West End 'Stress Area' Night-Time Economy Profiling: A Demonstration Project

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Mr Hadfield is the author of chapters relating to the operation of licensed premises and public disorder in Philip Kolvin and Jeremy Philips (eds.) *Licensed Premises: Law and Practice*, to be published by Butterworths in November 2003.

Abbreviations used in this report

ABH	Actual Bodily Harm
A&E	Accident and emergency
CAD	Computer Aided Dispatch
CAZ	Central Activities Zone
CSi	Customer Service Initiative
CDRP	Crime and Disorder Reduction Partnership
CRIMINT	Criminal Intelligence System
dB	Decibel
EAL	Environmental Action Line
EPA	Environmental Protection Act
GBH	Grievous Bodily Harm
GIS	Geographical Information System
LAS	London Ambulance Service
MPS	Metropolitan Police Service
NHS	National Health Service
NTE	Night-time economy
OCU	Operational Command Unit
PCN	Penalty Charge Notice
PCO	Public Carriage Office
PEL	Public Entertainment Licence
PIB	Police Information Bureau
PRF	Patient Record Form
SoE	Special Order of Exemption
TfL	Transport for London
UCH	University College Hospital
UDP	Unitary Development Plan
WCC	Westminster City Council (also 'The Council')
WESA	West End Stress Area
WHO	World Health Organisation

Summary

In most cases, research projects examining the night-time economy (NTE) have focused exclusively on police data, sometimes supplemented by data drawn from accident and emergency departments. This is an understandable approach for practical reasons, but it is one that is unable to represent the broader relationship between NTE activity levels and the patterning of a large and diverse range of directly and indirectly associated effects. The environmental impact of the NTE impinges in a variety of ways upon a number of broadly defined human groups within the NTE: users of the NTE itself, local residents, those who own and work in local businesses, and those whose job it is to manage the 'outputs' that are linked to the particular form of 'human ecology' found within the temporal and spatial parameters of the NTE.

Profiling of the NTE is fundamentally about assessment of a set of implications for our public spaces that impact upon private individuals as well as civil society. This project adopts an innovative approach to how we might measure – and thereby better understand over time – any indices of environmental 'stress' that may correlate with the time and space factors that define and locate what we understand as 'night-time entertainment' in our cities and towns. This understanding is vital if we are to provide a sound basis for informing public policy decision-making and its associated regulatory controls. This study provides an audit of the sources of data that are presently available to evaluate the West End entertainment area in London, a necessary first step towards the development of an evidential base suitable for profiling changes in salient indicators over time.

To address these matters, section 1 begins with an initial assessment of our central unit of analysis: the night-time economy. This section looks at current academic thinking on this subject, and examines a number of measurement issues, as well as explaining the methodology of our project. Section 2 examines the available data sources that were identified across three broad groups: within Westminster City Council, from the Council's principal statutory partners, and from other specialist bodies. We also dedicate a short part of this section to the identification of a number of data sources that were excluded from this study.

In the third and final section of our demonstration project report we summarise our findings for each specific data source, setting them against the main environmental 'stressors' cited in the City of Westminster's licensing policies document. We go on to make recommendations in relation to each data source, and conclude by identifying four key priorities intended as the starting point for a rigorous and groundbreaking approach to the understanding and measurement of these most fascinating of public policy issues.

Contents

1. Introduction

1.1 The Night-time Economy: issues of context and measurement

Current Government thinking in relation to crime reduction stresses the need for policies to be formulated on the basis of sound evidence and then, once implemented, to be fully evaluated in order to assess their problem-solving effectiveness (see Pease, 2002). In relation to liquor licensing, the import of such evidence increased significantly following publication of the *Good Practice Guide: Licensing* (Justices' Clerks' Society, 1999) which assigned to the police an important role in ensuring that "where there is an identifiable risk of public disorder or to community safety it is drawn to the attention of the committee" (para. 3.29), whilst importantly also requiring the police to produce sound evidence that such risks be "real rather than fanciful" (para. 3.28).

The connections between alcohol consumption and crime and disorder are complex and multifaceted (see, Parker, 1996; Roberts et al., 2001; Home Office, 2003). An extensive range of individual, cultural, environmental and regulatory factors, together with issues such as poly-drug use having ensured that it remains very difficult to isolate the specific role and importance of alcohol as a precursor, or to establish the existence of any direct causal link. This lack of agreement regarding the nature of the alcohol and disorder nexus within both scientific and practitioner communities has undoubtedly created a number of challenges in relation to the measurement and collation of data (Marsh et al., 2002). Yet, establishing that a problem cannot be measured is not the same thing as establishing that such a problem does not exist, or that efforts to reduce it are futile. Indeed, Home Office guidance (Home Office, 2003) suggests that by adopting an 'indirect' approach which links spatial, temporal and contextual indicators of alcohol consumption to the patterning of crime and disorder, such auditing problems may well be surmountable.

This study builds upon the work of our colleagues (Tierney and Hobbs) to explore the viability of developing a new evidential base, which, in seeking to audit indices, not of alcohol consumption per se, but of wider 'environmental stress,' goes some way beyond traditional sources of data and the narrow focus upon crimes, offenders and victims. From this 'urban managerial' perspective, police statistics emerge simply as components of a wider picture in which the key is to trace not only patterns of crime and disorder, but also to measure and record a variety of other indices of human activity, thereby encompassing issues which are "not just an alcohol problem"(Homel, et. al, 1992). This attention to the total environment of the NTE creates new opportunities for area profiling, within which traditional sources of data are triangulated with a variety of 'trace measures.' Such traces "are 'things' produced by individuals or groups of individuals" which may be used as "an indicator of some form of social behaviour" (Garwood et al, 2000: 161).

This study makes tentative steps toward tracing the rich minutiae of every-night life in ways which permit areas under 'stress' to be identified via the development of a

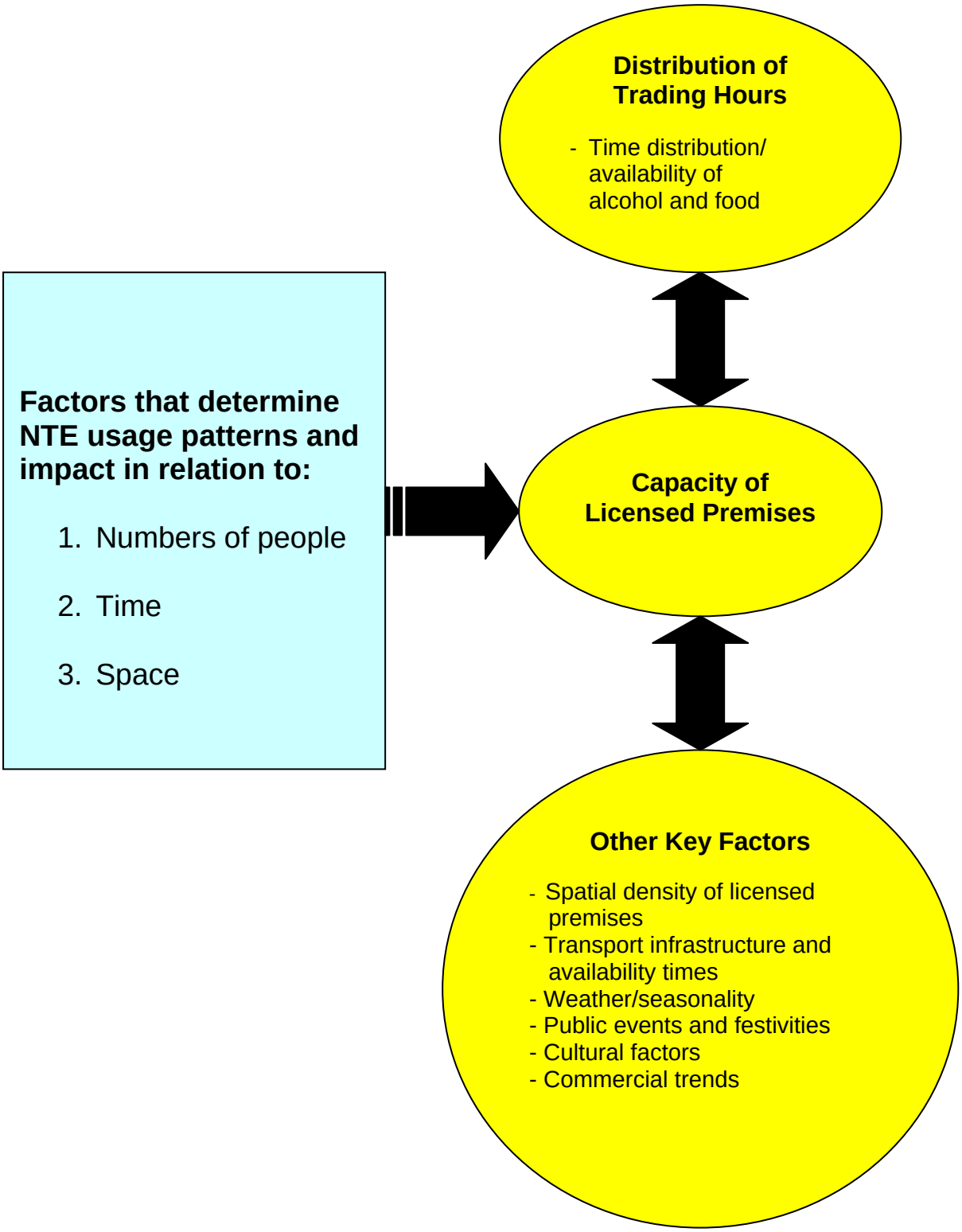
routine environmental management tool. The development of such a tool would be necessarily multi-agency, requiring significant exchanges of information and input from local authorities in particular in order to provide an appropriate evidence base for local licensing, planning, policing and transport policies together with other forms of intervention. Crime and Disorder Reduction Partnerships already have the means of collating and analysing much of the necessary data and the development of area profiling by local authorities would be especially timely. Councils have a statutory duty to help reduce crime and disorder under Section 17 of the Crime and Disorder Act 1998 and are soon to assume jurisdiction for alcohol licensing in harmony with their existing planning and public entertainment licensing responsibilities.

1.2 The Night-time Economy: simple dynamics

In order to understand the challenges, complexities and relevance of collecting a wide range of data in relation to the NTE it is necessary to understand a little about the simple dynamics of nightlife areas and the ways in which people use them. Nightlife areas are special environments created by a complex range of "social, cultural, legal, spatial and temporal dimensions" and characterised by a particular "physical infrastructure of buildings, roads, transit systems, land uses, design and architecture" (Brantingham and Brantingham, 1993: 7). The patterning of human activity within such areas is influenced by all these factors and shaped in particular by the interlinking organization of space and time to form an "environmental backcloth" (Brantingham and Brantingham, 1993) against which opportunities for pleasure and entertainment and their various by-products emerge. As illustrated in Figure 1 overleaf, nightlife areas are the sites of intense social interaction where people converge in space and time in order to fulfil their entertainment needs, exercise choice, enjoy the exciting ambience and, in a small minority of cases, exploit criminal opportunities (Hadfield, et al., 2003). As our diagram shows, the nature and volume of human activity is influenced by a number of factors including the distribution of trading hours in respect of food, drink and entertainment outlets, the spatial density and capacity of such outlets, the availability of public transport, the influence of weather and seasonality and the timing of public events and festivities.

This compression of human activity impacts upon the urban environment in a number of ways by placing a multitude of demands upon infrastructure and generating various forms of 'pollution.' These almost inevitable by-products of a vibrant NTE must be anticipated by local authorities, the police and other public bodies in their allocation of resources. As entertainment activity grows there becomes an increasing need to identify environmental indices which might inform attempts to regulate and manage nightlife activity in ways which ensure that whilst its benefits are maximised, any problems can be monitored, analysed and prevented. This report assesses the viability of a number of data sources as potential constituents of a new NTE profiling tool.

Figure 1 The Night-time Economy: simple dynamics



1.3 Background and aims of the project

Westminster City Council (WCC) is responsible for the licensing of all public entertainment and night cafes in the City of Westminster. Under current regulatory arrangements, liquor licensing policy is the responsibility of the Metropolitan Police.[1] Council licensing policy aims to strike an appropriate balance between commercial interests and overall public amenity. The policy that has been in place since 2000 can be broadly depicted as adopting the view that certain parts of the Borough of Westminster have a level of problems that are directly or indirectly related to the scale and character of the night-time economy.

The Council has a longstanding policy that entertainment and night cafe premises should generally be located only within a defined Central Activities Zone (CAZ). The Council has also decided over time that not all parts of the CAZ can accommodate further expansion. This policy applies to residential streets and to a defined area known as the 'West End Stress Area' (WESA). The area is roughly equated with Soho and Covent Garden and includes Leicester Square. This is one of three areas so designated across the whole Borough. A 'stress area' is defined in the WCC document setting out licensing policies as an area:

> Where a concentration of licensed premises has adversely affected amenity, particularly residential amenity

The West End Stress Area is an area that has been marked by a significant expansion in the number of late night entertainment and night cafe premises, on a scale that makes the area quite unique in the United Kingdom. The WCC document 'Licensing Policies for Public Entertainment and Night Cafe Premises' records that the number of music and dancing licences increased from 91 in 1992 to 278 in 2000, resulting in a 280 per cent increase in the overall capacity of licensed premises, from 33,418 to 127,860 over the same period. The Council takes the view that this expansion has had a cumulative effect to the extent that very large numbers of people are walking through, or congregating in streets during the night, often after most public transport has ceased. This effect, the Council contends, has produced a series of difficulties. The policy document provides the following examples:

- Large gatherings of people
- Crimes on, and by, visitors
- Noise nuisance to residents caused by noise in the streets, whether of people or car engines, horns and stereos
- Attraction of unlicensed minicabs
- Traffic congestion
- Parking difficulties
- Littering
- Fouling

[1] Each of the five police divisions within the WCC area has a Divisional Licensing Officer (two of which cover the WESA), responsible for liquor licensing policy for all premises with a terminal hour up to 1.00 am in that division. Liquor licensing policy for clubs or bars with terminal hours after 1.00 am is the responsibility of the specialist 'CO14' Clubs & Vice Unit of the Metropolitan Police. Jurisdiction for liquor licensing rests with Magistrates' Courts under present statutory arrangements.

The impact of these activities is borne primarily by local residents and businesses rather than those who are using licensed entertainment facilities. In short, these activities are seen as *stress factors* on day-to-day living within the defined area. A number impinge directly or indirectly upon public safety, which the Council is statutorily obliged to consider in all of its decisions.

On this basis, the Council has adopted a policy within the WESA of refusing:

(1) All new entertainment or night cafe licence applications, and

(2) All variations of licences which will:

a. Increase the terminal hour; or
b. Increase the floor space or capacity of the premises, or
c. Alter the nature of the operation in a way which may adversely affect public order or the amenity of the area for local residents

In meeting the requirements of legal process as it relates to licensing, the Council is required to present evidence in support of its stated policy within an appellant court. In general, evidence is mostly case-specific, in the sense that it seeks to present information on why the policy is justified in relation to a *specific* location. Some evidence is routinely presented showing broader patterns within the WESA as a whole (for example, some police data and the Soho noise mapping survey). However, the policy has lacked a systematic basis on which to quantify the various indicators of 'stress', and which would provide an important tool for the Council to evaluate the effective and appropriate operation of its licensing policy over time.

The broad aim of this research project has been to explore potential ways of measuring and profiling activity patterns related to the NTE in the West End Stress Area. Implicit to this process is an assessment of the basis for inferring indicative links between on one hand the level and type of licensed premises and, on the other, particular types of activity (including crime and disorder as a primary but not exclusive component). The research examines the contention that the type and scale of licensed premises that now exist in the WESA (that is, in relation to density of location, distribution of terminal hours and total capacity) and the volume of people that are attracted to the West End or are present to service it in some way (that is, work in the service industries of the night-time economy itself, or deal with the NTE either through public or private sector employment responsibilities, for example, police officers or taxi drivers) is directly related to various indices of environmental stress. In simple terms, were it not for the bars and nightclubs concentrated in the WESA and the terminal hours that apply, it would be a fundamentally different place.

The authors contend that this broad relationship is self-evident, but recognise that it is one that cannot easily be *measured* in a direct way. The task of area profiling is to establish *correlations* using a reasonable standard of proof that localised environmental stressors are generated *in and around the night-time economy*. We argue that public policy must think beyond the simple notion that the problems surrounding the NTE are all about crime and disorder and consider how to measure activities that are not crimes and may never result in arrest, but nonetheless have a cumulative impact upon the quality of the night-time urban environment (in line with

most of the examples cited above from the Licensing Policies document). The challenge is thus to examine the possibility of moving toward a more systematic basis for measuring the coexisting variables related to the NTE that together have a cumulative impact.

The premise of this approach was to consider the NTE in the West End as a human ecology, containing a highly complex range of interacting variables. In taking this approach, the authors recognised that data would often be extremely complex and that existing data collection regimes would often be inadequate. Nevertheless, the research was conducted with the intention of producing an audit of existing data sources and assessing the potential for their development in order to identify key indicators. Section 2.1 explores some more general issues arising out of the attempt to quantify the NTE in terms of a human ecology.

The research was not conducted with the aim of building an evidential base that would only include data that would be supportive of current WCC licensing policy presumptions. Its sole aim was to uncover meaningful and – if possible – innovative tools for ongoing measurement, drawing wherever possible on existing data collection routines. The underlying aim of the project has been to identify those measures that allow both a better understanding of current activity patterns within the West End NTE and offer a basis for the monitoring of any future changes.

1.4 Methodology of the project

The research project sought to conduct an audit of all primary data sources that could potentially describe activities taking place within the NTE in the WESA, allowing us to consider the basis for establishing a systematic method of profiling such activities. The following questions formed the methodological principles against which each potential source of data was examined:

- What form of data is collected at present?
- To what extent is the data relevant in actual or potential description of particular activities taking place within the WESA?
- Is the available data primarily quantitative or qualitative?
- Is the data disseminated or used for any other purposes at present?
- Could existing data collection be adjusted or
- How easy or difficult would it be to analyse data identified as being relevant, assuming it could be made available if it is not already?
- Are there any data exchange protocol implications, or implications for changes in data collection practices by the source provider? If so, are changes realistic or practical?

This approach enabled data to be categorised into a working list of primary, secondary and tertiary sources, based on the relevance and sophistication of the dataset involved. Using this approach it was also possible to exclude certain sources of data from first principles. In other words, some data is either too qualitative or too subjective to have practical value, or cannot be broken down in relation to the specific time and space factors intrinsic to any evaluation of the NTE within the WESA. Other potential datasets were excluded on the grounds of their complexity.

Research was conducted using semi-structured interviews with primary public service providers and other relevant bodies, organisations and individuals in order to identify and assess the availability and quality of data that could be linked to activity patterns in the WESA during the relevant times. Formal interviews followed key themes emerging from the objectives of the research and were of between thirty minutes and two hours duration. Consent was obtained where interviews were recorded and interviewees were assured that they would not be personally identified in the research. Emphasis was placed on consultation with relevant functional departments and contractors within WCC.

Bearing in mind that data collection in relation to crime and disorder is a statutory obligation placed on all local authorities under the 1998 Crime and Disorder Act, a key stage of the research was to examine how this data is – or could be – sub-divided in relation to the WESA. The Westminster Community Protection team has responsibility for the entire borough including the West End. Consultation with the team focused on understanding existing protocols and data collection, in order to avoid duplication and also to facilitate practical data exchange.

A list of contacts for those bodies with which the Westminster Crime and Disorder Reduction Partnership (CDRP) currently has dialogue – which may or may not involve some form of data exchange – was obtained from the Intelligence Unit of the Community Protection Team. Additional contacts were identified and sourced by the author with the assistance of the Licensing Client Group Manager. All contacts were initially approached via telephone, with written follow up in some cases to explain the purpose and background to the research. In a few cases it was clear from initial contact that relevant data was not presently available, or likely to be available in future.

In a few isolated potential secondary source cases it was difficult to establish contact with relevant personnel. However, in most cases an appointment was arranged for a subsequent interview to assess matters in more detail. Follow-up interviews were also undertaken in a number of cases, usually with data specialists, although sometimes with other specialist personnel. This was particularly so in the case of the Metropolitan Police Service, with whom the largest number of contacts were made and a consequently greater number of interviews, calls and written communications were undertaken.

The opportunity to observe the NTE in the WESA through the eyes of practitioners was an invaluable help in assessing the practical difficulties involved in certain types of data collection. Both authors took the opportunity to observe WCC premises inspection officers at work, and one of the authors was shown the night-time task of keeping the streets of the WESA clean by the operations manager for street cleansing. A night-time multi-agency operation against unlicensed minicabs in the West End was also observed. An opportunity to observe the control room of the West End CCTV scheme just prior to its launch in September 2002 also generated some useful insights.

When appropriate, data specialists within organisations or departments were interviewed in order to identify any meaningful datasets which already form part of routine information management. This required examination of recording methods, the format in which data were kept and any software available for data analysis.

Some providers were able to supply indicative data but in the vast majority of cases time and resource restrictions precluded this possibility. Throughout the process, the research was mindful of any gaps and problems with the datasets and questioned key personnel about this issue as appropriate. Issues surrounding the resource implications of data collection were very difficult to assess in the time available, particularly in cases where it was apparent that future data collection could only result from significant changes to systems, recording practices, or both.

1.5 Measurement of the WESA

The boundaries that the Council has set for the WESA are not coterminous with any other working boundary used either by WCC or by partner agencies to measure their activities. This is not an insurmountable barrier by any means, but it does mean that data always have to be 'repackaged' before analysis is possible. For example, most Council activities are generally measured on the basis of wards, police activities by division or beat, and so on. Most of the WESA falls within the West End ward, with a smaller part in St. James's ward. The Performance Analyst within the Licensing Client Group holds a 'master' template of the geographical coordinates that define the WESA. However, analysis of data from other Council departments may not necessarily be readily amenable to being broken down by the stress area parameters (let alone non-Council sources). For example, street cleansing operates primarily on the basis of collection or street cleaning 'rounds', which often criss-cross the stress area at certain points. Elaboration on this point is made in relation to this and other specific data sources described in section 2 of this document.

Police data is the primary source of crime and disorder data, and this will remain so. However, it must be recognised that 'recorded crime' – as successive British Crime Surveys have identified – provides only a partial picture of crime committed. This is because not all crimes are reported to the police and not all those that are, are recorded as such. This is much more prevalent with offences defined as 'less serious', although such offences may contribute strongly to fear of crime. Recorded crime covers notifiable offences, which can be simply defined as those offences that the Home Office requires police forces to report. Encouraged by the demands of the post-1998 Crime and Disorder auditing process, this has, understandably, created a recording culture within police forces to supply only recorded crime data to outside parties (often for legitimate data protection reasons). In respect to the night-time economy there are a number of what are known as summary offences (triable only at magistrates' court level) that offer an important insight into crime patterns yet are not included in recorded crime statistics. This should not be confused with the fact that they are *recorded* in police systems, but the analysis infrastructure is much harder to access. As a result, this type of data – and even more inherently complex police datasets (such as incident or custody data) – is generally more difficult to access. Despite this reservation, the research has assessed the possibilities of using this form of data, although the guiding principle has been the objective of creating a robust *profiling* tool that is capable of generating broad indicators (that is, using readily available data). The section on Metropolitan Police Service data focuses on building a more sophisticated picture of crime in the WESA, whilst working within the broader data management constraints that exist.

Finally, the issue of interactive variables needs to be briefly considered. Whilst it is a legitimate objective for research to seek causal relationships across different types of data, the measurement of interactivity is exceptionally difficult. Traffic or pedestrian flows offer a way of showing the macro-scale impact of the NTE in the West End for example, but they cannot easily be measured on a dynamic basis, that is, quantify the widespread anecdotal view held by practitioners that the West End is routinely busier at 3.00 am than it is at 3.00 pm. However, some work has already been undertaken that offers some support to this viewpoint in relation to pedestrian flows, based on data taken from a fixed point in time. A pedestrian traffic survey conducted in Leicester Square in August 2000 demonstrated the scale of night-time activity in the area. The study, which sought to measure variations in pedestrian numbers over the 24-hour period, counted approximately 185,000 pedestrians on Coventry Street (equivalent to approximately 7,700 per hour) on the day that the survey was conducted. However, pedestrian activities were not evenly spread across time, with numbers found to "steadily increase throughout the day, and into the evening, peaking at 15, 264 between 11.00pm and 12.00am and decreasing thereafter" (Town Centres Limited, 2001: 4.8). Although pedestrian numbers peak at these times, as Town Centres Limited note, the survey data indicates that there are still more "people on the street in the West End between 4.00am and 5.00am than in the morning rush hour" (4.9).

The cost of generating routine data on a variable such as pedestrian flows is prohibitive even when restricted to a single location: a full representative survey of the WESA even more so. Thus, the option of relating, say, crime levels (which are available on a rolling, 365 days a year basis) to 'macro' indicators of this type is not always practicable. This point is developed further in the course of sections 2 and 3 in relation to more specific cases (including vehicular traffic flows).

2. Potential data sources

2.1 General observations

There are some fundamental points that have to be acknowledged in any exercise attempting measurement of the complex social, economic and cultural phenomena that are related in some way to the night-time economy:

1. Data held by public service bodies is almost invariably collected for a primary purpose that is neither *directly* nor exclusively related to the night-time economy, meaning that relevant data either cannot be disaggregated or is not collected as it is not a relevant priority for the body concerned
2. Correlation with the night-time economy is generally shown only in *secondary* data, that is, time and space information that relates to specific activities. This data may have a direct relationship with the NTE (for example, assaults occurring inside licensed premises) or have a more indirect relationship (for example, the amount of litter collected at 3.00 am in streets where there are significant numbers of licensed premises)
3. Some phenomena cannot practically be measured due to their intrinsic complexity, or it may simply be unrealistic to produce dynamic measures for other phenomena due to the resource implications of establishing a collection system (for example, it is impossible to measure how much street litter is related to persons using licensed premises as compared with the total amount of litter collected)

The most practical dimensions on which to establish *correlations* with the NTE are thus time and location factors. Licensing decisions have traditionally focused on the impact that individual licensed premises may have upon the surrounding area with regard to their proximity to residential uses and amenities. They have not considered broader notions of cumulative effect; for example, streets cannot be cleaned if they are filled with large crowds of boisterous or aggressive people and a clear three hour period is needed to complete operations overnight before the new working day begins. The quantification of this situation is much more difficult, and has formed one of the principal challenges faced by this study.

The research project was soon able to identify how *crime* patterns have been measured in respect of the WESA and to note ways in which such data could be improved, but also found that it was important not to create the impression that 'stress' issues relate only to crime. Many of the difficulties generated by large, unpredictable gatherings of high-spirited people will never result in arrest (nor is anyone really arguing that they should), for example: the slamming of car doors, blaring of horns, litter (often fast food wrappers and empty bottles), urination in the streets or against buildings, and excessively noisy greetings or farewells.[2] None of these activities are measurable through police data in any direct or meaningful

[2] A byelaw against street urination does exist but it is extremely difficult for police to enforce effectively.

sense. However, the cumulative impact of these measures can be viewed as eroding quality of life in the West End for *all* those who use it. Again, the challenge is to find ways of measuring both the extent of and time patterns linked to these activities so that they may be compared with data on the location, opening and closing times, and permitted capacities of licensed premises.

Despite the caveat about what is perceived as crime in and around the NTE, crime data are – and will remain – a critical dimension of any NTE profiling exercise. However, we must be careful to distinguish between crimes that are committed directly by or against patrons using the NTE and those that relate to the offering of a service (or use of the service in question). Examples of the former include assaults and public order offences, whereas the latter predominantly relate to drug dealing or drug purchase. In the latter case, we must accept that recorded crime levels will be more directly related to the practices of individual licensed premises and to police operational priorities and resources than to the total number of licensed premises at a given time. Figures on drug offences within a defined location can typically be skewed by a single police operation, so for this reason we have excluded crime data of this type.

This section provides a detailed assessment of the potential sources of data for profiling the NTE in the WESA. It has four parts:

1. Westminster City Council data sources
2. Statutory partner data sources
3. Miscellaneous data sources
4. Data sources excluded

2.2 Westminster City Council data sources

2.2.1 Licensing

Considerable progress has been made since 2000 in relation to the electronic storage of data on licensing matters. The WCC-wide Uniform 2000 database is the repository for all licensing data and is therefore the focal point for performance information and any form of data analysis. Current capabilities allow precise mapping of all premises licensed by WCC (each property holding a licence is allocated a Unique Property Reference Number [UPRN]). Mapping of licensed premises is possible against the following criteria:

- type of licence
- latest terminal hour, and
- licensed capacity

It is thus *possible* to conduct analysis by street (or by the WESA as a whole) showing how many premises are currently licensed to what terminal hour, and to what capacity. At the same time this can be accompanied by data showing how many licences have been granted in each street, how many are pending, and how many have been received. For purely quantitative data analysis, Access software is used as the interface for queries, allowing straightforward export to Excel. In short, there are no significant systems barriers to the measurement of the location, volume and key characteristics of licensed premises (what we might call our benchmark dataset).

Reliable historical data is only held electronically back to 2000, although a manual analysis of old paper-based records did generate a dataset for all years back to and including 1992. This dataset, broken down by ward and by year, provides figures on the capacities and hours for music and dancing licences and for night cafes. This is the primary reference dataset for historical analysis.

Systems and analysis responsibility rests with the Performance Analyst within the Licensing Client Group. A primary responsibility of this role is the preparation of performance indicators for the Licensing Client Group and Processing Team arms. In the most basic sense this entails analysis of how many applications of each type are received over a given time, how long they take to process, and what income they generated. Users of Uniform point out that pending applications do cause a slight, though not insurmountable measurement problem.

Although most data held on the Uniform system can be accessed Council-wide, there is currently no routine exchange of licensing data with any other WCC departments. Each UPRN has an accurate grid reference attached, allowing licensed premises to be accurately mapped against other data that has these characteristics. At present, expertise on mapping software (ArcView) is located within the Community Protection Intelligence Unit rather than licensing. This offers the capability to overlay licensing data against wards and, say, police sectors. However, the resource implications of producing more and more data in mapped form would be significant, so this project has focused on identifying those indicators that would be amenable to such a process but it cannot address how such a process would be resourced. The

remaining sections will highlight where data indicators could be most effectively plotted using mapping techniques.

Annual statistics for licensing are produced in July of each year, and this data will remain an important benchmark against which to examine other indicators over time. It is essential that a clear picture of any changes is derived from this exercise. Simple indicators showing actual and percentage changes in number of licensed premises (of each relevant type), any changes in total licensed capacity levels, and the relative proportion of terminal hours should be used as routine indicators. The latter is more difficult to represent neatly however. Nonetheless, a 'base' set of licensing indicators for premises in the WESA should be compiled annually on the following basis:

Indicator	**Components/comparable data**
Annual change in number of licensed premises	Total current licences at year-end split by type of licence (clubs/bars and night cafes), compared with figure for previous year-end. Also express as percentage change year-on-year
Annual capacity change	Total licensed capacity for all relevant premises, split as appropriate across types of premises, compared with figure for previous year-end. Also express as percentage change year-on-year
Terminal hour distribution	Total numbers of licences for each terminal hour (split by type of premises), compared with figures for previous year-end[3]

Indicators should also be represented graphically wherever possible. This may be most effective in depicting terminal hour patterns, particularly where it is important to show how the distribution varies over a seven day period. In addition to the base indicators it is also recommended that a report showing data from the previous two years is produced annually (using a rolling three year period). The precise format of this report will need to be decided internally, but it is likely that bar charts may provide the most effective device for presenting all three base indicators.

2.2.2 Noise

WCC established a 24-Hour Noise Team in the mid-1980s to enable the Council to respond to noise complaints on a round-the-clock, seven days-a-week basis across the whole Borough. In recent years, the Team has dealt with 17-20,000 noise complaint calls annually (mostly received via the Environmental Action Line). The most common sources of complaint range from car and fire alarms, noise from

[3] It would be preferable if police data on liquor licences could also be set alongside this dataset, that is, showing those premises that serve liquor but do not have a PEL, thereby giving an accurate picture on the wider availability of alcohol within the WESA. See section 2.2.9 for details of work by the City Planning Group in this respect.

neighbours (including music), plant and equipment noise (such as air conditioning units), through to noise from entertainment premises.

The Technical Support Team section monitor noise for planning purposes, noise 'breakout' from premises, and investigate noise team complaints where a source is particularly difficult to find or quantify. The Team has begun to conduct Environmental Noise Impact Assessment studies around licensed premises in recent years. This role is normally in relation to a specific set of premises, but has also encompassed studies on the aggregate noise levels in entertainment areas. Quantifying the impact of noise linked to licensed premises is one of the most potentially important measures of stress in relation to residential populations. With regard to the WESA, the most important study conducted by the Team to date is the 'Soho Noise Survey'. This extensive survey entailed noise measurement at 40 monitoring sites in Soho from Summer 2000 to the end of 2001, generating a definitive picture of noise levels in the area over this period. The objectives of the survey were:

- To obtain a representative indication of background noise levels being generated in the Soho area during the days, evenings and night times on each street
- To provide a better understanding as to the main contributing sources of the noise monitored and to identify any trends or specific problem sites
- To inform the licensing process on ambient and background levels in the WESA
- To create a base level map of noise levels whilst collating data to be utilised in the generation of a Prediction Noise Map for the City of Westminster

The 40 monitoring sites were all located within Soho, bordered by Oxford Street, Regent Street, Charing Cross Road and Orange Street. The monitoring was divided into the following time periods:

1) Day – between 07:00 and 19:00
2) Evening – between 19:00 and 23 :00
3) Night – between 23:00 and 07:00

Monitoring was carried out on both weekdays and weekends at monthly intervals. The study drew the following broad conclusions:

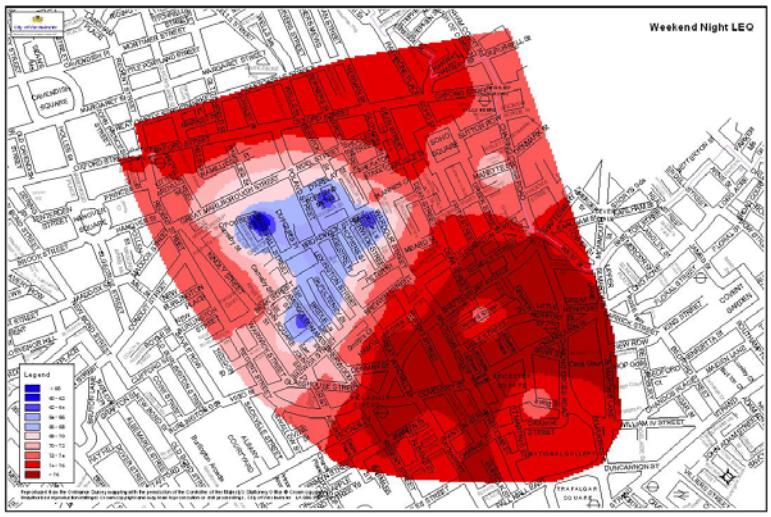
- Entertainment and traffic noise are the dominant noise sources in Soho
- Entertainment and pedestrian noise increases on the weekend
- Non entertainment and commercial areas have the lowest noise levels and these levels reduce at weekends

The study showed that noise levels in Soho exceeded those identified as ideal by the World Health Organisation (WHO) in 2000.[4] The survey employed both WHO and European Commission criteria on the level of external 'ambient' noise that should not

[4] The Soho Noise Survey document gives a detailed account of noise measurement criteria that cannot be provided here. For the record, it should be noted that WHO and other official standards use decibel (dB) 'thresholds' to define acceptable 'ambient noise' levels for quality of life at particular times of the day, including designated hours for sleeping.

be exceeded for undisturbed sleep over an 8-hour period as the base for its findings. The survey found that during the week, daytime noise levels were usually greater than evening noise, and noise levels at night tended to be the lowest. However, there were cases where this was not true. The areas around Leicester Square, including the Bear St monitoring site and on Oxford St near the top of Soho Square were noisiest at night. Supplementary notes taken at the time considered that this was primarily due to pedestrian crowds.

The study provides a definitive benchmark, and has already been used in the context of licensing hearings to show contemporary noise concentration patterns on weekend nights, utilising the following graphic (shown here in reduced form for illustrative purposes only):



Spot measurements, as outlined in the survey document, only give levels that are present at the time of monitoring of course. Much longer-term measurements are required to determine a more meaningful average range. However survey data of this form does provide an important indicator of potential problem areas and support to general assumptions about the impact of noise as a stress factor in the area. What is useful about the graphic device is that by showing the overall picture it points us to the salient fact that noise from an individual set of premises may frequently not be a problem in itself, but that a *concentration* of premises at particular times has a cumulative impact on overall noise levels. In the light of current WCC licensing policies the Soho Noise Survey thus offers an important measure of the *cumulative* noise impact of *existing* licence distribution patterns (that is, the combination of a specific number of licensed premises, and the associated spatial distribution of terminal hours and capacities across the WESA).

Since 2000, all noise complaints and the findings of noise team consultations about specific premises have been stored on the Uniform database. These data are GIS mapped, and a ‘case history’ details complaint calls and actions taken for each location stored. Preliminary investigation of this dataset revealed that it is not amenable to audit-type analysis as it contains a complex range of information, often has narrative elements, and is sometimes incomplete. In theory, this data could be

integrated with Environment and Planning data, premises enforcement records and basic licensing indicators such as opening hours. However, the complexity inherent to such an exercise cannot be justified because of the likelihood that it would yield only partial and localised (that is, location-specific) data for auditing NTE activity patterns.

Noise impact is related to several noise components. An experienced noise measurement practitioner pointed out that there are three key variables that relate to licensed premises and noise measurement:

1. Plant within or outside premises
2. Noise breakout from the premises (noise from music or people)
3. The quantity of people entering and leaving premises and the sort of noise impact that they have on the ambient conditions at the time they do so

With appropriate investment the first two variables can almost always be successfully conditioned or 'engineered out' using shielding or, in the latter case, lobbies. The third variable is the most difficult to manage and control. It is dependent on the number of patrons using a specific set of premises and the time patterns associated with such usage. Noise levels are linked to several key factors: do all patrons leave at the same time, or do they leave in small groups over a longer period, do they walk away, or are they picked up by taxi? In addition, prevailing weather conditions may affect the amount of time patrons wish to linger in the immediate vicinity, as may access to food vendors. The age profile of patrons could also affect the behavioural patterns observed, which could influence the type and extent of noise generated. Noise impact is thus linked to the style of premises to some extent. Location directly affects the significance of these factors: is it a street that has a lot of pedestrians using it already, or is it a quiet street, or is the area pedestrianised (as are a number of streets in the vicinity of Leicester Square)? In the latter case, opportunities to congregate seem to discourage rapid dispersal.

With regard to impact on sleep during night-time hours (that is, after 11.00 pm), continuous noise is less of a problem than 'impulsive' noises that can have a startle effect (for example, shouting or car horns). Obviously, consistent levels at high decibels do have health implications but the pertinent issue here is sudden change in ambient noise levels. The crucial variable is thus the level of ambient noise, and how much noise increases above that at particular times during the NTE period. The relevance of this point for licensing is as follows: if data shows significant increases above ambient around particular hours and this correlates with current terminal hour patterns then this would imply that allowing later terminal hours would shift this problem further into the night.

Whilst the Soho Noise Survey is both an important and authoritative source of data (giving an overall profile for Soho as well as data on specific streets) it provides only a static picture of conditions that applied during the survey. This data will become less relevant over time unless dynamic recording data on noise can be generated on a systematic basis (although given that current licensing policies have meant that there have not been significant changes in the numbers of licensed premises since 2000, the data should retain saliency for several years yet). A feasibility study was conducted by WCC during 2002 (following an initiative by Councillor Wilder) into the possibility of having a permanent noise monitoring system installed (using

microphones located on lampposts etc.) throughout Soho. If this system were to be implemented it would provide the possibility of building a continuous, highly sophisticated noise map for Soho. Analysis of noise data would obviously be a specialist task but it would be possible to compare patterns in terminal hours with noise patterns at these hours for example. As of early 2003, funding approval had not been given for this project so it is likely that it would probably be several years before it could yield a valuable source of long-term noise measurement, and may not happen at all. In the meantime therefore we must be realistic in our expectations, and continue to draw upon the Soho Noise Survey as the definitive benchmark, supplemented by measurements taken by the Technical Support Team when evaluating specific locations.

The task of measuring ambient noise changes against licensing factors is complex, but it is self-evident that if the current level of licensed premises were not present then noise levels would – on average – be significantly lower. We must remember that the Soho Noise Survey is only a subset of the full WESA of course, but it would be worthwhile to overlay terminal hours on the noise patterns graphic (shown above) to see what kind of patterns this reveals. Even so, we must recognise the practical limits of monitoring: noise measurement data requires additional data to have real meaning in some cases. For example, measuring footfall against noise levels is a common – though time and labour intensive – technique used when monitoring specific locations. Even though the specific set of premises being monitored may have negligible impact on noise grounds, noise generated by patrons using – or passing – may generate 'impulsive' noise. Footfall studies can show how these patterns may be linked to terminal hours in specific locations during a particular study period, but only a systematic noise monitoring system could provide a more 'global' picture of Soho in terms of the times and locations of peak noise over time. Unfortunately, generating a systematic 'global' footfall count alongside this is impractical (primarily due to the cost of even representative monitoring studies, as automatic monitoring technology is not available in any case). Dynamic noise data will still have to be compared against nominal data from static datasets such as the 2002 footfall study (see section 2.2.9).

2.2.3 Leicester Square Warden Scheme

Leicester Square and the streets in the immediate vicinity are routinely the busiest thoroughfare and congregation point within the WESA. Anecdotal accounts provided by those directly responsible for managing this public space suggest that the NTE begins as early as 5.00 pm, and that the Square becomes noticeably busier as 'waves' of incomers emerge around 11.00 pm, 1.00 am and 3.00 am, directly linked to closing times of licensed premises. On busy evenings the North Terrace of the Square is believed to be the busiest pedestrian thoroughfare in Europe, attracting people to the broad range of public entertainment activities available (from cinemas and theatres to restaurants, cafes and pubs) including the street entertainers who congregate in the Square. More robust regulation and enforcement action relating to street activities was introduced by WCC during 2002 with some success. From the point of view of data collection we might thus reasonably expect Leicester Square to be a kind of barometer for activity patterns in the WESA, albeit a subset of the entire stress area.

Although a management contract has been in place for almost a decade in Leicester Square, the decision to create a warden scheme was only taken by WCC in 2001. A revised management structure for the Leicester Square Warden Scheme was implemented during 2002, marking a transitional phase before a new higher specification contract is introduced early in 2003. The existing contract has specified that there should be two wardens on the Square at a given time, backed by WCC Management cover, until 1am on weekdays and Sundays, and until 4am on Fridays and Saturdays. All team members are radio linked and CCTV cameras cover the Square (a dedicated Leicester Square CCTV scheme has now been superseded by the integrated West End CCTV scheme).

The primary function of wardens is to monitor the situation in the Square: if they spot a problem they seek to intervene whenever possible or call in assistance (from police, or the appropriate WCC team, such as street cleansing or premises enforcement teams). Leicester Square has a dedicated policing unit that liaises closely with the wardens. The jurisdiction of the warden scheme extends beyond the Square itself to include the streets within a boundary bordered by Lisle Street to the North, Charing Cross Road to the East, Orange Street to the South and Whitcomb Street/Wardour Street to the West.

Leicester Square wardens thus have a prime position from which to observe the NTE within the WESA, although the majority of their working week operates at times when the NTE is not in operation of course. Anecdotally, the Square can often be very quiet during weekday daytime hours but the NTE period is always the busiest part of the day, sometimes chaotically so. As part of their general duties, wardens monitor the following environmental matters within the area covered by the scheme:

- Street lighting
- Tables and chairs placed in the street by cafes and restaurants
- Litter and refuse
- Busking and street traders

Wardens carry out periodic checks and record data, using paper-based recording to note specific incidents, mostly written in narrative form. The purpose of this activity is to assess the need to mobilise remedial or enforcement action by Council specialists. The dataset is thus unsophisticated and unsuitable for rigorous analysis. Data of the type collected by wardens at present is thus micro-level in nature and not directly attributable to the volume of patrons using the NTE or to alcohol consumption.

Management policies are also under constant review in relation to the Square, which has a direct impact on the measurement of any data over time. Busking is a good example. A ‘gentlemen’s agreement’ between police and buskers that they could not play before 5.00 pm and after 11.00 pm was tried for while, but this was found to be too permissive so it has now been restricted to 9.00 pm. Licensed busking is planned from Summer 2003, but not on the North Terrace of the Square. Wardens only record busking cases that breach the informal agreement.

Under the auspices of a Metropolitan Police led ‘Reassurance Project’ a more general audit of the Square was carried out quarterly during 2002. This entailed a qualitative visual survey of the area carried out between 8.00 pm and midnight by the WCC Leicester Square manager, the Leicester Square policing manager and the

chairperson of the Leicester Square Association. Written reports on the July 2002 survey submitted by the first two participants highlight the micro nature of the findings, although they contain a wealth of contextual data. A primary observation is that street drinkers are seen as the 'benchmark' for the standard of behaviour within the Square itself. Clearly, a simple headcount conducted by the wardens could show a correlation between peak usage times of the NTE and the highest levels of street drinkers congregating in the Square. However, this dataset could not be linked to the level of licensed premises within the WESA. Other factors would be much more significant: policing patterns, seasonality, and byelaws (for example, the Victoria Street byelaw experiment in 2002 led to a displacement of street drinkers to Leicester Square during the Summer months).

The intention of the Reassurance Project report has been to highlight problems via a pragmatic approach to measurement, ideally leading to direct action shortly afterwards. Hence it cannot be seen as a systematic source of data and, in any case, it is by nature intended as a subjective survey. Other negative factors – street urination, begging and graffiti – are covered, showing that the 8.00 pm-midnight period does incur problems of this kind. This resource could certainly be made more systematic in future, offering a contextual benchmark for changing patterns of usage in this 'barometer location' for the NTE in the WESA. The report could conceivably be the prototype for a wider WESA audit, but such an exercise would still generate only qualitative data, which cannot be used for the purposes of systematic (quantitative) profiling.

Leicester Square wardens routinely observe many instances of antisocial behaviour – most of which are neither witnessed by police, nor serious enough to result in arrest – but it is completely impractical to expect them to record this, not least because of the highly interpretive dimension involved. Incidents that do result in police presence are recorded in police systems so any warden recording would merely lead to double counting. The Leicester Square Warden Scheme does not represent a viable source for systematic profiling of the NTE in the WESA therefore, although it is a source of contextual data (particularly if the audits carried out in relation to the Reassurance Project were made more robust, and continue in future on a regular basis).

2.2.4 Parking

Parking difficulties are cited as an example of stress in the WCC licensing policy document. How might we derive potential indicators in relation to this issue? Central London's congestion problems are widely known and commented upon, and – from 17 February 2003 – a congestion charging scheme comes into effect from 7.00 am to 6.30 pm during weekdays in an attempt to reduce traffic levels during daytime hours (hence the scheme will not directly affect *night-time* traffic levels). WCC has a statutory duty to manage on-street parking and also has the power to provide off-street parking facilities (a commercial operation up to a point).

Demands from residents, businesses, and visitors create tremendous pressure on the number of on-street parking spaces that can be 'squeezed in'. WCC controls parking throughout the borough during daytime weekdays, parts of the borough on Saturdays, and smaller parts seven days a week (APCOA is the contract holder for

this service). ‘Normal’ street parking controls run from 8.30 am to 6.30 pm. Pressure to control more areas for more of the time is increasing however, especially in the West End. Anecdotally, many practitioners who work in the West End say that it is often busier at 3.00 am than it is at 3.00 pm, complete with traffic jams. It would be difficult to compare the two time periods with regard to parking however, because during the day people either pay and/or are time-limited in terms of parking, whereas at night there is no time limit on visitor parking. There may also be seasonal factors. However, in the West End, residents permit zones and double-yellow lines are patrolled 24-hours a day. Parking meter bays and pay and display spaces are not controlled at night however. As a result there are a lot more cars present for longer periods at this time.

WCC are investigating the potential for further controls on street parking during the night-time in the West End, largely due to problems voiced to WCC by ‘late night’ businesses and their employees (including restaurants and theatres as well as nightclubs, for example) who complain that parking is difficult to find. This is a clear symptom of stress but impossible to quantify in practice. Around 40 parking attendants patrol the West End during the night (out of a total of around 50 for the whole borough, and around 250 during day). However, because of greater security concerns at night, attendants work their beats in pairs as opposed to singly during the daytime. Each attendant records offences via a handheld terminal, and gives a periodic report of their location.

Sadly, physical and verbal abuse of attendants is not uncommon whilst they carry out their work. Anecdotally, much more intimidation occurs at night; one of the authors witnessed the aftermath of an incident in which several attendants were assaulted and was able to talk to the attendants about this general issue. Attendants suggested that not only do they suffer more intimidation at night, verbal abuse is so common as to be routine, including threats from unlicensed minicab drivers and agents (‘touts’). This sad commentary does give us an insight into the ‘feel’ of an important aspect of the NTE in the WESA, but cannot easily be measured. However, the contractor (APCOA) does record all incidents of *physical* assault on its parking attendants as part of its health and safety obligations. Sample data was provided via WCC to assess the order of magnitude and format of data holdings. The data supplied were in rudimentary form and covered the whole Borough of Westminster. The data showed all ‘code red’ (assault) incidents, the date and time the assault occurred, the attendant badge number, and whether police attended or not. Monthly figures for May through to November 2002 were supplied, and manual analysis of this dataset showed an average of 18 assaults per month (from a total of 129), with a peak month of 30 and a low of 14. During the seven months concerned, 18 assaults (14 per cent), occurred between 6.00 pm and 6.00 am (almost certainly all of these will have taken place in the West End). Police attended in all cases, hence police systems would ‘double count’ these incidents, although this is not a significant problem as long as the data are not claimed to be supplementary crime data.

Data on attendant assaults offers a means for measuring a less obvious but sobering indicator of ‘stress’ in relation to parking if additional location information was supplied as part of the dataset. A WCC manager confirmed that data could be provided to allow assaults occurring in the WESA to be identified more easily, hence it is recommended that a data exchange protocol with the Parking Client Unit/APCOA be established to permit a monthly flow of data, augmented to include location

(allowing the street where the incident took place to be ascertained or, ideally, pre-filtered to show incidents in the WESA). An indicator of levels of violent incidents toward parking attendants at night in the WESA could thus be established, and compared with daytime incidents and with the Borough as a whole over time.

Data was also supplied for May through to October 2002 on parking tickets issued in 'Zone G1', which broadly equates with the WESA. For almost two years, data on Penalty Charge Notice (PCN) figures have been separated between night and day. Night figures run from 6.30 pm to 6.30 am hence could be said to cover the full extent of the NTE period. Data showed that an average of 8804 tickets per month were issued during this six-month period during the night-time hours. Of the 26 different PCN categories, two types accounted for almost 80 per cent of PCNs issued. Of these approximately 70 per cent related to parking in restricted streets and the remaining 30 per cent to parking in residents bays without a permit. The latter represents a potential indicator of stress to local residents, and data could be easily monitored on an on-going basis. In fact, combined data on total night-time PCNs for Thursdays, Fridays and Saturdays in the West End ('G' zone) are already supplied to the weekly WCC Joint Tasking Targeting meeting. These data could only provide a crude indicator however, and are clearly a function of the efficiency of parking attendants, so any changes in practice could affect the figures. However, in the absence of detailed parking survey data – which does not appear to be available – both the current and future levels of infringements of residents parking bays could be monitored via PCN data. A more sophisticated dataset could be built to highlight if particular days were worse than others (naturally, we might expect this to be biased toward weekends, but by showing problems on other nights the data might provide one of the few measures of how 'parking stress' is distributed across an average week). It is recommended that data is used from all seven days therefore rather than just Thursday to Saturday.

As supporting data, the number of Residents Permit holders could be routinely monitored to show an order of magnitude against which infringements (that is, PCN levels) could be set. Accurate up-to-the-minute data are held on this matter and published monthly within WCC by the Parking Client Unit. Sample data supplied for April to October 2002 showed that the monthly total for Zone G rose from 870 to 912, whilst at the same time the number of available spaces fell from 702 to 698. Both of these figures imply that existing pressure on residents bays would be considerably exacerbated by evidence of increased numbers of PCNs issued for parking in residents bays. However, it is also possible to argue that if more PCNs are issued this may also serve as a deterrent, thus reducing the level of illegal parking in residents bays over time. Nonetheless, despite this caveat, numbers of permits, spaces and PCNs issued can and should be monitored to give a *broad* indication of the extent to which the real availability of residents' parking spaces is restricted by illegal parking after 6.30pm. Analysis of this dataset does not require specialist skill but would have to be prepared manually and indicators assessed regularly over time.

Finally, the issue of parking is also relevant to the issue of illegal minicabs. Parking has been seen as a means through which to address particular problems caused by illegal minicabs in the WESA. Joint operations with police, bailiffs and other agencies are now carried out on a regular basis.[5] Data generated from these operations is

[5] The Metropolitan Police Transport OCU coordinates these operations: see section 2.3.1.

primarily related to the numbers of unroadworthy vehicles taken off the streets, but data on this matter can only be loosely related to the NTE and hence is not recommended as an indicator. Alleged assaults in minicabs are a police matter, and are discussed in section 2.3.1. Data on the number of PCNs issued to minicabs is presently supplied to the weekly WCC Joint Targeting Tasking meeting. The primary aim behind the Private Hire Vehicles (London) Act 1998 was to address problems related to unlicensed minicabs through the gradual introduction of licensing for operators, drivers, and vehicles.[6] The impact of this process is likely to have a direct effect on any long term measurement of figures on parking-related matters, hence it is not recommended that PCN figures are used in the longer term. However, as the figures are already collated they can easily be monitored and recorded for each quarter to give a crude picture of minicab-related stress for the short to medium term.

An outline summary of the recommended kind of indicative data that is available to monitor 'parking stresses' is as follows:

Data with potential for use as an indicator of parking 'stress' factors	**What might it show?**
Residents Permits annual statistics	A benchmark of changes in resident demand for parking spaces
Penalty Charge Notices issued	Changes in the pressure on supply of parking spaces for residents at night-time
Assaults on parking attendants	Evidence of lawlessness in the WESA directed towards WCC employees carrying out their jobs
Parking problems related to minicabs	A crude measure of the problems caused by minicabs

2.2.5 Environmental Action Line

Members of the public can report environmental problems relating to noise or waste matters via the Environmental Action Line (EAL) telephone number: 020 7641 2000. This facility is managed by Vertex, (formerly Parktel) a direct service organisation of the Council, which also manages a number of telephone helplines in connection with parking and commercial cleansing matters (on a 24-hour, 365 days-a-year basis). During 2002 this operation underwent change as part of a wider Customer Service Initiative (CSi) process conducted by WCC.

Initial enquiries focused on establishing if calls – particularly in relation to noise – could be analysed with respect to type of complaint, location and time. In essence, would it be possible to measure activity in the WESA via residential complaint calls, and compare this with other times and parts of the Borough? On the positive side, all

[6] The Act is being implemented in three distinct stages, covering operators, drivers, and vehicles in turn. Transport for London (TfL) is the licensing authority for this matter, with day-to-day responsibility handled on behalf of TfL by the Public Carriage Office (PCO). The licensing of operators began in January 2001 and around 2000 operators are now licensed, along with around 25,000 'pre-registered' drivers in advance of the next stage of the process: driver licensing.

data is held on the Uniform database. It is certainly feasible to ask a question such as 'how many complaints from a particular street were received last Friday' and specify the type of call. However, coding of calls is complex: at the time research was conducted there were 43 different ways of coding noise complaints and 146 different ways of coding waste complaints. The vast majority of these categories could not conceivably be linked to the NTE. In fact, none of the waste categories offer any reasonable basis to attribute problems to the NTE. Furthermore, because incidents are generally isolated and – inevitably – not always reported, it is very difficult to build a comprehensive and reliable picture (for example, an upturned bin in a residential doorway in Soho may well be the result of antisocial behaviour, but we cannot link this to NTE users).

Noise complaints can be categorised under the general headings of 'Noise from commercial premises' or 'Commercial music'. On first impression, both would appear to be possible sources of data that could relate to the NTE, if time and location data were added and mapped against the location of licensed premises. However, the anecdotal impression of an experienced manager responsible for the EAL since it was introduced cast doubt on whether volumes would yield data of representative magnitude:

> "We get a few complaints about nightclub noise….but it's not a major issue… people who live in those areas expect that kind of noise. What you tend to get is six people ringing up about a burglar alarm….you don't get the same with clubs….people know that there'll be noise at 2 am four nights a week"

For both noise and waste complaints measurement of the true picture is almost certainly limited by a form of inertia affecting complainant levels (possibly the result of a 'what can be done to change it?' mentality). Typically, persistent problems with noise relate to plant items such as air conditioning units rather than noise from people in the streets (which tend to be more isolated). Whilst it is possible to argue that there is a collective noise impact from all the plant that operates during NTE hours it is not possible to accurately count individual calls that are related, say, to nightclubs (the collective noise levels measured by the Soho Noise Survey are a much more practical indicator). The role of Vertex is simply to take calls and process the information, which is nearly always passed to the appropriate Council team for action to be taken. At the time research was conducted there was no precedent for analysing data on a routine basis to show, for example, the number of noise calls in any specific street, for example.

In summary, there appear to be significant barriers to building a dataset of public complaints, not least because such a dataset would almost certainly underestimate the extent of the problems concerned. Waste calls are near impossible to link to the NTE, but there were some indications that new computer systems might make it easier to build a noise complaint dataset in future. On-going dialogue is encouraged to establish the feasibility of this.

2.2.6 Street Cleansing

WCC Cleansing Services is responsible for providing the following services across the Borough:

1. Refuse collection
2. Street cleaning
3. Public conveniences

WCC enforcement officers are also deployed to ensure that breaches in regulations are detected and that appropriate action is taken (including the administering of fines and/or legal action). Cleansing services are put out to tender (the present contract for refuse collection and street cleaning, which runs until September 2003, is held by Onyx UK Ltd). Although WCC is solely responsible for domestic waste collection, more than 15 different contractors supply commercial waste collection services in the West End. The West End is the busiest part of the Borough for refuse collection; daily operations start at 7.00 am and continue until 4.00 am. Street cleaning and litter collection continues on a 24-hour basis, with working patterns dictated primarily by the level of human activity in the streets in question.

The intrinsically street-based nature of the work carried out by Cleansing Services – and the fact that they operate throughout most of the night in the West End – gives this functional area a unique perspective on the NTE. As noted in 1.3 above, the WCC licensing polices document cites 'fouling' (that is, human waste deposited in public places) and 'littering' as 'difficulties' that the Council believes are directly linked to large concentrations of people late at night as a result of the present type and distribution of licences in its defined stress areas. In a very direct sense, the pattern of service delivered by Cleansing Services is a direct reflection of the volume impact of the NTE within the WESA, that is, this pattern provides the 'lead indicators' (relating to time, space, and the type of matters dealt with). However, the extent to which the need to *deliver* night-time cleaning services is self-evident in and around a busy nightlife area has meant that detailed quantitative measurement has never been a priority for Cleansing Services. This is because there is ample 'on the ground' observational evidence from those delivering services which is used to match activity to need. Anecdotal evidence from experienced practitioners raised in interview consistently highlighted two main points:

- That the NTE has a profound impact on cleansing operations, because in some locations streets are so busy that the WCC contractor is unable to get access until people leave and the streets quieten down, forcing a sometimes impractically short 'window of opportunity' to complete cleansing prior to the start of the next day
- That if you know the location of the main concentration of licences (liquor, PEL and night cafe) then you can identify the busiest locations, not just in terms of footfall but also in terms of consequent demand for street cleansing. Transport interchanges, including night bus stops and areas where minicabs congregate also generate similar needs

The position taken by WCC Cleansing Services is that a minimum of three hours (between 3.00 am and 6.00 am) is required in which to clean the area in time for the start of the next working day. Use of mechanised equipment, or even broom

sweeping is seen as impractical when streets are thronged with people. At these times it is accepted that the most that can be achieved is litter picking to contain levels within reasonable bounds before comprehensive cleaning becomes possible after streets become quieter.

Monitoring and enforcement officers from WCC are present more or less around the clock in the WESA. In the context of street cleansing, the majority of their activity focuses on breaches of regulations relating to refuse collection, as well as ensuring that night cafes control litter in the vicinity of their premises (a special condition of all night cafe licences). Evaluation of specific premises is routinely carried out in relation to licence renewal applications, and there is a well-established precedent for officers to present evidence in connection with objections against *specific* premises. This evidence generally contains both specific points about the conduct of the premises in question alongside the broader considerations identified above. Street cleansing evidence has thus tended to focus on what are often highly localised factors, which, in the case of, say, Leicester Square, may carry considerable weight. However, this does not convey the *overall* impact of the NTE in the WESA in relation to street cleansing factors. We must ask whether it is feasible to derive measures that are able to convey this broader impact?

Research focused on the feasibility of establishing routine data indicators relating to the activities carried out by street cleansing, particularly in relation to 'littering' and 'fouling': both of which street cleansing workers have the (generally thankless) task of removing. For the former, a government standard for measuring litter exists in the shape of the 1999 Code of Practice on Litter and Refuse, issued under section 89 of the Environmental Protection Act (EPA) 1990. Section 89(1) of the EPA 1990 places a duty on certain bodies (principally local authorities) to keep their relevant land clear of litter and refuse so far as is practicable. The definition of relevant land includes all land to which the public are permitted or entitled to have access.

The Code of Practice specifies four grading bands:

- Grade A: no litter or refuse;
- Grade B: predominantly free of litter and refuse apart from some small items;
- Grade C: widespread distribution of litter and refuse with minor accumulations; and
- Grade D: heavily littered with significant accumulations

Grade A is the standard that a thorough conventional sweeping/litter-picking regime should achieve. Whilst Grade A is the aim, the code of practice does not expect that standard to be maintained at all times and specifies a series of zones and accompanying restoration times when a particular grade applies. This is particularly relevant to the NTE and WCC work to EPA guidelines. However, this is a working standard assessed by supervisors on the ground and is not recorded on a routine basis. In fact, it is questionable whether routine EPA audits would supply data that were of much practical use even if officers were able to produce them as part of their duties (and this would obviously be a matter for Cleansing Services). It is effectively a truism to say that busy areas will have more people and more litter. The ability of WCC to clean an area is unquestionably affected both by the numbers of people present and, to some extent, by the demeanour of those persons. Up to 17 road

sweepers are normally on duty during the night-time hours in the West End. However, a representative EPA audit of the WESA would need multiple survey points at different times: a very considerable task.[7]

The unsavoury problem of street fouling was formally acknowledged through the creation of a byelaw against street urination in 2001. Prior to this, research had been conducted by the WCC Intelligence Unit to identify the extent and location of so-called 'wet spots', resulting in a report (unseen by the authors). The byelaw is of course intended to set a standard for acceptable behaviour, but has not removed the problem: much of Soho has small passageways off the main streets, which are hidden from view. Police resources are limited and it is inevitable that many people committing this offence will not be witnessed. Research was not able to source figures on the numbers of people prosecuted under this byelaw. However, even assuming figures were available, use of this form of data would be unreliable as numbers are strongly related to police resources and operational priorities. The use of on street 'pissoirs' in recent years provides evidence of need through service delivery, but is not a viable measurement tool.[8] Within the WESA there is a fixed ('Butterfly') unit in Soho Square and – since May 2002 – approximately 11 mobile ('Kros') units have been deployed on all Friday and Saturday nights from 8.00 pm to 8.00 am the following day. WCC are able to provide accurate figures on the amount of urine collected through these facilities since they were first introduced in Summer 2001 but these data cannot be readily used as 'negative' indicators. Sample data were provided, but it cannot be simply assumed that all users would otherwise have used the street as a toilet.[9] The measurement of fouling is thus highly problematic in terms of quantification, albeit a useful contextual piece of evidence.

Mechanised street cleansing is a 'programmed' activity in that specific streets are identified as needing various kinds of washing, disinfection or steam cleaning (Piccadilly Circus is a good example) because of the type and extent of activities that occur there. Measurement is not related to any form of base data therefore. The Director of Cleansing Services does produce a fortnightly report on the level of street cleanliness in different parts of the city for the relevant WCC Cabinet member. However, we cannot use this as an audit tool for measuring 'stress' as it is dependent on service delivery set by contractors as much as it is influenced by patterns of human usage of the areas in question.

A final potential area for measurement explored was the question of assaults on Cleansing Services staff (WCC or contractor) in the course of their duties in the WESA. Unlike the case with parking attendants, the nature of street cleaning means that workers are less likely to engage in confrontational situations with members of

[7] As part of the Government's 'Best Value' regime, the Audit Commission inspected WCC waste services and delivered a report in March 2002. The methodology for this exercise is not known but may be worthy of further enquiry to establish the techniques used for instance.
[8] Data from WCC Cleansing Services on the cost of providing this service could conceivably be used as contextual data however; evidence of need for this service would be provided by evidence of use in this case.
[9] Despite the reservations expressed, the figures are still striking in their magnitude. WCC figures indicate that as many as 4,185 people have used the 11 Kros urinals in a single weekend, and as much as 154 gallons of urine has been collected over a two-day period. It is also possible to identify the relative usage rates at each location. The Kros urinals are now sited in the same streets each week unless special circumstances prevent their deployment.

the public. Anecdotally it was felt by Council officers that incidents were extremely rare, although an incident would be recorded if it took place. To maintain a routine dataset would appear to be inappropriate therefore, although a reporting mechanism could be easily established to highlight any trends on say, an annual basis.

In summary, data on street cleansing matters is intensely difficult to quantify: pattern of service is itself a direct reflection of the primary factors we might wish to measure, but indicators are not based on quantitative measures and it is difficult to see a practical way of achieving this in future. Observational audits could be conducted to build evidence on how litter levels rise as people congregate, and at the same time how this might obstruct service delivery. Specific litter problems such as flyers from entertainment venues, or fast food packaging could also be highlighted. However, such work would be expensive to conduct in order to rigorously survey the WESA as a whole. Ultimately, it should also be questioned whether this would be likely to generate a great deal more than what is already conveyed via observations submitted by WCC officers.

2.2.7 Premises and Street Enforcement

The Council deploys significant enforcement resources to ensure that each set of licensed premises operates according to the terms of its licence, and to prevent and deter unlicensed activities that occur in public spaces.

The primary function of premises inspection is to ensure that public safety is protected to the highest possible standards by fostering good practice by licensees. Enforcement action is taken where such standards are not maintained. A night-time observation visit with Premises Enforcement officers provided an opportunity to assess the potential for data recording in relation to their work. Inspections are carried out on a routine, rolling basis or in response to intelligence to suggest specific problems at a set of premises. Inspections examine four broad areas:

- Licence-related matters (for example, are the premises overcrowded? Is the licence correctly displayed?)
- Responsibilities of the person in charge (this includes checking that in cases where there are door staff they are wearing identification and are properly registered)
- Escape routes (for example, ensuring they are not obstructed)
- Fire extinguishers (checks on position, safety checks)

A ‘Licensing Inspection’ form is completed after each visit and a copy is provided to the manager of the premises concerned. Visits can be declared ‘satisfactory’ or ‘unsatisfactory’ and if any irregularities are found these will be handwritten on the form. For unsatisfactory visits a follow-up visit will normally take place after a notified period. Details of visits are subsequently recorded electronically on the Uniform database; hence it is possible to identify, for example, the number (and type) of premises visited in the WESA over a given period. In conclusion however, it is felt that data collected in the course of inspections of premises with PELs or night cafe licences does not represent a viable source of data for routine profiling of the WESA as it is not intended to examine activity occurring outside of licensed premises.

Licensing Street Enforcement does, by definition, deal with activities that occur in public space, including a wide range of unlicensed street trading activities, from hot dog sellers, to henna tattooists and flower sellers. These activities can and do occur in the WESA during the period when the NTE is in operation and it is possible to argue that there is a causal relationship between their extent and location at certain times and the volume of crowds attracted by the availability of night-time entertainment. However, available data on the amount of unlicensed activity is dependent on the operational strength and operating patterns of the Street Enforcement Team (which is driven by intelligence from various sources and subject to policy decisions on the need to focus on specific activities at specific times). Data tend to be recorded in relation to specific operations, and may often be difficult to quantify effectively. These complexities lead us to conclude that data from this source are unsuitable for routine quantitative profiling of the WESA, although it is possible that accounts of operations could provide a source of contextual data on specific problems that may illustrate the 'pull' of specific locations within the WESA and corroborate other evidence that indicates a concentration of particular problems around particular locations at particular times.

2.2.8 Westminster CCTV

The Westminster CCTV system became fully operational in September 2002, and currently has 33 of the latest generation, high-definition cameras (the system also has the capacity to significantly extend the number of cameras). The system provides coverage of a large part of the West End on a 24-hour basis, including Regent Street, Soho, Covent Garden, Leicester Square and Piccadilly Circus. Some cameras cover areas that strictly fall outside the WESA boundary, but a reasonable approximation exists, and coverage of the benchmark Leicester Square area is included. The primary function of the system is of course to detect incidents involving crime and disorder and to monitor general community safety in relation to those using the streets of the West End at all hours of the day. The ability to direct operational police resources to incidents of crime and disorder is intended to be one of the long term advantages of the new system. It is certainly a significant step forward in the ability to derive a visual representation of broad activity patterns in the WESA, but this should not be confused with a corresponding ease of measurement.

A research visit to the CCTV system control room was facilitated during the pre-launch testing phase, during which time the capabilities of the system were demonstrated, and the issue of data recording was discussed. In general, the coding of incidents observed by CCTV operators relates to the type of response that is deemed to be necessary ('immediate', 'soon', 'notified', or 'generated'), rather than assessing the intrinsic nature of the incident.[10] A good illustration is an unconscious

[10] Under the recording system used for the immediate post-launch phase, operators complete a 'Record of Occurrence (Incident Log)' form. This is a paper-based system, allowing the operator to record any incident details and subsequent actions taken as narrative comments, but does include a simple tick box for the 'graded response'. The terms used for type of response broadly denote the urgency associated with the incident observed – in the opinion of the operator – hence immediate is most likely to warrant police or ambulance attendance, whereas notified is most likely to cover a wide range of circumstances where it is felt that investigation by another service is needed but the matter does not appear to be an immediate threat ('soon' falls between the two, whereas 'generated' relates to incidents when action has

person lying in the street: this person may have an illness or could have been assaulted. The fact that CCTV coverage is by definition remote from any incident means that an interpretative dimension is always inherent to any recording system that tries to say what 'type' of incident has been observed. Anecdotally, a camera operator working a busy shift is likely to witness what appear to be numerous incidents of antisocial behaviour that may occur late at night and which *could* be assumed to be alcohol-related. This form of correlation, and any figures generated, would be wholly unreliable. It might be reasonable to record violent incidents, or criminal damage, as such based on visual interpretation of a specific incident by an operator, but we must again question the value of such an exercise, particularly if quantitative data were produced from this. In theory, CCTV systems provide us with a basis to measure incidents of crime and disorder that are not witnessed by police officers, as well as identifying welfare concern matters. At the busiest times, camera operators/supervisors would be unable to record all instances – particularly those in the 'antisocial behaviour' category – undermining the claim of any dataset to be representative.

At the time research was conducted, recording systems for the scheme were in their infancy. On-going dialogue between CCTV scheme management and the intelligence unit of the Community Protection Team was proposed however, aiming to explore ways of improving the collection of data as the scheme evolves. For this reason, use of CCTV data should not be rejected out of hand. If clear protocols could be established on how particular types of incident should be coded then it may be feasible to use CCTV data to give broad indicators of activity patterns in the WESA in future. The complexity of recording and analysing data on a routine basis should not be underestimated however, which may suggest that it might be more effective to carry out sample audits using independent, properly accredited observers at specified, representative times. It must also be recognised that double-counting of incidents where police attend is inherent to any use of CCTV-derived data. In summary, CCTV data is not readily available at present and is unlikely to be a primary source of data for profiling purposes in future.

2.2.9 Planning

It was noted in section 1.3 that the Council has a longstanding policy that entertainment and night cafe premises should generally be located within the defined Central Activities Zone (CAZ) rather than outside of this zone. The CAZ has an extremely complex pattern of land use, within which – in common with all parts of Westminster – the use of premises for public entertainment or as a night café ('A3' use) is subject to planning control.[11] In this context, close liaison between the planning and licensing functional areas within the Council is necessarily part of proper decision-making (the term 'stress area' began life in the planning context in

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not in the end been necessary). The precise reasons for grading responses are always going to be incident-specific to a large extent; hence this form of coding is generally unsuitable for quantitative profiling.

[11] The Town and Country Planning (Use Classes) Order 1987 is the statutory basis on which building use is classified for planning purposes. The two most important use classes in connection with the night-time economy are: A3 (Food and Drink) covering pubs, wine bars, restaurants, cafes, and hot food take-aways; and D2 (Assembly and Leisure), which includes nightclubs.

fact). The statutory framework for planning is significantly different to that which applies to licensing, but there is a certain amount of overlap in that various other statutory requirements are always likely to apply to premises used for entertainment or night cafe purposes (thereby highlighting that premises of this type have a distinctive status in regulatory terms).

Our research sought to identify data holdings within the planning functional area of WCC that could be used for routine profiling of the NTE in the WESA. As a starting point, a definitive study of land use in Westminster know as the '1990 Land Use Survey' was commissioned in 1987 and completed in 1996. Since then, data collection processes have become more sophisticated and comprehensive within Planning: the 'Decisions Analysis System' contains all approved planning applications since 1991, and, more recently, detailed work has been carried out in particular areas to establish whether granted planning permissions are currently 'active' or not (this is collated in a system known internally as the 'Ents Pipe'). All of these data can be GIS mapped. More specifically, information on the location of A3 and D2 use classifications can be plotted in map form to demonstrate, for example, growth in the concentration of these use types within the WESA. This is a definitive resource for profiling.

In line with broader responsibilities in relation to the second deposit Unitary Development Plan (UDP), the City Planning Group within the WCC Department of Planning and Transportation commissioned work in June 2002 to undertake daytime and night-time pedestrian counts, and surveys of night-time activities within the busiest areas of the Westminster CAZ and in five areas outside the CAZ. In relation to the WESA, night-time counts were carried out in Soho using 70 count points across 13 observation areas. The period for monitoring night-time pedestrian flows and night-time activities was 10.00 pm to 4.00 am. As well as quantifying numbers of pedestrians at these times, impressions of noise levels and disturbance (including traffic and any specific noise from licensed premises) and general behavioural aspects of people in the vicinity were also recorded. The data generated by this study forms part of a wider study of night-time activity due for completion in April 2003. Taken as a 'health check' on the WESA, this is likely to prove an important source of benchmark data, albeit based on a relatively limited sample (data were collected on one night in July 2002). Such surveys are costly; hence we must accept that it is likely to be unrealistic to commission projects on a regular basis (however desirable). This does not detract from the potential usefulness of the 2002 data once it has been fully analysed and can be disseminated however.

Other data gathered in conjunction with preparing proof of evidence submitted to the UDP Public Inquiry are also particularly relevant to profiling the WESA. Data showing residential growth over the last 10 years have been prepared, and can be GIS mapped. This provides the opportunity to map residential dwellings in relation to the locations of night cafe and PEL licences. As noted in section 2.2.1, licensing data records are now as up-to-date as possible. It is recommended that a map of the WESA showing residential dwellings alongside licensed premises be produced annually (ideally in July to tie in with the annual reporting cycle for licensing statistics). The map would need to use colour coding to indicate new or lapsed cases that had occurred in the previous twelve months. It was also noted in section 2.2.1 that data on the location of liquor licences was not available to WCC, and that it was desirable if this could be the case in future. The City Planning Group recognised this

during 2002 and worked with the Magistrates' Court, and – via the Borough Licensing Coordination Officer – with the relevant Metropolitan Police Divisional Licensing Officers, to compile a dataset of all current liquor licences in the Borough (including the WESA therefore). This extensive data collection exercise was not completed until December 2002, largely due to the range of different formats in which data were held. Data from this exercise will provide a useful benchmark data source when available, but it is highly desirable that a formal protocol on exchange and update procedures be established for this data in future, allowing it to be incorporated in the annual mapping exercise on a routine basis.

Planning can also access data relating to breaches in planning control, and/or breaches of licensing regulations that are detected by WCC inspectors (see section 2.2.7). Datasets of this type are not amenable to routine profiling of activity patterns however. Equally, data from surveys taken on visitors to the West End used by Planning to inform decision-making may provide a valuable qualitative resource, but do not provide a basis for profiling.

Finally, in the context of planning it is important to note the Leicester Square Action Plan, although it does not represent a direct or on-going data source. The three-year Action Plan, approved by the WCC Cabinet in April 2002, was developed in conjunction with the Leicester Square Association (an association representing local residents and businesses), the Metropolitan Police, and the Piccadilly Circus Partnership (a voluntary Business Improvement District on the edge of the Square) and sets out a 'vision' for this important public space. A public consultation was held in March 2002, when 4000 pamphlets and questionnaires were distributed to the local residents and stakeholders. The findings showed that, of those who responded, 66 per cent of residents and 54 per cent of visitors/employees were against further late-night entertainment in the Square. The Plan has set a timetable for implementing a wide range of management measures and environmental work, and should be seen in the context of the warden scheme described in section 2.2.3 above. Future surveys could be used as a source of contextual data if commissioned.

2.3 Statutory partner data sources

2.3.1 Metropolitan Police Service

The West End Stress Area spans two operational divisions of the Metropolitan Police Service (MPS):

1. West End Central "CD" Division; and
2. Charing Cross "CX" Division

Although the full operating areas of these two divisions cover a much larger area than the WESA, it is possible to extract data at the level of police beats (the smallest measurement unit for spatial police recording) in order to get a close approximation of crime that occurs within the boundaries of the WESA. Any analysis of this type is not part of 'standard' MPS crime reporting to local CDRPs, wherein statistical data is generally supplied in aggregate form, on a borough-wide basis. For this reason, to derive any data that is specific to the WESA requires specialist data processing by the MPS. Before looking at what kind of data would be most relevant, let us first examine what kinds of data are currently used in the context of the Council's work.

Under present arrangements, police data comes in two main forms:

1. Monthly crime figures supplied to the WCC Community Protection team by the Police Information Bureau (PIB)[12] as part of statutory CDRP crime auditing responsibilities and procedures
2. As part of testimony given in appellant court licensing hearings, generally delivered by a Chief Inspector. This process incorporates both qualitative and quantitative data, allowing contextual factors to be communicated alongside any statistical data that is presented

The PIB supply a monthly crime table giving totals for the entire Westminster Borough and for the Metropolitan Police area as a whole. Crime figures are supplied in respect of nine standardised Home Office offence group categories (for example, Violence Against the Person, Robbery, and Drugs) for what are known as notifiable offences (see section 1.5). Total figures are also supplied for each offence category showing numbers of clear ups, judicial disposals, persons accused and the clear up rate. The dataset as currently supplied cannot be broken down below Borough level, hence cannot give any data on the WESA.

When police data are presented in licensing hearings, quantitative information is generally submitted as an exhibit to the court. During 2002, the data presented covered the following items:

- Street crime (an offence sub-set of the Home Office offence category covering robbery, made up of robbery of personal property and snatch theft crimes) occurring between the hours of midnight and 4.00am, shown for a

[12] The Metropolitan Police Service PIB is a dedicated data collection and analysis unit, one role of which is to provide crime statistics to local authorities in all of the 32 boroughs within the Metropolitan Police Service district.

comparative three month period (September to November) for the years 1998 to 2001. Data for the entire borough of Westminster is provided alongside a subset of data for the West End, allowing the relative proportion of these crimes occurring in the WESA to be compared

- Calls received from the public within the stress area in the period midnight to 4.00 am for each year 1997-2001 inclusive)
- Historic data on drunkenness warnings issued by the MPS in 1995

Except for the latter, data relate specifically to the WESA, and are generally presented graphically in the form of bar charts. This is an effective device, particularly in the case of street crime offences where the relative proportion of offences occurring in the WESA in the four hours after midnight can be easily compared with the Borough as a whole. A specialist police crime analyst prepares data however, so we must recognise that any extension of this process is likely to have significant resource implications.

The use of street crime data highlights an issue of practicality. Home Office offence groups provide a national standard for crime measurement, and police systems are familiar with compiling data using these criteria. Whilst street crime is an important indicator of crime patterns in the WESA during NTE hours, to get a broader picture of the range and extent of crimes it is important that we consider building a broader dataset using other relevant offence groups. Research established that the following offence groups (with any offence sub-group shown in brackets) include offences that are considered by the MPS to be routinely prevalent during NTE hours:

Category number	**Home Office offence group (offence group sub-category)**	**Specimen offences included (with Home office offence codes)**
1*	Violence Against the Person (GBH)	Wounding (5/1), Wound or inflict GBH (8/1)
1*	Violence Against the Person (ABH)	Assault occasioning ABH (8/6)
1*	Violence Against the Person (Common Assault)	Common Assault (105/1)
2	Public Order	Affray (66/1), Sec. 4 Public Order Act 1986 - Fear/Provocation of violence (125/11), Sec. 5 Public Order Act 1986 - Harassment, Alarm or Distress (125/12)
3	Robbery (Street Crime)	Theft from the person of another (39)
4	Criminal Damage	Damage under £20 (149/21), £20-£5000 (149/22), Over £5000 (058/20)

* For simplicity, these three sub-categories of data could be collated as a 'GBH/ABH/ Common Assault' composite category for our purposes. The four offence groups would thus be: (1) GBH/ABH/Common Assault, (2) Public Order, (3) Street Crime, and (4) Criminal Damage

The PIB hold crime data against each of the categories shown and also have the capability to conduct analysis using time and day criteria. Furthermore, when a crime

is believed to have occurred police officers give the offence a 'location code'. Whilst the vast majority of offences occur in public places, offences also can and do occur inside licensed premises. Codes with a relevance to the NTE used by the MPS are:

JA Public House
JC Wine bar/bistro
JE Licensed club
JG Unlicensed club

A degree of caution should be counselled in the use of this kind of data however, as it is an imperfect recording medium. Officers may sometimes forget to add the code when completing a crime report, or may opt for a more general classification. The MPS is aware of the recording difficulties inherent to this area, as it is in relation to the recording of 'alcohol-related' crime. At present, as Home Office research (Home Office, 2003) has identified, police recording of alcohol-related crime is restricted by a number of factors. Present MPS data recording practices cannot produce reliable data on the precise role played by alcohol in relation to a specific instance of crime and it is unreasonable for the police to be expected to provide a standard of proof that would be required by the scientific community (Home Office, 2003). However, by focusing on profiling the temporal and spatial location of offences that occur by time and place it is possible to infer correlative patterns where alcohol consumed in licensed premises may be a contributory factor in certain types of offence (affecting both perpetrators and victims). The use of location code data should be reviewed in the light of any changes in police recording practices. Any data protocol should place the responsibility with the PIB to point out any material changes that occur.

Discussions with the PIB established that it would be feasible (with the requisite authorisation) to generate a dataset constructed on the following basis:

1	2	3	4	5	6
The four offence categories specified above	Totals by offence group/sub-group for the Borough of Westminster as a whole	Totals by offence group/sub-group for all local ID beats that comprise the WESA	Totals for **2** & **3** broken down by hours of the day (banded)**	Totals for **4** broken down by day of the week***	Totals for locations codes JA/ JC/JE/JG during period in question as a subset of **3**

** Note: it is important to remember that we are only profiling the NTE hours. A sensible basis on which to compile data would be to create two time bands for what correspond to NTE usage hours: Band 1 (6.00 pm to 11.59 pm) and Band 2 (12.00 am to 4.00 am). All other times would form a third, residual, time band: Band R (4.01 am to 5.59 pm). The PIB could then supply data pre-collated against these bands, rather than supplying data for each hour of a 24-hour period. This would help considerably to simplify the dataset and thereby make analysis easier (see below).
*** Remember that crimes occurring after midnight appear against the following day.

This would provide us with the basis for a quarterly 'WESA Crime Profile Dataset'. By providing data in the form specified, a more sophisticated method of monitoring and profiling crime trends in the WESA can be created. Certain basic comparability features are inherent to the above dataset, allowing:

- Crimes in the four offence categories covered that occur during the WESA NTE hours to be expressed as a proportion of the total for those crimes across the Borough as a whole each month
- The relative concentration of offences by time of day in the WESA
- The relative concentration of offences by day of the week in the WESA

To illustrate how this dataset could be analysed on a routine basis, consider the following example. Suppose that for a hypothetical quarterly period there were 500 cases of Criminal Damage in Westminster. Column 2 against this crime category would thus read 500. Column 3 would always be a number smaller than 500; let us say, 200, in this case. Column 4 would sub-divide this figure into the three time bands (1, 2, and R), for the Westminster total and for the WESA total. We would then know, for example, how many of the 500 total offences occurred in the three time bands, allowing us to see what proportion is accounted for by the NTE hours in Westminster as a whole. We would also know the same information for the 200 WESA offences. This data is exceptionally useful in profiling crime patterns before and after midnight to show any quarterly changes (as well as longer term comparisons) and to show the WESA relative to the Borough as a whole at the most relevant times. Column 5 – for reasons of simplicity – would give us a split of the 200 WESA offences by day of the week to illustrate distribution patterns (and not the whole of the Borough). Finally, Column 6 is a summary totals category for location codes giving raw numbers for the period concerned against each crime category.

For each quarter, it would thus be possible to look at all four categories in this way and produce appropriate statistical and graphical representations of the data for each category. This would be a considerable step forward in producing a more holistic picture of the main *indicative* (that is, notifiable) crimes occurring in the WESA during the whole period when the NTE is in operation. In addition to these crimes, two non-notifiable offences are particularly relevant to the NTE:

DRUNK AND DISORDERLY (Home Office offence code: 141/1)

SIMPLE DRUNKENNESS (Home Office offence code: 140/1)

Both are summary offences, which, as explained in section 1.5, the police are not required to report to the Home Office. As a result, data is held in a form that cannot be readily extracted by the PIB at present. However, as this research project neared completion a new police computer system ('DIANE') was introduced that may offer a significant breakthrough for extracting summary offences in future. This possibility should be exploited if at all possible in order to make the WESA Crime Profile Dataset as comprehensive as possible. Data for the two offences should, if at all possible, be extracted on the same basis as the four notifiable categories discussed above, forming a fifth crime profile category. Figures for drunk and disorderly should never be viewed as the 'signature' offence in relation to drunkenness. This is because many cases involving drunk and disorderly behaviour will result in a more serious charge (public order for example), hence they should never be viewed as

absolute measures of drunkenness offending, but should be added in order to provide a more holistic measure of offending.

The Council's licensing policies point not only to crimes committed by users of the NTE, but also to the victimisation experiences of visitors as an example of stress within the WESA. Any measurement of the former dimension will obviously require utilisation of relevant victimisation data. A precedent exists in that Westminster CDRP routinely requests and receives data on victims from the PIB, on a Borough-wide basis. It would be a much more complex analytical exercise for the PIB to generate data for the WESA during the relevant hours however. Whilst this option should not be ruled out, profiling of victim age patterns would be most relevant if it were linked to specific crimes rather than crime in general. It is recommended that further discussion is held on the possibility of receiving victim data on, say, all cases of ABH occurring in the WESA in time bands 1 and 2 on a quarterly basis. A dataset of this form would provide a useful profiling indicator, particularly if average victim age was used. Of course, victim data would only be a representative, not a universal measure: many victims may not report certain types of crime to the police (particularly if they are intoxicated). In short, victim data is not ideal for use as a routine profiling tool.

The fact that not all crimes are recorded – and that many will not even be reported – is also relevant when considering the use of call data held in the police incident data (CAD) system.[13] As noted above, quarterly data on calls received from the public in the WESA (00.01 am to 04.00 am) has been routinely presented as an exhibit in the context of police evidence to licensing hearings. This data has included annual comparisons for the same measurement period going back to 1997. It is recommended that, if at all possible, a quarterly dataset in this form be produced on an on-going basis and – based on a protocol – be supplied to WCC in order to build a historical dataset. If possible, data for the period 6.00 pm to 11.59 pm could also be supplied to build a full picture of activity levels during the NTE hours. This data is by nature a fairly blunt indicator: we only know that a 'crime-related' call has been made, not the precise reason for that call.

It is technically possible for the MPS to plot and map the location of calls received from within the WESA. By overlaying the location of licensed premises on the same map (see section 2.2.9 on this point) it would be possible to show any visual correlation between the location of such premises and the location of calls from the public. Again, this cannot be seen as a potential profiling tool, although it could be investigated as an important contextual dataset. The map could be used to show 'hotspots' for calls relative to the location of licensed premises during the NTE hours. If resources were available to conduct such an exercise, perhaps a single day could be used on a consistent basis (the second Saturday of each new quarter for example) to simplify data analysis and minimise the resource implications. The resultant dataset would provide a visual profile only, but this could be useful to illustrate any trends over time, and to set alongside evidence of changes to call volumes.

[13] Certain types of crime are only likely to be recorded as such if they are witnessed by a police officer: public order offences are the best example. Many public order offences could be committed in a busy entertainment area at night but it is extremely unlikely that all will be seen by a police officer, leading to inherent under-recording of such offences.

The idea of plotting the location of crimes to show 'hotspots' is a recognised technique used to direct operational policing by police forces across England and Wales. However, public domain mapping of this type can raise data protection issues, and the PIB is – for this reason – generally reluctant to supply data on such a basis. A map of crime locations and the location of licensed premises would offer powerful evidence of correlation, and would be a valuable profiling tool. Thus whilst in theory data could be generated in this form – following the same principles and parameters outlined for call data in the previous paragraph – there are severe practical and procedural barriers at present. On-going monitoring of the possibilities in this area is recommended.

Finally, let us turn to more specialist sources of police data. Divisional Licensing Officers hold relevant data on the liquor licences – and licensees – in their area. As noted in section 2.2.9, there is no formal protocol for the exchange of data (location being the crucial variable) and this needs to be put in place to allow comprehensive mapping of the location of *all* licensed premises (premises with later licences invariably have PELs, hence are held on the WCC system). Under present arrangements, licensed premises can apply for extensions to their normal hours. This system is administered by Divisional Licensing Officers. Extensions are permitted via the issuing of an SoE, or Special Order of Exemption. The police have the right to refuse requests, but a significant number of requests are granted annually. If annual figures could be generated (they are not available specifically for the WESA at present) then a significant increase could be monitored. This is unlikely to yield anything other than minor contextual data to support any evidence of changing patterns in the NTE however.

Research was also undertaken with the specialist CO14 Clubs & Vice Unit, which controls liquor licensing policy for late night licensed premises across the entire MPS area. The focal point of CO14 activities is the West End however. Intelligence data concerning licensed premises is a crucial resource in the work of CO14. By definition, this is almost always of a sensitive nature that is wholly unfit for routine profiling, as it is held on the MPS criminal intelligence system (CRIMINT). CO14 CRIMINT data has restricted access even within the MPS itself. Research established that CO14 is not a viable source of data for routine profiling of the WESA. As with the previous paragraph, it should be ensured that data on all liquor licences issued via CO14 are exchanged via a formal protocol, allowing quarterly measurements to be undertaken.

The final specialist potential MPS data source consulted was the Transport OCU (Operational Command Unit), established in 2002 to focus on crime in relation to surface transport, particularly buses.[14] It was established that data that could be linked specifically to the WESA is not available from this source at present. Discussion focused on the issue of sexual assaults related to illegal minicabs (see also section 2.2.4). Whilst this has been identified as a significant risk factor for young female users of the NTE, any MPS data will almost certainly be recorded in relation to boroughs *outside* Westminster, as assaults generally occur at the destination rather than the pick-up point. This is an interesting case for data collection: even though the WESA is a 'magnet' for minicabs on busy nights, it is

[14] The Transport OCU was established to work in partnership with Transport for London. The Transport OCU works closely with the Public Carriage Office to tackle the problems caused by illegal minicab touts. This activity occurs in the WESA, but data are of a sensitive, operational nature and thus unsuitable for profiling purposes.

completely impossible to directly measure any crime that occurs in relation to minicabs once they leave the area.

A complex series of recommendations has been outlined in the preceding paragraphs. The following table gives a short summary of these recommendations:

Type of police data	**Current/future potential**
Liquor licence location data (held by CD and CX Divisions and CO14)	Long term protocol needed to ensure regular data flow to enable mapping
'WESA Crime Profile Dataset'	Recommended crime data profiling tool, drawing on PIB resources, including key offence groups. Basis for building benchmark data
Alcohol-related summary offences	Potentially available in future due to new MPS data systems developments. Recommend adding this data to WESA Crime Profile Dataset
Victim data	Supplied only in generic form at present. Recommend focus on single crime type (ABH)
Calls from public in WESA (CAD data)	Precedent for use of data in this form by MPS in context of licensing hearings. Recommend more structured and on-going data collection. Mapping also recommended in limited form
Hotspot maps of crime in WESA	Desirable to correlate with WCC data (supplemented by liquor licence data) on location of licensed premises. Significant practical barriers at present
Custody data	Not recommended

Police data are – and will remain – the focal point of any profile of the NTE in the WESA. On a final note, the possibility of using custody data was explored but was excluded at an early stage as there is a plethora of intrinsic and systems problems associated with this form of data for use in the context of profiling. It is sometimes suggested that arrestees who are intoxicated could be asked where they have been drinking. The reliability of any data collected in such exercises is, at best, weak, and may be misleading.[15] It is also impossible to produce reliable measures on how

[15] Data collected on the premise of establishing where intoxicated persons have been drinking is of limited value for a number of reasons. Persons who are heavily intoxicated with alcohol typically give incoherent answers (or may even be semi-conscious), suffer short-term memory loss, or may have visited a large number of different premises. In some cases, the person concerned may also have consumed other intoxicating substances, or may have been drinking at licensed premises outside of the WESA (and/or at home) prior to arrest. Whilst a body of *prima facie* evidence suggesting persons have been served alcohol whilst drunk in the WESA could be derived for police purposes (that is, to target certain premises operationally), it does not offer a reliable or representative basis on which to deduce levels of alcohol-related incidents in relation to specific premises or the WESA as a whole.

many persons taken in to custody have been drinking excessively for example. We should question how useful this form of data would be for our purposes in any case.

2.3.2 British Transport Police

British Transport Police (BTP) have jurisdiction in relation to incidents of crime and disorder that occur in all London Underground and mainline railway stations in the capital, as well as associated property. There are no mainline railway stations within the WESA, but the following five London Underground stations are located within – and thus also facilitate access to and from – the WESA:

- Oxford Circus
- Tottenham Court Road
- Piccadilly Circus
- Leicester Square
- Covent Garden

Any crime data recorded by BTP are *additional* to those recorded by the Metropolitan Police, so any attempt to measure crime in the WESA must include *both* sources if a comprehensive picture is to be derived. However, there are some important limitations with BTP data that must be considered in relation to profiling the WESA:

1. London Underground stations close somewhere between midnight and 1.00 am depending on the day of the week, so data covers only the early to mid-evening period when the NTE is in operation (unlike the round-the-clock data available from the Metropolitan Police)
2. The tube offers one of the most significant means of transport for those leaving the West End in the period after using licensed premises with terminal hours of 11.00 pm or midnight, but is not available to anyone who wishes to use and remain at licensed premises with later terminal hours

Clearly, BTP data cannot be directly linked to use of the NTE: crime or disorder recorded in the five tube stations indicated is linked to the stress area and the NTE only by physical location and in terms of any time correlation patterns that can be discerned from analysis. For example, if a significant proportion of incidents that appeared likely to be alcohol-related were recorded in these locations at certain hours, it would be reasonable to infer a correlation.

A current data exchange protocol is in place between BTP and WCC. Monthly datasets produced by an analyst in the BTP Crime & Disorder Partnership Unit are supplied to the Community Protection team. Two separate datasets are provided at present:

- A monthly crime summary, and
- A monthly incident summary

The monthly crime summary contains data for notifiable offences (grouped under 12 categories) and non-notifiable offences (four categories) and is broken down by station across the Borough (that is, mainline and Underground). The dataset currently supplied does not include day or time of offence hence it is not possible to

assess which crimes occurred during 'active' NTE hours, and in particular the busy 'closing time' period after 11.00 pm through to station closure. As it stands, the BTP crime dataset sent to WCC cannot be used as a source of data about the WESA. Discussion with the BTP analyst has established that time data could be added to the dataset however, although the analysis software available to the analyst has some limitations (it may not be possible to supply data showing both day *and* time by station for instance).

The December 2002 crime summary table for Westminster was supplied for reference. Manual analysis of this data suggested that if it was broadly representative of monthly crime levels in underground stations then the vast majority of recorded offences relate to theft (80 per cent for December 2002). Of the notifiable categories available, 'Public Order' and 'Violence' ostensibly provide the most likely candidates for indicative purposes related to NTE profiling, but gross numbers seemed very low even before any time data could be overlaid: 14 violent offences across the five stations during December 2002; and only four public order offences for the same period.[16] This is almost certainly a reflection of BTP operational deployment and prioritisation, and anecdotal evidence that many offences are not acted upon due to the extremely large numbers of people that converge on stations at the busiest times.

The second dataset provided at present has more potential for analysis as it stands, as the incident dataset includes the date and time of each incident. Incident data is imperfect in the sense that 'an incident' may involve more than one person, so counting number of incidents does not give a precise indication of the numbers of people involved (and may in any case be an estimate). Sample data was again provided for December 2002. BTP incident data includes a series of categories based on the original incident coding, including 'Alcohol-related' (a composite that broadly equates with drunk and disorderly or drunk and incapable offences). Manual analysis of the sample data was carried out, revealing that a total of only 22 incidents were categorised as 'alcohol-related' for the five stations in the WESA during December 2002, and only 15 of these occurred after 7.00 pm through to the closure of the stations. It is possible to break this down by day of the week but with such low numbers there are limited returns from such an exercise in terms of drawing meaningful conclusions it would seem. We must also be aware that some offences of this nature will be committed by vagrant persons, further reducing the reliability and relevance of this data in connection with 'direct users' of the NTE. In fact, despite observation that suggests that late-night tube stations are routinely filled with persons who have been drinking alcohol heavily, the 'stress' generated as a result is extremely difficult to quantify, and does not – for whatever reasons – appear to be manifest in significant levels of crime or disorder.

In summary, when considering the immense difficulties of making a reasonable correlative link between crime in tube stations in the WESA to the NTE, BTP data has very limited utility for NTE profiling. The short 'time window' severely limits the value of the data. BTP data is certainly an important source of data on what occurs inside tube stations, but there is likely to be massive under-recording of the real level of incidents, especially at the peak times. As section 2.4.1 on London Underground data shows, evening tube passenger flows are normally at their busiest in the post

[16] A total of 19 non-notifiable public order offences were also recorded for this period. This data relates primarily to London Underground byelaws, and includes some offences related to alcohol, so could also be potentially used as an indicator if time data were added.

11.00 pm period, with Fridays and Saturdays the two busiest nights of the week. Analysis of the *existing* incident dataset could be used to derive a crude measure of 'alcohol-related' incident trends for the five stations in question on a monthly basis. This is not recommended however as incident data has the limitations identified above. Severe limitations also apply to crime data, as no time data are included within the existing dataset. Even if time data were added, analysis would be able to produce only a crude and partial picture of NTE activity. The post 11.00 pm period might lend itself to examination and a basic dataset could be built over time, focused simply on measuring the number of crimes occurring in this period relative to other times of the day. This exercise would be worthwhile only in a situation where analyst resources were readily available however, and would not overcome the difficulties of establishing meaningful links to the NTE *specifically within the WESA*: tube stations are open to users who travel from a wide radius around them, and as the tube stations concerned are located mostly on the outer edges of the WESA, users come to and from a broader NTE than the WESA alone.

2.3.3 London Ambulance Service

London Ambulance Service (LAS) provides a London-wide accident and emergency service in response to 999 calls, covering an area of around 620 square miles: from Heathrow in the west to Upminster in the east, and from Enfield in the north to Purley in the south. The Service received a total of just over one million emergency calls during 2001. The West End is a very busy operating area for LAS, often presenting unique logistical challenges as a result of traffic congestion and crowded pedestrian areas. In Soho, a paramedic operates from a bicycle to counteract these factors (the service also has a number of motorcycle paramedics for the same reason). The nearest ambulance station to the West End is Bloomsbury, although vehicles are generally placed on 'standby' at strategic locations (for example, Leicester Square) when not attending a 999 call, especially at night. The nearest hospital A&E department to the West End (to which most emergency ambulances normally go) is University College Hospital.

LAS capture and hold data that relates to the following:

1. 999 call details
2. Illness records completed by ambulance crews for each incident they attend, contained in a 'Patient Record Form'
3. Incident response times

The LAS Management Information department process and analyse data relating to each of these areas. Recent efforts have been made to establish a revised data sharing protocol between WCC and LAS, as there is no routine flow of data of any form at present (nor with other London Boroughs). There is a precedent whereby LAS supplied data to WCC in connection with a specific licensing appeal case, but the dataset was prepared manually for a very specific location; the analysis time required makes this an unrealistic proposition for LAS to supply data routinely. However, let us first examine what type of data could be relevant for our purposes, whilst identifying a number of inherent limitations associated with the use of ambulance data.

Each 999 call is assigned a grid reference, along with a narrative record that describes the initial assessment of the type of incident and nature of the problem (normally based on the information provided by the caller). This initial diagnosis is often wrong, hence such data are unsuitable as a basis for reliably analysing the true nature of incidents. A initial call might say that a person has collapsed and is unconscious, so it would probably be categorised as 'Illness unknown'. Once an ambulance attends it may turn out to be, for example, alcohol-related. Once ambulance personnel attend an incident they are able to complete a Patient Record Form (PRF), assigning both a general 'incident type' and then a more specific 'illness type' to the patient. Although this gives an accurate medical assessment of what is wrong with the patient, it does not generally describe the circumstances behind the incident. For example, a patient may have a head injury, for which there are numerous possible causes.

LAS have 17 incident type codes and two general categories ('not given' and 'apparent hoax'). The codes cover broad categories (for example, Illness – known, Fall, Psychiatric Problems). Type 14, Assault, is the only category that has an apparent relationship to crime (data are necessarily 'alleged', often based on the opinion expressed by the patient or bystanders). After further medical diagnosis patients are assigned one of 92 illness type codes. One of these (code 62) is 'alcohol related'. Each PRF also contains information on the time that the incident occurred as well as location details, plus the age and gender of the patient.

It is important to be clear about what this information might tell us about NTE activity patterns. As a broad indicator, the number of assault cases attended by LAS does provide a basis on which to assess concentration of assault-related injuries (and requirement for ambulance activity) in relation to time and space. However, LAS are only able to provide data on a ward basis at present. That is to say, existing LAS analysis tools are pre-programmed with these parameters (as well as certain NHS boundaries) and any deviation from this would require substantial analysis work. LAS supply data to all 32 London boroughs, hence any specialist analysis requirements are often difficult to fulfil without creating 'knock-on' data requests.

The WESA spans only part of WCC West End and St. James's wards. Ward-level data would thus also include incidents that have occurred *outside* the stress area (the majority of St. James's ward is outside of the WESA in fact, as is a significant part of West End Ward, that is, Mayfair). Only by using point data identifying the boundaries of the WESA could a precise picture of ambulance 'stress' within the WESA be derived. Given that the data we are deriving here are fairly broad in nature (assaults and alcohol-related incidents both cover a broad range of possible causes that are only linked to the NTE by secondary time and space data) we should question the additional returns from conducting such an analysis (even if it were feasible, which is not the case at present). It thus seems best to use only data from West End ward as an indicative device, comparing this with figures for the Borough as a whole.

Preliminary discussion with LAS established that the following dataset could be produced:

- Monthly totals for incident type 14 (assaults) and Illness type 62 (alcohol-related)

- Totals for West End ward, the other 22 wards and the combined Borough of Westminster
- Time data: hour of day incident occurred
- Day of the week

Age and gender could also be provided but the former is sometimes unreliable as it may not always be recorded or is supplied by a third party. Further discussion with LAS would be required to establish an appropriate benchmark dataset, and an update cycle agreed. Again, preliminary discussions suggested that supplying an annual dataset would be the preferred option for LAS, and – feasibly – historical data going back to 1998 could be supplied. Given the consistent recording systems used by LAS, such a dataset could be extremely useful in illustrating broad trends.

By including data on time and day of each incident, indication of a relationship between the requirement for ambulance attendance at assault incidents and the active NTE hours could be inferred to a reasonable extent if significant correlation was apparent. Alcohol-related incidents similarly provide a broad basis for linking the 'alcohol factor' to the period when the NTE is in operation. These data are potentially useful in showing activity rates relative to time and space; that is looking at how such incidents may be focused in the West End at certain times and days of the week. The label 'alcohol-related' may cover a large range of potential symptoms: it could mean that the patient has been drinking but does not indicate whether any associated injuries were self-inflicted or caused by a third party for example. Data of this type will predominantly include cases where persons are incapacitated through alcohol consumption. Correlating data on assaults and alcohol-related incidents together would yield neither comprehensive nor reliable data on links between alcohol and the *range* of reasons LAS attend incidents, hence is not recommended.

It is not possible to ascertain whether police have attended an incident or not; it is reasonable to assume that LAS will attend incidents where each of these situations applies, but it is impossible to verify numbers for this from LAS records. It is also important to be aware of seasonal factors when analysing these types of data: the December 'party season', New Year's Eve or a large public event in the West End would inevitably show higher figures than 'regular' days. However, the volume of incidents is a valid indicator of LAS activity patterns that can be set against current volumes and time profiles of licensed activity.

One important question asked of LAS was 'is it possible to assess how much time ambulances spend in the WESA at specific times of the day?' LAS do record data on emergency ambulance utilisation (that is, time spent on calls versus time available for calls) but this is related only to shifts at specific ambulance stations, which cover operating areas broader than the WESA. Data would not allow us to relate the proportion of activity to such a narrowly defined area as the WESA therefore, and would in any case be both unwieldy and of limited yield in terms of telling us why ambulances were present (that is, we could not necessarily relate ambulance utilisation to the NTE in anything other than the broadest sense). However, as a more practical source of indicative data, discussion with LAS identified that they could provide data on all emergency incidents broken down by hour of the day for a representative period for West End ward. This would be a necessarily broad but potentially useful dataset, which could show correlation of LAS activity level by time with peak NTE hours in the West End. A preliminary suggestion – to show peak

demand patterns – was to extract data for, say, each Friday and Saturday night for a defined month, or, alternatively, every Friday (or Saturday) during a defined quarter. This is a promising source of data, hence further discussion with LAS to establish the precise form of such a data extract would be recommended.

Finally, LAS were also asked if they hold data that records any assaults on ambulance staff. Currently, records of incidents are kept but do not record the location of the incident, only the ambulance station at which the staff member works. The extent of the problem could not be established either in general or specifically in relation to NTE hours.

LAS receive an increasing number of requests for data from CDRPs, and often refuse such requests on the grounds of data protection. Such issues will not arise with statistical data of the type that has been described above however. LAS is discussing a 'standard report' format for CDRPs in future, but the specialist data sketched in this section would fall outside of this format. It is thus recommended that agreement is sought with LAS for them to supply assault and alcohol-related incident data for West End ward on an agreed periodic basis (probably annual), along with broader call profile data to allow trends in relation to the demands that the NTE in the WESA places on LAS to be assessed both as a benchmark and over time.

An outline summary of data that could be sourced via LAS is as follows:

Data with potential for use as an indicator of LAS activities in the WESA	**What might it show?**
Date and time of incidents attended by LAS in West End Ward in relation to alleged assaults and 'alcohol-related' cases, along with Borough-wide data for comparison	LAS activity rates relative to time and space; that is, looking at how such incidents may be focused in the West End at certain times and days of the week, as compared with Westminster as a whole
Simple numeric data totals for all incidents attended by LAS in West End ward broken down by hour on peak days (Friday/Saturday) over a defined period	Demands on LAS time during the night-time hours and any apparent broad correlation with existing terminal hours profile during peak NTE usage periods

2.4 Miscellaneous data sources

2.4.1 London Underground

As noted in section 2.3.2 (British Transport Police), five London Underground stations are located within – and thus also facilitate access to and from – the WESA. To reiterate, the stations concerned (with posted closing times for Monday to Saturday, and Sunday respectively shown in brackets) are:

- Oxford Circus (00.50 am, 00.15 am)
- Tottenham Court Road (00.50 am, 00.05 am)
- Piccadilly Circus (00.50 am, 00.30 am)
- Leicester Square (00.45 am, 00.30 am)
- Covent Garden (00.50 am, 00.30 am)

London Underground provided a comprehensive sample dataset showing gate passenger flow at these stations after 11.00 pm for the period 08/12/02 to 25/01/03 inclusive. Data was compiled and sub-divided as follows:

- By station
- By day of the week
- By hour from 11.00 pm until closing time

What might this type of data on tube usage tell us about the ebb and flow of the NTE in the WESA? Whilst it is perfectly reasonable to say that a significant proportion of tube users at these times will have used or plan to use licensed premises in the WESA, it is quite impossible to measure what proportion of NTE patrons use the tube relative to other modes of transport, how many use other nearby tube stations, or what proportion of people using the tube stations concerned go to and from premises outside of the WESA. These are thus significant limitations, but flow data on the numbers of people using this collective set of tube stations may still reveal something about the broad order of magnitude of NTE usage across the typical week, and could be used to assess any apparent changes over time.

Analysis of the sample data indicated that there was a consistent pattern as to which stations had the highest volume of passengers for the post 11.00 pm period on each day of the week: Leicester Square was busiest, Covent Garden the least busy. The biggest recorded passenger flow on a single night for the post 11.00 pm period was 11,851 on Saturday 25/01/03. Total flow across the five stations on this night for this period was 28,999 (compared with a peak of 30,634 for the busiest Saturday for the period, 14/12/02).

We must be clear that tube usage is likely to be seasonal, and will be affected by special events. Data are drawn from electronic ticket-reading gates; at the busiest times, gates may sometimes be fixed open to ease congestion on safety grounds, leading to occasional underestimate of real flows. Data are best viewed in an aggregate sense over broad time periods therefore, allowing any fluctuations to even out. London Underground is able to process data across a broad range of dimensions, including being able to split flow figures by numbers of entries and exits.

This could be used to build a picture of the order of magnitude for 'arrivals' to the WESA in the period after 11pm.

Research was able to establish that a central database of incidents – including 'alcohol-related' incidents – is maintained, compiled from incident report forms completed by each station. Data from this source could be used to supplement BTP data but would also lead to some inevitable double counting. Given that data of this type will be based on subjective judgements made by London Underground staff (rather than police officers) this is not a recommended source for further enquiries.

In summary, London Underground data offer an oblique – albeit blunt – measurement tool to highlight peak times of human activity in and around the WESA. Data must be used very carefully however as a range of interpretations is possible. The London Underground network shuts down several hours before the latest terminal hours for a significant number of premises in the WESA so cannot therefore tell us anything about numbers of people using the NTE in the latter part of the night. Despite this, it is recommended that London Underground data for the five stations be used to build as simple a dataset as possible. Based on a 52-week model, it is recommended that 13 week packets of data be requested, giving totals for each day of the week for the post 11.00 pm hours for this period. This would allow percentage changes to be calculated relative to previous periods, including annual changes. A more complex dataset could split entries and exits to gauge any changes in this characteristic, if London Underground can supply data in this form.

2.4.2 Traffic flows

Many practitioners comment (anecdotally) on the large amounts of traffic that throng the West End in the early hours when the NTE is at its peak. Research focused on assessing the possibility of measuring vehicle flows in and around the WESA.

The body responsible for traffic management in London is Transport for London (TfL). Figures on the flow of traffic into and out of central London have long been calculated in relation to a series of measurement 'cordons':

- The Boundary Cordon, corresponding to the old Greater London Council boundary
- The Inner Cordon, roughly equivalent to the old London County Council boundary
- The Central Cordon, corresponding to an area within a one and a half and a two mile radius of Aldwych

None of these boundaries represents a feasible basis on which to measure traffic flows that could be linked to the WESA. Dialogue with TfL established that three permanent automated 'traffic counters' are located in the West End, but the precise locations and data format could not be established.[17] If data were available, a broad indication of traffic flows in relation to the profile of terminal hours within the WESA

[17] Data on traffic flows within TfL now falls under the remit of the Congestion Charging Team. At the time research was conducted, the Team were unable to supply information due to their workload relating to the implementation of the Congestion Charging Scheme.

could conceivably be evaluated. Ideally, an annual dataset broken down by days of the week would be most useful. This would provide a broad indication of the volume of vehicular traffic during NTE hours, allowing any correlation with the busy weekend period to be assessed, as well as possibly allowing some comparison with daytime traffic levels. To reiterate, the feasibility of this exercise is wholly dependent on whether or not TfL can supply base data, and in what form.

On a final note, we have noticed a unique feature of the NTE in the WESA that has a traffic-related impact: the cycle rickshaw. Our observations have led us to note that this unusual – and, it seems, increasingly popular – form of transport can cause a series of minor problems that contribute to 'low-level' disturbance. The slow rate of progress made by rickshaws sometimes causes drivers to slow down behind them, and to blow their horns in frustration. Further noise impact comes from the fact that some rickshaws have on-board music, most have their own horns, and shouts are often involved in attracting customers. Our tentative findings on this matter have not allowed us to explore ways of measuring this phenomenon however. We mention it in this section on traffic flows in order to recommend that further research on this issue be considered (although noise may be the greater collective effect in fact).

2.5 Data sources excluded

A number of data sources were excluded from first principles, almost all on the grounds that *only* qualitative data would be available, unsuitable for profiling the WESA over time. This does not mean that data from certain of these sources cannot be quantified on a routine basis: for example, use of survey data would allow some degree of quantification of qualitative issues, particularly if annual surveys ask the same questions over a long period of time. However some survey data should be treated with great caution, and can never be a substitute for data derived directly from functional activities.

Despite the previous comment, the Westminster City Survey, conducted each November is a relatively good source of qualitative data. The views of people who live, work, and study in Westminster are surveyed, with questions encompassing a wide range of subjects, including crime and disorder and noise. Amongst the choices available under the section on crime and disorder concerns are: drunkenness/street drinking, street urination, violent crime, and unlicensed minicabs. Noise concerns include 'noise from pubs and clubs'. Data can be analysed by type of respondent (that is, are they a resident, commuter or student) and by postcode. We did not exclude the survey from our considerations, but consider its utility as a data source to be limited in that it can only provide very broad indicators of concerns which are not suitable for the purposes of data profiling. Analysis is an inherent part of the survey process, so relevant data could be easily extracted down to postcode level.

The following data sources were identified but we excluded them for the reasons given below:

University College Hospital A&E Department

There are no A&E facilities within the WESA: University College Hospital (UCH) is the closest such facility to the WESA but has a catchment area much larger than the WESA. There are fundamental difficulties with the task of establishing that activities linked to the WESA are related to accident and illness occurring within the WESA boundaries. Firstly, data provided by 'walk-in' patients will be considerably less reliable than data provided by the London Ambulance Service. Furthermore, there would be inherent double counting with LAS data. In other words, only ambulance data allows a patient's physical presence in the WESA to be verified against space as well as time factors. More generally, distinguishing between crime and 'non-crime' cases is also problematic for hospital recording systems, which understandably tend to focus on clinical data in most circumstances (although, like LAS, 'alleged' would normally be appended to cases involving injuries consistent with assault).

This is not to rule out the feasibility of conducting an A&E survey at some time in the future, but it was felt that it was inappropriate to address this issue with the hospital in the context of this demonstration project. In smaller towns and cities where there is a clearly defined 'night strip' and perhaps only one local A&E Department, assault patient questionnaires have sometimes proved to be a useful source of supplementary data (see Shepherd and Lisles, 1998). However, we have a number of reservations with regard to the feasibility of a 'WESA A&E survey'. Firstly, it has been identified that many people – particularly if they are intoxicated – may present

themselves at an A&E Department but leave before being treated when faced by a long wait. Such people, and others who have not realised the extent of their injuries at the time they were received, may present to their local A&E Department the following day. In the case of London this is highly likely to be at a different hospital than University College Hospital. Indeed, many 'walk-in' patients would probably opt for a hospital near or on the way to their home, even if they suffered an injury following a night-time incident in the WESA. Any survey located only in UCH would thus be intrinsically limited; surveys including all London A&E Departments to establish where patients acquired their injuries would be a very considerable logistical challenge and might still yield only a limited dataset relevant to the WESA.

Leicester Square Association/Theatre Managers Association/Hackney Carriage Association/The Soho Society/The Soho Housing Association

All of the above are interest groups offering an important perspective and a valid source of contextual data. However, each represents either a subset of the WESA or a much wider area; hence none is ideal even if survey methods were employed to derive systematic quantitative data in future.

3. Conclusions

A priority for this study has been to find ways of restructuring or 're-channelling' existing data collection wherever possible, whilst also identifying the potential for new, innovative sources. We must be realistic that a law of diminishing returns may sometimes apply in any exercise seeking to measure and link data patterns to human activity. No one reading this document should underestimate the complexity of the measurement task, and the amount of interpretative resources that need to be brought to bear if insight is to result. This concluding section begins with one of the most important 'by-products' of our findings: the key principles for organising and coordinating data collection.

3.1 Key procedural findings

- All data with crime-related characteristics should be submitted in the first instance via the WCC Community Protection Intelligence Unit as a procedural part of any data exchange protocol
- Ideally, all secondary (non-crime) data and all WCC data should be under the oversight of the Licensing Performance Analyst. Some of this data may already exist on Uniform. The key issue is *accessibility*
- The minimum unit of analysis for routine profiling should be quarterly, with an annual summary and review of data. Some data (particularly police crime data) should be collected and collated (graphically wherever possible) over longer periods (for example, allowing year-on-year comparisons)
- The existing mapping capabilities and knowledge are located primarily in Licensing, Planning and Community Protection. The existing knowledge should be pooled wherever possible to ensure relevant coordination and annual mapping cycles
- The Information Sharing protocol drafted by the Westminster CDRP is an important device with regard to any future data exchange, emphasising the need for Community Protection to take the lead on liaison with external bodies

3.2 Summary of data sources and recommendations

At the end of each potential data source described in section 2, specific recommendations have been made. The following table represents a summary of those recommendations and also summarises existing data flows, where applicable. A red 'M' denotes that the source concerned is – or is recommended as – suitable for mapping against licensing data.

Potential data source	Relevant section	Existing data	Summary recommendations for future data collection and dissemination
Licensing (WCC) **M**	2.2.1	- Annual statistics (July) - Mapping capability using data held on Uniform	- Extract simple indicators for key licensing factors (number of premises/annual capacity/terminal hours) - Produce 3-year 'rolling' indicators - Tie-in mapping with 2.2.9 and 2.3.1 data as much as possible
Noise (WCC) **M**	2.2.2	- Technical Support team analyse specific cases and generate site-specific reports (often in licensing context) - Soho Noise Survey (2000-2001) is a valuable benchmark dataset - Some additional data on noise collected as part of Night-time activities survey: see 2.2.9	- Limited potential to improve on existing dataset unless Soho noise monitoring scheme is approved
Leicester Square Warden Scheme (WCC)	2.2.3	- Warden data is collected but relevance and usability make it impractical - Reassurance Study audits conducted in 2002	- Reassurance Study for contextual use only - Discuss possibility of making audit more systematic/ extensive with relevant parties

Parking (WCC) **M**	2.2.4	- Extensive data collection at source - Limited data on night-time PCNs issued in West End supplied to weekly WCC Joint Tasking Targeting Meeting	- Recommend quarterly collation and monitoring of data on residents permits in Zone G1, PCNs issued, and data on assaults on parking attendants. For the short to medium term, PCNs issued to minicabs should also be monitored and collated to show quarterly trends (noting the process of change toward licensed minicabs)
Environmental Action Line (WCC)	2.2.5	All calls from public on noise and waste complaints are recorded and coded	Complexity of coding, 'call fatigue' issue (leading to under-representation of real levels) and difficulty of linking events to NTE make the data unsuitable for routine profiling
Street Cleansing (WCC)	2.2.6	- Technical measures of street cleanliness - Accurate data on urine levels collected from mobile 'pissoirs' at weekends in WESA	- Pissoir data offers oblique measure of street fouling; data collection on-going/indicative - Few other measures feasible but recommend that details of any assaults on staff are monitored
Premises and Street Enforcement (WCC)	2.2.7	- Premises inspections generate routine dataset on standards inside licensed premises - Street enforcement is operation-led; data tends to be operation-specific therefore	Both cases are unsuitable for routine profiling of the NTE in the WESA
Westminster CCTV (WCC)	2.2.8	Only began operations in September 2002, hence data collection procedures evolving	Not likely to be a very practical source for profiling, but developments should be monitored (Community Protection Intelligence Unit are engaged in data collection routines dialogue with CCTV management)
Planning (WCC) **M**	2.2.9	- Historic dataset on location of A3/D2 use classes (basis of mapping capability) - Updates of current use via	- High quality and foremost 'benchmark' data source alongside WCC Licensing - Mapping experience re. stress areas - Pedestrian counts and 'disturbance' data on

		'Ents Pipe' - Night-time activities survey in WESA conducted in July 2002 - Manual collection of liquor licence locations dataset, completed December 2002	WESA contained in Night-time activities report due for dissemination April 2003 - Recommend that – as a priority – efforts continue to establish a formal protocol for liquor licence details (with MPS/ Magistrates' Court[s]) to allow data on this facet to be included as part of annual licensing statistics and incorporated in annual maps
Metropolitan Police Service **M**	2.3.1	Definitive source of crime data: existing data exchange protocol with WCC	Complex set of recommendations (see 2.3.1): - Lead recommendation is creation of 'WESA Crime Profile Dataset' - Recommend addition of alcohol-related summary offences (data exchange agreement required) - Protocol for call and victim data requires further discussion - Crime hotspot mapping not feasible at present, nor use of custody data
British Transport Police	2.3.2	Monthly crime and incident data summary supplied to WCC Community Protection team, covering Underground stations in vicinity of WESA	Limited value due to 'oblique' nature, but monthly incident data is amenable to manual analysis. Analysis feasible therefore
London Ambulance Service **M**	2.3.3	No routine data flow (but have supplied 'one-off' data requests in the past	- Build dataset for West End ward based on assault and alcohol-related incidents - Explore feasibility with LAS of supplying incident time data to show busiest times in West End
London Underground	2.4.1	No routine data exchange but able to supply passenger flow data	- Sophisticated quantitative analysis possible for 5 LU stations near WESA - Potential for use as order of magnitude indicator, but with limitations
Traffic	2.4.2	No routine data exchange	- Further dialogue needed with TfL to establish feasibility of acquiring traffic flow data from

			permanent traffic counters in West End - Potential for use as traffic order of magnitude indicator during NTE period compared with other times

3.3 Summary of data sources for key stress indicators

The following table addresses the specific factors mentioned in the Licensing Policies document in relation to problems that the Council believes impact on amenity in the WESA:

Item cited as example of 'difficulties' in WCC Licensing Policy document	Is this measured at the moment, and if so in what form?	Relevant section(s)	Feasibility/recommendations
Large gatherings of people	- No long-term or routine data collection - Footfall study in WESA conducted in July 2002 as part of night-time activities survey commissioned by Planning	2.2.7, 2.4.1	- Additional factors need to be added to make any data meaningful - Footfall studies need to be conducted on a periodic basis to assess changes over time - Planning study will be 'best available' data when available in April 2003 - London Underground passenger flow rates could be used to indicate order of magnitude of people using WESA
Crimes on, and by, visitors	- Sophisticated measurement (too complex in some respects) via MPS and , to a lesser extent BTP	2.3.1, 2.3.2, 2.3.3	- Build a 'WESA Crime Profile Dataset' - Explore use of victim and call data - BTP data is limited but should be included in any 'holistic' measure - London Ambulance Service data on attended incidents of alleged assault may add further evidence on time correlation re. WESA
Noise nuisance to residents caused by noise in the streets, whether of people or car engines, horns and stereos	'Collective' impact has been measured via the Soho Noise Survey	2.2.2, 2.2.9	- Systematic on-going profiling data only available if Soho Noise Monitoring project is implemented - Some evidence for noise in Night-time activities survey conducted by Planning in July 2002 (due for dissemination in April 2003)
Attraction of unlicensed	Steps toward licensing will	2.2.4	- Some parking data available on PCNs issued to

minicabs	remove problem at source over time, but current problems are the subject of initiatives		minicabs (Note: some may be *licensed* minicab operators: the data does not distinguish) - Multi-agency operations, led by MPS, remove unroadworthy vehicles from road. Not particularly suitable data for profiling but does illustrate public safety protection
Traffic congestion	Research unable to confirm data availability	2.4.2	Further dialogue with TfL needed to establish availability of data from permanent traffic counters in West End
Parking difficulties	WCC Parking Client Unit collate data on residents permits and Penalty Charge Notices	2.2.4	- Data on PCNs highlights scale of activity, and can be used to show particular problems for residents in Soho - Assaults on parking attendants indicate aggression problems in WESA - Minicab PCNs show crude measure of problems related to these vehicles
Littering	Unrealistic to measure via quantitative means	2.2.6	Visual survey based on Environmental Protection Act 1990 guidelines could be conducted periodically to give benchmark (qualitative) data
Fouling	Unrealistic to measure directly	2.2.6	- Indirect measure via 'pissoir' urine levels - Note: byelaw against street urination is difficult to enforce so any figures from this source would be a significant under-estimate of real activity levels

3.4 Next steps: towards a new evidential base

This document has presented the findings of a demonstration project. It thus sets parameters and assesses the feasibility of using data to build a more sophisticated picture of the activity patterns inherent to the night-time economy in the West End Stress Area. It is clear that in many areas, evidence is intrinsically difficult to collect (even when it is tangible from observation and anecdotal accounts). The use of data to make meaningful comparisons over time requires uniformity and consistency in data collection. For 'internal' WCC sources, this should be eminently achievable, as none of the data described in this document require new data collection regimes. For external partners, information sharing is already taking place in many cases. In others, new agreements will be required.

It is clear that significant goodwill and resources (especially analytical) are required to move toward a new evidential base that looks at the WESA as an entity of measurement. Some of the people who were interviewed for this study were not aware of the existence of a 'stress area', whilst others work with the concept every day.

If Westminster City Council is to build and review the evidence concerning the stress area in the West End over time it will need to allocate resources appropriately. However, whilst this may mean that not all options can be explored at once, it is recommended that immediate and highest priority be given to the following items:

1. Liaison with the Police Information Bureau to build and deliver the recommended 'WESA Crime Profile Dataset'
2. Ensuring that up-to-date location data on all liquor licences can be routinely added to the base map of licensed premises held by Licensing/Planning, via a formal protocol with the Metropolitan Police Service and Magistrates' Court(s) [Drawing on work in progress by WCC Planning to foster liaison and in building and collating a statistical dataset]
3. Liaison with London Ambulance Service to establish benchmark data in line with the areas recommended
4. To ensure coordination and to assess resource implications, a small WESA data steering group should be established as soon as possible. As a minimum, this should include representation from Licensing, Planning and Community Protection.

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