.

The WHO (2004) report concludes by saying that "Road traffic crashes are predictable and therefore preventable."

3 The insanity of normality

Gruen (1992) describes a number of personal and societal circumstances where events and socially accepted norms which are clearly very suspect, highly undesirable and in other ways abhorrent are widely accepted and taken as the norm. Individuals cannot see the contradictions and at the societal level conformity with generally accepted views is the norm and opposition or dissent is the exception. Gruen advances the thesis that in many places and times what passes for "normality" is clearly a manifestation of what could be taken as "insanity". He does not address road safety issues specifically but the widespread acceptance of death and injury in all countries currently running at 3000 per day fits his thesis perfectly. The acceptance of death and injury on a large scale when it can be avoided and when social-technology systems are making things worse (high powered cars, legal devices that permit motorists to avoid detection when speeding) clearly matches the use of the term "insanity". Greater force can be given to Gruen's examination of this subject by the clear statement from the World Health Organization that "Road traffic crashes are predictable and preventable". Why should we not move quickly to prevent the slaughter of 3000 people each day if the manner of death is "predictable and preventable"?

It is, moreover, reasonable to conclude that if several thousand people were going to work everyday in a large office complex and during a normal, routine working day a percentage of them would be killed and we avoided fundamental interventions to eliminate this daily reduction in the workforce then this would be "madness" and could be described as "insanity". Interestingly normality in the office domain is in tune with zero deaths. We do not expect or accept deaths as in any way the norm or in any way unavoidable. We have "Vision Zero" in our offices. In the main people are not killed at work because we make sure we do not have defective elevators, live electrical connections on computers and buildings that give way under the weight of files. Clearly the road traffic environment is different. We do not adopt the approach we use in offices to road safety and this meet Gruen's definition of "insanity". Holzapfel (1995) has drawn attention to the same theme in his analysis of "Violence and the car":

"The term violence should be used carefully. Many people drive their cars intending no harm. But automobile driving, in its existing form, is anything but a rational phenomenon from A to B: cars designed for speeds at which they hardly ever travel, European cities ripe for good pedestrian development relinquishing their urban charms to chunks of mental – the hallmarks of the car-centred society are all too conspicuous, and it uses by no means compensate for them. The negative influences of the car-centred society are enormous. Indeed car technology resembles no other, not even the technology of war, in the destructive influences it has so far inflicted."

And he concludes:

"Everything points to an increase in violence brought about by the car. Indeed there are clear signs of a self-perpetuating process operating, which fuels itself. Even quite against their will, people are affected by this process and drawn into it. The only way out of this situation is first, a simple admission of the situation and the misery it is spreading. Admittedly it goes

against the grain: a gleaming car in an advertisement is a far more attractive proposition than facing the hospitals where brain-damaged children from traffic accidents try to make sense of the world. By recognizing misery such as this, a process must emerge whereby people can be empowered to make the ultimate sacrifice and to live with fewer cars."

Self-injury and self-destructiveness have always been regarded as a malfunction of individual, group or societal pathology but both Gruen (1992) and Holzapfel (1995) identify destructiveness within a general paradigm of rationality as requiring special effort to understand and overcome.

Gruen identifies the absence of human values and the exercise of power by those who have severed themselves from human roots as key issues to be resolved:

"Whereas people who can no longer bear the absence of human values in the real world are considered "crazy", those who have severed themselves from their human roots are certified "normal". And it is members of the latter group to whom we entrust power and whom we allow to determine our lives and our future. We believe that they have the correct key to reality and know how best to deal with it. But a person's relatedness to reality is not the only criterion for establishing mental illness or health; we also have to ask to what degree feelings such as despair, perceptions such as empathy and experiences such as enthusiasm are still possible" Gruen (1992).

In the next section of this paper we will explore the entirely different worlds of those who exercise power (the experts) and those who simply live in a community, observe daily reality and relate this reality to human values (the citizen). This provides considerable amplification of Gruen's explanation.

4. Expert and citizen views of Vision Zero

Whitelegg and Haq (2006) carried out a research project for the UK Department for Transport which had five main objectives:

1. To explore and explain the Swedish Vision Zero road safety policy
2. To carry out focus groups in England on the concept of Vision Zero and the degree of support for it voiced by citizens
3. To carry out an on-line questionnaire survey of professional working in transport and road safety to ascertain expert opinion on Vision Zero
4. To summarise the advantages and disadvantages of a Vision Zero approach translated to the UK
5. To specify the policy changes that would have to be made in the UK to adopt the full force of Vision Zero.

4.1 The Swedish approach to road safety

The responsibility for road safety has traditionally been placed on the individual road user rather than on the designers of the system. Road safety has tended to focus on encouraging good behaviour by road users via licensing, testing, education, training and publicity. Sweden is among those countries with the lowest number of traffic fatalities in relation to its population. However, in spite of this excellent record, in 1997 the Swedish Parliament introduced a new approach to road safety called "Vision Zero". Vision Zero is based on a refusal to accept human deaths or lifelong suffering as a result of road traffic accidents (Elvik, 1999 and Elvik and Amundsen, 2000). It requires moving the emphasis away from reducing the number of accidents to eliminating the risk of chronic health impairment caused by road accidents. Vision Zero in Sweden requires fatalities and serious injuries to be reduced to zero by 2020.

Vision Zero has had a mixed reception in the academic and professional literature and is by no means immune from criticism (Elvik, 1999 and Elvik, 2008, Elvebakk and Steiro, 2009). The policy has stimulated fundamental thinking around the nature

of policy itself including whether or not it is "rational" (Rosencrantz, Edvardsson, K and Hansson, S O, 2007) and including explicit discussions of the role of ethics in road safety policy (Hokstad, P and Vatn, J, 2008) and including a useful discussion of "backward and forward responsibility" in Fahlquist (2006)

The 1990 Swedish National Traffic Safety Programme set a target of less than 600 fatalities for traffic safety by 2000. In 1993, the Road Safety Office merged and became the Swedish National Road Administration (SNRA). In 1994 the SNRA, now responsible for national traffic safety work, presented a National Traffic Safety Programme for the period 1995–2000. A new target of 400 fatalities for the year 2000 was adopted. This original target was achieved in 1994. The intentions of the National Traffic Safety Programme, with ten sub-targets for traffic behaviour, were not reached but abandoned with the discussion of the Vision Zero concept. An interim target of reducing the number of road accident fatalities from 600 in 2000 to 270 in 2007 was adopted as a move towards the Vision Zero target. The annual number of fatalities has been constant during the period 1994 to 2001. In 2000, there were 591 deaths and 4,103 serious injuries in traffic in Sweden (Koornstra et al., 2002). In the period 2001–2010 the number of fatalities in the road traffic environment in Sweden was reduced from 591 to 266, a decline of 54.4% (Europa Commission, 2012). Sweden was the top-ranked country in the EU on three measures (fatalities per million inhabitants, fatalities per 10 billion passenger kms and fatalities per million passenger cars).

Whilst it is not possible to attribute this success in reducing fatalities directly to Vision Zero it is of more than passing interest that the "top performer" in the EU is the country with an explicit vision zero road safety policy.

Vision Zero requires a paradigm shift in addressing the issue of road safety (Rechnitzer and Grzebieta, 1999). It requires abandoning the traditional economic model where road safety is provided at reasonable cost and the traditional transport model in which safety must be balanced

against mobility. At the core of the Vision Zero is the biomechanical tolerance of human beings. Vision Zero promotes a road system where crash energy cannot exceed human tolerance. While it is accepted that crashes in the transport system occur due to human error, Vision Zero requires no crash should be more severe than the tolerance of humans. The blame for fatalities in the road system is assigned to the failure of the road system rather than the road user (Wadhwa, 2001).

Vision Zero is based on the ethical imperative that (Tingvall and Haworth, 1999):

"It can never be ethically acceptable that people are killed or seriously injured when moving within the road system."

Accidents have to be prevented from leading to fatalities and serious injuries by designing roads, vehicles and transport services in a way that someone can tolerate the violence of an accident without being killed or seriously injured. Common long-term disabling injuries and non-injury accidents are outside the scope of the Vision. Vision Zero is estimated to achieve a possible reduction in the number of fatalities by a quarter to one third over a ten-year period (SNRA, 2003).

Vision Zero strategic principles are:

- The traffic system has to adapt to take better account of the needs, mistakes and vulnerabilities of road users.
 - The level of violence that the human body can tolerate without being killed or seriously injured forms the basic parameter in the design of the road transport system.
 - Vehicle speed is the most important regulating factor for safe road traffic. It should be determined by the technical standard of both roads and vehicle so as not to exceed the level of violence that the human body can tolerate.
- The approach is:
- To create a road environment that minimises the risk of road users making mistakes and that prevents serious human injury when designing, operating and maintaining the state road network.
 - To set an example in the SNRA's own operations through the quality as-

urance (from a road safety perspective) of journeys and transports in all areas of activity, both those undertaken in-house and those contracted.

- To analyse accidents that have resulted in death or serious injury in traffic and, where feasible, initiate suitable measures so as to avoid the repetition of such accidents.
- To stimulate all players within the road transport system to work resolutely towards achieving mutually targeted objectives conduct the work on road safety in close co-operation with all players within the road transport system.
- To take advantage of and further develop the commitment of the general public to safer traffic.

Vision Zero emphasizes what the optimum state of the road should be rather than possible ways of reducing current problems. The main change instigated by Vision Zero is a new way of dividing responsibilities for road safety. Rather than emphasizing the responsibility of the road user alone, Vision Zero explicitly states that responsibility is shared both by the system designers and the road user:

1. The designers of the system are always ultimately responsible for the design, operation and use of the road transport system and thereby responsible for the level of safety within the entire system.
2. Road users are responsible for following the rules for using the road transport system set by the system designers.
3. If road users fail to obey these rules due to lack of knowledge, acceptance or ability, or if injuries occur, the system designers are required to take necessary further steps to counteract people being killed or seriously injured.

In 1999, a short-term action plan was launched by the Swedish government, containing 11 points aimed at strengthening and stimulating traffic safety work in accordance with Vision Zero principles (Ministry of Industry, Employment and Communications, 1999):

1. A focus on the most dangerous roads (e.g. priority for installing centre-guardrails for eliminating head-on collisions, removing obstacles next to roads,

etc.)

2. Safer traffic in built-up areas (e.g. a safety analysis of street networks in 102 municipalities led to reconstruction of streets; the efforts are continuing.)
3. Emphasis on the responsibilities of road users (e.g. creating more respect for traffic rules in particular with regard to speed limits, seat belt use, and intoxicated driving.)
4. Safe bicycle traffic (e.g. campaign for using bicycle helmets, a voluntary bicycle safety standard.)
5. Quality assurance in transport work (e.g. public agencies with large transportation needs will receive traffic safety (and environmental impact) instructions on how to assure the quality of their own transportation services and those procured from outside firms.)
6. Winter tyre requirement (e.g. a new law mandating specific tyres under winter road conditions.)
7. Making better use of Swedish technology (e.g. promoting the introduction of technology - available or to be developed - that relatively soon can be applied, such as seat belt reminders, in-car speed adaptation systems (ISA), alcohol ignition interlocks for preventing drinking and driving, and electronic driver licences.)
8. Responsibilities of road transport system designers (e.g. establishment of an independent organisation for road traffic inspection is proposed by a commission of inquiry on the responsibilities of the public sector and the business community for safe road traffic.)
9. Public responses to traffic violations (e.g. a commission of inquiry is reviewing existing traffic violation rules in the light of the Vision Zero principles and of ensuring due process of law.)
10. The role of voluntary organisations (e.g. the government is evaluating the road safety work of the 'Nationalföreningen för trafiksäkerhetens främjande' (National Society for Road Safety (NTF)) and its use of state funds.)
11. Alternative forms of financing new roads (e.g. possibilities are studied for other forms of supplementing public financing of major road projects.)

In the autumn of 2001 the Government presented an infrastructure plan, where

the traffic safety work will fulfill the 2007 target.

4.2 Implications of Vision Zero for road fatalities

Proponents of Vision Zero see human life as a basic human right to be protected from fatal injuries. While humans are fallible and make mistakes in using the road system, these mistakes should not carry the death penalty (Elvik, 1999). The ethical principle on which Vision Zero is based is that death is unacceptable means that there is a moral obligation to design cars, roads and the rules of the road to protect road users from being killed in traffic. Vision Zero explicitly rejects the trade of human life against other objectives. It also rejects the use of cost-benefit analysis (CBA) to guide priority setting in road safety policy. Tingvall (1997:56) states:

“If a new road, new car design, new rule etc. is judged as having the potential to save human life, then the opportunity must always be taken, provided that no other more cost-effective action would produce the same benefit.”

Although Sweden has a comparatively good road safety record, Swedish policies are still considered to be ineffective in improving road safety. Elvik and Amundsen (2000) indicate that current policy priorities are inefficient in Sweden and concluded that road safety could be substantially improved if policy priorities were based more on CBA than they are today. They argue that cost-effective road safety measures can prevent more than 50 per cent of road fatalities in Sweden. However, current policies prevent approximately 10–15 per cent of the current number of road fatalities over the next 10 years. Many cost effective measures are not being implemented. By rejecting the use of CBA to set priorities, Elvik (2003) argues that advocates of Vision Zero are in effect rejecting a road safety policy that would give far better results than current road safety policies.

The main sources of inefficiency in current road safety in Sweden are (Elvik, 2003):

- Lack of power to introduce new vehicle safety standards – this power now

resides with the European Union;

- The existence of social dilemmas, that is situations in which measures that are cost-effective from a societal point of view are loss making from the point of view of individual road users;
- Priority given to other policy objectives, which cannot be adequately assessed by CBA, primarily objectives related to regional development.

Elvik (2003) concludes that the amount of resources that are currently spent on road safety policy in Sweden are sufficient to cover all cost-effective road safety measures, provided the use of inefficient measures ceases.

Elvik (1999, 2003) is rather sceptical about Vision Zero and presents an economic argument against the concept. Other authors e.g. Rosencrantz, Edvardsson and Hansson (2007) conclude that the policy has strengthened Sweden's efforts to eliminate death and serious injuries in road crashes, a view supported by Nihlen Fahlquist (2006) who argues that adopting Vision Zero as a national transport policy goal has signified an important shift of responsibility from individual road users to system designers.

4.3 UK focus groups

Twenty-nine focus groups were held throughout England and a total of 232 people participated in the focus groups. On average eight people attended each focus group. Participants were recruited from the local community e.g. via existing citizens panels, advertising in local community newsletters and at the local library. The participants covered a wide range of ages from 19–88 years old. Attempts were made to achieve an equal gender balance for each focus group; however, this was not always possible. Of the 232 focus group participants 51 per cent were men and 49 per cent were women.

Each focus group lasted for approximately 60 minutes. In the first part of the meeting, participants were given a short presentation on the level of road traffic fatalities and injuries in the UK and the Swedish approach on Vision Zero. After the presentation, participants were asked a number

of questions including:

1. *What do you think about Vision Zero?*
2. *What is an acceptable level of death from car crashes in the UK?*

The aim of the questions was to test opinion on the current UK policy and as well as Swedish Vision Zero policy. Additional information on the Swedish approach to road safety was made available during the meeting on the request of the participants. The following is an analysis of the main issues, arguments and concerns raised during the focus groups. Particular issues were repeatedly raised at each focus group.

1. *What do you think about Vision Zero?*

All focus groups gave a positive response to the notion of a Vision Zero policy. Participants felt it was "essential" to reduce road traffic deaths and injuries and that Vision Zero was an "admirable" policy and that it made a "good political statement" which was "inspiring". It was an objective that society could aspire towards achieving – "aim for the sky and hit the pinnacle of the church steeple". Comparisons were made with zero tolerance policies and the taboo now associated with drink driving.

"I think it's very commendable. We have zero tolerance of crime. Why not zero tolerance in road safety as well?"

"I think having a Vision Zero policy is a laudable aim. You need a goal."

"I'd second that. I think it's an extremely good goal."

"A Zero Policy says that it is actually [...] unacceptable that people die this way and we all kind of take it for granted that people will die and that's just the cost of having a transport system".
"We need a system where the road network accommodates the mistakes that people make."

"I think there is a need to set a target."

"Rather like striving for perfection isn't it? "

However, while Vision Zero was a good ideal the following concerns were raised.

Achievability in practice

A zero target was seen as being "idealistic", "unrealistic", "unattainable" and that

it would be "difficult", if not "impossible" to change the mindset in the country. The biggest stumbling block would be changing people's attitudes.

"You've got to be realistic otherwise people would not take the policy seriously."

"People in Britain do not easily accept Utopian ideas. Not sure about it being a government policy"

"It's a good idea to have a [zero] policy but it's like everything, if you've got something where there's no way of achieving it, somehow it has a negative effect."

Some participants felt that "accidents will always happen" due to the existence of human error and there is a level of "risk" associated with travelling that needs to be accepted.

"Yes, it would be nice to have zero but unless we make cars out of cotton wool it will never happen. There's an inherent risk."

"People in Britain do not feel responsible for road safety as a whole"

The difficulties of implementing current road safety policies as well as a vision zero policy were an area of concern. It was felt that ineffective or incompetent implementation of existing policies would affect the implementation of a future vision zero policy.

"We're lackadaisical about enforcement"

Participants felt that sentences for road traffic deaths and injuries should reflect the seriousness of the offence. It was felt that the police should enforce the Highway Code.

"The average driver's attitude to road safety is horrible. As illustrated by speed cameras – it's a joke. We slow down and pass the camera and off we go again."

"It is a challenge between the road enforcers, the system and the individual driver."

"The car is a lethal weapon."

2. What is an acceptable level of death from car crashes in the UK?

The majority of the participants felt that the 'zero' was the only acceptable level of deaths from car crashes in the UK:

"It is ethically wrong to say a certain number will die on the roads"

"There is nothing that is acceptable about death".

"You can't say any death is acceptable at all"

"One death is too many – I can't see anybody arguing with that. If it's my child ..."

"No level of death is acceptable especially if you bring it down to your own family. Would you accept the death in your family?"

However, participants were also aware of the difficulties achieving a zero target due to the inherent risk associated with road transport:

"Doesn't matter what you do there is always a risk associated with it. Whether you are walking the street or going on holiday on a plane. There is a risk that is attributable to that transport and no matter what; you will always have a risk attributed to driving."

"If it's not acceptable ban all cars completely"

"We are becoming such a nanny state no-one will venture from the womb before long".

"There will always be accidents on the roads so a target of zero is unattainable"

Some participants attempted to define an acceptable level of road fatalities and commented on the current levels:

"10%, 20%, 40% - these are improvements but they are not acceptable"

"Present levels are tolerable but not acceptable"

"As low as possible"

"As low as reasonably practical (ALARP) is what should be the going principle in that any death or serious injury is unacceptable".

"It is definitely a good idea to strive for as low a number as possible, but road

deaths will always happen"

"At the moment we accept nine a day being acceptable because we have not done enough to stop it."

"The reality is that we just play at it ... we still don't mind nine people a day being killed"

Some participants felt that road improvements only happened after several accidents had occurred despite warnings from local residents. They had "no faith in traffic engineers" and that we "must spend as much as possible to reduce the risk".

Some of the focus group participants objected to the question being asked:

"It's a question that shouldn't be asked"

"... in principle you have to say of course that no deaths are acceptable. One death is unacceptable. But we know that's not real, that is an unreal question".

"I think it's an abuse of language. I don't think there is an acceptable level. It's the wrong question".

"The wrong question is being asked. All that can be said is risks must be minimized".

Over 90% of those taking part in the focus groups expressed varying degrees of support for the Vision Zero concept and in doing so often used language that is current in Sweden and Norway when this policy is discussed. Participants were of the view that one death in a road crash is one too many, that this is an ethical issue and we should commit to zero fatalities and serious injuries and that we have to do whatever it takes to get down to that level. The citizen viewpoint could not be clearer.

4.4 UK Stakeholder on-line questionnaire

The aim of the on-line questionnaire survey was to gain the views of a range of UK stakeholders on Vision Zero. Approximately 55 stakeholders were contacted and requested to complete an on-line questionnaire survey. The stakeholders included central government, members of parliament, local government associations, motoring organisations, health organisations, non-governmental organisations, the po-

lice and other organisations including road safety specialists.

A total of 85 people completed the on-line questionnaire survey. This number included private individuals who had become aware of the project either via the internet or through advertising for focus group recruitment. Figure 1 presents the different types of questionnaire respondents. While a number of organisations were contacted the people who responded to the questionnaire preferred to respond in a personal rather than institutional capacity. The majority of the responses were individual responses at 59 per cent followed by campaign groups (13 per cent)

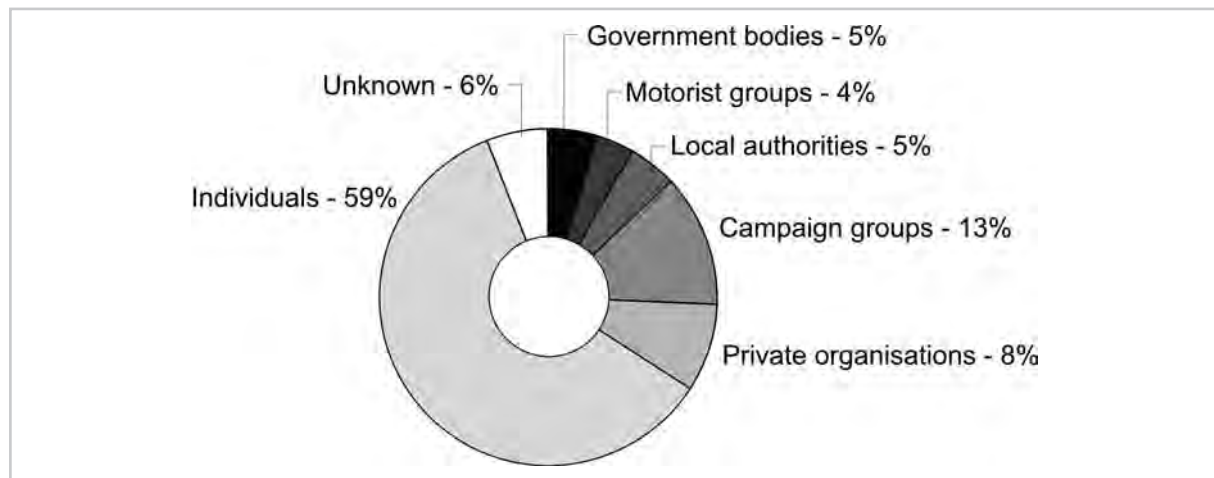


Figure 1 Questionnaire respondents by category

and private organisations (8 per cent). Six per cent of the respondents do not indicate any affiliation while government bodies and local authorities each represented 5 per cent of the respondents followed by motorist groups at 4 per cent. The questionnaire survey consisted of eleven questions related to a Vision Zero policy on road safety: it also provided the opportunity for the respondents to elaborate further on their views. The following section provides an overview of the results of the survey. The section also includes direct quotes from the respondents. It is not possible to present all the responses in this article. Instead, the common issues raised have been grouped and presented with some sample responses.

For the question "Do you think it is helpful to have a policy that establishes a vision of zero fatalities and zero serious injuries?" a total of 62 per cent of respondents did

not feel that an adoption of a Vision Zero would be helpful.

For the question "Do you think that the Swedish Vision Zero policy should be adopted as a road safety policy in the UK?" 79% of responded did not wish a vision zero policy to be implemented in the UK. The questionnaire then asked "Swedish interviewees have explained that setting a "Vision" has major advantages in setting road safety policy on a new and re-invigorated course. Do you think this would be the effect of introducing Vision Zero in the UK?" A total of 72% of responded said that this would not be the case if Vision Zero was introduced in the UK.

Conclusions on expert and citizens views on Vision Zero

Ordinary citizens were almost entirely of the view that Vision Zero was sensible, logical and the "right thing to do". To many of the focus group participants it was unthinkable that we should accept death and injury on the road with its tragic consequences for all those connected with the death. They wanted to eliminate death from the road traffic environment and warmly welcomed the Swedish Vision Zero approach.

The response from professionals was almost the opposite of the citizen group. Professionals were dismissive of Vision Zero, they thought it was totally unrealistic and had nothing to offer UK road safety policy beyond what was already in place. The citizen group reacted in a way anticipated by Gruen. Focus group participants

made it clear that they were concerned about children, the elderly, family members and neighbours. They were connected with everyday human concerns and empathized with those experiencing the dire consequences of death and injury in road crashes. They could not understand why we did not have a Vision Zero policy in the UK. It was such a "good idea" and the majority of participants could not understand why we should tolerate the death, injury, misery and disruption of family life and life-time of grieving over the loss of a loved one.

The professionals took a detached view based on a shared understanding of science, policy and bureaucratic procedures and intervention and whilst regretting the death toll on the roads they regarded it as an inevitable consequence of the exercise of daily choices on the part of million of drivers, pedestrians and other road users that will inevitably spawn "accidents". The professional represents what our society regards as "normal" in the sense that this is what educated, well trained individuals with a great deal of knowledge think about the systems they manage. The citizen view whilst not regarded as "insane" is certainly regarded as emotional, subjective, based on ignorance and not the way to deal with this complex problem.

This fits' Gruen's thesis perfectly. Societal norms have developed to regard those operating from clearly articulated human value perspectives as "insane" or at the very least unrealistic and to be dismissed. Those that exercise the power (the professionals) are "normal" and those who disagree with them are not well-informed and don't understand what is being done for them or to them. Citizens in this expert "normal" view of the world have no role to play in setting the aims and objectives of road safety policy. The road safety discourse in the UK confirms the insights of the "insanity of normality" analysis.

5 Conclusion and policy implications

The Swedish Vision Zero road safety policy has attracted worldwide attention and has been incorporated in the WHO 2004 report on road safety. In this study we have found large scale public support for

the concept in the focus groups and a considerable amount of scepticism in the professional community. The Swedish interviewees were very confident that adopting Vision Zero had reinvigorated road safety intervention and stimulated a high level of co-ordination and common purpose in all the professional stakeholders. This does not mean to say that it is supported by all stakeholders. There is scepticism in Sweden just as there is in the UK.

The core logic underpinning Vision Zero is not susceptible to scientific analysis or logical rigour. The Swedish decision to abandon a materialistic, cost benefit approach to road safety and to ground road safety in an ethical and human centered value system was intensely political. The decision to align road safety with the tacit Vision Zero that already applies to aviation and to health and safety at work was partly logical and partly political. Sweden decided that just as there should be an expectation of no deaths in aircraft accidents and no deaths at the work place so by logical extension there should be no deaths on the roads. The logic is attractive (and meets with public approval) but the decision on equivalence is political.

Gruen has shown that human values in a given population can be side-stepped and discarded by the dominance of professional, scientific and mechanistic models of the way society works. Our focus groups and professional survey show that this is also the case in the UK road safety discourse. The discourse is not polarized to the extent that any group is labeled as "insane" but the insights into such large differences of opinion and perception as we have demonstrated in this research amplify the conclusions of Gruen that human value centered approaches to dealing with problems can easily be regarded as "insane". The use of the word "insane" in a road safety policy discussion might well be regarded as provocative and not capable of justification but it conveys a rather accurate picture of the degree to which those who deviate from the norm are marginalized, discarded and excluded from the policy process. UK citizens have no voice in the debate about Vision Zero. The professionals have dismissed the concept.

The “insanity of normality” thesis carries with it a suggestion of what can be done to recognise and celebrate human value centered approaches with the objectives of establishing a more ethical content to policy development in social and political systems. This involves at least two fundamental structural changes in road safety:

- The exercise of power by engineers, planners and road safety experts must be tempered by the need to incorporate citizen views and expectations in analysis, option generation, policy recommendations and clearly articulated visions about what the world should look like in 2025 or 2050. These are not matters that can be reserved solely for experts and politicians. The “insane” have to be involved as well as the “normals”
- Citizens should be directly involved in decision-taking on crucial road safety matters such as speed limits, eliminating rat-runs, traffic reduction, widening of pedestrian pavements and shared space. New concepts and forms of local democracy are needed to empower citizens to be part of a demonstrable link between aspirations and desires and the delivery of these ideas through all stages of policy design and implementation so that they can be seen on the ground and citizens can see that what they articulated is a visible and tangible reality on the ground.

Both these structural changes are needed to take road safety discourse into a new phase of development and the complete eradication of death and serious injury in the road traffic environment.

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